SECOND QUARTER 1995
GROUND WATER MONITORING REPORT
EMERYVILLE POST OFFICE
EMERYVILLE, CALIFORNIA

LOWNEY ASSOCIATES
Environmental / Geotechnical / Engineering Services

LOWNEY ASSOCIATES
Environmental / Geotechnical / Engineering Services

June 9, 1995
864-17B, MV060901

Mr. Charles Wren
UNITED STATES POSTAL SERVICE
c/o DANIEL, MANN, JOHNSON & MENDENHALL
153 Kearny Street, Suite 600
San Francisco, California 94108

RE: SECOND QUARTER 1995 GROUND WATER MONITORING REPORT
EMERYVILLE POST OFFICE
EMERYVILLE, CALIFORNIA

Dear Mr. Wren:

The attached report summarizes the results of our ground water quality evaluation performed at 1505 62nd Street in Emeryville, California. This work was performed per our December 14, 1993 agreement with you.

We refer you to the text of the report for details regarding our findings. If you have any questions, please call.

Very truly yours,

LOWNEY ASSOCIATES

Stason I. Foster, P.E.
Associate
Environmental Engineer

REGISTERED PROFESSIONAL ENGINEER
STASON I. FOSTER
No. 051495
Exp. 6-30-98
CIVIL
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Ron L. Helm, C.E.G.
Principal
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REGISTERED GEOLOGIST
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CERTIFIED ENGINEERING GEOLOGIST
STATE OF CALIFORNIA

RLH:SIF:BAF:tjc

Copies: Addressee (4)
United States Postal Service (1)
Attn: Mr. Kayode Kadara

SECOND QUARTER 1995 GROUND WATER MONITORING REPORT

For

EMERYVILLE POST OFFICE
Emeryville, California

To

UNITED STATES POSTAL SERVICE
c/o DANIEL, MANN, JOHNSON & MENDENHALL
153 Kearny Street, Suite 600
San Francisco, California 94108

June 1995

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SECOND QUARTER 1995 GROUND WATER MONITORING REPORT

EMERYVILLE POST OFFICE

EMERYVILLE, CALIFORNIA

1.0 INTRODUCTION

1.1 Purpose

In this report, we present the results of the second quarter 1995 ground water monitoring at 1505 62nd Street in Emeryville, California (Figures 1 and 2). The purpose of this investigation was to evaluate the presence of petroleum fuel compounds and PCBs in ground water beneath the site and the adjacent Emery Bay Market Place property.

1.2 Scope of Work

The scope of work included the following:

- Measurement of ground water elevations and evaluation of flow direction.
- Collection of ground water from five on-site monitoring wells and four off-site monitoring wells.
- Laboratory analysis of the ground water samples for total petroleum hydrocarbons as gasoline (TPHg) with a scan to distinguish benzene, toluene, ethylbenzene, and xylenes (BTEX) (EPA Test Method 8015/8020); total petroleum hydrocarbons as diesel (TPHg) (EPA Test Method 8015M); total oil and grease (TOG) (Standard Method 5520EF); and polychlorinated biphenyls (PCBs) (EPA Test Method 8080).

2.0 GROUND WATER MONITORING

2.1 Ground Water Flow Direction

To evaluate the ground water flow direction at the site, the ground water elevations in on- and off-site wells were measured on April 6, 1995. The measured elevations, recorded to the nearest hundredth of a foot, are presented in Table 1.

As shown on Figure 2, the recorded ground water elevations do not indicate a consistent gradient; however, a general westward flow direction can be interpreted. Variations in the measured elevations are likely due to shallow ground water depths and perched conditions.

The western flow direction corresponds with regional flow (towards the San Francisco Bay) as well as data previously obtained from the southerly adjacent Westinghouse property.

TABLE 1. Ground Water and Top of Casing Elevations

Well Number	Date	Top of Casing Elevation (ft.)*	Depth to Ground Water (ft. below top of casing)	Ground Water Elevation (ft.)
MW-1	10/04/94	12.47	6.15	6.32
	01/11/95		5.09	7.38
	04/06/95		5.68	6.79
MW-1A	10/04/94	12.77	6.49	6.28
	01/11/95		5.82	6.95
	04/06/95		6.18	6.59
MW-2	10/04/94	11.85	4.37	7.48
	01/11/95		2.51	9.04
	04/06/95		2.90	8.95
MW-3	10/04/94	9.98	3.58	6.40
	01/12/95		2.84	7.14
	04/06/95		3.17	6.81
MW-4	10/04/94	12.76	6.37	6.39
	01/11/95		4.80	7.96
	04/06/95		5.68	7.08

continued

TABLE 1. Ground Water and Top of Casing Elevations
(continued)

Well Number	Date	Top of Casing Elevation (ft.)*	Depth to Ground Water (ft. below top of casing)	Ground Water Elevation (ft.)
W-1	10/04/94	11.47	5.94	5.53
	01/11/95		4.93	6.54
	04/06/95		5.02	6.45
W-5	10/04/94	11.41	5.20	7.35†
	01/11/95		2.65	9.53†
	04/06/95		3.12	8.29
W-7	10/04/94	9.05	5.83	3.22
	01/11/95		5.44	3.61
	04/06/95		5.79	3.26
W-8	10/04/94	10.43	3.62	6.81
	01/11/95		2.69	7.74
	04/06/95		2.42	8.01
W-13	10/04/94	8.15	4.37	3.78
	01/11/95		2.73	5.42
	04/06/95		3.60	4.55
W-14	10/04/94	7.97	4.97	3.00
	01/11/95		4.66	3.31
	04/06/95		4.13	3.84
W-15	10/04/94	11.53	2.90	8.63
	01/11/95		2.84	8.69
	04/06/95		2.62	8.91
W-17	10/04/94	12.14	6.77	5.37
	01/11/95		NA	NA
	04/06/95		2.64	9.50
W-18	10/04/94	11.34	5.28	6.06
	01/11/95		4.55	6.79
	04/06/95		4.02	7.32
W-19	10/04/94	10.27	5.03	5.27†
	01/11/95		4.79	5.48†
	04/06/95		4.89	5.38
W-20	10/04/94	6.82	3.76	3.06
	01/11/95		2.76	4.06
	04/06/95		3.56	3.26
W-21	10/04/94	9.48	5.08	4.40
	01/11/95		4.73	4.75
	04/06/95		4.92	4.56
W-22	10/04/94	11.67	6.66	5.01
	01/11/95		4.67	7.00
	04/06/95		6.16	5.51
W-23	10/04/94	9.16	2.39	6.77
	01/11/95		0.49	8.67
	04/06/95		0.86	8.30

continued

TABLE 1. Ground Water and Top of Casing Elevations
(continued)

Well Number	Date	Top of Casing Elevation (ft.)*	Depth to Ground Water (ft. below top of casing)	Ground Water Elevation (ft.)
W-24	10/04/94	8.72	4.69	4.03
	01/11/95		2.63	6.09
	04/06/95		4.44	4.28

* Top of casing elevations of on-site wells surveyed relative to Emery Bay Market Place monitoring well W-22.
† Free product measured in off-site wells W-5 and W-19.
NA Not available

2.2 Ground Water Quality

Ground water samples were collected on April 6 and 10, 1995. The analytical results are presented in Table 2. Previous sampling results for the on-site wells are included for comparison. A discussion of sampling protocol and copies of monitoring well sampling records are presented in Appendix A. Copies of all laboratory reports are attached in Appendix B.

TABLE 2. Laboratory Analysis of Ground Water Samples
(concentrations in ppb)

Well Number	Date	TOG†	TPHd	TPHg	Benzene	Toluene	Ethyl-benzene	Total Xylenes	PCBs
MW-1	06/11/93	<5.0	<50	<50	<0.50	<0.50	<0.50	<0.50	ND
	10/10/94	<5.0	120	<50	<0.50	<0.50	<0.50	<0.50	ND
	01/12/95	<5.0	160	<50	<0.50	<0.50	<0.50	<0.50	ND
	04/10/95	<5.0	<50	<50	<0.50	<0.50	<0.50	<0.50	ND
MW-1A	06/11/93	8.0	4,900	<50	<0.50	<0.50	7.7	<0.50	NA
	10/04/94	17	10,000	6,500	<1.0	<1.0	<1.0	<1.0	ND
	01/11/95	<5.0	1,300	870	<1.0	<1.0	<1.0	<1.0	ND
	04/10/95	5.7	1,800	720	1.1	0.76	1.1	11	ND
MW-2	06/11/93	<5.0	240	1,500	3.2	4.7	<0.50	<0.50	NA
	10/10/94	<5.0	1,100	2,900	<10	<10	<10	<10	140*
	01/12/95	<5.0	2,100	3,400	<10	<10	<10	<10	89*
	04/10/95	<5.0	670	1,900	7.5	<0.50	9.6	8.1	22*
MW-3	06/11/93	<5.0	530	180	<0.50	3.6	0.98	3.4	ND
	10/10/94	<5.0	1,100	260	<0.50	<0.50	<0.50	<0.50	ND
	01/12/95	<5.0	1,500	270	<0.50	0.87	<0.50	<0.50	ND
	04/10/95	<5.0	250	150	<0.50	0.51	<0.50	8.7	ND

continued

TABLE 2. Laboratory Analysis of Ground Water Samples
(concentrations in ppb)
(continued)

Well Number	Date	TOG†	TPHd	TPHg	Benzene	Toluene	Ethyl-benzene	Total Xylenes	PCBs
MW-4	06/11/93	<5.0	730	1,200	<0.50	4.0	16	1.5	NA
	10/10/94	<5.0	1,800	970	<2.5	<2.5	<2.5	<2.5	ND
	01/12/95	<5.0	1,900	1,200	<2.5	<2.5	<2.5	<2.5	ND
	04/10/95	<5.0	670	780	<0.50	<0.50	3.1	18	ND
W-8	10/04/94	5.1	17,000	780	<2.5	<2.5	<2.5	<2.5	ND
	01/11/95	<5.0	17,000	520	<2.0	<2.0	<2.0	<2.0	ND
	04/06/95	<5.0	16,000	950	0.50	<0.50	1.4	4.7	ND
W-13	10/04/94	<5.0	<50	<50	<0.50	<0.50	<0.50	<0.50	ND
	01/11/95	<5.0	73	<50	<0.50	<0.50	<0.50	<0.50	ND
	04/06/95	<5.0	<50	<50	<0.50	<0.50	<0.50	<0.50	ND
W-14	10/04/94	<5.0	66	<50	<0.50	<0.50	<0.50	<0.50	ND
	01/11/95	<5.0	63	<50	<0.50	<0.50	<0.50	<0.50	ND
	04/06/95	<5.0	<50	<50	<0.50	<0.50	<0.50	<0.50	ND
W-23	10/04/94	<5.0	4,200	650	<2.5	<2.5	<2.5	<2.5	ND
	01/11/95	<5.0	2,400	450	<1.2	<1.2	<1.2	<1.2	ND
	04/06/95	<5.0	1,200	490	2.2	<0.50	<0.50	0.86	ND
Primary Drinking Water Standards[1]		NE	NE	NE	1.0	1,000	680	1,750	0.5

[1] Taken from Environmental Protection Agency Drinking Water Standards and Health Advisory Table, August 1991.
† TOG concentrations in ppm
NA Not Analyzed
ND Not Detected above laboratory detection limits
NE Not Established
* Detected concentration of PCB-1260.

3.0 CONCLUSIONS AND RECOMMENDATIONS

Analysis of the ground water samples collected detected predominantly high molecular weight diesel range petroleum hydrocarbons. The concentrations detected during this quarter were generally lower than those detected during the previous sampling events.

These heavy hydrocarbons typically exhibit a low mobility potential and low toxicity. In addition, based on the low yield observed during purging of the

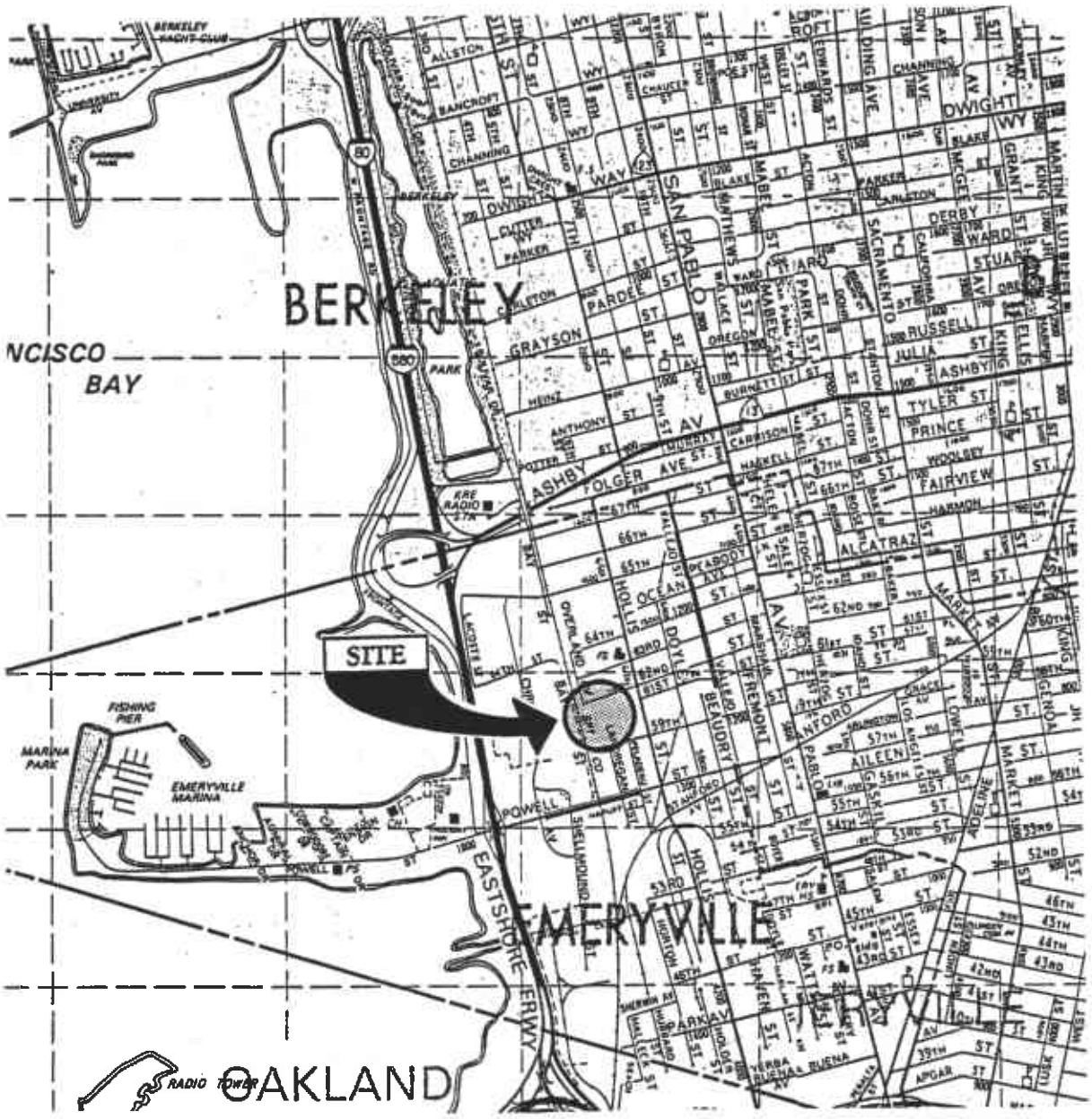
selected monitoring wells, the shallow water-bearing zone does not appear capable of transmitting water in significant quantities. Due to these characteristics and the absence of significant BTEX concentrations, the compounds detected do not pose a significant threat to human health or the environment, in our opinion. Since the source has been removed, a continued decrease in concentrations is expected due to natural degradation and attenuation processes. Continued monitoring, as planned, will be useful in evaluating changes over time in petroleum hydrocarbon concentrations.

We recommend that a copy of this report be sent to the California Regional Water Quality Control Board and the Alameda County Department of Environmental Health for their review. In our opinion, the overseeing regulatory agencies should consider this area as a Non-Attainment Zone.

4.0 LIMITATIONS

This report was prepared for the use of the United States Postal Service in evaluating ground water quality at the referenced site at the time of this study. We make no warranty, expressed or implied, except that our services have been performed in accordance with environmental principles generally accepted at this time and location. The chemical and other data presented in this report can change over time and are applicable only to the time this study was performed.

* * * * * * * * *



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864-17B, 5/95 BAF/EB

VICINITY MAP

EMERYVILLE POST OFFICE
Emeryville, California

LOVNEY ASSOCIATES
Environmental/Geotechnical/Engineering Services

FIGURE 1
864-17B

Approximate Direction of Ground Water Flow

N

63rd Street

62nd Street

64th Street

59th Street

Overland Avenue

Railroad Right-Of-Way

Christie Avenue

USPS

Theater

Market Place

Market Place

W-2 8.95

W-3 6.81

MW-1 6.79

MW-1A 6.59

MW-4 7.08

W-22 5.51

W-16 8.91

W-5 8.29

W-15

W-17 9.50

W-1 6.45

W-18 7.32

W-8 8.01

W-4

W-23 8.30

W-21 4.56

W-19 5.38

W-7 3.26

W-13 4.55

W-14 3.84

W-24 4.28

W-20 3.26

0 150 300

Scale feet

LEGEND

⊕ - Approximate location of USPS monitoring well

⊕ - Approximate location of Market Place monitoring well

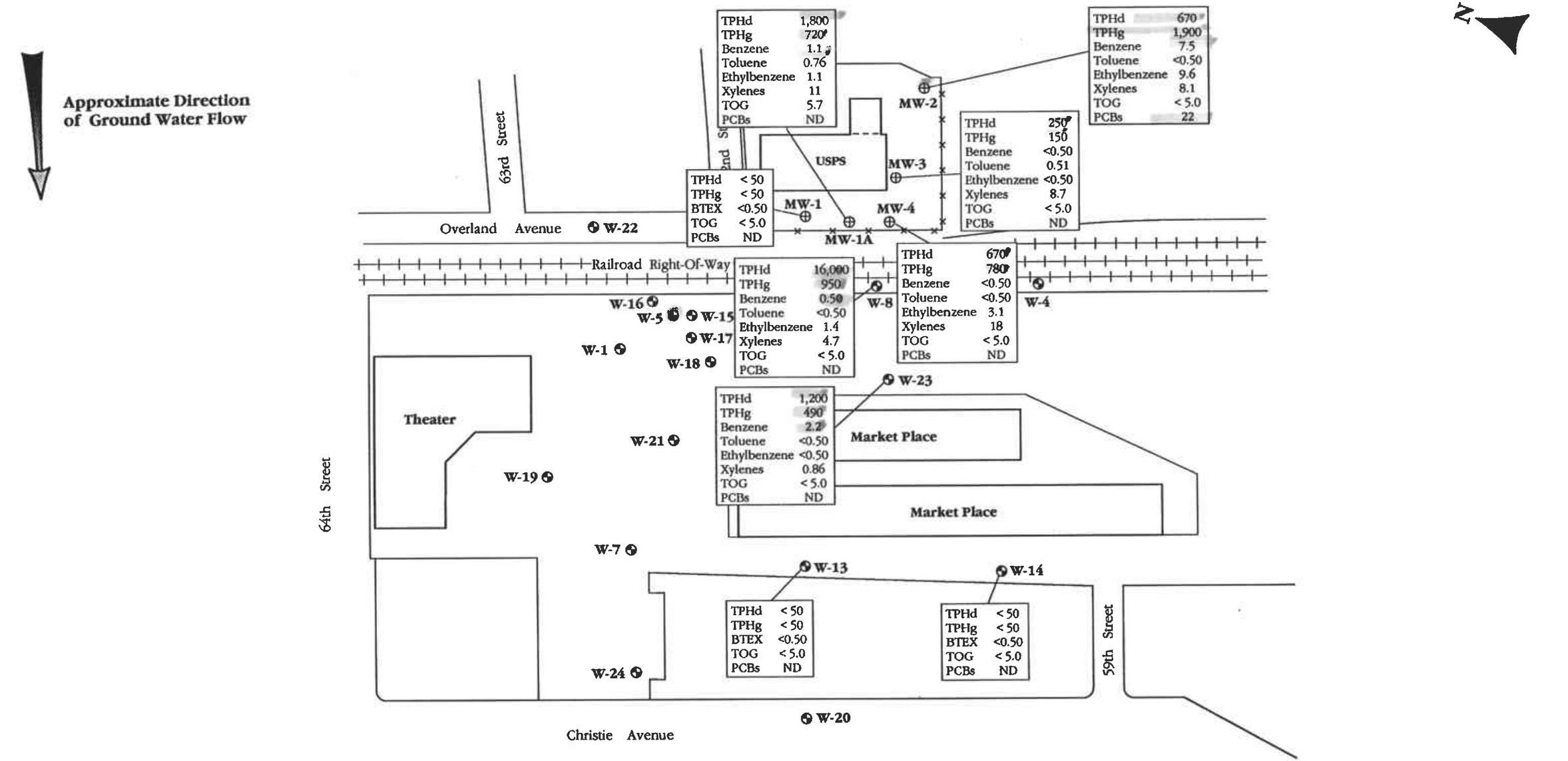
4.28 - Ground water elevation (April 6, 1995)

SITE PLAN/GROUND WATER ELEVATION MAP

EMERYVILLE POST OFFICE
Emeryville, California

LOWNEY ASSOCIATES
Environmental / Geotechnical / Engineering Services

FIGURE 2
864-17B



LEGEND

⊕ - Approximate location of USPS monitoring well

⊕ - Approximate location of Market Place monitoring well

TPHd - Total petroleum hydrocarbon as diesel (ppb)

TPHg - Total petroleum hydrocarbon as gasoline (ppb)

BTEX - Benzene, toluene, ethylbenzene, xylenes (ppb)

TOG - Total oil and grease (ppm)

PCBs - Polychlorinated biphenyls (ppb)

PETROLEUM HYDROCARBON CONCENTRATIONS IN GROUND WATER

EMERYVILLE POST OFFICE
Emeryville, California

LOWNEY ASSOCIATES
Environmental / Geotechnical / Engineering Services

FIGURE 3
864-17B

APPENDIX A

WELL SAMPLING RECORDS

Prior to ground water sampling, the static water level was measured using an electronic water level measurement device. A submersible sampling pump or a Teflon bailer was used to purge a minimum of three well casing volumes of water; after each well volume pH, conductivity, and temperature were recorded. These measurements generally stabilize after three to four well volumes. Ground water was then collected in appropriate sample bottles, labeled, and immediately placed in an ice-cooled chest for delivery to an analytical laboratory certified by the California Department of Health Services for chemical analysis of drinking water and hazardous waste. Carried along with the ground water samples was a chain of custody form that was maintained for all well samples.

All well developing and sampling equipment was cleaned with an aqueous tri-sodium phosphate solution and distilled water or steam cleaned prior to use at each well. A well development record for each well was maintained by Lowney Associates. A copy of this record is attached.

LOVNEY ASSOCIATES — RECORD OF WELL DEVELOPMENT/SAMPLING

Project Number 864-173

Project Name Emeryville P.O.

Field Geologist/Engineer BAF

Well Number MW-1 Boring Diameter _____ (inches)

Well Total Depth (completed) 13.95 (feet) Casing Diameter 4 (inches)

Development Date _____ Method _____ Volume Produced _____ (liter/gal)

WELL VOLUME CONVERSION FACTORS

2-INCH CASING DIAMETER

VOL (GALLONS) = FEET OF WATER x 0.17
VOL (LITERS) = FEET OF WATER x 0.62

4-INCH CASING DIAMETER

VOL (GALLONS) = FEET OF WATER x 0.66
VOL (LITERS) = FEET OF WATER x 2.5

Sampling Date 4.10.95 Time 4:00 Method pump

Static Water Level Prior to Purging 5.74 (ft)
(Measured from top of casing) $H_T - H_2O = 8.21$

Water Level After Recovery 7.4 (ft)
7.4

80 Percent Recharged Yes ☑ No ☐

Well Volume 5.4 (liter/gal)

Three Well Volumes 16.3 (liter/gal)

Total Produced 18 (liter/gal)

Number of Well Volumes ≈ 3½

Production Time _____ (min)

Production Rate _____ (/min)

Well Volumes	ph	Conductivity µSx100	Temp F
1	7.7	4	64
2	7.6	5	65
3	7.2	6	65
3½	7.2	6	65
5			
6			
7			
8			
9			
10			

Sample Description MW-1

Laboratory Sequoia

Deliver ☒ Pick-Up ☐ Date _____

Comments Well pumped dry, recharges slowly

LOVNEY ASSOCIATES — RECORD OF WELL DEVELOPMENT/SAMPLING

Project Number 864-17B

Project Name Emeryville P.O.

Field Geologist/Engineer BAF

Well Number MW-1A

Boring Diameter _____ (inches)

Well Total Depth (completed) 18 (feet)

Casing Diameter 2 (inches)

Development Date _____ Method _____ Volume Produced _____ (liter/gal)

WELL VOLUME CONVERSION FACTORS

2-INCH CASING DIAMETER

VOL (GALLONS) = FEET OF WATER x 0.17
VOL (LITERS) = FEET OF WATER x 0.62

4-INCH CASING DIAMETER

VOL (GALLONS) = FEET OF WATER x 0.66
VOL (LITERS) = FEET OF WATER x 2.5

Sampling Date 4.10.95 Time 3:00 Method Teflon Bailer

Static Water Level Prior to Purging 6.21 (ft)
(Measured from top of casing)
$H_T - H_2O = 11.79$

Water Level After Recovery 6.35 (ft)
8.56

80 Percent Recharged Yes ☑ No ☐

Well Volume 7.3 (liter/gal)

Three Well Volumes 21.9 (liter/gal)

Total Produced 23 (liter/gal)

Number of Well Volumes 3

Production Time _____ (min)

Production Rate _____ (_/min)

Well Volumes	ph	Conductivity µSx10C	Temp °F
1	7.4	4	65
2	7.2	5	68
3	7.1	6	65
4			
5			
6			
7			
8			
9			
10			

Sample Description MW-1A

Laboratory Sequoia

Deliver ☐ Pick-Up ☐ Date _____

Comments Patches of petroleum sheen on surface of purged H_2O.

LOVNEY ASSOCIATES — RECORD OF WELL DEVELOPMENT/SAMPLING

Project Number 864-013

Project Name Emeryville P.O.

Field Geologist/Engineer BAF

Well Number MW-2

Well Total Depth (completed) 11.65 (feet)

Boring Diameter _____ (inches)

Casing Diameter 4 (inches)

Development Date _____ Method _____ Volume Produced _____ (liter/gal)

WELL VOLUME CONVERSION FACTORS

2-INCH CASING DIAMETER

VOL (GALLONS) = FEET OF WATER x 0.17
VOL (LITERS) = FEET OF WATER x 0.62

4-INCH CASING DIAMETER

VOL (GALLONS) = FEET OF WATER x 0.66
VOL (LITERS) = FEET OF WATER x 2.5

Sampling Date 4-10-95 Time 11:00 Method pump

Static Water Level Prior to Purging 2.96 (ft)
(Measured from top of casing)
H_{H_2O} = 8.69

Water Level After Recovery 4.5 (ft)

80 Percent Recharged 4.5 Yes ☑ No ☐

Well Volume 5.7 (liter/gal)

Three Well Volumes 17.2 (liter/gal)

Total Produced 17.5 (liter/gal)

Number of Well Volumes 3

Production Time _____ (min)

Production Rate _____ (_/min)

Well Volumes	ph	Conductivity µSx10⁶	Temp °F
1	7.6	7	61
2	7.5	7	61
3	7.6	7	62
4			
5			
6			
7			
8			
9			
10			

Sample Description MW-2

Laboratory Sequoia

Deliver ☑ Pick-Up ☐ Date _____

Comments

LOVNEY ASSOCIATES RECORD OF WELL DEVELOPMENT/SAMPLING

Project Number 864-17B

Project Name Emeryville P.O.

Field Geologist/Engineer BAF

Well Number MW-3 Boring Diameter _____ (inches)

Well Total Depth (completed) 8.9 (feet) Casing Diameter 4 (inches)

Development Date _____ Method _____ Volume Produced _____ (liter/gal)

WELL VOLUME CONVERSION FACTORS

2-INCH CASING DIAMETER

VOL (GALLONS) = FEET OF WATER x 0.17
VOL (LITERS) = FEET OF WATER x 0.62

4-INCH CASING DIAMETER

VOL (GALLONS) = FEET OF WATER x 0.66
VOL (LITERS) = FEET OF WATER x 2.5

Sampling Date 4-10-95 Time 12:00 Method pump

Static Water Level Prior to Purging 3.20 (ft)
(Measured from top of casing) $H_T H_2O = 5.7$

Water Level After Recovery 4.3 (ft)
4.3

80 Percent Recharged Yes ☑ No ☐

Well Volume 3.8 (liter/gal)

Three Well Volumes 11.3 (liter/gal)

Total Produced 13 (liter/gal)

Number of Well Volumes 3

Production Time _____ (min)

Production Rate _____ (_/min)

Well Volumes	ph	Conductivity µSx10 ↻	Temp °F
1	7.1	8	64
2	7.0	9	65
3	7.0	9	64
4			
5			
6			
7			
8			
9			
10			

Sample Description MW-3

Laboratory Sequoia

Deliver ☒ Pick-Up ☐ Date _____

Comments

LOVNEY ASSOCIATES RECORD OF WELL DEVELOPMENT/SAMPLING

Project Number 864.17B

Project Name Emeryville P.O.

Field Geologist/Engineer BAF

Well Number MW-4 Boring Diameter _____ (inches)

Well Total Depth (completed) 12.4 (feet) Casing Diameter 4 (inches)

Development Date _____ Method _____ Volume Produced _____ (liter/gal)

WELL VOLUME CONVERSION FACTORS

2-INCH CASING DIAMETER

VOL (GALLONS) = FEET OF WATER x 0.17
VOL (LITERS) = FEET OF WATER x 0.62

4-INCH CASING DIAMETER

VOL (GALLONS) = FEET OF WATER x 0.66
VOL (LITERS) = FEET OF WATER x 2.5

Sampling Date 4.10.95 Time 2:00 Method pump

Static Water Level Prior to Purging 5.73 (ft)
(Measured from top of casing) HTH2O = 6.67

Water Level After Recovery 6.8 (ft)
7.06

80 Percent Recharged Yes ☑ No ☐

Well Volume 4.4 (liter/gal)

Three Well Volumes 13.2 (liter/gal)

Total Produced 15.5 (liter/gal)

Number of Well Volumes 3½

Production Time _____ (min)

Production Rate _____ (/min)

Well Volumes	ph	Conductivity µSx10o	Temp °F
1	8.0	4	63
2	7.6	4	64
3	7.3	5	62
3½	7.2	5	63
5			
6			
7			
8			
9			
10			

Sample Description MW-4

Laboratory Sequoia

Deliver ☑ Pick-Up ☐ Date _____

Comments

LOVNEY ASSOCIATES — RECORD OF WELL DEVELOPMENT/SAMPLING

Project Number 864-173

Project Name Emeryville P.O.

Field Geologist/Engineer BAF

Well Number W-8

Boring Diameter _____ (inches)

Well Total Depth (completed) 11.79 (feet)

Casing Diameter 2 (inches)

Development Date _____ Method _____ Volume Produced _____ (liter/gal)

WELL VOLUME CONVERSION FACTORS

2-INCH CASING DIAMETER

VOL (GALLONS) = FEET OF WATER x 0.17
VOL (LITERS) = FEET OF WATER x 0.62

4-INCH CASING DIAMETER

VOL (GALLONS) = FEET OF WATER x 0.66
VOL (LITERS) = FEET OF WATER x 2.5

Sampling Date 4.6.95 Time 3:00 Method Teflon Bailer

Static Water Level Prior to Purging 2.18 (ft)
(Measured from top of casing) $H_T - H_2O = 9.61$

Water Level After Recovery 4.0 (ft)

80 Percent Recharged Yes ☒ No ☐

Well Volume 5.95 (liter/gal)

Three Well Volumes 17.87 (liter/gal)

Total Produced 18 (liter/gal)

Number of Well Volumes 3

Production Time _____ (min)

Production Rate _____ (_/min)

Well Volumes	ph	Conductivity µSx100	Temp °F
1	6.9	14	62
2	6.8	14	62
3	6.8	13	62
4			
5			
6			
7			
8			
9			
10			

Sample Description W-8

Laboratory Sequoia

Deliver ☒ Pick-Up ☐ Date _____

Comments Strong Petroleum Odor, Petroleum sheen on surface of purged water. Oily water.

LOVNEY ASSOCIATES — RECORD OF WELL DEVELOPMENT/SAMPLING

Project Number 864-173

Project Name Emeryville PO.

Field Geologist/Engineer BAF

Well Number W-13

Boring Diameter _____ (inches)

Well Total Depth (completed) 10.03 (feet)

Casing Diameter 2 (inches)

Development Date _____ Method _____ Volume Produced _____ (liter/gal)

WELL VOLUME CONVERSION FACTORS

2-INCH CASING DIAMETER

VOL (GALLONS) = FEET OF WATER x 0.17
VOL (LITERS) = FEET OF WATER x 0.62

4-INCH CASING DIAMETER

VOL (GALLONS) = FEET OF WATER x 0.66
VOL (LITERS) = FEET OF WATER x 2.5

Sampling Date 4-6-95 Time 10:00 Method Teflon Bailer

Static Water Level Prior to Purging 3.60 (ft)
(Measured from top of casing) 4.46 - 0.93

Water Level After Recovery 4.1 (ft)
4.86

80 Percent Recharged Yes ☒ No ☐

Well Volume 3.97 (liter/gal)

Three Well Volumes 11.96 (liter/gal)

Total Produced 8 (liter/gal)

Number of Well Volumes 2.02

Production Time 15 (min)

Production Rate 0.53 (ℓ/min)

Well Volumes	ph	Conductivity µSx100	Temp °F
1	7.7	11	60
2	7.8	9	60
3	—	—	—
4			
5			
6			
7			
8			
9			
10			

Sample Description W-13

Laboratory SEQUOIA

Deliver ☒ Pick-Up ☐ Date 4/6/95

Comments Well Bailed Dry

LOVNEY ASSOCIATES — RECORD OF WELL DEVELOPMENT/SAMPLING

Project Number 864-173

Project Name Emeryville P.O.

Field Geologist/Engineer BAF

Well Number W-14

Boring Diameter _____ (inches)

Well Total Depth (completed) 9.89 (feet)

Casing Diameter 2 (inches)

Development Date _____ Method _____ Volume Produced _____ (liter/gal)

WELL VOLUME CONVERSION FACTORS

2-INCH CASING DIAMETER

VOL (GALLONS) = FEET OF WATER x 0.17
VOL (LITERS) = FEET OF WATER x 0.62

4-INCH CASING DIAMETER

VOL (GALLONS) = FEET OF WATER x 0.66
VOL (LITERS) = FEET OF WATER x 2.5

Sampling Date 4-6-95 Time 11:00 Method Teflon Bailer

Static Water Level Prior to Purging (Measured from top of casing) 4.13 (ft)
$H_T - H_2O = 5.76$

Water Level After Recovery 5.3 (ft)
5.3

80 Percent Recharged Yes ☒ No ☐

Well Volume 3.57 (liter/gal)

Three Well Volumes 10.71 (liter/gal)

Total Produced 4.5 (liter/gal)

Number of Well Volumes ≈ 1 1/3

Production Time 10 (min)

Production Rate 0.45 (ℓ/min)

Well Volumes	ph	Conductivity µSx10⊖	Temp °F
1	7.8	16	61
2	–	–	–
3	–	–	–
4			
5			
6			
7			
8			
9			
10			

Sample Description W-14

Laboratory Sequoia

Deliver ☒ Pick-Up ☐ Date 4/6/95

Comments Well bailed dry after 4.5 liters.

LOVNEY ASSOCIATES — RECORD OF WELL DEVELOPMENT/SAMPLING

Project Number 864-173

Project Name Emeryville P.O.

Field Geologist/Engineer TJAF

Well Number W-23

Boring Diameter _____ (inches)

Well Total Depth (completed) 9.00 (feet)

Casing Diameter _____ (inches)

Development Date _____ Method _____ Volume Produced _____ (liter/gal)

WELL VOLUME CONVERSION FACTORS

2-INCH CASING DIAMETER

VOL (GALLONS) = FEET OF WATER x 0.17
VOL (LITERS) = FEET OF WATER x 0.62

4-INCH CASING DIAMETER

VOL (GALLONS) = FEET OF WATER x 0.66
VOL (LITERS) = FEET OF WATER x 2.5

Sampling Date 4.6.95 Time 1:00 Method Teflon Bailer

Static Water Level Prior to Purging .50 (ft)
(Measured from top of casing) Ht H_2O = 8.5

Water Level After Recovery 4.6 (ft)
2.2
80 Percent Recharged Yes ☐ No ☒

Well Volume 5.27 (liter/gal)

Three Well Volumes 15.81 (liter/gal)

Total Produced 13 (liter/gal)

Number of Well Volumes = 2½

Production Time _____ (min)

Production Rate _____ (_/min)

Sample Description W-23

Laboratory Sequoia

Deliver ☒ Pick-Up ☐ Date _____

Well Volumes	ph	Conductivity µSx100	Temp °F
1	7.7	27	63
2	7.6	28	62
3	-	-	-
4			
5			
6			
7			
8			
9			
10			

Comments Well Bailed Dry, recharges very slowly waited until 3:40 (4.6 ft) to sample.

LOWNEY ASSOCIATES
Environmental / Geotechnical / Engineering Services

Ground Water Depth Log

Well	Depth to Water	Time	Comments
W-1	5.02		
W-5	3.12		
W-7	5.79		
W-8	2.42		
W-13	3.60		
W-14	4.13		
W-19	4.89		
W-20	3.56		
W-24	4.44		
W-15	2.62		
W-17	2.64		
W-18	4.02		
W-21	4.92		
W-22	6.16		
W-23	0.86		

Date 4-6-95

Project Name Emeryville Post Office

Project Number 864-17B

Page 1 of 2

Taken by BAF

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LOVNEY ASSOCIATES
Environmental / Geotechnical / Engineering Services

Ground Water Depth Log

Well	Depth to Water	Time	Comments
mw-2	2.90	4:30	
mw-1	5.68	4:35	
mw-3	3.17	4:40	
mw-1A	6.18	4:50	
mw-4	5.68	5:00	

Date 4-6-95

Project Name Emeryville Post Office

Project Number 864-17B

Page 2 of 2

Taken by BAF

APPENDIX B

ANALYTICAL RESULTS

The refrigerated ground water samples were delivered to Sequoia Analytical of Redwood City, California. Chain of custody documentation was maintained for all samples. Attached are copies of the analytical results and the chain of custody forms. Sequoia Analytical is certified by the State of California as a Hazardous Waste Testing Laboratory and as an Approved Water and Wastewater Laboratory.

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Lowney Associates	Client Project ID:	Emeryville P.O., 864-17B	Sampled: Apr 10, 1995
1600 S. Main Street, Suite 125	Sample Matrix:	Water	Received: Apr 10, 1995
Walnut Creek, CA 94596	Analysis Method:	EPA 5030/8015/8020	Reported: Apr 26, 1995
Attention: Brock Foster	First Sample #:	504-0466	

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit µg/L	Sample I.D. 504-0466 MW-2	Sample I.D. 504-0467 MW-3	Sample I.D. 504-0468 MW-4	Sample I.D. 504-0469 MW-1A	Sample I.D. 504-0470 MW-1
Purgeable Hydrocarbons	50	1,900	150	780	720	N.D.
Benzene	0.50	7.5	N.D.	N.D.	1.1	N.D.
Toluene	0.50	N.D.	0.51	N.D.	0.76	N.D.
Ethyl Benzene	0.50	9.6	N.D.	3.1	1.1	N.D.
Total Xylenes	0.50	8.1	8.7	18	11	N.D.
Chromatogram Pattern:		Discrete Peaks	Gasoline	Gasoline	Gasoline	--

Quality Control Data

Report Limit Multiplication Factor:	10	1.0	1.0	1.0	1.0
Date Analyzed:	4/23/95	4/24/95	4/24/95	4/24/95	4/23/95
Instrument Identification:	HP-4	HP-2	HP-2	HP-2	HP-4
Surrogate Recovery, %: (QC Limits = 70-130%)	105	137	142	166	155

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.
Analytes reported as N.D. were not detected above the stated reporting limit.

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By

SEQUOIA ANALYTICAL, #1271

Kevin Van Slambrook
Project Manager

Sequoia Analytical

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404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Lowney Associates	Client Project ID:	Emeryville P.O., 864-17B	Sampled: Apr 10, 1995
1600 S. Main Street, Suite 125	Sample Matrix:	Water	Received: Apr 10, 1995
Walnut Creek, CA 94596	Analysis Method:	EPA 3510/8015	Reported: Apr 26, 1995
Attention: Brock Foster	First Sample #:	504-0466	

TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS

Analyte	Reporting Limit µg/L	Sample I.D. 504-0466 MW-2	Sample I.D. 504-0467 MW-3	Sample I.D. 504-0468 MW-4	Sample I.D. 504-0469 MW-1A	Sample I.D. 504-0470 MW-1
Extractable Hydrocarbons	50	670	250	670	1,800	N.D.
Chromatogram Pattern:		Unidentified Hydrocarbons <C15	Unidentified Hydrocarbons <C15	Unidentified Hydrocarbons <C15	Diesel	--

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0	1.0	1.0	1.0
Date Extracted:	4/17/95	4/17/95	4/17/95	4/17/95	4/17/95
Date Analyzed:	4/18/95	4/18/95	4/18/95	4/18/95	4/18/95
Instrument Identification:	HP-3A	HP-3A	HP-3A	HP-3A	HP-3A

Extractable Hydrocarbons are quantitated against a fresh diesel standard.
Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL, #1271

Kevin van Slambrook
Project Manager

Sequoia Analytical

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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Lowney Associates	Client Project ID:	Emeryville P.O., 864-17B	Sampled:	Apr 10, 1995
1600 S. Main Street, Suite 125	Matrix Descript:	Water	Received:	Apr 10, 1995
Walnut Creek, CA 94596	Analysis Method:	SM 5520 B&F (Gravimetric)	Extracted:	Apr 13, 1995
Attention: Brock Foster	First Sample #:	504-0466	Analyzed:	Apr 14, 1995
			Reported:	Apr 26, 1995

TOTAL RECOVERABLE PETROLEUM OIL

Sample Number	Sample Description	Oil & Grease mg/L (ppm)	Detection Limit Multiplication Factor
504-0466	MW-2	N.D.	1.0
504-0467	MW-3	N.D.	1.0
504-0468	MW-4	N.D.	1.0
504-0469	MW-1A	5.7	1.0
504-0470	MW-1	N.D.	1.0

Detection Limits:	**5.0**

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

SEQUOIA ANALYTICAL, #1271

Kevin Van Slambrook
Project Manager

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Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Lowney Associates	Client Project ID:	Emeryville P.O., 864-17B	Sampled:	Apr 10, 1995
1600 S. Main Street, Suite 125	Sample Descript:	Water, MW-2	Received:	Apr 10, 1995
Walnut Creek, CA 94596	Analysis Method:	EPA 8080	Extracted:	Apr 17, 1995
Attention: Brock Foster	Lab Number:	504-0466	Analyzed:	Apr 19, 1995
			Reported:	Apr 27, 1995

POLYCHLORINATED BIPHENYLS (EPA 8080)

Analyte	Detection Limit µg/L	Sample Results µg/L
PCB 1016	5.0	N.D.
PCB 1221	20	N.D.
PCB 1232	5.0	N.D.
PCB 1242	5.0	N.D.
PCB 1248	5.0	N.D.
PCB 1254	5.0	N.D.
PCB 1260	**5.0**	**22**

Analytes reported as N.D. were not present above the stated limit of detection. Because matrix effects and/or other factors required additional sample dilution, detection limits for this sample have been raised.

SEQUOIA ANALYTICAL, #1624

Kevin van Slambrook
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Lowney Associates	Client Project ID:	Emeryville P.O., 864-17B	Sampled:	Apr 10, 1995
1600 S. Main Street, Suite 125	Sample Descript:	Water, MW-3	Received:	Apr 10, 1995
Walnut Creek, CA 94596	Analysis Method:	EPA 8080	Extracted:	Apr 17, 1995
Attention: Brock Foster	Lab Number:	504-0467	Analyzed:	Apr 19, 1995
			Reported:	Apr 27, 1995

POLYCHLORINATED BIPHENYLS (EPA 8080)

Analyte	Detection Limit µg/L	Sample Results µg/L
PCB 1016	0.50	N.D.
PCB 1221	2.0	N.D.
PCB 1232	0.50	N.D.
PCB 1242	0.50	N.D.
PCB 1248	0.50	N.D.
PCB 1254	0.50	N.D.
PCB 1260	0.50	N.D.

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

SEQUOIA ANALYTICAL, #1624

Kevin van Slambrook
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Lowney Associates	Client Project ID:	Emeryville P.O., 864-17B	Sampled:	Apr 10, 1995
1600 S. Main Street, Suite 125	Sample Descript:	Water, MW-4	Received:	Apr 10, 1995
Walnut Creek, CA 94596	Analysis Method:	EPA 8080	Extracted:	Apr 17, 1995
Attention: Brock Foster	Lab Number:	504-0468	Analyzed:	Apr 19, 1995
			Reported:	Apr 27, 1995

POLYCHLORINATED BIPHENYLS (EPA 8080)

Analyte	Detection Limit µg/L	Sample Results µg/L
PCB 1016	0.50	N.D.
PCB 1221	2.0	N.D.
PCB 1232	0.50	N.D.
PCB 1242	0.50	N.D.
PCB 1248	0.50	N.D.
PCB 1254	0.50	N.D.
PCB 1260	0.50	N.D.

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

SEQUOIA ANALYTICAL, #1624

Kevin Van Slambrook
Project Manager

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Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Lowney Associates	Client Project ID:	Emeryville P.O., 864-17B	Sampled:	Apr 10, 1995
1600 S. Main Street, Suite 125	Sample Descript:	Water, MW-1A	Received:	Apr 10, 1995
Walnut Creek, CA 94596	Analysis Method:	EPA 8080	Extracted:	Apr 17, 1995
Attention: Brock Foster	Lab Number:	504-0469	Analyzed:	Apr 19, 1995
			Reported:	Apr 27, 1995

POLYCHLORINATED BIPHENYLS (EPA 8080)

Analyte	Detection Limit µg/L	Sample Results µg/L
PCB 1016	0.50	N.D.
PCB 1221	2.0	N.D.
PCB 1232	0.50	N.D.
PCB 1242	0.50	N.D.
PCB 1248	0.50	N.D.
PCB 1254	0.50	N.D.
PCB 1260	0.50	N.D.

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

SEQUOIA ANALYTICAL, #1624

Kevin Van Slambrook
Project Manager

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Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Lowney Associates	Client Project ID:	Emeryville P.O., 864-17B	Sampled:	Apr 10, 1995
1600 S. Main Street, Suite 125	Sample Descript:	Water, MW-1	Received:	Apr 10, 1995
Walnut Creek, CA 94596	Analysis Method:	EPA 8080	Extracted:	Apr 17, 1995
Attention: Brock Foster	Lab Number:	504-0470	Analyzed:	Apr 19, 1995
			Reported:	Apr 27, 1995

POLYCHLORINATED BIPHENYLS (EPA 8080)

Analyte	Detection Limit µg/L	Sample Results µg/L
PCB 1016	0.50	N.D.
PCB 1221	2.0	N.D.
PCB 1232	0.50	N.D.
PCB 1242	0.50	N.D.
PCB 1248	0.50	N.D.
PCB 1254	0.50	N.D.
PCB 1260	0.50	N.D.

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

SEQUOIA ANALYTICAL, #1624

Kevin Van Slambrook
Project Manager

5040466.LLL <8>

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Lowney Associates
1600 S. Main Street, Suite 125
Walnut Creek, CA 94596
Attention: Brock Foster

Client Project ID: Emeryville P.O., 864-17B
Matrix: Liquid
QC Sample Group: 5040466-70

Reported: Apr 27, 1995

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes	Diesel	Oil & Grease
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015 M	SM 5520 BF
Analyst:	A. Tuzon	A. Tuzon	A. Tuzon	A. Tuzon	J. Dinsay	D. Newcomb
MS/MSD Batch#:	5040626	5040626	5040626	5040626	BLK041795	BLK041395
Date Prepared:	4/24/95	4/24/95	4/24/95	4/24/95	4/17/95	4/13/95
Date Analyzed:	4/24/95	4/24/95	4/24/95	4/24/95	4/18/95	4/13/95
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2	HP-3A	Manual
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L	300 µg/L	5,000 mg/L
Matrix Spike % Recovery:	130	125	135	132	78	91
Matrix Spike Duplicate % Recovery:	125	125	135	128	75	87
Relative % Difference:	3.9	3.9	3.9	3.1	3.9	4.4
LCS Batch#:	1LCS042495	1LCS042495	1LCS042495	1LCS042495	BLK041795	BLK041395
Date Prepared:	4/24/95	4/24/95	4/24/95	4/24/95	4/17/95	4/13/95
Date Analyzed:	4/24/95	4/24/95	4/24/95	4/24/95	4/18/95	4/13/95
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2	HP-3A	Manual
LCS % Recovery:	115	111	116	116	78	91
% Recovery Control Limits:	71-133	72-128	72-130	71-120	28-122	75-125

SEQUOIA ANALYTICAL, #1271

Kevin Van Slambrook
Project Manager

Please Note:
The LCS is a control sample of known, interferent free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

Sequoia Analytical

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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Lowney Associates
1600 S. Main Street, Suite 125
Walnut Creek, CA 94596
Attention: Brock Foster

Client Project ID: Emeryville P.O., 864-17B
Matrix: Liquid
QC Sample Group: 5040466-70

Reported: Apr 27, 1995

QUALITY CONTROL DATA REPORT

ANALYTE	PCB 1260
Method:	EPA 8080
Analyst:	C. Chapman
MS/MSD Batch#:	BLK041195
Date Prepared:	4/11/95
Date Analyzed:	4/13/95
Instrument I.D.#:	GCHP-4A
Conc. Spiked:	5.0 µg/L
Matrix Spike % Recovery:	94
Matrix Spike Duplicate % Recovery:	104
Relative % Difference:	10
LCS Batch#:	LCS041795A
Date Prepared:	4/17/95
Date Analyzed:	4/19/95
Instrument I.D.#:	GCHP-4A
LCS % Recovery:	108
% Recovery Control Limits:	60-130

SEQUOIA ANALYTICAL, #1624

Kevin Van Slambrook
Project Manager

Please Note:
The LCS is a control sample of known, interferent free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

TOWNE[redacted]ASSOCIATES [redacted] SE[redacted]ESU[redacted]O: [redacted]

CHAIN OF CUSTODY RECORD

☐ Mountain View Office
405 Clyde Ave
Mountain View, Ca 94043
415-967-2365
FAX COPY: ☐ 415-967-2785 (FAX)

☒ Walnut Creek Office
1600 S. Main St, Suite 125
Walnut Creek, Ca 94596
510-938-9356
FAX COPY: ☒ 510-938-9359 (FAX)

Project Name: Emeryville P.O.

Job No.: 864-1713

Report To: T. Brook Foster

Sampler (print): " "

Sampler (signature): T. Brook Foster

QC Requirements: ☒ Level A (standard) ☐ Level B ☐ Level C ☐ Level D

Turnaround Requirements:
☒ 10 Working days
☐ 7 Working days
☐ 5 Working days
☐ 3 Working days
☐ 24 Hours
☐ 2-3 Hours

ANALYSIS REQUESTED

Sample I.D.	Date	Time	Lab I.D.	Sample Matrix	No. of Cont.	TPHgas/BTEX (8015/8020)	TPH as diesel (8015M)	TRPH (5520) EF/BF	Halogenated VOCs (8010)	Purgeable Organics (8240)	Extractable Organics (8270)	PCBs (8080)						Remarks
MW-2	4/10/95	11:00		H_2O	6	✓	✓	✓				✓					50[illegible]0[illegible]66	AF
MW-3	↓	12:00		↓	↓	✓	✓	✓				✓					50[illegible]0[illegible]67	↓
MW 4	↓	2:00		↓	↓	✓	✓	✓				✓					50[illegible]0[illegible]68	↓
MW-1A	↓	3:00		↓	↓	✓	✓	✓				✓					50[illegible]0[illegible]69	↓
MW-1	↓	4:00		↓	↓	✓	✓	✓				✓					50[illegible]0[illegible]70	↓

Relinquished By: T. Brook Foster Date: 4/10/95 Time: 6:34

Received By: Leslie Cuestin Date: 4/10/95 Time: 6:34 pm

Relinquished By: Date: Time:

Received By: Date: Time:

Relinquished By: Date: Time:

Lab Of Record:

Received By Lab: Date: Time:

Temperature:

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Lowney Associates	Client Project ID:	Emeryville P.O., 864-17B	Sampled: Apr 6, 1995
1600 S. Main St., Suite 125	Sample Matrix:	Water	Received: Apr 6, 1995
Walnut Creek, CA 94596	Analysis Method:	EPA 5030/8015/8020	Reported: Apr 25, 1995
Attention: Brock Foster	First Sample #:	504-0253	

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit µg/L	Sample I.D. 504-0253 W-23	Sample I.D. 504-0254 W-8	Sample I.D. 504-0255 W-13	Sample I.D. 504-0256 W-14
Purgeable Hydrocarbons	50	490	950	N.D.	N.D.
Benzene	0.50	2.2	0.50	N.D.	N.D.
Toluene	0.50	N.D.	N.D.	N.D.	N.D.
Ethyl Benzene	0.50	N.D.	1.4	N.D.	N.D.
Total Xylenes	0.50	0.86	4.7	N.D.	N.D.
Chromatogram Pattern:		Gasoline	Unidentified Hydrocarbons >C9	--	--

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0	1.0	1.0
Date Analyzed:	4/19/95	4/19/95	4/18/95	4/18/95
Instrument Identification:	HP-4	HP-4	HP-4	HP-4
Surrogate Recovery, %: (QC Limits = 70-130%)	86	74	98	100

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.
Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL, #1271

Kevin Van Slambrook
Project Manager

Sequoia Analytical

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Lowney Associates	Client Project ID:	Emeryville P.O., 864-17B	Sampled: Apr 6, 1995
1600 S. Main St., Suite 125	Sample Matrix:	Water	Received: Apr 6, 1995
Walnut Creek, CA 94596	Analysis Method:	EPA 3510/8015	Reported: Apr 25, 1995
Attention:	First Sample #:	504-0253	

TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS

Analyte	Reporting Limit µg/L	Sample I.D. 504-0253 W-23	Sample I.D. 504-0254 W-8	Sample I.D. 504-0255 W-13	Sample I.D. 504-0256 W-14
Extractable Hydrocarbons	50	1,200	16,000	N.D.	N.D.
Chromatogram Pattern:		Diesel and Unidentified Hydrocarbons <C15	Diesel	--	--

Quality Control Data

Report Limit Multiplication Factor:	1.0	10	1.0	1.0
Date Extracted:	4/11/95	4/11/95	4/11/95	4/11/95
Date Analyzed:	4/11/95	4/14/95	4/11/95	4/11/95
Instrument Identification:	HP-3B	HP-3B	HP-3B	HP-3B

Extractable Hydrocarbons are quantitated against a fresh diesel standard.
Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL, #1271

Kevin Van Slambrook
Project Manager

Sequoia Analytical

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Lowney Associates	Client Project ID:	Emeryville P.O., 864-17B	Sampled: Apr 6, 1995
1600 S. Main St., Suite 125	Matrix Descript:	Water	Received: Apr 6, 1995
Walnut Creek, CA 94596	Analysis Method:	SM 5520 B&F (Gravimetric)	Extracted: Apr 13, 1995
Attention:	First Sample #:	504-0253	Analyzed: Apr 14, 1995
			Reported: Apr 25, 1995

TOTAL RECOVERABLE PETROLEUM OIL

Sample Number	Sample Description	Oil & Grease mg/L (ppm)	Detection Limit Multiplication Factor
504-0253	W-23	N.D.	1.0
504-0254	W-8	N.D.	1.0
504-0255	W-13	N.D.	1.0
504-0256	W-14	N.D.	1.0

Detection Limits:	**5.0**

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

SEQUOIA ANALYTICAL, #1271

Kevin Van Slambrook
Project Manager

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Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Lowney Associates	Client Project ID:	Emeryville P.O., 864-17B	Sampled: Apr 6, 1995
1600 S. Main St., Suite 125	Sample Descript:	Water, W-23	Received: Apr 6, 1995
Walnut Creek, CA 94596	Analysis Method:	EPA 8080	Extracted: Apr 11, 1995
Attention: Brock Foster	Lab Number:	504-0253	Analyzed: Apr 13, 1995
			Reported: Apr 25, 1995

POLYCHLORINATED BIPHENYLS (EPA 8080)

Analyte	Detection Limit µg/L	Sample Results µg/L
PCB 1016	0.50	N.D.
PCB 1221	2.0	N.D.
PCB 1232	0.50	N.D.
PCB 1242	0.50	N.D.
PCB 1248	0.50	N.D.
PCB 1254	0.50	N.D.
PCB 1260	0.50	N.D.

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

SEQUOIA ANALYTICAL, #1624

Kevin Van Slambrook
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Lowney Associates	Client Project ID:	Emeryville P.O., 864-17B	Sampled: Apr 6, 1995
1600 S. Main St., Suite 125	Sample Descript:	Water, W-8	Received: Apr 6, 1995
Walnut Creek, CA 94596	Analysis Method:	EPA 8080	Extracted: Apr 11, 1995
Attention: Brock Foster	Lab Number:	504-0254	Analyzed: Apr 13, 1995
			Reported: Apr 25, 1995

POLYCHLORINATED BIPHENYLS (EPA 8080)

Analyte	Detection Limit µg/L	Sample Results µg/L
PCB 1016	0.50	N.D.
PCB 1221	2.0	N.D.
PCB 1232	0.50	N.D.
PCB 1242	0.50	N.D.
PCB 1248	0.50	N.D.
PCB 1254	0.50	N.D.
PCB 1260	0.50	N.D.

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

SEQUOIA ANALYTICAL, #1624

Kevin Van Slambrook
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Lowney Associates	Client Project ID:	Emeryville P.O., 864-17B	Sampled:	Apr 6, 1995
1600 S. Main St., Suite 125	Sample Descript:	Water, W-13	Received:	Apr 6, 1995
Walnut Creek, CA 94596	Analysis Method:	EPA 8080	Extracted:	Apr 11, 1995
Attention: Brock Foster	Lab Number:	504-0254	Analyzed:	Apr 13, 1995
			Reported:	Apr 25, 1995

POLYCHLORINATED BIPHENYLS (EPA 8080)

Analyte	Detection Limit µg/L	Sample Results µg/L
PCB 1016	0.50	N.D.
PCB 1221	2.0	N.D.
PCB 1232	0.50	N.D.
PCB 1242	0.50	N.D.
PCB 1248	0.50	N.D.
PCB 1254	0.50	N.D.
PCB 1260	0.50	N.D.

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

SEQUOIA ANALYTICAL, #1624

Kevin Van Slambrook
Project Manager

5040253.LLL <6>

Sequoia Analytical

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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Lowney Associates	Client Project ID:	Emeryville P.O., 864-17B	Sampled:	Apr 6, 1995
1600 S. Main St., Suite 125	Sample Descript:	Water, W-14	Received:	Apr 6, 1995
Walnut Creek, CA 94596	Analysis Method:	EPA 8080	Extracted:	Apr 11, 1995
Attention: Brock Foster	Lab Number:	504-0254	Analyzed:	Apr 13, 1995
			Reported:	Apr 25, 1995

POLYCHLORINATED BIPHENYLS (EPA 8080)

Analyte	Detection Limit µg/L	Sample Results µg/L
PCB 1016	0.50	N.D.
PCB 1221	2.0	N.D.
PCB 1232	0.50	N.D.
PCB 1242	0.50	N.D.
PCB 1248	0.50	N.D.
PCB 1254	0.50	N.D.
PCB 1260	0.50	N.D.

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

SEQUOIA ANALYTICAL, #1624

Kevin Van Slambrook
Project Manager

Sequoia Analytical

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Lowney Associates
1600 S. Main St., Suite 125
Walnut Creek, CA 94596
Attention: Brock Foster

Client Project ID: Emeryville P.O., 864-17B
Matrix: Liquid
QC Sample Group: 5040253-56

Reported: Apr 28, 1995

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes	Diesel	Diesel	Oil & Grease
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015 M	EPA 8015 M	SM 5520 BF
Analyst:	A. Tuzon	A. Tuzon	A. Tuzon	A. Tuzon	J. Dinsay	J. Dinsay	D. Newcomb
MS/MSD Batch#:	5040349	5040349	5040349	5040349	BLK041195	BLK041495	BLK041395
Date Prepared:	4/18/95	4/18/95	4/18/95	4/18/95	4/11/95	4/14/95	4/13/95
Date Analyzed:	4/18/95	4/18/95	4/18/95	4/18/95	4/11/95	4/14/95	4/13/95
Instrument I.D.#:	HP-4	HP-4	HP-4	HP-4	HP-3B	HP-3B	Manual
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L	300 µg/L	300 µg/L	5,000 mg/L
Matrix Spike % Recovery:	100	100	105	103	86	78	91
Matrix Spike Duplicate % Recovery:	100	105	105	107	82	85	87
Relative % Difference:	0.0	4.9	0.0	3.8	4.8	8.6	4.4
LCS Batch#:	2LCS041895	2LCS041895	2LCS041895	2LCS041895	BLK041195	BLK041495	BLK041395
Date Prepared:	4/18/95	4/18/95	4/18/95	4/18/95	4/11/95	4/14/95	4/13/95
Date Analyzed:	4/18/95	4/18/95	4/18/95	4/18/95	4/11/95	4/14/95	4/13/95
Instrument I.D.#:	HP-4	HP-4	HP-4	HP-4	HP-3B	HP-3B	Manual
LCS % Recovery:	91	94	97	97	86	78	91
% Recovery Control Limits:	71-133	72-128	72-130	71-120	28-122	28-122	75-125

SEQUOIA ANALYTICAL, #1271

Kevin Van Slambrook
Project Manager

Please Note:
The LCS is a control sample of known, interferent free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

Sequoia Analytical

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Lowney Associates
1600 S. Main St., Suite 125
Walnut Creek, CA 94596
Attention: Brock Foster

Client Project ID: Emeryville P.O., 864-17B
Matrix: Liquid
QC Sample Group: 5040253-56

Reported: Apr 28, 1995

QUALITY CONTROL DATA REPORT

ANALYTE	PCB 1260
Method:	EPA 8080
Analyst:	C. Chapman
MS/MSD Batch#:	BLK041195
Date Prepared:	4/11/95
Date Analyzed:	4/13/95
Instrument I.D.#:	GCHP-4A
Conc. Spiked:	5.0 µg/L
Matrix Spike % Recovery:	94
Matrix Spike Duplicate % Recovery:	104
Relative % Difference:	10

LCS Batch#:	BLK041195
Date Prepared:	4/11/95
Date Analyzed:	4/13/95
Instrument I.D.#:	GCHP-4A
LCS % Recovery:	94
% Recovery Control Limits:	60-130

SEQUOIA ANALYTICAL, #1624

Kevin Van Slambrook
Project Manager

Please Note:
The LCS is a control sample of known, interferent free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

LOWNET ASSOCIATES

CHAIN OF CUSTODY RECORD

SEND RESULTS TO:

☐ Mountain View Office
405 Clyde Ave
Mountain View, Ca 94043
415-967-2365
FAX COPY: ☐ 415-967-2785 (FAX)

☒ Walnut Creek Office
1600 S. Main St, Suite 125
Walnut Creek, Ca 94596
510-938-9356
FAX COPY: ☒ 510-938-9359 (FAX)

Project Name: Emeryville P.O.

Job No.: 864-113

Report To: Brock Foster

Sampler (print): [redacted]

Sampler (signature): [redacted]

QC Requirements:
☒ Level A (standard) ☐ Level B ☐ Level C ☐ Level D

Turnaround Requirements:
☒ 10 Working days
☐ 7 Working days
☐ 5 Working days
☐ 3 Working days
☐ 24 Hours
☐ 2-3 Hours

ANALYSIS REQUESTED

Sample I.D.	Date	Time	Lab I.D.	Sample Matrix	No. of Cont.	TPHgas/BTEX (8015/8020)	TPH as diesel (8015M)	TRPH (5520) EF/BF	Halogenated VOCs (8010)	Purgeable Organics (8240)	Extractable Organics (8270)	PCBs (8080)	Remarks
W-23	4-6-95	1:00		H_2O	6	✓	✓	✓			✓		504253 A-F
W-8	↓	3:00		↓	6	✓	✓	✓			✓		504254
W-13		10:00			6	✓	✓	✓			✓		504255
W-14		11:00			6	✓	✓	✓			✓		504256 ↓

Relinquished By: [redacted] Date: 4-6-95 Time: 7:18

Relinquished By: Date: Time:

Relinquished By: Date: Time:

Received By: Date: Time:

Received By: Date: Time:

Lab Of Record:

Received By Lab: Date: Time:

Temperature: