



EMCON
Northwest, Inc.

18912 North Creek Parkway • Suite 210 • Bothell, WA 98011-8016 • Office (206) 485-5000 • FAX (206) 486-9766

May 12, 1992
Project W56-08.09

Mr. Frank Fossati
Shell Oil Company
511 North Brookhurst Street
P. O. Box 4848
Anaheim, California 92803

INTERIM
GW
JS

Re: Semiannual Ground Water Sampling Report
Former Shell Station 23714
601 Boren Avenue North
Seattle, Washington 98109
WIC 246-7616-0401

RECEIVED
MAY 20 1992
DEPT. OF ECOLOGY

Dear Mr. Fossati:

EMCON Northwest, Inc., is pleased to present this report describing semiannual ground water sampling conducted on April 3, 1992, at the above-referenced site (Figure 1). The previous ground water sampling event was conducted on September 5, 1991. Results were presented to Shell Oil Company in our report, dated January 13, 1992.

SITE HISTORY

The site is located in the NE $\frac{1}{4}$ of the SE $\frac{1}{4}$ of Section 30, Township 25 North, Range 4 East. The station is located on the northwest corner of the intersection of Boren Avenue North and Mercer Street in Seattle, Washington. The site is bordered by a retail business and a scrap yard to the north, a retail business to the west, Mercer Street to the south, and Boren Avenue North to the east. According to Washington State Department of Ecology records, there are no water supply wells within a half-mile radius of the site. Lake Union lies approximately 1,000 feet north of the site. An active UNOCAL service station is located about 300 feet west of the site on Mercer Street.

SHEL/BORE-LR.316/car:5

The site has been an operating service station since at least 1960. In 1984, two 4,000-gallon, one 6,000-gallon, and one 8,000-gallon gasoline underground storage tanks were removed from the site and replaced with three 10,000-gallon fiberglass gasoline underground storage tanks. A 500-gallon waste oil and 500-gallon fuel oil tank were installed at the site in 1964 and removed from the site about 1984. The three gasoline tanks passed tightness testing performed by Tanknology Corporation International of Houston, Texas, on August 7, 1990.

PREVIOUS WORK

Sweet-Edwards/EMCON, Inc., conducted an environmental assessment of the site during the period of July to September 1990. We presented the results to Shell Oil Company in our report, dated October 8, 1990. Twelve soil borings were drilled and five monitoring wells were installed and sampled. Ground water samples from three wells exceeded the Model Toxics Control Act (MTCA)¹ Method A cleanup levels.

Ground water samples were collected from five on-site monitoring wells in May 1991 as part of the semiannual ground water monitoring program. The results are summarized in our August 9, 1991, report to Shell Oil Company. Ground water samples collected from two wells exceeded MTCA Method A cleanup levels.

Sweet-Edwards/EMCON, Inc., conducted additional site characterization, remediation, and semiannual ground water sampling work during August and September 1991. The results are summarized in our report to Shell Oil Company, dated January 13, 1992. Eight borings were drilled and two ground water monitoring wells, four vapor extraction wells, and two ground water recovery wells were installed at the site. Ground water samples were collected from seven wells. Results from four wells exceeded MTCA Method A cleanup levels.

¹ Chapter 173-340 WAC, "The Model Toxics Control Act Cleanup Regulations, Method A Cleanup Levels." Amended February 1991.

GROUND WATER SAMPLING

Ground water samples were collected from seven on-site wells (MW-1, MW-4, MW-10, MW-11, MW-12, MW-13, and MW-14) on April 3, 1992 (Figure 2). A minimum of three pore volumes was purged from each well prior to collecting samples. Ground water samples were collected using 1.5-inch-diameter disposable bailers, placed into properly labeled containers, stored in an iced cooler, and transported under standard chain-of-custody procedures to North Creek Analytical Inc., in Bothell, Washington, for analysis. All ground water samples, including a duplicate sample collected from MW-10, a field blank of laboratory distilled water, and a trip blank, were analyzed for benzene, toluene, ethylbenzene, and total xylenes (BTEX) and total petroleum hydrocarbons (TPH) as gasoline by EPA Methods 5030/8020/8015 Modified and for total lead by EPA Method 7421. Ground water samples collected from three wells (MW-1, MW-10, MW-13), the duplicate sample, and the field blank were analyzed for total recoverable fuel hydrocarbons (TPH-IR) by EPA Method 418.1. Table 1 presents a summary of the analytical results.

GROUND WATER ELEVATIONS AND PARAMETERS

Prior to collecting samples, depth to ground water was measured in each well and each well was checked for the presence of free-floating product using an oil/water interface probe and a clear PVC bailer. No free-floating product was detected in any well at the site on April 3, 1992. Depth to water ranged from 14.85 feet in MW-1 to 16.69 feet in MW-12. Depth-to water measurements and well survey information were used to determine the relative ground water elevation at each well (Table 2). Relative ground water elevations ranged from 78.84 feet at MW-13 to 80.98 feet at MW-4. The inferred ground water flow direction, based on the calculated ground water elevations, was variable, flowing toward the north, west, and east on April 3, 1992 (Figure 2).

Ground water parameters (pH, specific conductance, and temperature) were measured with a Corning CheckMate meter during sampling. Ground water samples were not collected until measured parameters stabilized to within 10 percent of preceding measurements. The final (stabilized) pH values ranged from 6.57 in MW-1 to 7.26 in MW-10. The specific conductance ranged from 958 μ S in MW-14 to 1,803 μ S in MW-10.

Temperature readings ranged from 14.3°C at MW-1 to 15.3°C at MW-4, MW-10, and MW-12. A summary of the final ground water parameters is presented in Table 2.

GROUND WATER SAMPLE ANALYTICAL RESULTS

The ground water quality for the sample collected from MW-11 on April 3, 1992, exceeded the MTCA Method A cleanup levels for BTEX and TPH as gasoline in ground water. The ground water sample collected from MW-4 exceeded the MTCA Method A cleanup level for benzene in ground water. Ground water samples collected from all seven monitoring wells exceeded the MTCA Method A cleanup level for total lead in ground water. Table 1 presents a summary of the analytical results. Benzene concentrations measured on April 3, 1992, are shown on Figure 2. Copies of the analytical report and chain-of-custody form are included in Appendix A.

CONCLUSIONS

Ground water samples were collected from seven on-site wells on April 3, 1992. Results from one well (MW-11) exceeded MTCA Method A cleanup levels for BTEX and TPH as gasoline in ground water. Results from an additional well (MW-4) exceeded the MTCA Method A cleanup level for benzene in ground water, and results from one well (MW-10) exceeded the MTCA Method A cleanup level for TPH-IR (Method 418.1) in ground water. Results from all seven wells exceeded the MTCA Method A cleanup level for total lead in ground water.

Ground water and soil vapor treatment systems were installed in January 1992 and are currently operating at the site. Semiannual ground water monitoring is scheduled to continue at the site.

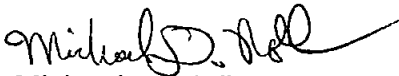
Mr. Frank Fossati
May 12, 1992
Page 5


Project W56-08.09

It has been our pleasure to be of service to Shell Oil Company in conducting this semiannual monitoring effort. If you have any questions or concerns regarding the methods or results presented in this report, please call.

Sincerely,

EMCON Northwest, Inc.


Michael D. Noll, R.G.
Project Manager


David W. Ashcom, P.E.
Director, Hydrocarbons Services

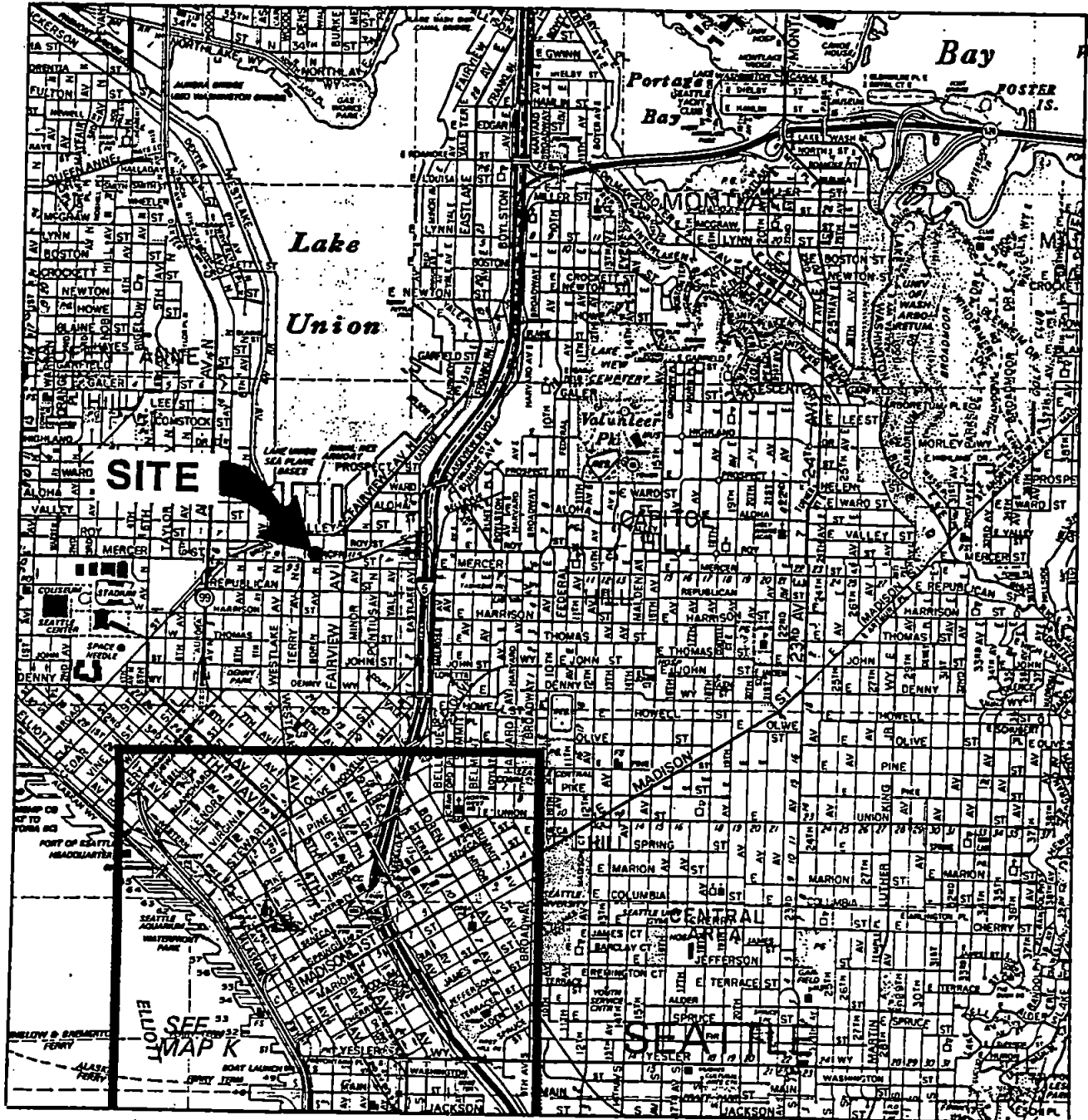
Attachments: Limitations
 Figure 1 — Site Vicinity Map
 Figure 2 — Site Map — Ground Water Data
 Table 1 — Ground Water Sample Chemical Analyses
 Table 2 — Ground Water Depth and Parameters
 Appendix A — Laboratory Report

cc/enc: Stan Haskins, Groundwater Technology, Inc.
 Robin Lane, Texaco Refining and Marketing Inc.

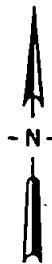
LIMITATIONS

The services described in this report were performed consistent with generally accepted professional consulting principles and practices. No other warranty, express or implied, is made. These services were performed consistent with our agreement with our client. This report is solely for the use and information of our client unless otherwise noted. Any reliance on this report by a third party is at such party's sole risk.

Opinions and recommendations contained in this report apply to conditions existing when services were performed and are intended only for the client, purposes, locations, time frames, and project parameters indicated. We are not responsible for the impacts of any changes in environmental standards, practices, or regulations subsequent to performance of services. We do not warrant the accuracy of information supplied by others, nor the use of segregated portions of this report.



WASHINGTON



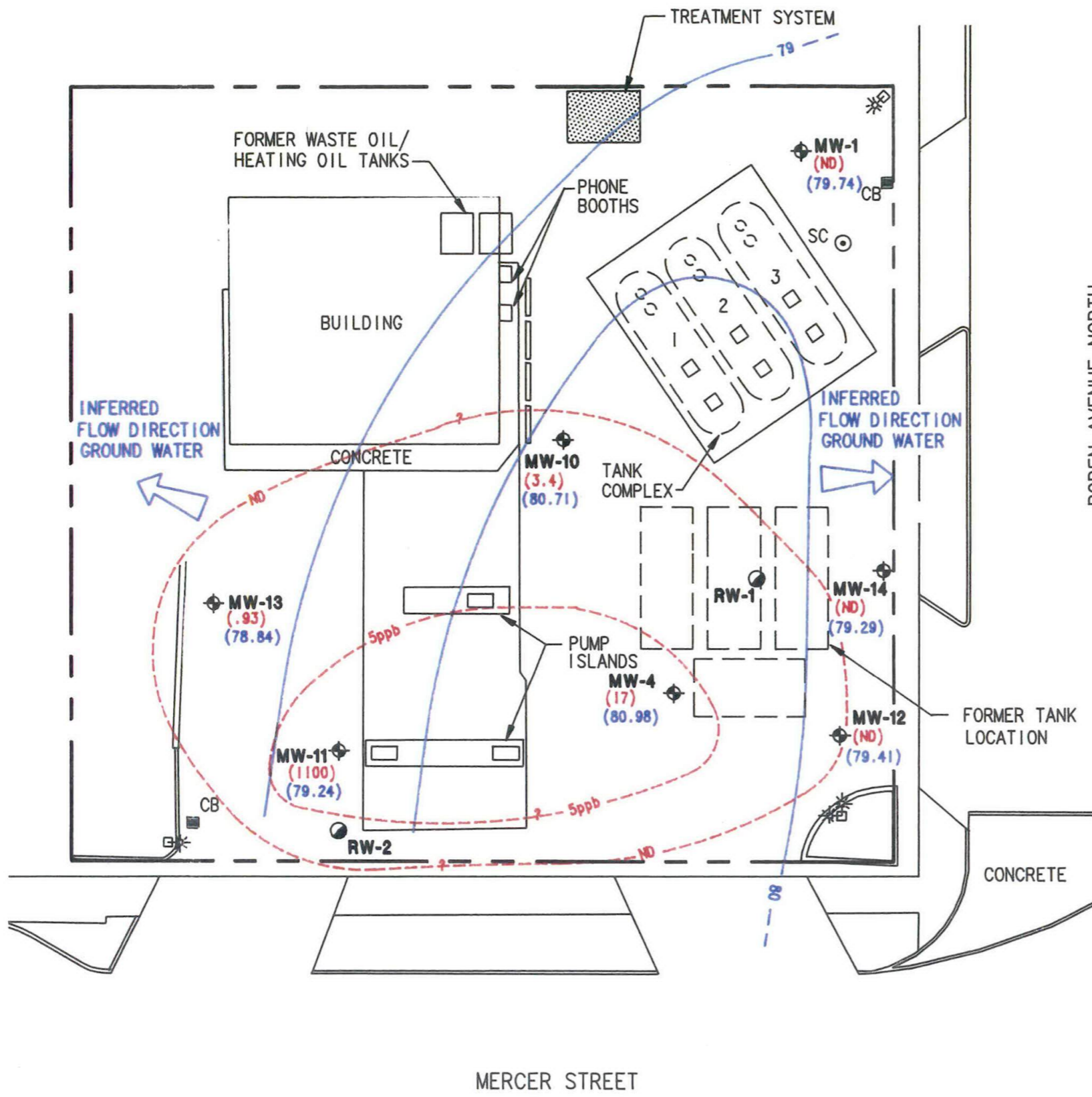
SCALE(ft)



Sweet-Edwards
EMCON

DATE 8/90
 DWN. KLM
 APPR. MDN
 REVIS. _____
 PROJECT NO. W5608.05

Figure 1
 SHELL SERVICE STATION # 23714
 SEATTLE, WASHINGTON
 SITE VICINITY MAP



LEGEND

- MW-10 MONITORING WELL
- RW-1 RECOVERY WELL
- WM WATER METER
- CB CATCH BASIN
- AREA LIGHT

- 80 -- GROUND WATER ELEVATION (feet)
- (80.98) MEASURED GROUND WATER ELEVATION (feet) APRIL 3, 1992
- 5ppb--- BENZENE CONTOUR (ppb)
- (17) MEASURED BENZENE CONCENTRATION IN GROUND WATER (ppb) APRIL 3, 1992
- ND NOT DETECTED
- ? UNCERTAIN



SCALE (ft)

NOTE:

1. Tank 1 contains 10,000 gallons unleaded.
2. Tank 2 contains 10,000 gallons super unleaded.
3. Tank 3 contains 10,000 gallons regular.



DATE 3/92
 DWN. JG
 REV.
 APPR. MDN
 PROJECT NO.
 W5608.09

Figure 2
 FORMER SHELL SERVICE STATION
 601 BOREN AVENUE NORTH
 SEATTLE, WASHINGTON
SITE MAP-GROUND WATER DATA

Table 1

**Shell Oil Company
Ground Water Sample Chemical Analyses
601 Boren Avenue North, Seattle
WIC 246-7616-0401**

Sample Location	Sample Date	Sample ID	BTEX Compounds ¹ (ppb)				Total Petroleum Hydrocarbons (ppm)			Total Lead ⁴ (ppb)
			Benzene	Toluene	Ethylbenzene	Total Xylenes	Gasoline ²	Diesel ²	Method 418.1 ³	
MTCA Method A Cleanup Levels			5	40	30	20	1	1	1	5
MW-1	04/03/92	MW-1	ND	ND	ND	ND	0.12	--	ND	69
MW-4	04/03/92	MW-4	17	0.62	8.0	20	0.38	--	--	16
MW-10	04/03/92	MW-10	3.4	ND	0.88	5.7	0.4	--	1.1	62
MW-10 (dup)	04/03/92	MW-17	3.4	ND	0.84	5.3	0.37	--	ND	31
MW-11	04/03/92	MW-11	1,100	ND	34	95	3.4	--	--	34
MW-12	04/03/92	MW-12	ND	ND	ND	ND	0.08	--	--	6.6
MW-13	04/03/92	MW-13	0.93	0.5	ND	1.1	0.067	--	ND	9.1
MW-14	04/03/92	MW-14	ND	0.98	ND	1.3	0.29	--	--	5.6
Field Blank	04/03/92	MW-16	ND	0.51	ND	ND	ND	--	ND	ND
Trip Blank	04/03/92	Trip Blank	ND	ND	ND	ND	ND	--	--	ND
MW-1	09/05/91	MW-1	1 ^{A,J}	2 ^{A,J}	ND	ND	ND	--	--	12
MW-4	09/05/91	MW-4	56 ^A	2 ^{A,J}	39 ^A	35	ND	--	--	ND
MW-10	09/05/91	MW-10	6 ^A	1 ^{A,J}	3 ^{A,J}	10	ND	--	--	35
MW-11	09/05/91	MW-11	2,000 ^{A,J}	10 ^A	58 ^A	288	4 ^A	--	--	ND
MW-11 (dup)	09/05/91	MW-15	1,500 ^A	10 ^A	61 ^A	328	5	--	--	ND
MW-12	09/05/91	MW-12	1 ^{A,J}	1 ^{A,J}	1 ^{A,J}	ND	ND	--	--	ND
MW-13	09/05/91	MW-13	1 ^{A,J}	2 ^{A,J}	ND	ND	ND	--	--	ND
MW-14	09/05/91	MW-14	1 ^{A,J}	3 ^{A,J}	1 ^{A,J}	ND	ND	--	--	ND
Field Blank	09/05/91	MW-16	1 ^{A,J}	1 ^{A,J}	ND	ND	ND	--	--	ND
Trip Blank	09/05/91	Trip Blank	1 ^{A,J}	1 ^{A,J}	ND	ND	ND	--	--	--

NOTES: MTCA Model Toxics Control Act, Chapter 173-340 WAC, adopted February 1991
 ND Not detected
 -- Not analyzed
 dup Duplicate sample
 Shading indicates values exceeded MTCA Method A cleanup levels

^A The analyte indicated was also found in the blank sample
^J Value indicated was below the practical quantitation limit
¹ Results for analyses of ground water samples for BTEX were obtained using EPA Method 8020 (Purge and Trap) and reported as ng/ml (ppb)
² Results for analyses of ground water samples for total petroleum hydrocarbons were obtained using Modified EPA Method 8015 (GC/FID) and reported as mg/l (ppm)
³ Results for analyses of ground water samples for total recoverable petroleum hydrocarbons were obtained using EPA Method 418.1 and reported as mg/l (ppm)
⁴ Results for analyses of ground water samples for total lead were obtained using EPA Method 7421 and reported as µg/l (ppb)

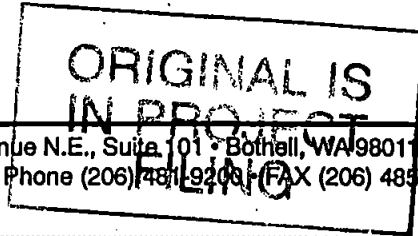
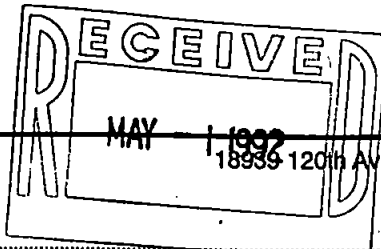
Table 2

**Shell Oil Company
Ground Water Depth and Parameters
601 Boren Avenue North, Seattle, Washington
WIC 246-7616-0401**

Sample Location	Sample Date	Measured Depth to Water (ft)	Ground Water Elevation (ft)	pH	Specific Conductance (μ mhos/cm)	Temperature ($^{\circ}$ C)
MW-1	04/03/92	14.85	79.74	6.57	1122	14.3
MW-4	04/03/92	14.87	80.98	6.72	1151	15.3
MW-10	04/03/92	15.45	80.71	7.26	1803	15.3
MW-11	04/03/92	15.65	79.24	7.06	1662	14.7
MW-12	04/03/92	16.69	79.41	6.76	1360	15.3
MW-13	04/03/92	16.02	78.84	6.76	1801	14.9
MW-14	04/03/92	16.14	79.29	7.10	958	15.0
MW-1	09/05/91	14.79	79.80	6.42	976	17.2
MW-4	09/05/91	14.90	80.95	6.35	1244	17.5
MW-10	09/05/91	14.58	81.58	6.81	1904	18.3
MW-11	09/05/91	14.99	79.90	6.65	1812	18.0
MW-12	09/05/91	16.49	79.61	6.64	1414	22.0
MW-13	09/05/91	15.70	79.16	6.44	1853	18.3
MW-14	09/05/91	15.92	79.51	6.48	837	16.9

Specific conductance measured at 25 $^{\circ}$ C

Appendix A
LABORATORY REPORT



18939 120th Avenue N.E., Suite 101 • Bothell, WA 98011-2569
Phone (206) 481-9200 • FAX (206) 485-2992

EMCON Northwest 18912 N. Creek Parkway, #210 Bothell, WA 98011 Attention: Mike Noll	Client Project ID: Shell, Seattle #W56-08.07 Matrix Descript: Water Analysis Method: EPA 5030/8015/8020 First Sample #: 204-0198	Sampled: Apr 3, 1992 Received: Apr 3, 1992 Analyzed: Apr 15, 1992 Reported: Apr 17, 1992
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TOTAL PETROLEUM HYDROCARBONS with BTEX DISTINCTION (WTPH-G/BTEX)

Sample Number	Sample Description	Volatile Hydrocarbons µg/L (ppb)	Benzene µg/L (ppb)	Toluene µg/L (ppb)	Ethyl Benzene µg/L (ppb)	Xylenes µg/L (ppb)	Surrogate Recovery %
204-0198	MW-1	120 G-3	N.D.	N.D.	N.D.	N.D.	89
204-0199	MW-4	380	17	0.62	8.0	20	110
204-0200	MW-10	400	3.4	N.D.	0.88	5.7	118
204-0201	MW-11	3,400	1,100	N.D.	34	95	98
204-0202	MW-12	80 G-1	N.D.	N.D.	N.D.	N.D.	96
204-0203	MW-13	67	0.93	0.50	N.D.	1.1	93
204-0204	MW-14	290 G-3	N.D.	0.98	N.D.	1.3	92
204-0205	MW-16	N.D.	N.D.	0.51	N.D.	N.D.	90
204-0206	MW-17	370	3.4	N.D.	0.84	5.3	117
204-0207	Trip Blank	N.D.	N.D.	N.D.	N.D.	N.D.	70

Detection Limits:	50	0.50	0.50	0.50	0.50
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Volatile Hydrocarbons are quantitated as gasoline range organics (nC5 - nC12). Surrogate recovery reported is for Bromofluorobenzene. Analytes reported as N.D. were not present above the stated limit of detection.

NORTH CREEK ANALYTICAL inc

Scott Cocanour
Scott Cocanour
Laboratory Director

Please Note:
The detection limit for Toluene in #204-0201 = 8.0 µg/L

EMCON Northwest 18912 N. Creek Parkway, #210 Bothell, WA 98011 Attention: Mike Noll	Client Project ID: Shell, Seattle #W56-08.07 Matrix Descript: Method Blank Analysis Method: EPA 5030/8015/8020 First Sample #: BLK041592	Analyzed: Apr 15, 1992 Reported: Apr 17, 1992
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TOTAL PETROLEUM HYDROCARBONS with BTEX DISTINCTION (WTPH-G/BTEX)

Sample Number	Sample Description	Volatile Hydrocarbons $\mu\text{g/L}$ (ppb)	Benzene $\mu\text{g/L}$ (ppb)	Toluene $\mu\text{g/L}$ (ppb)	Ethyl Benzene $\mu\text{g/L}$ (ppb)	Xylenes $\mu\text{g/L}$ (ppb)	Surrogate Recovery %
BLK041592	Method Blank	N.D.	N.D.	N.D.	N.D.	N.D.	86

Detection Limits:	50	0.50	0.50	0.50	0.50
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Volatile Hydrocarbons are quantitated as gasoline range organics (nC5 - nC12). Surrogate recovery reported is for Bromofluorobenzene. Analytes reported as N.D. were not present above the stated limit of detection.

NORTH CREEK ANALYTICAL inc


 Scot Cocanour
 Laboratory Director

EMCON Northwest 18912 N. Creek Parkway, #210 Bothell, WA 98011 Attention: Mike Noll	Client Project ID: Shell, Seattle #W56-08.07 Analysis Method: EPA 7421 Analysis for: Lead First Sample #: 204-0198 Matrix: Water	Sampled: Apr 3, 1992 Received: Apr 3, 1992 Digested: Apr 7-9, 1992 Analyzed: Apr 21-27, 1992 Reported: Apr 28, 1992
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METALS ANALYSIS FOR: Lead

Sample Number	Sample Description	Detection Limit $\mu\text{g/L}$ (ppb)	Sample Result $\mu\text{g/L}$ (ppb)
204-0198	MW-1	1.0	69
204-0199	MW-4	1.0	16
204-0200	MW-10	1.0	62
204-0201	MW-11	1.0	31
204-0202	MW-12	1.0	6.6
204-0203	MW-13	1.0	9.1
204-0204	MW-14	1.0	5.6
204-0205	MW-16	1.0	N.D.
204-0206	MW-17	1.0	58
BLK040992	Method Blank	1.0	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

NORTH CREEK ANALYTICAL inc

Tod Becherer
(for)
Scot Cocanour
Laboratory Director

EMCON Northwest 18912 N. Creek Parkway, #210 Bothell, WA 98011 Attention: Mike Noll	Client Project ID: Shell, Seattle #W56-08.07 Matrix Descript: Water Analysis Method: EPA 418.1 (I.R. with clean-up) First Sample #: 204-0198	Sampled: Apr 3, 1992 Received: Apr 3, 1992 Extracted: Apr 9, 1992 Analyzed: Apr 9, 1992 Reported: Apr 17, 1992
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TOTAL RECOVERABLE PETROLEUM HYDROCARBONS (WTPH-418.1)

Sample Number	Sample Description	Petroleum Oil mg/L (ppm)
204-0198	MW-1	N.D.
204-0200	MW-10	1.1
204-0203	MW-13	N.D.
204-0205	MW-16	N.D.
204-0206	MW-17	N.D.
BLK040992	Method Blank	N.D.

Detection Limits:	1.0
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Analytes reported as N.D. were not present above the stated limit of detection.

NORTH CREEK ANALYTICAL inc


 Scot Cocanour
 Laboratory Director

EMCON Northwest
 18912 N. Creek Parkway, #210
 Bothell, WA 98011
 Attention: Mike Noll

Client Project ID: Shell, Seattle #W56-08.07
 Method : EPA 5030/8020
 Sample Matrix : Water
 Units : $\mu\text{g/L}$
 QC Sample #: 204-0184

Analyst : M. Essig
 K. Wilke
 Analyzed: Apr 15, 1992
 Reported: Apr 17, 1992

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl benzene	Xylenes
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Spike Conc. Added:	5.0	5.0	5.0	15.0
Conc. Matrix Spike:	5.2	4.8	5.2	14.8
Matrix Spike % Recovery:	104	96	104	99
Conc. Matrix Spike Dup.:	5.4	5.2	5.2	15.2
Matrix Spike Duplicate % Recovery:	108	104	104	101
Relative % Difference:	3.8	8.0	0	2.7

NORTH CREEK ANALYTICAL inc


 Scot Cocanour
 Laboratory Director

% Recovery:	$\frac{\text{Conc. of M.S.} - \text{Conc. of Sample}}{\text{Spike Conc. Added}} \times 100$
Relative % Difference:	$\frac{\text{Conc. of M.S.} - \text{Conc. of M.S.D.}}{(\text{Conc. of M.S.} + \text{Conc. of M.S.D.}) / 2} \times 100$

EMCON Northwest 18912 N. Creek Parkway, #210 Bothell, WA 98011 Attention: Mike Noll	Client Project ID: Shell, Seattle #W56-08.07 Method : EPA 418.1 mod. Sample Matrix : Water Units : mg/L QC Sample #: BLK040992	Analyst : S. Kimball Extracted: Apr 9, 1992 Analyzed: Apr 9, 1992 Reported: Apr 17, 1992
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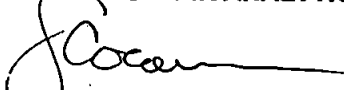
QUALITY CONTROL DATA REPORT

ANALYTE	Petroleum Oil
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Sample Conc.:	N.D.
Spike Conc. Added:	16
Conc. Matrix Spike:	13.5
Matrix Spike % Recovery:	84
Conc. Matrix Spike Dup.:	13
Matrix Spike Duplicate % Recovery:	81
Relative % Difference:	3.7

NORTH CREEK ANALYTICAL inc

% Recovery:	$\frac{\text{Conc. of M.S.} - \text{Conc. of Sample}}{\text{Spike Conc. Added}} \times 100$
Relative % Difference:	$\frac{\text{Conc. of M.S.} - \text{Conc. of M.S.D.}}{(\text{Conc. of M.S.} + \text{Conc. of M.S.D.}) / 2} \times 100$



Scot Cocanour
Laboratory Director

EMCON Northwest 18912 N. Creek Parkway, #210 Bothell, WA 98011 Attention: Mike Noll	Client Project ID: Shell, Seattle #W56-08.07 Method : EPA 7421 Sample Matrix : Water Units : $\mu\text{g/L}$ QC Sample #: BLK040992	Analyst : D. Vandel Digested: Apr 9, 1992 Analyzed: Apr 21-27, 1992 Reported: Apr 28, 1992
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QUALITY CONTROL DATA REPORT

ANALYTE	Pb
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Sample Conc.: N.D.

Spike Conc.
Added: 30

Conc. Matrix
Spike: 38

Matrix Spike
% Recovery: 127

Conc. Matrix
Spike Dup.: 35

Matrix Spike
Duplicate
% Recovery: 117

Relative
% Difference: 8.2

NORTH CREEK ANALYTICAL inc

Ted Becherer
(for)
Scot Cocanour
Laboratory Director

% Recovery:	$\frac{\text{Conc. of M.S.} - \text{Conc. of Sample}}{\text{Spike Conc. Added}} \times 100$
Relative % Difference:	$\frac{\text{Conc. of M.S.} - \text{Conc. of M.S.D.}}{(\text{Conc. of M.S.} + \text{Conc. of M.S.D.}) / 2} \times 100$



SHELL OIL COMPANY
RETAIL ENVIRONMENTAL ENGINEERING - WEST

CHAIN OF CUSTODY RECORD

Serial No.: _____

Date: _____
Page 1 of 2

Site Address:
601 Boren Avenue North, Seattle, WA

Analysis Required - LAB: North Creek Analytical

WIC#: **246-7616-0401**

Shell Engineer: **FRANK FOSSATI**
Phone No. (714) 520-3362
Fax #: (714) 520-3313

Consultant Name & Address:
SWEET-EDWARDS/EMCON, INC.
18912 NORTH CREEK PARKWAY, SUITE 210-BOTHELL

Consultant Contact: **MIKE NOLL W56-08.07**
Phone No. (206) 485-5000
Fax #: (206) 496-9766

Comments: **Please reference W56-08.07 on the Lab report**

Sampled By:
Printed Name: **Tom Badle, Lisa Ruan, Gerry Croteau**

CHECK ONE (1) BOX ONLY	CT/DT	TURN AROUND TIME
Quarterly Monitoring <input checked="" type="checkbox"/>	5461	24 hours <input type="checkbox"/>
Site Investigation <input type="checkbox"/>	5441	48 hours <input type="checkbox"/>
Soil for disposal <input type="checkbox"/>	5442	15 days <input checked="" type="checkbox"/> (Normal)
Water for disposal <input type="checkbox"/>	5443	Other <input type="checkbox"/>
Air Sample- Sys O&M <input type="checkbox"/>	5452	NOTE: Notify Lab as soon as possible of 24/48 hrs. TAT.
Water Sample - Sys O&M <input type="checkbox"/>	5453	
Other <input type="checkbox"/>		

Sample ID	Date	Soil	Water	Air	No. of conds.	TPH (EPA 8015 Mod. Gas) <input type="checkbox"/>	TPH (EPA 8015 Mod. Diesel) <input type="checkbox"/>	BTEX (EPA 8020/602) <input type="checkbox"/>	Volatile Organics (EPA 8240) <input type="checkbox"/>	Test for Disposal <input type="checkbox"/>	EPA 418.1	Total Lead	Container Size	Preparation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS
MW-1	4/3/92		X		4	X	X				X	X			N		2040198
MW-4	4/3/92		X		3	X	X				X	X			N		2040199
MW-10	4/3/92		X		4	X	X				X	X			N		2040200
MW-11	4/3/92		X		3	X	X				X	X			N		2040201
MW-12	4/3/92		X		3	X	X				X	X			N		2040202
MW-13	4/3/92		X		4	X	X				X	X			N		2040203
MW-14	4/3/92		X		3	X	X				X	X			N		2040204
MW-16	4/3/92		X		4	X	X				X	X			N		2040205

Relinquished By (signature): <i>Gerry Croteau</i>	Printed name: Gerry Croteau	Date: 4/3/92	Received (signature): <i>Janet Collins</i>	Printed name: T. Collins	Date: 4/3/92
Relinquished By (signature):	Printed name:	Date:	Received (signature):	Printed name:	Date: 2:25
Relinquished By (signature):	Printed name:	Date:	Received (signature):	Printed name:	Date:
		Time:			Time:

THE LABORATORY MUST PROVIDE A COPY OF THIS CHAIN-OF-CUSTODY WITH INVOICE

