SAN BRUNO FACILITIES SERVICE OFFICE

UNITED STATES
POSTAL SERVICE

ENVIRONMENTAL
PROTECTION
95 MAY -9 PM 2:12

May 8, 1995

Susan Hugo, Senior Hazardous Materials Specialist
Alameda County Health Care Services
Department of Environmental Health
Hazardous Materials Division
1131 Harbor Bay Parkway
Alameda, California 94502-6577

RE: First Quarter 1995 Groundwater Monitoring Report
United States Postal Service (USPS)
Emeryville Branch, 1505 62nd Avenue
Emeryville, California 94608

Dear Ms. Hugo:

In accordance with the regulations of Alameda County, we are pleased to present the attached First Quarter 1995 Monitoring Report for the USPS Emeryville Branch, located on 1505 62nd Avenue in Emeryville, California.

After review of this report, we hope that you will find that the data presented satisfactorily addresses your requirements.

Please do not hesitate to contact me at (415) 794-6857 or Charles Wren, Project Manager at (415) 986-1373 if there are any questions or concerns.

Sincerely,

Clair Kenaston, P.E.
USPS Contracting Officer

cc: Kayode Kadera, Environmental Programs, USPS
Rich Hiett, RWQCB, 2101 Webster Street, Ste 500, Oakland, CA 94612
Charles W. Wren, DMJM

850 CHERRY AVENUE
SAN BRUNO CA 94099-0300
PHONE 415-794-6147
FAX 415-794-0820

ENVIRONMENTAL PROTECTION
95 MAY -9 PM 2:12

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

LOWNEY ASSOCIATES
Environmental / Geotechnical / Engineering Services

LOWNEY ASSOCIATES
Environmental / Geotechnical / Engineering Services

April 14, 1995
864-17B, MV041406

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

RE: FIRST 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

Todd H. McNair
Environmental Scientist

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

REGISTERED PROFESSIONAL ENGINEER
STASON I. FOSTER
No. 051495
Exp. 6-30-98
CIVIL
STATE OF CALIFORNIA

RLH:SIF:SK:tjc

Copies: Addressee (5)

FIRST 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

April 1995

Table of Contents

Letter of Transmittal
Title Page
Table of Contents
1.0 INTRODUCTION 1
1.1 Purpose 1
1.2 Scope of Work 1
2.0 GROUND WATER MONITORING 2
2.1 Ground Water Flow Direction 2
Table 1. Ground Water and Top of Casing Elevations 2
2.2 Ground Water Quality 4
Table 2. Laboratory Analysis of Ground Water Samples 4
3.0 CONCLUSIONS AND RECOMMENDATIONS 5
4.0 LIMITATIONS 5
FIGURE 1 VICINITY MAP
FIGURE 2 SITE PLAN/GROUND WATER ELEVATION MAP
FIGURE 3 PETROLEUM HYDROCARBON CONCENTRATIONS IN GROUND WATER
APPENDIX A WELL SAMPLING RECORDS
APPENDIX B ANALYTICAL RESULTS

FIRST 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 first 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 (TPH) as gasoline with a scan to distinguish benzene, toluene, ethylbenzene, and xylenes (BTEX) (EPA Test Method 8015/8020), TPH as diesel (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 January 11, 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	10/4/94	12.47	6.15	6.32
	1/11/95		5.09	7.38
MW-1A	10/4/94	12.77	6.49	6.28
	1/11/95		5.82	6.95
MW-2	10/4/94	11.85	4.37	7.48
	1/11/95		2.51	9.04
MW-3	10/4/94	9.98	3.58	6.40
	1/12/95**		2.84	7.14
MW-4	10/4/94	12.76	6.37	6.39
	1/11/95		4.80	7.96

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	10/4/94	11.47	5.94	5.53
	1/11/95		4.93	6.54
W-5	10/4/94	11.41	5.20	7.35†
	1/11/95		2.65	9.53†
W-7	10/4/94	9.05	5.83	3.22
	1/11/95		5.44	3.61
W-8	10/4/94	10.43	3.62	6.81
	1/11/95		2.69	7.74
W-13	10/4/94	8.15	4.37	3.78
	1/11/95		2.73	5.42
W-14	10/4/94	7.97	4.97	3.00
	1/11/95		4.66	3.31
W-15	10/4/94	11.53	2.90	8.63
	1/11/95		2.84	8.69
W-17	10/4/94	12.14	6.77	5.37
	1/11/95		NA	NA
W-18	10/4/94	11.34	5.28	6.06
	1/11/95		4.55	6.79
W-19	10/4/94	10.27	5.03	5.27†
	1/11/95		4.79	5.48†
W-20	10/4/94	6.82	3.76	3.06
	1/11/95		2.76	4.06
W-21	10/4/94	9.48	5.08	4.40
	1/11/95		4.73	4.75
W-22	10/4/94	11.67	6.66	5.01
	1/11/95		4.67	7.00
W-23	10/4/94	9.16	2.39	6.77
	1/11/95		0.49	8.67
W-24	10/4/94	8.72	4.69	4.03
	1/11/95		2.63	6.09

* Top of casing elevations of on-site wells surveyed relative to Emery Bay Market Place monitoring well W-22.
† Free product measured in wells W-5 and W-19.
NA Not available
** Ground water elevation measured on January 12, 1995; the well was not accessible on January 11, 1995.

2.2 Ground Water Quality

Ground water samples were collected on January 11 and 12, 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†	TPH as diesel	TPH as gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes	PCBs
MW-1	6/11/93	<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
	1/12/95	<5.0	160	<50	<0.50	<0.50	<0.50	<0.50	ND
MW-1A	6/11/93	8.0	4,900	<50	<0.50	<0.50	7.7	<0.50	NA
	10/4/94	17	10,000	6,500	<1.0	<1.0	<1.0	<1.0	ND
	1/11/95	<5.0	1,300	870	<1.0	<1.0	<1.0	<1.0	ND
MW-2	6/11/93	<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*
	1/12/95	<5.0	2,100	3,400	<10	<10	<10	<10	89*
MW-3	6/11/93	<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
	1/12/95	<5.0	1,500	270	<0.50	0.87	<0.50	<0.50	ND
MW-4	6/11/93	<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
	1/12/95	<5.0	1,900	1,200	<2.5	<2.5	<2.5	<2.5	ND
W-8	10/4/94	5.1	17,000	780	<2.5	<2.5	<2.5	<2.5	ND
	1/11/95	<5.0	17,000	520	<2.0	<2.0	<2.0	<2.0	ND
W-13	10/4/94	<5.0	<50	<50	<0.50	<0.50	<0.50	<0.50	ND
	1/11/95	<5.0	73	<50	<0.50	<0.50	<0.50	<0.50	ND
W-14	10/4/94	<5.0	66	<50	<0.50	<0.50	<0.50	<0.50	ND
	1/11/95	<5.0	63	<50	<0.50	<0.50	<0.50	<0.50	ND
W-23	10/4/94	<5.0	4,200	650	<2.5	<2.5	<2.5	<2.5	ND
	1/11/95	<5.0	2,400	450	<1.2	<1.2	<1.2	<1.2	ND
Primary Drinking Water Standards[1]		NE	NE	NE	1.0	1,000	680	1,750	0.5

† TOG concentrations in ppm
NA Not Analyzed
ND Not Detected above laboratory detection limits
NE Not Established
[1] Taken from Environmental Protection Agency Drinking Water Standards and Health Advisory Table, August 1991.
* 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 similar to those detected during the previous sampling events. With the exception of a low level of toluene (0.87 ppb), no BTEX compounds were detected.

The heavy hydrocarbons which are predominant at the site 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 also appears to have a low ability to transport 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 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.

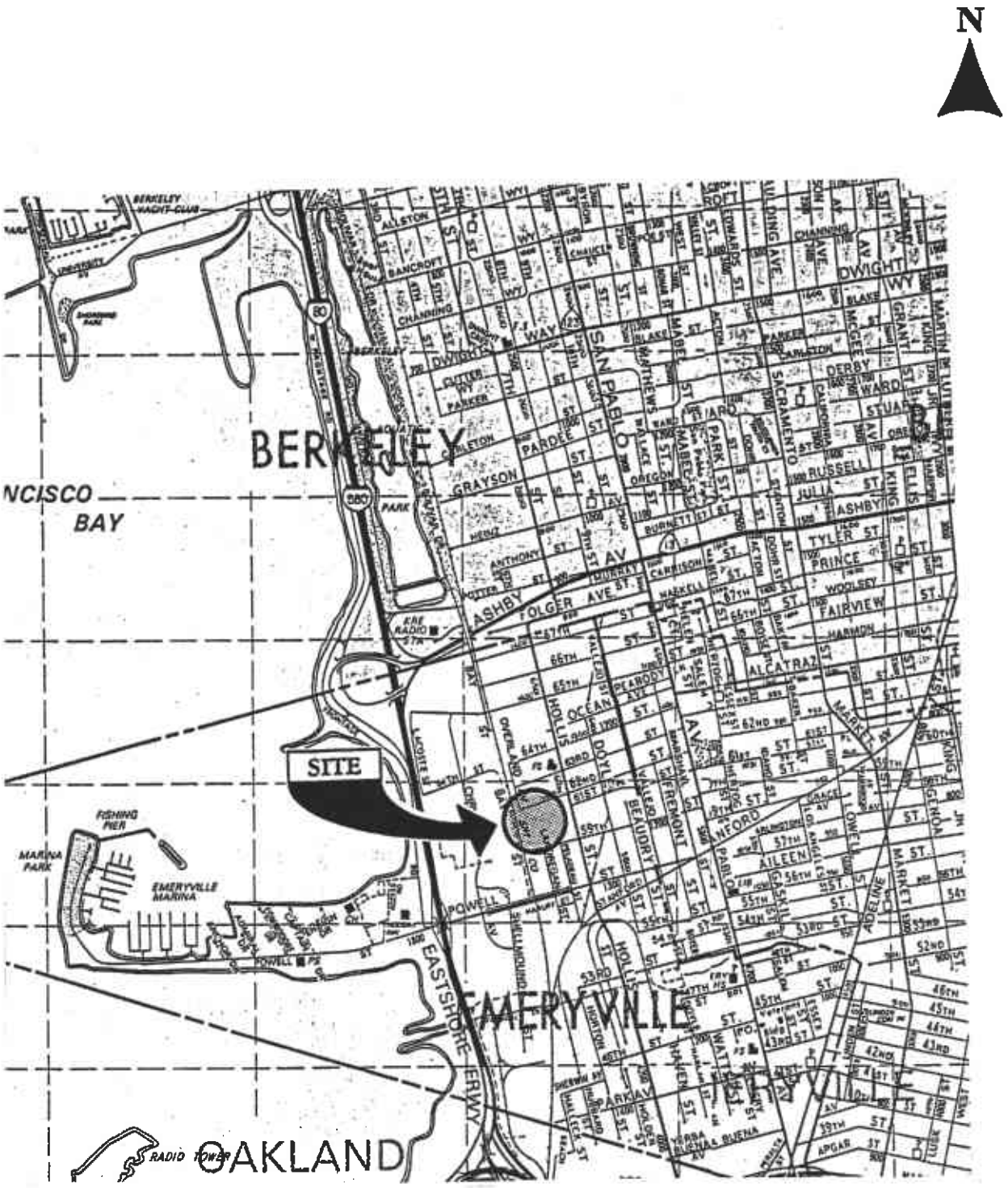
We recommend that a copy of this report be sent to the California Regional Water Quality Control Board and the Alameda County Department of Environmental Health for their review.

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.

* * * * * * * * *



"Reproduced with permission granted by THOMAS BROS. MAPS."

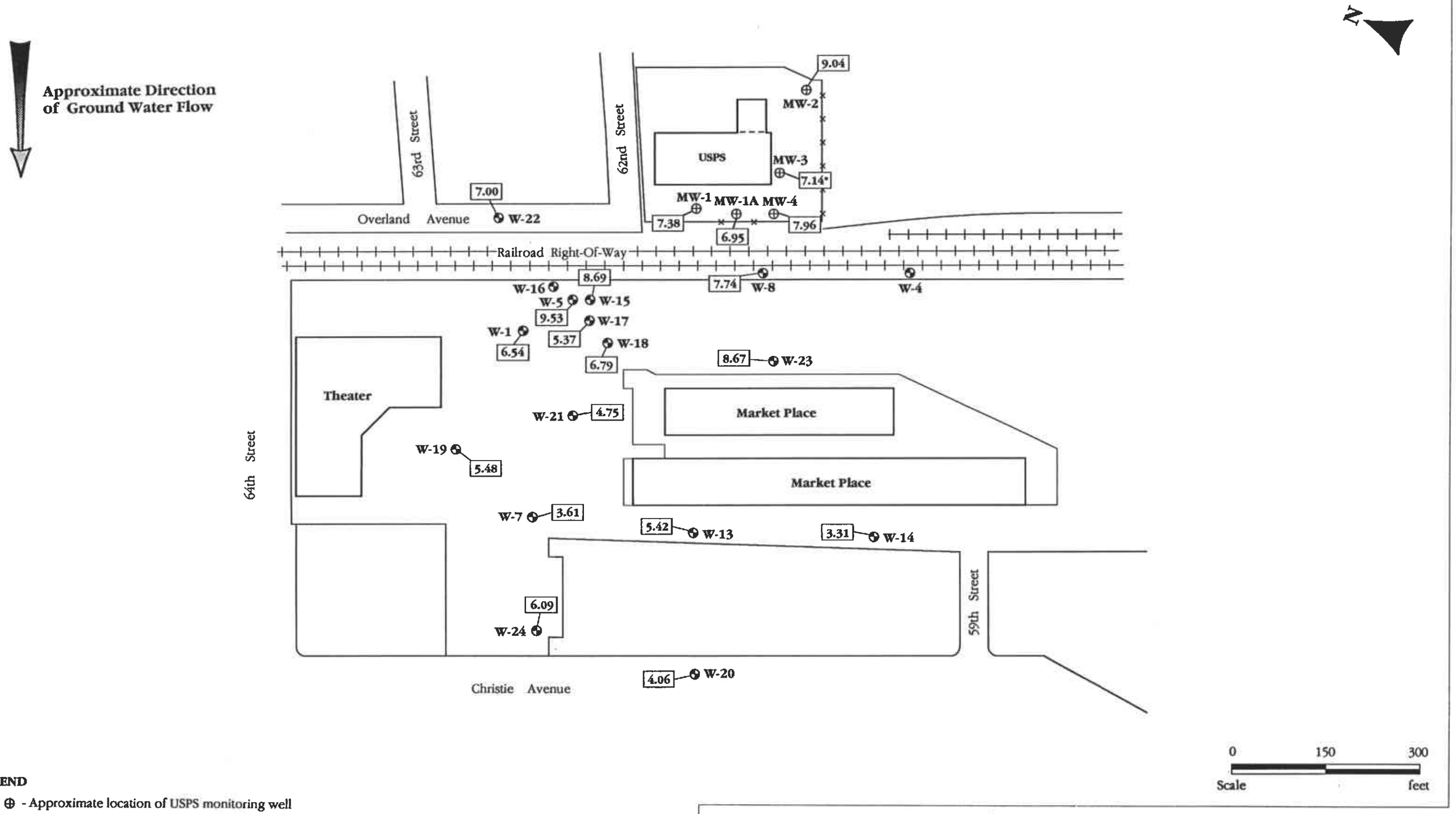
864-17B, 4/4 SK*EB

VICINITY MAP

EMERYVILLE POST OFFICE
Emeryville, California

LOVNEY ASSOCIATES
Environmental/Geotechnical/Engineering Services

FIGURE 1
864-17B



LEGEND

⊕ - Approximate location of USPS monitoring well

⊕ - Approximate location of Market Place monitoring well

4.06 - Ground water elevation (January 11, 1995)

* Ground water elevation collected on January 12, 1995.

SITE PLAN/GROUND WATER ELEVATION MAP

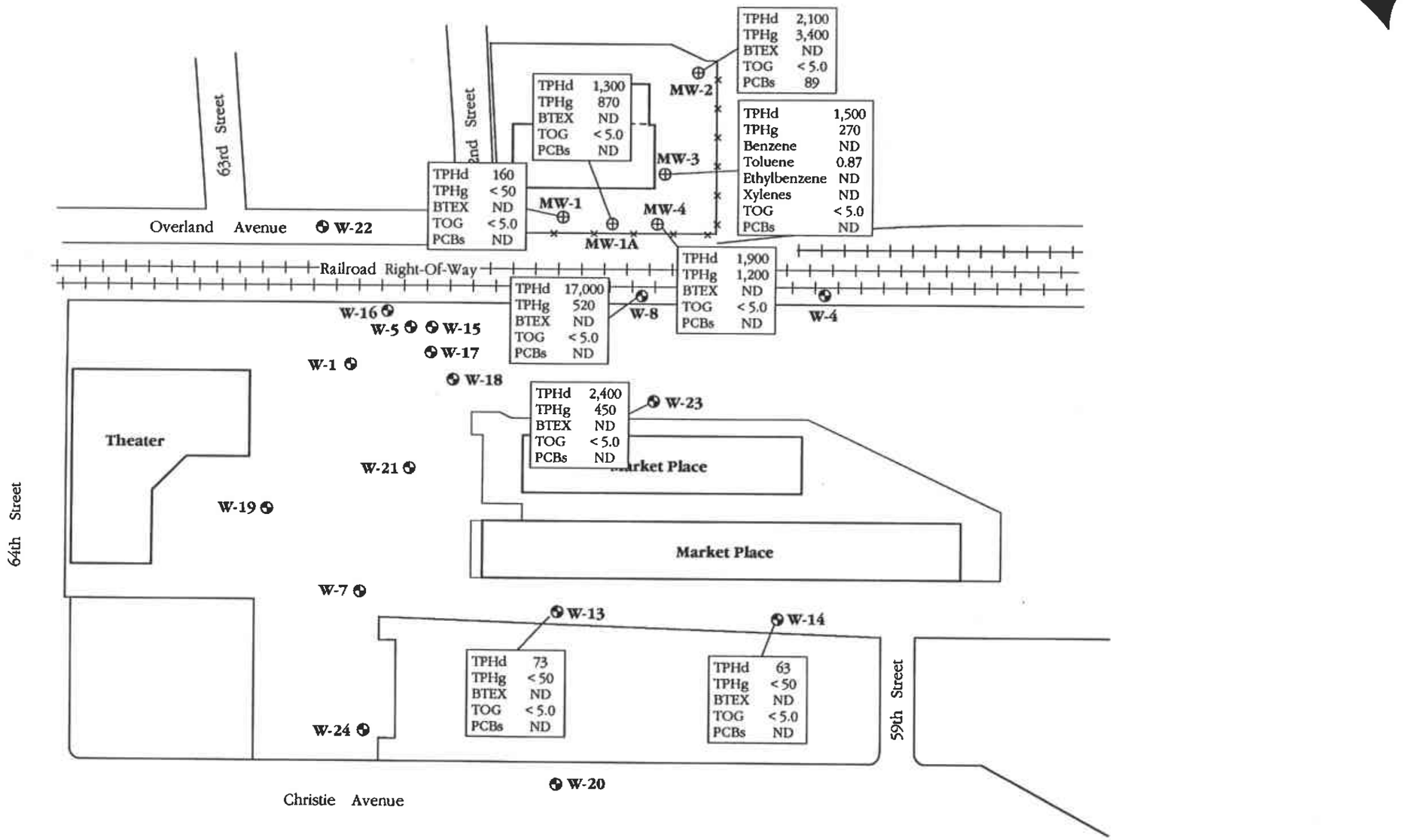
EMERYVILLE POST OFFICE
Emeryville, California

LOWNEY ASSOCIATES
Environmental / Geotechnical / Engineering Services

FIGURE 2
864-17B

Approximate Direction
of Ground Water Flow

N



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

864-17B, 4/4 SK'EB

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: 864-17B

Project Name: Emeryville Post office

Field Geologist/Engineer: THM

Well Number: W-14

Boring Diameter: _____ (inches)

Well Total Depth (completed): 9.89 (feet)

Casing Diameter: 2 (inches)

Development Date: N/A 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: 1/11/95 Time: 10:50 Method: bailer

Static Water Level Prior to Purging (Measured from top of casing): 4.66 (ft) h = 5.23

Water Level After Recovery: 5.5 (ft)

80 Percent Recharged: Yes ☑ No ☐ h = 5.71)

Well Volume: 3.24 (liter/gal)

Three Well Volumes: 9.72 (liter/gal)

Total Produced: 5 (liter/gal)

Number of Well Volumes: _____

Production Time: 15 (min)

Production Rate: _____ (_ /min)

Well Volumes	pH	Conductivity uS x10³	Temp °F
1	7.6	113	61
2			
3			
4			
5			
6			
7			
8			
9			
10			

Sample Description: W-14

Laboratory: Sequoia

Deliver ☐ Pick-Up ☐ Date: _____

Comments: Well bailed dry @ ~5 liters

LOVNEY ASSOCIATES — RECORD OF WELL DEVELOPMENT/SAMPLING

Project Number: 864-17B

Project Name: Emeryville Post Office

Field Geologist/Engineer: THI

Well Number: W-23

Well Total Depth (completed): 9.00 (feet)

Boring Diameter: — (inches)

Casing Diameter: 2 (inches)

Development Date: — Method: — Volume Produced: — (liter/gal)

WELL VOLUME CONVERSION FACTORS

h = 8.51

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: 1-11-95 Time: 13:15 Method: bailer

Static Water Level Prior to Purging (Measured from top of casing): 0.49 (ft)

Water Level After Recovery: 6.0 (ft)

80 Percent Recharged: Yes ☐ No ☑ (h = 2.19)

Well Volume: 5.28 (liter/gal)

Three Well Volumes: 15.84 (liter/gal)

Total Produced: 16.0 (liter/gal)

Number of Well Volumes: —

Production Time: — (min)

Production Rate: — (_ /min)

Well Volumes	pH	Conductivity µSx10	Temp °F
1	7.7	>1990	59
2	7.4	>1990	60
3			
4			
5			
6			
7			
8			
9			
10			

Sample Description: W-23

Laboratory: Sequoia

Deliver ☐ Pick-Up ☐ Date: —

Comments: well bailed dry @ 16.0 liters. recharge very slow ≈ 2.0ft in 45 min. would take 1.5 hours to reach 80% recharge - sampled @ 15:00

LOWNEY ASSOCIATES
Environmental / Geotechnical / Engineering Services

Ground Water Depth Log

Well	Depth to Water	Time	Comments
MW-1	5.09	10:25	needs new 4" wellcap
MW-1A	5.82	10:30	
MW-2	2.51	10:00	needs new 4" wellcap
MW-3	NA	—	not accessible
MW-4	4.80	10:20	

Date 1/11/95

Project Name Emeryville Post Office

Project Number 864-17B

Page 1 of 1

Taken by TH/M

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
1900 Bates Avenue, Suite L, Concord, CA 94520, (510) 686-9600, FAX (510) 686-9689
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Lowney Associates
[illegible]05 Clyde Avenue
Mountain View, CA 94043

Attention: Todd McNair

Client Proj. ID: 864-17B

Lab Proj. ID: 9501551

Sampled: 01/11/95
Received: 01/11/95
Analyzed: see below

Reported: 01/27/95

LABORATORY ANALYSIS

Analyte	Units	Date Analyzed	Detection Limit	Sample Results
Lab No: 9501551-01 Sample Desc : **LIQUID,W-14**				
TRPH (SM 5520 B&F)	mg/L	01/17/95	5.0	N.D.
Lab No: 9501551-02 Sample Desc : **LIQUID,W-13**				
TRPH (SM 5520 B&F)	mg/L	01/17/95	5.0	N.D.
Lab No: 9501551-03 Sample Desc : **LIQUID,W-8**				
TRPH (SM 5520 B&F)	mg/L	01/17/95	5.0	N.D.
Lab No: 9501551-04 Sample Desc : **LIQUID,W-23**				
TRPH (SM 5520 B&F)	mg/L	01/17/95	5.0	N.D.
Lab No: 9501551-05 Sample Desc : **LIQUID,MW-1A**				
TRPH (SM 5520 B&F)	mg/L	01/17/95	5.0	N.D.

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

SEQUOIA ANALYTICAL - ELAP #1210

FEB 3 1995

Vytas Ankaitis
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
1900 Bates Avenue, Suite L, Concord, CA 94520, (510) 686-9600, FAX (510) 686-9689
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Lowney Associates
405 Clyde Avenue
Mountain View, CA 94043

Attention: Todd McNair

Client Proj. ID: 864-17B
Sample Descript: W-14
Matrix: LIQUID
Analysis Method: EPA 8080
Lab Number: 9501551-01

Sampled: 01/11/95
Received: 01/11/95
Extracted: 01/23/95
Analyzed: 01/24/95
Reported: 01/27/95

QC Batch Number: GC0117950PCBEXZ
Instrument ID: GCHP12

Polychlorinated Biphenyls (EPA 8080)

Analyte	Detection Limit ug/L	Sample Results ug/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.

Surrogates	Control Limits %		% Recovery
Dibutylchlorendate	50	150	64

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

SEQUOIA ANALYTICAL - ELAP #1210

FEB 3 1995

Vytas Ankaitis
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
1900 Bates Avenue, Suite L, Concord, CA 94520, (510) 686-9600, FAX (510) 686-9689
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Lowney Associates
805 Clyde Avenue
Mountain View, CA 94043

Attention: Todd McNair

Client Proj. ID: 864-17B
Sample Descript: W-14
Matrix: LIQUID
Analysis Method: EPA 8015 Mod
Lab Number: 9501551-01

Sampled: 01/11/95
Received: 01/11/95
Extracted: 01/14/95
Analyzed: 01/18/95
Reported: 01/27/95

QC Batch Number: GC0114950HBPEXA
Instrument ID: GCHP5A

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel	**50**	**63**
Chromatogram Pattern:		**C10-C24**

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	122

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

SEQUOIA ANALYTICAL - ELAP #1210

FEB 3 1995

Vytas Ankaitis
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
1900 Bates Avenue, Suite L, Concord, CA 94520, (510) 686-9600, FAX (510) 686-9689
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Lowney Associates
405 Clyde Avenue
Mountain View, CA 94043

Attention: Todd McNair

Client Proj. ID: 864-17B
Sample Descript: W-14
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9501551-01

Sampled: 01/11/95
Received: 01/11/95

Analyzed: 01/12/95
Reported: 01/27/95

QC Batch Number: GC011295BTEX17A
Instrument ID: GCHP17

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	90

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

SEQUOIA ANALYTICAL - ELAP #1210

Vytas Ankaitis
Project Manager

FEB 3 19

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
1900 Bates Avenue, Suite L, Concord, CA 94520, (510) 686-9600, FAX (510) 686-9689
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Lowney Associates
405 Clyde Avenue
Mountain View, CA 94043

Attention: Todd McNair

Client Proj. ID: 864-17B
Sample Descript: W-13
Matrix: LIQUID
Analysis Method: EPA 8080
Lab Number: 9501551-02

Sampled: 01/11/95
Received: 01/11/95
Extracted: 01/23/95
Analyzed: 01/24/95
Reported: 01/27/95

QC Batch Number: GC0117950PCBEXZ
Instrument ID: GCHP12

Polychlorinated Biphenyls (EPA 8080)

Analyte	Detection Limit ug/L	Sample Results ug/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.

Surrogates	Control Limits %		% Recovery
Dibutylchlorendate	50	150	69

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

SEQUOIA ANALYTICAL ELAP #1210

Vytas Ankaitis
Project Manager

FEB 3 1995

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Lowney Associates
405 Clyde Avenue
Mountain View, CA 94043

Attention: Todd McNair

Client Proj. ID: 864-17B
Sample Descript: W-13
Matrix: LIQUID
Analysis Method: EPA 8015 Mod
Lab Number: 9501551-02

Sampled: 01/11/95
Received: 01/11/95
Extracted: 01/14/95
Analyzed: 01/18/95
Reported: 01/27/95

QC Batch Number: GC0114950HBPEXA
Instrument ID: GCHP5A

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel	**50**	**73**
Chromatogram Pattern:		**C10-C24**

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	122

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

SEQUOIA ANALYTICAL - ELAP #1210

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Project Manager

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680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
1900 Bates Avenue, Suite L, Concord, CA 94520, (510) 686-9600, FAX (510) 686-9689
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Lowney Associates
405 Clyde Avenue
Mountain View, CA 94043

Attention: Todd McNair

Client Proj. ID: 864-17B
Sample Descript: W-13
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9501551-02

Sampled: 01/11/95
Received: 01/11/95

Analyzed: 01/12/95
Reported: 01/27/95

QC Batch Number: GC011295BTEX17A
Instrument ID: GCHP17

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	87

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

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Vytas Ankaitis
Project Manager

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680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
1900 Bates Avenue, Suite L, Concord, CA 94520, (510) 686-9600, FAX (510) 686-9689
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Lowney Associates
[illegible]05 Clyde Avenue
[illegible]Mountain View, CA 94043

Attention: Todd McNair

Client Proj. ID: 864-17B
Sample Descript: W-8
Matrix: LIQUID
Analysis Method: EPA 8080
Lab Number: 9501551-03

Sampled: 01/11/95
Received: 01/11/95
Extracted: 01/23/95
Analyzed: 01/24/95
Reported: 01/27/95

[illegible]C Batch Number: GC0117950PCBEXZ
[illegible]strument ID: GCHP12

Polychlorinated Biphenyls (EPA 8080)

Analyte	Detection Limit ug/L	Sample Results ug/L
[illegible]CB-1016	2.5	N.D.
[illegible]CB-1221	10	N.D.
PCB-1232	2.5	N.D.
PCB-1242	2.5	N.D.
[illegible]CB-1248	2.5	N.D.
[illegible]CB-1254	2.5	N.D.
PCB-1260	2.5	N.D.

Surrogates	Control Limits %		% Recovery
Dibutylchlorendate	50	150	80

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

SEQUOIA ANALYTICAL - ELAP #1210

FEB 3 1995

[illegible]ytas Ankaitis
[illegible]oject Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
1900 Bates Avenue, Suite L, Concord, CA 94520, (510) 686-9600, FAX (510) 686-9689
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Lowney Associates
405 Clyde Avenue
Mountain View, CA 94043

Attention: Todd McNair

Client Proj. ID: 864-17B
Sample Descript: W-8
Matrix: LIQUID
Analysis Method: EPA 8015 Mod
Lab Number: 9501551-03

Sampled: 01/11/95
Received: 01/11/95
Extracted: 01/14/95
Analyzed: 01/18/95
Reported: 01/27/95

QC Batch Number: GC0114950HBPEXA
Instrument ID: GCHP5A

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel	2500	17000
Chromatogram Pattern:		>C24

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	0 Q

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

SEQUOIA ANALYTICAL - ELAP #1210

Vytas Ankaitis
Project Manager

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Lowney Associates
[illegible]05 Clyde Avenue
Mountain View, CA 94043

Attention: Todd McNair

Client Proj. ID: 864-17B
Sample Descript: W-8
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9501551-03

Sampled: 01/11/95
Received: 01/11/95

Analyzed: 01/13/95
Reported: 01/27/95

QC Batch Number: GC011395BTEX03A
Instrument ID: GCHP03

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**200**	**520**
Benzene	2.0	N.D.
Toluene	2.0	N.D.
Ethyl Benzene	2.0	N.D.
Xylenes (Total)	2.0	N.D.
Chromatogram Pattern:		**C7->C12**

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	105

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

SEQUOIA ANALYTICAL - ELAP #1210

Vytas Ankaitis
Project Manager

FEB 3 19[illegible]

Sequoia Analytical

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1900 Bates Avenue, Suite L, Concord, CA 94520, (510) 686-9600, FAX (510) 686-9689
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Lowney Associates
[illegible]05 Clyde Avenue
Mountain View, CA 94043

Attention: Todd McNair

Client Proj. ID: 864-17B
Sample Descript: W-23
Matrix: LIQUID
Analysis Method: EPA 8080
Lab Number: 9501551-04

Sampled: 01/11/95
Received: 01/11/95
Extracted: 01/23/95
Analyzed: 01/24/95
Reported: 01/27/95

[illegible]C Batch Number: GC0117950PCBEXZ
Instrument ID: GCHP12

Polychlorinated Biphenyls (EPA 8080)

Analyte	Detection Limit ug/L	Sample Results ug/L
[illegible]PCB-1016	1.0	N.D.
[illegible]PCB-1221	4.0	N.D.
PCB-1232	1.0	N.D.
PCB-1242	1.0	N.D.
[illegible]PCB-1248	1.0	N.D.
[illegible]PCB-1254	1.0	N.D.
PCB-1260	1.0	N.D.

Surrogates	Control Limits %		% Recovery
Dibutylchlorendate	50	150	60

[illegible]alytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL ELAP #1210

FEB 3 19[illegible]

[illegible]tas Ankaitis
[illegible]oject Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
1900 Bates Avenue, Suite L, Concord, CA 94520, (510) 686-9600, FAX (510) 686-9689
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Lowney Associates
405 Clyde Avenue
Mountain View, CA 94043

Attention: Todd McNair

Client Proj. ID: 864-17B
Sample Descript: W-23
Matrix: LIQUID
Analysis Method: EPA 8015 Mod
Lab Number: 9501551-04

Sampled: 01/11/95
Received: 01/11/95
Extracted: 01/14/95
Analyzed: 01/18/95
Reported: 01/27/95

QC Batch Number: GC0114950HBPEXA
Instrument ID: GCHP5A

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel	**100**	**2400**
Chromatogram Pattern:		**>C24**

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	0 Q

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

SEQUOIA ANALYTICAL - ELAP #1210

Vytas Ankaitis
Project Manager

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680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
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Lowney Associates
405 Clyde Avenue
Mountain View, CA 94043

Attention: Todd McNair

Client Proj. ID: 864-17B
Sample Descript: W-23
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9501551-04

Sampled: 01/11/95
Received: 01/11/95

Analyzed: 01/13/95
Reported: 01/27/95

QC Batch Number: GC011395BTEX03A
Instrument ID: GCHP03

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**125**	**450**
Benzene	1.2	N.D.
Toluene	1.2	N.D.
Ethyl Benzene	1.2	N.D.
Xylenes (Total)	1.2	N.D.
Chromatogram Pattern:		**C7->C12**

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	104

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

SEQUOIA ANALYTICAL - ELAP #1210

FEB 3 1995

Vytas Ankaitis
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
1900 Bates Avenue, Suite L, Concord, CA 94520, (510) 686-9600, FAX (510) 686-9689
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Lowney Associates
405 Clyde Avenue
Mountain View, CA 94043

Attention: Todd McNair

Client Proj. ID: 864-17B
Sample Descript: MW-1A
Matrix: LIQUID
Analysis Method: EPA 8080
Lab Number: 9501551-05

Sampled: 01/11/95
Received: 01/11/95
Extracted: 01/23/95
Analyzed: 01/24/95
Reported: 01/27/95

QC Batch Number: GC0117950PCBEXZ
Instrument ID: GCHP12

Polychlorinated Biphenyls (EPA 8080)

Analyte	Detection Limit ug/L	Sample Results ug/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.

Surrogates	Control Limits %		% Recovery
Dibutylchlorendate	50	150	85

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

SEQUOIA ANALYTICAL — ELAP #1210

FEB 3 1995

Vytas Ankaitis
Project Manager

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680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
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Lowney Associates
405 Clyde Avenue
Mountain View, CA 94043

Attention: Todd McNair

Client Proj. ID: 864-17B
Sample Descript: MW-1A
Matrix: LIQUID
Analysis Method: EPA 8015 Mod
Lab Number: 9501551-05

Sampled: 01/11/95
Received: 01/11/95
Extracted: 01/14/95
Analyzed: 01/18/95
Reported: 01/27/95

QC Batch Number: GC0114950HBPEXA
Instrument ID: GCHP5A

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel	50	1300
Chromatogram Pattern:		>C24

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	148

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

SEQUOIA ANALYTICAL - ELAP #1210

FEB 3 1995

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Project Manager

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Lowney Associates
405 Clyde Avenue
Mountain View, CA 94043

Attention: Todd McNair

Client Proj. ID: 864-17B
Sample Descript: MW-1A
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9501551-05

Sampled: 01/11/95
Received: 01/11/95

Analyzed: 01/17/95
Reported: 01/27/95

QC Batch Number: GC011795BTEX17A
Instrument ID: GCHP17

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**100**	**870**
Benzene	1.0	N.D.
Toluene	1.0	N.D.
Ethyl Benzene	1.0	N.D.
Xylenes (Total)	1.0	N.D.
Chromatogram Pattern:		**>C8**

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	100

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

SEQUOIA ANALYTICAL - ELAP #1210

FEB 3 1995

Vytas Ankaitis
Project Manager

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680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
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Lowney Associates
405 Clyde Avenue
Mountain View, CA 94043
Attention: Todd McNair

Client Project ID: 864-17B
Matrix: Liquid
Work Order #: 9501551 -01-05

Reported: Feb 1, 1995

QUALITY CONTROL DATA REPORT

Analyte:	Total Recoverable Petroleum Hydrocarbon	PCB 1260	Diesel
QC Batch#:	OP0117955520EXA	GC0117950PCBEXZ	GC0114950HBPEXA
Analy. Method:	SM 5520 BF	EPA 8080	EPA 8015M
Prep. Method:	N.A.	EPA 3520	EPA 3510
Analyst:	A. Pina	A. Savva	B. All
MS/MSD #:	BLK011795	BLK011795	950162201
Sample Conc.:	N.D.	N.D.	230
Prepared Date:	1/17/95	1/17/95	1/14/95
Analyzed Date:	1/17/95	1/20/95	1/18/95
Instrument I.D.#:	MANUAL	GCHP12	GCHP5B
Conc. Spiked:	30 mg/L	2.5 µg/L	600 µg/L
Result:	28	2.0	710
MS % Recovery:	93	81	80
Dup. Result:	28	2.1	710
MSD % Recov.:	93	84	80
RPD:	0.0	2.9	0.0
RPD Limit:	0-10	0-30	0-50

LCS #:	BLK011795		BLK011495
Prepared Date:	1/17/95		1/14/95
Analyzed Date:	1/17/95		1/18/95
Instrument I.D.#:	MANUAL		GCHP5B
Conc. Spiked:	30 mg/L		600 µg/L
LCS Result:	28		310
LCS % Recov.:	93		51.7

FEB 3 1995

MS/MSD		50-150	
LCS	70-110		38-122
Control Limits			

SEQUOIA ANALYTICAL

Vytas Ankaitis
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.

** MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

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680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
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Lowney Associates
405 Clyde Avenue
Mountain View, CA 94043
Attention: Todd McNair

Client Project ID: 864-17B
Matrix: Liquid
Work Order #: 9501551 -01,02

Reported: Feb 1, 1995

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC011295BTEX17A	GC011295BTEX17A	GC011295BTEX17A	GC011295BTEX17A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	N.A.	N.A.	N.A.	N.A.
Analyst:	J. Minkel	J. Minkel	J. Minkel	J. Minkel
MS/MSD #:	950104901	950104901	950104901	950104901
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	N.A.	N.A.	N.A.	N.A.
Analyzed Date:	1/12/95	1/12/95	1/12/95	1/12/95
Instrument I.D.#:	GCHP17	GCHP17	GCHP17	GCHP17
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	10	11	11	31
MS % Recovery:	100	110	110	103
Dup. Result:	9.8	9.8	10	29
MSD % Recov.:	98	98	100	97
RPD:	2.0	12	9.5	6.7
RPD Limit:	0-50	0-50	0-50	0-50

LCS #:				
Prepared Date:				
Analyzed Date:				
Instrument I.D.#:				
Conc. Spiked:				
LCS Result:				
LCS % Recov.:				

FEB 3 1995

MS/MSD LCS Control Limits	71-133	72-128	72-130	71-120

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

Vytas Ankaitis
Project Manager

** MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

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680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
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Lowney Associates
405 Clyde Avenue
Mountain View, CA 94043
Attention: Todd McNair

Client Project ID: 864-17B
Matrix: Liquid
Work Order #: 9501551 -03-04

Reported: Feb 1, 1995

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC011395BTEX03A	GC011395BTEX03A	GC011395BTEX03A	GC011395BTEX03A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	N.A.	N.A.	N.A.	N.A.
Analyst:	R. Vincent	R. Vincent	R. Vincent	R. Vincent
MS/MSD #:	9412I3505	9412I3505	9412I3505	9412I3505
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	N.A.	N.A.	N.A.	N.A.
Analyzed Date:	1/13/95	1/13/95	1/13/95	1/13/95
Instrument I.D.#:	GCHP3	GCHP3	GCHP3	GCHP3
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	9.3	9.3	9.4	28
MS % Recovery:	93	93	94	93
Dup. Result:	9.1	9.2	9.0	27
MSD % Recov.:	91	92	90	90
RPD:	2.2	1.1	4.3	3.6
RPD Limit:	0-50	0-50	0-50	0-50

LCS #:				
Prepared Date:				
Analyzed Date:				
Instrument I.D.#:				
Conc. Spiked:				
LCS Result:				
LCS % Recov.:				

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MS/MSD LCS Control Limits	71-133	72-128	72-130	71-120

SEQUOIA ANALYTICAL

Vytas Ankaitis
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.

** MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
1900 Bates Avenue, Suite L, Concord, CA 94520, (510) 686-9600, FAX (510) 686-9689
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Lowney Associates
405 Clyde Avenue
Mountain View, CA 94043
Attention: Todd McNair

Client Project ID: 864-17B
Matrix: Liquid
Work Order #: 9501551 -05

Reported: Feb 1, 1995

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC011795BTEX17A	GC011795BTEX17A	GC011795BTEX17A	GC011795BTEX17A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	J. Minkel	J. Minkel	J. Minkel	J. Minkel
MS/MSD #:	950164806	950164806	950164806	950164806
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	1/17/95	1/17/95	1/17/95	1/17/95
Analyzed Date:	1/17/95	1/17/95	1/17/95	1/17/95
Instrument I.D.#:	GCHP17	GCHP17	GCHP17	GCHP17
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	9.6	9.6	9.7	29
MS % Recovery:	96	96	97	97
Dup. Result:	9.9	9.8	9.9	30
MSD % Recov.:	99	98	99	100
RPD:	3.1	2.1	2.0	3.4
RPD Limit:	0-50	0-50	0-50	0-50

LCS #:				
Prepared Date:				
Analyzed Date:				
Instrument I.D.#:				
Conc. Spiked:				
LCS Result:				
LCS % Recov.:				

FEB 3 1995

MS/MSD LCS Control Limits	71-133	72-128	72-130	71-120

SEQUOIA ANALYTICAL

Vytas Ankaitis
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.

** MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

SEQUOIA ANALYTICAL CHAIN OF CUSTODY

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☐ 1900 Bates Ave., Suite LM • Concord, CA 94520 • (510) 686-9600 FAX (510) 686-9689

Company Name: Lowney Assoc.
Address: 405 Clyde Ave
City: Mt. View State: CA Zip Code: 94043
Telephone: 415-967-2365 FAX #: 415-967-2785
Report To: Todd McNair Sampler: Todd McNair

Project Name: Emeryville P.O.
Billing Address (if different):
P.O. #: 864-17B
QC Data: ☒ Level A (Standard) ☐ Level B ☐ Level C ☐ Level D

Turnaround Time: ☒ 10 Working Days ☐ 3 Working Days ☐ 2 - 8 Hours ☐ 7 Working Days ☐ 2 Working Days ☐ 5 Working Days ☐ 24 Hours

9501551

☐ Drinking Water ☐ Waste Water ☐ Other

Analyses Requested

Client Sample I.D.	Date/Time Sampled	Matrix Desc.	# of Cont.	Cont. Type	Sequoia's Sample #	TPHg/BTEX	TPHd	TRPH (5520EF)	PCBs (8080)					Comments
1. W-14	1-11-95/12:00	W	6		-01	✓	✓	✓	✓					
2. W-13	1-11-95/12:30	W	6		-02	✓	✓	✓	✓					
3. W-8	1-11-95/14:15	W	6		-03	✓	✓	✓	✓					
4. W-23	1-11-95/14:45	W	6		-04	✓	✓	✓	✓					
5. MW-1A	1-11-95/16:00	W	6		-05	✓	✓	✓	✓					
6.														
7.														
8.														
9.														
10.														13°C

Relinquished By: [signature]	Date: 1-11-95	Time: 1714	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By Lab: [signature]	Date: 1-11-95	Time: 1714

Were Samples Received in Good Condition? ☐ Yes ☐ No Samples on Ice? ☐ Yes ☐ No Method of Shipment ________ Page __ of __

Pink - Client Yellow - Sequoia White - Sequoia

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Lowney Associates
405 Clyde Avenue
Mountain View, CA 94043

Attention: Todd McNair

Client Proj. ID: 864-17B

Lab Proj. ID: 9501643

Sampled: 01/12/95
Received: 01/12/95
Analyzed: see below

Reported: 01/27/95

LABORATORY ANALYSIS

Analyte	Units	Date Analyzed	Detection Limit	Sample Results
Lab No: 9501643-01 Sample Desc : **LIQUID,MW-2**				
TRPH (SM 5520 B&F)	mg/L	01/17/95	5.0	N.D.
Lab No: 9501643-02 Sample Desc : **LIQUID,MW-3**				
TRPH (SM 5520 B&F)	mg/L	01/17/95	5.0	N.D.
Lab No: 9501643-03 Sample Desc : **LIQUID,MW-4**				
TRPH (SM 5520 B&F)	mg/L	01/17/95	5.0	N.D.
Lab No: 9501643-04 Sample Desc : **LIQUID,MW-1**				
TRPH (SM 5520 B&F)	mg/L	01/17/95	5.0	N.D.

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

SEQUOIA ANALYTICAL - ELAP #1210

LOWNEY ASSOC.
FEB 1 1995

Vytas Ankaitis FOR
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
1900 Bates Avenue, Suite L, Concord, CA 94520, (510) 686-9600, FAX (510) 686-9689
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Lowney Associates	Client Proj. ID: 864-17B	Sampled: 01/12/95
405 Clyde Avenue	Sample Descript: MW-2	Received: 01/12/95
Mountain View, CA 94043	Matrix: LIQUID	Extracted: 01/17/95
	Analysis Method: EPA 8080	Analyzed: 01/25/95
Attention: Todd McNair	Lab Number: 9501643-01	Reported: 01/27/95

QC Batch Number: GC0117950PCBEXZ
Instrument ID: GCHP12

Polychlorinated Biphenyls (EPA 8080)

Analyte	**Detection Limit ug/L**	**Sample Results ug/L**
PCB-1016	10	N.D.
PCB-1221	40	N.D.
PCB-1232	10	N.D.
PCB-1242	10	N.D.
PCB-1248	10	N.D.
PCB-1254	10	N.D.
PCB-1260	**10**	**89**

Surrogates	**Control Limits %**		**% Recovery**
Dibutylchlorendate	50	150	71

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

SEQUOIA ANALYTICAL - ELAP #1210

LOWNEY ASSOC
FEB 1 1995

L.Huang FOR
Vytas Ankaitis
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
1900 Bates Avenue, Suite L, Concord, CA 94520, (510) 686-9600, FAX (510) 686-9689
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Lowney Associates
405 Clyde Avenue
Mountain View, CA 94043

Attention: Todd McNair

Client Proj. ID: 864-17B
Sample Descript: MW-2
Matrix: LIQUID
Analysis Method: EPA 8015 Mod
Lab Number: 9501643-01

Sampled: 01/12/95
Received: 01/12/95
Extracted: 01/23/95
Analyzed: 01/25/95
Reported: 01/27/95

QC Batch Number: GC0123950HBPEXZ
Instrument ID: GCHP4B

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel	**50**	**2100**
Chromatogram Pattern:		**C9-C24**

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	104

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

SEQUOIA ANALYTICAL - ELAP #1210

LOWNEY ASSOC.
FEB 1 1995

Vytas Ankaitis
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
1900 Bates Avenue, Suite L, Concord, CA 94520, (510) 686-9600, FAX (510) 686-9689
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Lowney Associates
405 Clyde Avenue
Mountain View, CA 94043

Attention: Todd McNair

Client Proj. ID: 864-17B
Sample Descript: MW-2
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9501643-01

Sampled: 01/12/95
Received: 01/12/95

Analyzed: 01/13/95
Reported: 01/27/95

QC Batch Number: GC011395BTEX03A
Instrument ID: GCHP3

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**1000**	**3400**
Benzene	10	N.D.
Toluene	10	N.D.
Ethyl Benzene	10	N.D.
Xylenes (Total)	10	N.D.
Chromatogram Pattern:		**C6-C12**

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	107

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

SEQUOIA ANALYTICAL - ELAP #1210

LOWNEY ASSOC.
FEB 1 1995

Vytas Ankaitis
Project Manager

Sequoia Analytical

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Lowney Associates
405 Clyde Avenue
Mountain View, CA 94043

Attention: Todd McNair

Client Proj. ID: 864-17B
Sample Descript: MW-3
Matrix: LIQUID
Analysis Method: EPA 8080
Lab Number: 9501643-02

Sampled: 01/12/95
Received: 01/12/95
Extracted: 01/23/95
Analyzed: 01/24/95
Reported: 01/27/95

QC Batch Number: GC0117950PCBEXZ
Instrument ID: GCHP12

Polychlorinated Biphenyls (EPA 8080)

Analyte	Detection Limit ug/L	Sample Results ug/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.

Surrogates	Control Limits %		% Recovery
Dibutylchlorendate	50	150	96

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

SEQUOIA ANALYTICAL - ELAP #1210

FEB 1 1995

Vytas Ankaitis
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
1900 Bates Avenue, Suite L, Concord, CA 94520, (510) 686-9600, FAX (510) 686-9689
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Lowney Associates
[redacted]05 Clyde Avenue
Mountain View, CA 94043

Attention: Todd McNair

Client Proj. ID: 864-17B
Sample Descript: MW-3
Matrix: LIQUID
Analysis Method: EPA 8015 Mod
Lab Number: 9501643-02

Sampled: 01/12/95
Received: 01/12/95
Extracted: 01/23/95
Analyzed: 01/25/95
Reported: 01/27/95

[redacted]C Batch Number: GC0123950HBPEXZ
Instrument ID: GCHP4B

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel	50	1500
Chromatogram Pattern:		C9-C24

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	162 Q

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

SEQUOIA ANALYTICAL - ELAP #1210

[redacted]

FEB 1 1995

[redacted]
Vytas Ankaitis
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
1900 Bates Avenue, Suite L, Concord, CA 94520, (510) 686-9600, FAX (510) 686-9689
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Lowney Associates
405 Clyde Avenue
Mountain View, CA 94043

Attention: Todd McNair

Client Proj. ID: 864-17B
Sample Descript: MW-3
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9501643-02

Sampled: 01/12/95
Received: 01/12/95

Analyzed: 01/14/95
Reported: 01/27/95

QC Batch Number: GC011395BTEX17A
Instrument ID: GCHP17

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**50**	**270**
Benzene	0.50	N.D.
Toluene	**0.50**	**0.87**
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		
Weathered Gas		**C7-C12**

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	122

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

SEQUOIA ANALYTICAL - ELAP #1210

LOWNEY ASSOC.
FEB 1 1995

Vytas Ankaitis
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
1900 Bates Avenue, Suite L, Concord, CA 94520, (510) 686-9600, FAX (510) 686-9689
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Lowney Associates
05 Clyde Avenue
Mountain View, CA 94043

Attention: Todd McNair

Client Proj. ID: 864-17B
Sample Descript: MW-4
Matrix: LIQUID
Analysis Method: EPA 8080
Lab Number: 9501643-03

Sampled: 01/12/95
Received: 01/12/95
Extracted: 01/23/95
Analyzed: 01/24/95
Reported: 01/27/95

C Batch Number: GC0117950PCBEXZ
strument ID: GCHP12

Polychlorinated Biphenyls (EPA 8080)

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

Surrogates	Control Limits %		% Recovery
Dibutylchlorendate	50	150	81

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

SEQUOIA ANALYTICAL - ELAP #1210

LOWNEY ASSOC.
FEB 1 1995

Vytas Ankaitis
oject Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
1900 Bates Avenue, Suite L, Concord, CA 94520, (510) 686-9600, FAX (510) 686-9689
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Lowney Associates
[illegible]05 Clyde Avenue
[illegible]Mountain View, CA 94043

Attention: Todd McNair

Client Proj. ID: 864-17B
Sample Descript: MW-4
Matrix: LIQUID
Analysis Method: EPA 8015 Mod
Lab Number: 9501643-03

Sampled: 01/12/95
Received: 01/12/95
Extracted: 01/23/95
Analyzed: 01/25/95
Reported: 01/27/95

[illegible]C Batch Number: GC0123950HBPEXZ
[illegible]nstrument ID: GCHP4B

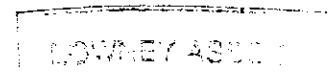
Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
[illegible]EPH as Diesel	**50**	**1900**
Chromatogram Pattern:		**C9-C24**

Surrogates	Control Limits %		% Recovery
[illegible]-Pentacosane (C25)	50	150	122

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

SEQUOIA ANALYTICAL - ELAP #1210



[illegible]ytas Ankaitis
[illegible]oject Manager

Sequoia Analytical

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1900 Bates Avenue, Suite L, Concord, CA 94520, (510) 686-9600, FAX (510) 686-9689
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Lowney Associates
405 Clyde Avenue
Mountain View, CA 94043

Attention: Todd McNair

Client Proj. ID: 864-17B
Sample Descript: MW-4
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9501643-03

Sampled: 01/12/95
Received: 01/12/95

Analyzed: 01/14/95
Reported: 01/27/95

QC Batch Number: GC011395BTEX03A
Instrument ID: GCHP3

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**250**	**1200**
Benzene	2.5	N.D.
Toluene	2.5	N.D.
Ethyl Benzene	2.5	N.D.
Xylenes (Total)	2.5	N.D.
Chromatogram Pattern:		**Gas**

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	88

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

SEQUOIA ANALYTICAL - ELAP #1210

LOWNEY ASS.
FEB 1 1995

Vytas Ankaitis
Project Manager

Sequoia Analytical

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1900 Bates Avenue, Suite L, Concord, CA 94520, (510) 686-9600, FAX (510) 686-9689
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Lowney Associates	Client Proj. ID: 864-17B	Sampled: 01/12/95
405 Clyde Avenue	Sample Descript: MW-1	Received: 01/12/95
Mountain View, CA 94043	Matrix: LIQUID	Extracted: 01/17/95
	Analysis Method: EPA 8080	Analyzed: 01/20/95
Attention: Todd McNair	Lab Number: 9501643-04	Reported: 01/27/95

QC Batch Number: GC0117950PCBEXZ
Instrument ID: GCHP12

Polychlorinated Biphenyls (EPA 8080)

Analyte	Detection Limit ug/L	Sample Results ug/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.

Surrogates	Control Limits %		% Recovery
Dibutylchlorendate	50	150	64

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

FEB 1 1995

SEQUOIA ANALYTICAL - ELAP #1210

Y. Huang FOR
Vytas Ankaitis
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
1900 Bates Avenue, Suite L, Concord, CA 94520, (510) 686-9600, FAX (510) 686-9689
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Lowney Associates
405 Clyde Avenue
Mountain View, CA 94043

Attention: Todd McNair

Client Proj. ID: 864-17B
Sample Descript: MW-1
Matrix: LIQUID
Analysis Method: EPA 8015 Mod
Lab Number: 9501643-04

Sampled: 01/12/95
Received: 01/12/95
Extracted: 01/23/95
Analyzed: 01/25/95
Reported: 01/27/95

QC Batch Number: GC0123950HBPEXZ
Instrument ID: GCHP4B

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel	50	160
Chromatogram Pattern:		C9-C24

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	114

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

SEQUOIA ANALYTICAL - ELAP #1210

FEB 1 1995
RECEIVED

Vytas Ankaitis
Project Manager

Sequoia Analytical

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Lowney Associates
405 Clyde Avenue
Mountain View, CA 94043

Attention: Todd McNair

Client Proj. ID: 864-17B
Sample Descript: MW-1
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9501643-04

Sampled: 01/12/95
Received: 01/12/95

Analyzed: 01/14/95
Reported: 01/27/95

QC Batch Number: GC011395BTEX03A
Instrument ID: GCHP3

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	96

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

SEQUOIA ANALYTICAL - ELAP #1210

FEB 1 1995

Vytas Ankaitis
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
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Lowney Associates
405 Clyde Avenue
Mountain View, CA 94043
Attention: Todd McNair

Client Proj. ID: 864-17B
Lab Proj. ID: 9501643

Received: 01/12/95
Reported: 01/27/95

LABORATORY NARRATIVE

Please note that the samples for Oil & Grease were analyzed by SM 5520 B&F, not SM 5520 E&F.

(TEPH) Q - Co-elution confirmed

LOWNEY ASS.
FEB 1 1995

SEQUOIA ANALYTICAL

Mytas Ankaitis
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
1900 Bates Avenue, Suite L, Concord, CA 94520, (510) 686-9600, FAX (510) 686-9689
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Lowney Associates
405 Clyde Avenue
Mountain View, CA 94043
Attention: Todd Mc Nair

Client Project ID: 864-17B
Matrix: LIQUID
Work Order #: 9501643 01-04

Reported: Jan 27, 1995

QUALITY CONTROL DATA REPORT

Analyte:	Total Recoverable Petroleum Hydrocarbons	PCB 1260	Diesel
QC Batch#:	OP0117955520EXA	GC0117950PCBEXZ	GC0123950HBPEXZ
Analy. Method:	SM 5520 B&F	EPA 8080	EPA 8015 Mod.
Prep. Method:	N.A.	EPA 3520	EPA 3520
Analyst:	A. Pina	A. Savva	B. Ali
MS/MSD #:	BLK011795	BLK011795	9501B2202
Sample Conc.:	N.D.	N.D.	110
Prepared Date:	1/17/95	1/17/95	1/23/95
Analyzed Date:	1/17/95	1/20/95	1/26/95
Instrument I.D.#:	MANUAL	GCHP12	GCHP5A
Conc. Spiked:	30 mg/L	2.5 µg/L	600 µg/L
Result:	28	2.0	660
MS % Recovery:	93	80	92
Dup. Result:	28	2.1	760
MSD % Recov.:	93	84	108
RPD:	0.0	4.9	14
RPD Limit:	0-10	0-50	0-50
LCS #:	Not Applicable	Not Applicable	Not Applicable
Prepared Date:			
Analyzed Date:			
Instrument I.D.#:			
Conc. Spiked:			
LCS Result:			
LCS % Recov.:			
MS/MSD LCS Control Limits	70-110	50-150	38-122

LOWNEY ASSOC.
FEB 1 1995

SEQUOIA ANALYTICAL

Vytas Ankaitis
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.

** MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

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Mountain View, CA 94043
Attention: Todd Mc Nair

Client Project ID: 864-17B
Matrix: LIQUID
Work Order #: 9501643 01,03,04

Reported: Jan 27, 1995

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC011395BTEX03A	GC011395BTEX03A	GC011395BTEX03A	GC011395BTEX03A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	R. Vincent	R. Vincent	R. Vincent	R. Vincent
MS/MSD #:	9412I3505	9412I3505	9412I3505	9412I3505
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	1/13/95	1/13/95	1/13/95	1/13/95
Analyzed Date:	1/13/95	1/13/95	1/13/95	1/13/95
Instrument I.D.#:	GCHP3	GCHP3	GCHP3	GCHP3
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	9.3	9.3	9.4	28
MS % Recovery:	93	93	94	93
Dup. Result:	9.1	9.2	9.0	27
MSD % Recov.:	91	92	90	90
RPD:	2.2	1.1	4.3	3.6
RPD Limit:	0-50	0-50	0-50	0-50
LCS #:	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Prepared Date:				
Analyzed Date:				
Instrument I.D.#:				
Conc. Spiked:				
LCS Result:				
LCS % Recov.:				
MS/MSD LCS Control Limits	71-133	72-128	72-130	71-120

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FEB 1 1995

SEQUOIA ANALYTICAL

Vytas Ankaitis
Project Manager

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Lowney Associates
405 Clyde Avenue
Mountain View, CA 94043
Attention: Todd Mc Nair

Client Project ID: 864-17B
Matrix: LIQUID
Work Order #: 9501643 02

Reported: Jan 27, 1995

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC011395BTEX17A	GC011395BTEX17A	GC011395BTEX17A	GC011395BTEX17A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	R. Vincent	R. Vincent	R. Vincent	R. Vincent
MS/MSD #:	9412I3505	9412I3505	9412I3505	9412I3505
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	1/13/95	1/13/95	1/13/95	1/13/95
Analyzed Date:	1/13/95	1/13/95	1/13/95	1/13/95
Instrument I.D.#:	GCHP3	GCHP3	GCHP3	GCHP3
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	9.5	9.6	9.5	27
MS % Recovery:	95	96	95	90
Dup. Result:	9.7	10	9.9	29
MSD % Recov.:	97	100	99	97
RPD:	2.1	4.1	4.1	7.1
RPD Limit:	0-50	0-50	0-50	0-50

LCS #:	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Prepared Date:				
Analyzed Date:				
Instrument I.D.#:				
Conc. Spiked:				
LCS Result:				
LCS % Recov.:				
MS/MSD LCS Control Limits	71-133	72-128	72-130	71-120

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Vytas Ankaitis
Project Manager

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LOWNEY ASSOCIATES
CHAIN OF CUSTODY RECORD

9501643

JOB NO.	PROJECT NAME/LOCATION	NO. OF CONTAINERS	TPHg/BTEX	TPHd	TRPH (5520EF)	PCBs (8080)				REMARKS
864-17B	Emeryville P.O.									

SAMPLER (S): (Signature) [signature]

SHIP TO:

LOWNEY ASSOCIATES
405 Clyde Avenue
Mountain View, CA 94043
415-967-2365
415-967-2785 (FAX)

DATE	TIME	SAMPLE DESCRIPTION		NO. OF CONTAINERS	TPHg/BTEX	TPHd	TRPH (5520EF)	PCBs (8080)				REMARKS
1-12-95	11:30	MW-2	01 A-F	6	✓	✓	✓	✓				2 week TAT
1/12/95	12:30	MW-3	02	6	✓	✓	✓	✓				
1/12/95	14:00	MW-4	03	6	✓	✓	✓	✓				Report to
1/12/95	15:15	MW-1	04	6	✓	✓	✓	✓				Todd McNair
												8°C

FEB 1 1995

Relinquished by: (Signature)	Date	Time	Received By: (Signature)	Relinquished by: (Signature)	Date	Time	Received By: (Signature)
[signature]	1/12/95	16:48					

Laboratory of Record:	Date	Time	Received for Laboratory By: (Signature)	Date	Time	Remarks:
SEQUOIA			[signature]	1/12/95	1648	