

File

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October 31, 1990
SCI 272.016

Mr. Dan Lau
Construction
City of Oakland
7101 Edgewater Drive
Oakland, California 94621

**Quarterly Monitoring Report
2nd and 3rd Quarters 1990
98th and Edes Avenues
Oakland, California**

Dear Mr. Lau:

This letter records the results of the June and October, 1990, groundwater monitoring well sampling and analytical testing events at the subject site. A description of the groundwater monitoring well installation, and the results of the previous sampling and analytical testing event were presented in the report dated April 10, 1990. The monitoring well locations are shown on Plate 1, Site Plan.

Groundwater levels in the wells were measured prior to purging and sampling. The groundwater measurements, including previous readings, are presented on Table 1. About 6 inches of free product was measured in Well MW-1. No free product was encountered in the other wells.

Prior to sampling, the wells were purged using a pre-cleaned, disposal Teflon bailer. At least 4 well volumes of water were purged from each well. Approximately 50 gallons of water, generated during purging, were placed in a 55-gallon DOT drum. The drum was left on-site, for later disposal by others.

Groundwater samples were obtained from each well after purging. The water samples were poured into pre-cleaned containers, placed in an iced cooler, and kept refrigerated until delivery to the analytical laboratory. The samples were accompanied by Chain-of-Custody records, copies of which are attached.

■ **Subsurface Consultants, Inc.**

Mr. Dan Lau
City of Oakland
SCI 272.016
October 31, 1990
Page 2

Analytical testing was performed by Curtis & Tompkins, Ltd. and Eureka Laboratories, Inc. Both are State of California Department of Health Services certified analytical laboratories for the tests performed. The analytical tests to date have included:

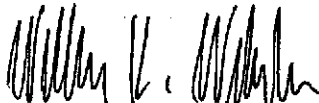
1. Total volatile hydrocarbons (TVH) - sample preparation and analysis using EPA methods 5030 (purge and trap) and 8015 (gas chromatograph coupled to a flame ionization detector),
2. Total extractable hydrocarbons (TEH) - sample preparation and analysis using EPA methods 3550 (sonification) and 8015 (modified),
3. Benzene, toluene, xylene and ethylbenzene (BTXE)-sample preparation and analysis using EPA methods 5030 and 8020 (gas chromatograph coupled to a photo-ionization detector),
4. Total oil and grease (TOG) - sample preparation and analysis using EPA method 3550 (Freon extraction) and Standard Method 503E (gravimetric determination), and
5. Purgeable halocarbons - sample preparation and analysis using EPA methods 5030 and 8010 (gas chromatograph and mass spectrometer).

Copies of the analytical test reports are attached. The results of analytical tests for total petroleum hydrocarbons (including TVH, TEH and TOG) and BTXE are presented in Table 2. The results of analytical tests for purgeable halocarbons are presented in Table 3. Only those compounds actually detected are listed. Please refer to the attached analytical test reports for listings of all compounds that were included in the analyses.

If you have questions regarding the analytical test results to date, please call.

Yours very truly,

Subsurface Consultants, Inc.



William K. Wikander
Geotechnical Engineer 892 (expires 12/31/92)

Mr. Dan Lau
City of Oakland
SCI 272.016
October 31, 1990
Page 3

MK:WKW:RWR:clh

Attachments: Table 1 - Groundwater Elevations
Table 2 - TVH, TEH, TOG and BTXE Concentrations in
Groundwater
Table 3 - Summary of Analytical Tests for
Purgeable Halocarbons
Plate 1 - Site Plan
Chain-of-Custody Records
Analytical Test Reports

Copies: Addressee (2)

Ms. Cynthia Chapman (1)
Alameda County Health Care Services Agency
80 Swan Way, Room #200
Oakland, CA 94621

Mr. Lester Feldman (1)
Regional Water Quality Control Board
San Francisco Bay Region
1800 Harrison Street
Oakland, CA 94617

Table 1. GROUNDWATER ELEVATIONS

<u>Well</u>	<u>Date</u>	<u>TOC Elev.¹</u> <u>(ft.)</u>	<u>Groundwater</u> <u>Depth²</u> <u>(ft.)</u>	<u>Groundwater</u> <u>Elevation</u> <u>(ft.)</u>
MW-1	3/01/90	99.40	8.95	90.45
	3/06/90	99.40	8.55	90.85
	3/23/90	99.40	9.17	90.23
	6/30/90	99.40	9.56	89.84
	10/04/90	99.40	10.23	89.17 ³
MW-2	3/01/90	99.72	8.85	90.87
	3/06/90	99.72	8.46	91.26
	3/23/90	99.72	9.02	90.70
	6/30/90	99.72	9.40	90.32
	10/04/90	99.72	9.80	89.92
MW-3	3/01/90	99.74	9.17	90.57
	3/06/90	99.74	8.78	90.96
	3/23/90	99.74	8.35	90.39
	6/30/90	99.74	9.74	90.00
	10/04/90	99.74	10.17	89.57
MW-4	3/01/90	100.93	9.98	90.95
	3/06/90	100.93	9.60	91.33
	3/23/90	100.93	10.20	90.73
	6/30/90	100.93	10.57	90.36
	10/04/90	100.93	10.98	89.95
MW-5	3/01/90	100.57	9.61	90.96
	3/06/90	100.57	9.23	91.34
	3/23/90	100.57	9.80	90.77
	6/30/90	100.57	10.17	90.40
	10/04/90	100.57	10.59	89.98
18	3/01/90	99.17	8.53	90.64
	3/06/90	99.17	8.11	91.06
	3/23/90	99.17	8.73	90.44
	6/30/90	99.17	9.11	90.06
	10/04/90	99.17	9.50	89.67

¹ Elevation reference: Top of curb at fire hydrant on Edes Avenue (see Site Plan), is assumed to be at Elevation 100.00 ft.

² Depth measured below top of casing

³ 6.25 inches of free product measured in well

Table 2. TVH, TEH, TOG AND BTXE CONCENTRATIONS IN GROUNDWATER

Sample	Sample Date	TVH (ppb) ₂	TEH ¹ (ppb)	TOG (ppb)	Benzene (ppb)	Toluene (ppb)	Xylenes (ppb)	Ethyl-benzen (ppb)
MW1	2/12/90	55.1	100	ND ³	60.8	11.9	19.9	ND
	6/30/90	ND	950	-- ⁴	ND	ND	ND	ND
	10/04/90	2,900,000	270,000	--	7,780	26,700	203,000	20,000
MW2	2/13/90	35.1	100	ND	ND	ND	4.0	1.3
	6/30/90	ND	ND	--	ND	ND	ND	ND
	10/04/90	52.8	100	--	ND	ND	ND	ND
MW3	2/13/90	ND	100	ND	ND	ND	2.9	ND
	6/30/90	850	2,600	--	ND	ND	ND	44
	10/04/90	42.9	1,200	--	ND	ND	8.5	ND
MW4	2/13/90	ND	ND	ND	ND	ND	ND	ND
	6/30/90	ND	ND	--	ND	ND	ND	ND
	10/04/90	ND	ND	--	ND	ND	ND	ND
MW5	2/13/90	ND	ND	ND	ND	ND	ND	ND
	6/30/90	ND	ND	--	ND	ND	ND	ND
	10/04/90	ND	ND	--	ND	ND	ND	ND
18	2/14/90	134,000	17,000	120,000	3,730	8,920	22,500	5,430
	6/30/90	20,000	26,000	--	660	470	180	2,000
	10/04/90	4,900	5,700	--	82	40	635	190

-
- 1 Gasoline range
2 Parts per billion (ug/L)
3 None detected, see test data sheets in Appendix for detecti limits
4 -- = Test not requested

Table 3. SUMMARY OF ANALYTICAL TESTS FOR PURGEABLE HALOCARBONS

Sample	Sample Date	1,1-DCA ¹ (ppb) ⁶	1,1-DCE ² (ppb)	Dichloro- Methane (ppb)	PCE ³ (ppb)	1,1,1-TCA ⁴ (ppb)	TCE ⁵ (ppb)	Others (ppb)
MW1	2/12/90	ND ⁷	ND	9.0	2.4	5.1	11.8	ND
	6/30/90	4.1	ND	ND	2.8	8.0	13	ND
	10/04/90	ND	ND	ND	ND	ND	ND	ND
MW2	2/13/90	4.9	7.1	7.9	8.5	11.6	25.1	ND
	6/30/90	5.1	3.1	ND	16	15	35	4.8 ⁸
	10/04/90	2.4	ND	ND	6.8	6.3	18.7	ND
MW3	2/13/90	ND	5.7	69.2	1.6	17.1	21.7	ND
	6/30/90	2.1	1.3	ND	6.2	21	26	3.5 ⁸
	10/04/90	ND	ND	ND	5.1	11.0	ND	ND
MW4	2/13/90	ND	ND	15.3	67.4	1.8	2.4	ND
	6/30/90	ND	ND	ND	260	2.7	3.0	ND
	10/04/90	ND	ND	ND	95.5	1.1	2.8	0.7 ⁹
MW5	2/13/90	ND	ND	ND	1.4	1.3	1.0	ND
	6/30/90	ND	ND	ND	ND	1.3	2.1	ND
	10/04/90	ND	ND	ND	0.7	0.5	ND	ND
18	2/14/90	ND	ND	ND	ND	ND	ND	ND
	6/30/90	ND	ND	ND	ND	ND	ND	ND
	10/04/90	ND	ND	ND	6	9	91	ND

1 1,1, Dichloroethane

2 1,1 Dichloroethene

3 Tetrachloroethene

4 1,1,1 Trichloroethane

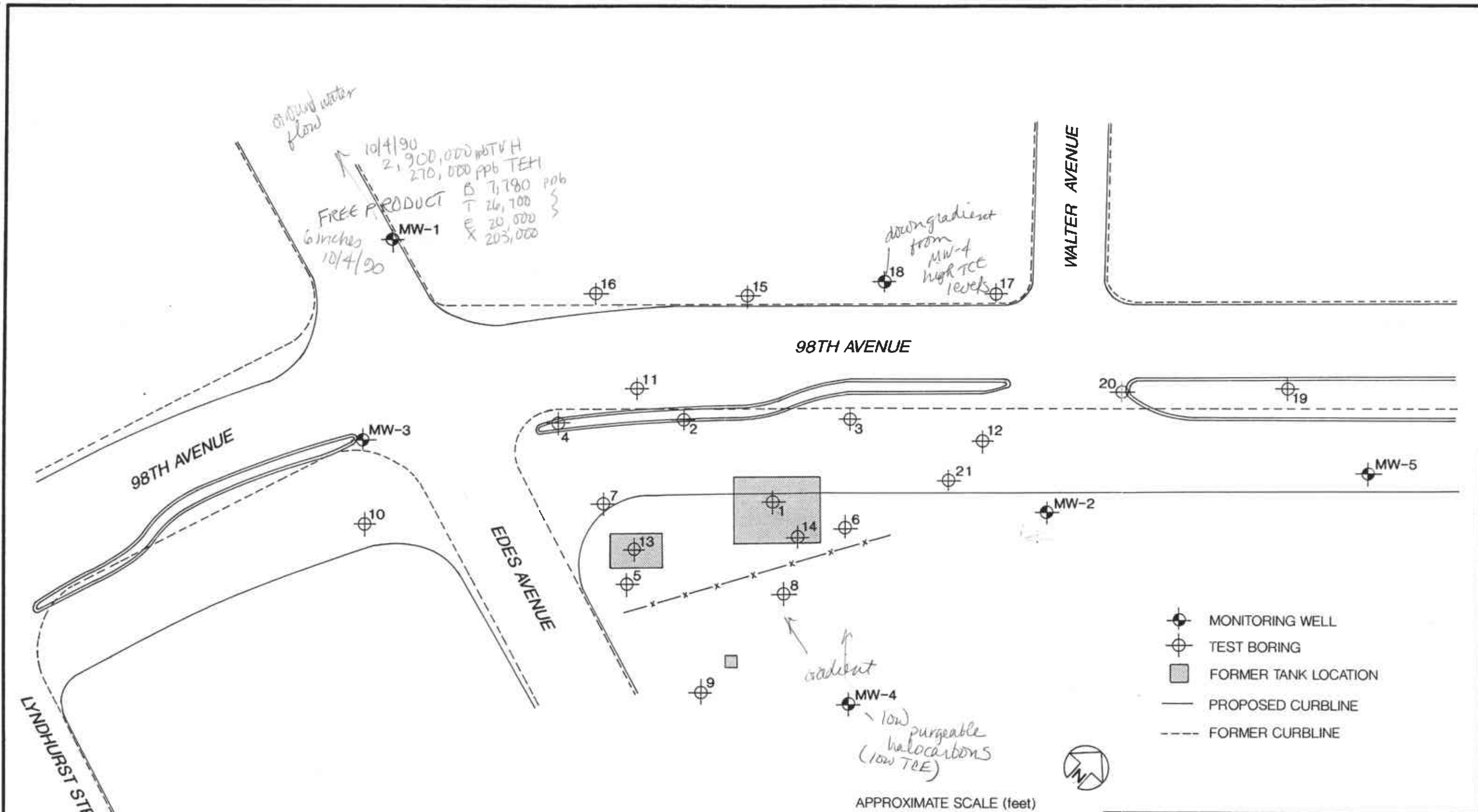
5 Trichloroethylene

6 Parts per billion (ug/L)

7 None detected, see test data sheets in Appendix for detection limits

8 1,2 Dichloroethene (total)

9 Chloroform



- MONITORING WELL
- TEST BORING
- FORMER TANK LOCATION
- PROPOSED CURBLINE
- FORMER CURBLINE



SITE PLAN			PLATE 1
98TH & EDES - PHASE 2 - OAKLAND, CA			
JOB NUMBER 272.016	DATE 2/14/90	APPROVED	

Subsurface Consultants

Subsurface Consultants

CHAIN OF CUSTODY RECORD
& ANALYTICAL TEST REQUEST

90-10-088 E 38

Project Name: 98th + Edes
 SCI Job Number: 272.016
 Project Contact at SCI: Bill Wikander
 Sampled By: Dennis Alexander
 Analytical Laboratory: Eureka Laboratories Inc.
 Analytical Turnaround: STANDARD

Sample ID	Sample Type ¹	Container Type ²	Sampling Date	Hold	Analysis	Analytical Method	
MW1	W	G 1 liter VOA (2)	10-4-90	*	TUH/BTXE TPH as reqd TPH as reqd RETEL Purgable Halocarbons	GC-FID	
MW2				*			
MW3				*			TOH-LUFT
MW4				*			RETEL
MW5				*			8010
MW18				*			

* NOTE: TEST EACH SAMPLE FOR TUH/BTXE, TPH, AND PURGABLE HALOCARBONS

* * * * *

Released by: Dennis Alexander Date: 10-8-90
 Released by Courier: _____ Date: _____
 Received by Laboratory: Pat Giza Date: 10/8/90
 Relinquished by Laboratory: _____ Date: _____
 Received by: _____ Date: _____

¹ Sample Type: W = water, S = soil, O = other (specify)
² Container Type: V = VOA, P = plastic, G = glass, T = brass tube, O = other (specify)

Notes to Laboratory:
 -Notify SCI if there are any anomalous peaks on GC or other scans
 -Questions/clarifications...contact SCI at (415) 268-0461

Subsurface Consultants

CHAIN OF CUSTODY RECORD
& ANALYTICAL TEST REQUEST

Project Name: 98TH & EDES, PHASE 2
 SCI Job Number: 272.016
 Project Contact at SCI: BILL WIKAUER
 Sampled By: JOSE BERMUDEZ
 Analytical Laboratory: CURTIS & TOMPKINS
 Analytical Turnaround: NORMAL

Sample ID	Sample Type ¹	Container Type ²	Sampling Date	Hold	Analysis	Analytical Method
MW4 (6/30/90)	WATER	2-VOA'S	6/30/90		TVH/BTXE	8015/8020
	↓	1L GLASS JAR	↓		TEH	8015 MOD.
	↓	VOA	↓		PURGEABLE HALOCARBONS	8010
MW5 (6/30/90)	WATER	2-VOA'S	6/30/90		TVH/BTXE	8015/8020
	↓	1L GLASS JAR	↓		TEH	8015 MOD.
	↓	VOA	↓		PURGEABLE HALOCARBONS	8010
18 (6/30/90)	WATER	2-VOA'S	6/30/90		TVH/BTXE	8015/8020
	↓	1L GLASS JAR	↓		TEH	8015 MOD.
	↓	VOA	↓		PURGEABLE HALOCARBONS	8010

* * * * *

Released by: [Signature] L. B. [Signature] Date: _____
 Released by Courier: _____ Date: _____
 Received by Laboratory: [Signature] Date: 7/9/90 1035^{AM}
 Relinquished by Laboratory: _____ Date: _____
 Received by: _____ Date: _____

¹ Sample Type: W = water, S = soil, O = other (specify)
² Container Type: V = VOA, P = plastic, G = glass, T = brass tube, O = other (specify)

Notes to Laboratory:
 -Notify SCI if there are any anomalous peaks on GC or other scans
 -Questions/clarifications...contact SCI at (415) 268-0461

Subsurface Consultants

CHAIN OF CUSTODY RECORD
& ANALYTICAL TEST REQUEST

Project Name: 98TH & EDES, PHASE 2
 SCI Job Number: 272.016
 Project Contact at SCI: BILL WIKANDER
 Sampled By: JOSE BERMUDEZ
 Analytical Laboratory: CURTIS & TOMPKINS
 Analytical Turnaround: NORMAL

Sample ID	Sample Type ¹	Container Type ²	Sampling Date	Hold	Analysis	Analytical Method
MW1(6/30/90)	WATER	2-VOA'S	6/30/90		TNH/BTXE	8015/8020
	↓	1L GLASS JAR	↓		TEH	8015 MOD.
	↓	VOA	↓		PURGEABLE HALOGENOUS	8010
MW2(6/30/90)	WATER	2-VOA'S	6/30/90		TNH/BTXE	8015/8020
	↓	1L GLASS JAR	↓		TEH	8015 MOD.
	↓	VOA	↓		PURGEABLE HALOGENOUS	8010
MW3(6/30/90)	WATER	2-VOA'S	6/30/90		TNH/BTXE	8015/8020
	↓	1L GLASS JAR	↓		TEH	8015 MOD.
	↓	VOA	↓		PURGEABLE HALOGENOUS	8010

* * * * *

Released by: *J. H. B.* Date: _____
 Released by Courier: _____ Date: _____
 Received by Laboratory: *Mary Walter* Date: 7/3/90 1030
 Relinquished by Laboratory: _____ Date: _____
 Received by: _____ Date: _____

¹ Sample Type: W = water, S = soil, O = other (specify)
² Container Type: V = VOA, P = plastic, G = glass, T = brass tube, O = other (specify)

Notes to Laboratory:
 -Notify SCI if there are any anomalous peaks on GC or other scans
 -Questions/clarifications...contact SCI at (415) 268-0461



EUREKA LABORATORIES, INC.

Corporate Office:
6790 FLORIN PERKINS ROAD
SACRAMENTO, CA 95828
TEL: (916) 381-7953
FAX: (916) 381-4013

Branch Office:
12121 NORTHUP WAY, SUITE 212
BELLEVUE, WA 98005
TEL: (206) 885-0284
FAX: (206) 885-6162

Air Pollution
Chemical Analysis,
Research & Testing
Environmental Studies
Robotics
Toxicology

October 22, 1990

Mr. Bill Wikander
SUBSURFACE CONSULTANTS
171 12th Street
Oakland, CA 94607

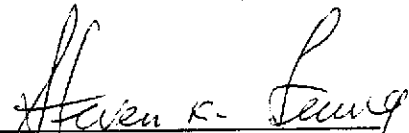
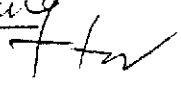
Reference: ELI Order No: 90-10-088
Project: 98th & Edes
SCI Job #: 272.016

Dear Mr. Wikander:

Eureka Laboratories, Inc. is pleased to submit a laboratory report for the subject project. This report presents analytical results for six (6) water samples for the following analyses:

<u>ANALYSIS</u>	<u>METHOD</u>	<u>SAMPLE ID.</u>
Total Petroleum Hydrocarbons (Gasoline Only)	EPA 5030 (BY PURGE & TRAP)	MW1, MW2, MW3, MW4, MW5, MW18
Total Petroleum Hydrocarbons	EPA 8015 (MODIFIED)	same as above
Halogenated Volatile Organics	EPA 601	same as above
Aromatic Volatile Organics	EPA 602	same as above

Sincerely,
EUREKA LABORATORIES, INC.

By: 
Shao-Pin Yo, Ph.D.
Laboratory Director 

SPY/jb

Attachment

TOTAL PETROLEUM HYDROCARBONS,
(GASOLINE ONLY)
EPA METHOD 5030 BY PURGE & TRAP


EUREKA LABORATORIES, INC.
6790 Florin-Perkins Road
Sacramento, CA 95828
(916) 381-7953

Order No: 90-10-088
Hazardous Waste Testing
Certification: E765

CLIENT: SUBSURFACE CONSULTANTS
PROJECT: 98TH & EDES
SCI JOB #: 272.016
SAMPLE ID: BLANK

DATE RECEIVED: 10/08/1990
DATE EXTRACTED: 10/17/1990
DATE COMPLETED: 10/19/1990

<u>PETROLEUM HYDROCARBONS</u>	<u>CONCENTRATION</u> <u>[ug/L (ppb)]</u>	<u>DETECTION LIMIT</u> <u>[ug/L (ppb)]</u>
Gasoline Range	<20	20
Total Petroleum Hydrocarbons	-	
<u>CARBON NO. RANGE</u>		
Gasoline Range	-	-
<u>PEAK CARBON NO</u>		
Gasoline Range	-	-



Mark Shih, Ph.D.
Chemist

October 22, 1990
Date

TOTAL PETROLEUM HYDROCARBONS,
(GASOLINE ONLY)
EPA METHOD 5030 BY PURGE & TRAP

EUREKA LABORATORIES, INC.
6790 Florin-Perkins Road
Sacramento, CA 95828
(916) 381-7953

Order No: 90-10-088
Hazardous Waste Testing
Certification: E765

CLIENT: SUBSURFACE CONSULTANTS
PROJECT: 98TH & EDES
SCI JOB #: 272.016
SAMPLE ID: MW1

DATE RECEIVED: 10/08/1990
DATE EXTRACTED: 10/17/1990
DATE COMPLETED: 10/19/1990
DATE SAMPLED: 10/04/1990

<u>PETROLEUM HYDROCARBONS</u>	<u>CONCENTRATION</u> <u>[ug/L (ppb)]</u>	<u>DETECTION LIMIT</u> <u>[ug/L (ppb)]</u>
Gasoline Range	2940000	20
Total Petroleum Hydrocarbons	2940000	
<u>CARBON NO. RANGE</u>		
Gasoline Range	C8-C12	-
<u>PEAK CARBON NO</u>		
Gasoline Range	C11	-



Mark Shih, Ph.D.
Chemist

October 22, 1990
Date

TOTAL PETROLEUM HYDROCARBONS,
(GASOLINE ONLY)
EPA METHOD 5030 BY PURGE & TRAP


EUREKA LABORATORIES, INC.
6790 Florin-Perkins Road
Sacramento, CA 95828
(916) 381-7953

Order No: 90-10-088
Hazardous Waste Testing
Certification: E765

CLIENT: SUBSURFACE CONSULTANTS
PROJECT: 98TH & EDES
SCI JOB #: 272.016
SAMPLE ID: MW2

DATE RECEIVED: 10/08/1990
DATE EXTRACTED: 10/17/1990
DATE COMPLETED: 10/19/1990
DATE SAMPLED: 10/04/1990

<u>PETROLEUM HYDROCARBONS</u>	<u>CONCENTRATION</u> [ug/L (ppb)]	<u>DETECTION LIMIT</u> [ug/L (ppb)]
Gasoline Range	52.8	20
Total Petroleum Hydrocarbons	-	
<u>CARBON NO. RANGE</u>		
Gasoline Range	C8-C12	-
<u>PEAK CARBON NO</u>		
Gasoline Range	C11	-



Mark Shih, Ph.D.
Chemist

October 22, 1990
Date

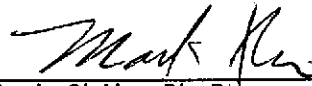
TOTAL PETROLEUM HYDROCARBONS,
(GASOLINE ONLY)
EPA METHOD 5030 BY PURGE & TRAP

EUREKA LABORATORIES, INC.
6790 Florin-Perkins Road
Sacramento, CA 95828
(916) 381-7953

Order No: 90-10-088
Hazardous Waste Testing
Certification: E765

CLIENT: SUBSURFACE CONSULTANTS	DATE RECEIVED: 10/08/1990
PROJECT: 98TH & EDES	DATE EXTRACTED: 10/17/1990
SCI JOB #: 272.016	DATE COMPLETED: 10/19/1990
SAMPLE ID: MW3	DATE SAMPLED: 10/04/1990

<u>PETROLEUM HYDROCARBONS</u>	<u>CONCENTRATION</u> <u>[ug/L (ppb)]</u>	<u>DETECTION LIMIT</u> <u>[ug/L (ppb)]</u>
Gasoline Range	42.9	20
Total Petroleum Hydrocarbons	-	
<u>CARBON NO. RANGE</u>		
Gasoline Range	C8-C12	-
<u>PEAK CARBON NO</u>		
Gasoline Range	C11	-



Mark Shih, Ph.D.
Chemist

October 22, 1990
Date

TOTAL PETROLEUM HYDROCARBONS,
(GASOLINE ONLY)
EPA METHOD 5030 BY PURGE & TRAP

EUREKA LABORATORIES, INC.
6790 Florin-Perkins Road
Sacramento, CA 95828
(916) 381-7953

Order No: 90-10-088
Hazardous Waste Testing
Certification: E765

CLIENT: SUBSURFACE CONSULTANTS	DATE RECEIVED: 10/08/1990
PROJECT: 98TH & EDES	DATE EXTRACTED: 10/17/1990
SCI JOB #: 272.016	DATE COMPLETED: 10/19/1990
SAMPLE ID: MW4	DATE SAMPLED: 10/04/1990


<u>PETROLEUM HYDROCARBONS</u>	<u>CONCENTRATION</u> <u>[ug/L (ppb)]</u>	<u>DETECTION LIMIT</u> <u>[ug/L (ppb)]</u>
Gasoline Range	<20	20
Total Petroleum Hydrocarbons	-	

CARBON NO. RANGE

Gasoline Range - -

PEAK CARBON NO

Gasoline Range - -



Mark Shih, Ph.D.
Chemist

October 22, 1990
Date

TOTAL PETROLEUM HYDROCARBONS,
(GASOLINE ONLY)
EPA METHOD 5030 BY PURGE & TRAP


EUREKA LABORATORIES, INC.
6790 Florin-Perkins Road
Sacramento, CA 95828
(916) 381-7953

Order No: 90-10-088
Hazardous Waste Testing
Certification: E765

CLIENT: SUBSURFACE CONSULTANTS
PROJECT: 98TH & EDES
SCI JOB #: 272.016
SAMPLE ID: MW5

DATE RECEIVED: 10/08/1990
DATE EXTRACTED: 10/17/1990
DATE COMPLETED: 10/19/1990
DATE SAMPLED: 10/04/1990

<u>PETROLEUM HYDROCARBONS</u>	<u>CONCENTRATION</u> <u>[ug/L (ppb)]</u>	<u>DETECTION LIMIT</u> <u>[ug/L (ppb)]</u>
Gasoline Range	<20	20
Total Petroleum Hydrocarbons	-	
<u>CARBON NO. RANGE</u>		
Gasoline Range	-	-
<u>PEAK CARBON NO</u>		
Gasoline Range	-	-



Mark Shih, Ph.D.
Chemist

October 22, 1990
Date


TOTAL PETROLEUM HYDROCARBONS,
(GASOLINE ONLY)
EPA METHOD 5030 BY PURGE & TRAP

EUREKA LABORATORIES, INC.
6790 Florin-Perkins Road
Sacramento, CA 95828
(916) 381-7953

Order No: 90-10-088
Hazardous Waste Testing
Certification: E765

CLIENT: SUBSURFACE CONSULTANTS	DATE RECEIVED: 10/08/1990
PROJECT: 98TH & EDES	DATE EXTRACTED: 10/17/1990
SCI JOB #: 272.016	DATE COMPLETED: 10/19/1990
SAMPLE ID: MW18	DATE SAMPLED: 10/04/1990

<u>PETROLEUM HYDROCARBONS</u>	<u>CONCENTRATION</u> <u>[ug/L (ppb)]</u>	<u>DETECTION LIMIT</u> <u>[ug/L (ppb)]</u>
Gasoline Range	4900	20
Total Petroleum Hydrocarbons	4900	
<u>CARBON NO. RANGE</u>		
Gasoline Range	C8-C12	-
<u>PEAK CARBON NO</u>		
Gasoline Range	C10	-



Mark Shih, Ph.D.
Chemist

October 22, 1990
Date

TOTAL PETROLEUM HYDROCARBONS,
(GASOLINE ONLY)
EPA METHOD 5030 BY PURGE & TRAP

EUREKA LABORATORIES, INC.
6790 Florin-Perkins Road
Sacramento, CA 95828
(916) 381-7953

Order No: 90-10-088
Hazardous Waste Testing
Certification: E765

CLIENT: SUBSURFACE CONSULTANTS
PROJECT: 98TH & EDES
SCI JOB #: 272.016
SAMPLE ID: REAGENT SPIKE RECOVERY *

DATE RECEIVED: 10/08/1990
DATE EXTRACTED: 10/17/1990
DATE COMPLETED: 10/19/1990

PETROLEUM HYDROCARBONS

SPIKE RECOVERY

Gasoline Range

100%

CARBON NO. RANGE

Gasoline Range

-

PEAK CARBON NO

Gasoline Range

-

* Reagent spike set is used due to insufficient sample provided.



Mark Shih, Ph.D.
Chemist

October 22, 1990
Date

TOTAL PETROLEUM HYDROCARBONS,
(GASOLINE ONLY)
EPA METHOD 5030 BY PURGE & TRAP


EUREKA LABORATORIES, INC.
6790 Florin-Perkins Road
Sacramento, CA 95828
(916) 381-7953

Order No: 90-10-088
Hazardous Waste Testing
Certification: E765

CLIENT: SUBSURFACE CONSULTANTS	DATE RECEIVED: 10/08/1990
PROJECT: 98TH & EDES	DATE EXTRACTED: 10/17/1990
SCI JOB #: 272.016	DATE COMPLETED: 10/19/1990
SAMPLE ID: REAGENT SPIKE RECOVERY DUPLICATE *	

<u>PETROLEUM HYDROCARBONS</u>	<u>SPIKE RECOVERY</u>
Gasoline Range	115%
<u>CARBON NO. RANGE</u>	
Gasoline Range	-
<u>PEAK CARBON NO</u>	
Gasoline Range	-

* Reagent spike set is used due to insufficient sample provided.



Mark Shih, Ph.D.
Chemist

October 22, 1990
Date

TOTAL PETROLEUM HYDROCARBONS
EPA METHOD 8015 (MODIFIED)

EUREKA LABORATORIES, INC.
6790 Florin-Perkins Road
Sacramento, CA 95828
(916) 381-7953

Order No: 90-10-088
Hazardous Waste Testing
Certification: E765

CLIENT: SUBSURFACE CONSULTANTS
PROJECT: 98TH & EDES
SCI JOB #: 272.016
SAMPLE ID: BLANK

DATE RECEIVED: 10/08/1990
DATE EXTRACTED: 10/11/1990
DATE COMPLETED: 10/17/1990


<u>PETROLEUM HYDROCARBONS</u>	<u>CONCENTRATION</u> [mg/L (ppm)]	<u>DETECTION LIMIT</u> [mg/L (ppm)]
Gasoline Range	<0.1	0.1
Diesel Range	<0.2	0.2
Motor Oil Range	<0.5	0.5
Total Petroleum Hydrocarbons	-	-

CARBON NO. RANGE

Gasoline Range	-	-
Diesel Range	-	-
Motor Oil Range	-	-

PEAK CARBON NO

Gasoline Range	-	-
Diesel Range	-	-
Motor Oil Range	-	-



Mark Shih, Ph.D.
Chemist

October 22, 1990
Date

TOTAL PETROLEUM HYDROCARBONS
EPA METHOD 8015 (MODIFIED)

EUREKA LABORATORIES, INC.
6790 Florin-Perkins Road
Sacramento, CA 95828
(916) 381-7953

Order No: 90-10-088
Hazardous Waste Testing
Certification: E765

CLIENT: SUBSURFACE CONSULTANTS
PROJECT: 98TH & EDES
SCI JOB #: 272.016
SAMPLE ID: MW1

DATE RECEIVED: 10/08/1990
DATE EXTRACTED: 10/11/1990
DATE COMPLETED: 10/17/1990
DATE SAMPLED: 10/04/1990


<u>PETROLEUM HYDROCARBONS</u>	<u>CONCENTRATION</u> [mg/L (ppm)]	<u>DETECTION LIMIT</u> [mg/L (ppm)]
Gasoline Range	270	0.1
Diesel Range	<0.2	0.2
Motor Oil Range	<0.5	0.5
Total Petroleum Hydrocarbons	270	-

CARBON NO. RANGE

Gasoline Range	C9-C12	-
Diesel Range	-	-
Motor Oil Range	-	-

PEAK CARBON NO

Gasoline Range	C10	-
Diesel Range	-	-
Motor Oil Range	-	-



Mark Shih, Ph.D.
Chemist

October 22, 1990
Date

TOTAL PETROLEUM HYDROCARBONS
EPA METHOD 8015 (MODIFIED)

EUREKA LABORATORIES, INC.
6790 Florin-Perkins Road
Sacramento, CA 95828
(916) 381-7953

Order No: 90-10-088
Hazardous Waste Testing
Certification: E765

CLIENT: SUBSURFACE CONSULTANTS	DATE RECEIVED: 10/08/1990
PROJECT: 98TH & EDES	DATE EXTRACTED: 10/11/1990
SCI JOB #: 272.016	DATE COMPLETED: 10/17/1990
SAMPLE ID: MW2	DATE SAMPLED: 10/04/1990


<u>PETROLEUM HYDROCARBONS</u>	<u>CONCENTRATION</u> [mg/L (ppm)]	<u>DETECTION LIMIT</u> [mg/L (ppm)]
Gasoline Range	0.1	0.1
Diesel Range	<0.2	0.2
Motor Oil Range	<0.5	0.5
Total Petroleum Hydrocarbons	0.1	-

CARBON NO. RANGE

Gasoline Range	C9-C12	-
Diesel Range	-	-
Motor Oil Range	-	-

PEAK CARBON NO

Gasoline Range	C10	-
Diesel Range	-	-
Motor Oil Range	-	-



Mark Shih, Ph.D.
Chemist

October 22, 1990
Date

TOTAL PETROLEUM HYDROCARBONS
EPA METHOD 8015 (MODIFIED)

EUREKA LABORATORIES, INC.
6790 Florin-Perkins Road
Sacramento, CA 95828
(916) 381-7953

Order No: 90-10-088
Hazardous Waste Testing
Certification: E765

CLIENT: SUBSURFACE CONSULTANTS	DATE RECEIVED: 10/08/1990
PROJECT: 98TH & EDES	DATE EXTRACTED: 10/11/1990
SCI JOB #: 272.016	DATE COMPLETED: 10/17/1990
SAMPLE ID: MW3	DATE SAMPLED: 10/04/1990


<u>PETROLEUM HYDROCARBONS</u>	<u>CONCENTRATION</u> <u>[mg/L (ppm)]</u>	<u>DETECTION LIMIT</u> <u>[mg/L (ppm)]</u>
Gasoline Range	1.2	0.1
Diesel Range	<0.2	0.2
Motor Oil Range	<0.5	0.5
Total Petroleum Hydrocarbons	1.2	-

CARBON NO. RANGE

Gasoline Range	C9-C12	-
Diesel Range	-	-
Motor Oil Range	-	-

PEAK CARBON NO

Gasoline Range	C10	-
Diesel Range	-	-
Motor Oil Range	-	-



Mark Shih, Ph.D.
Chemist

October 22, 1990
Date

TOTAL PETROLEUM HYDROCARBONS
EPA METHOD 8015 (MODIFIED)

EUREKA LABORATORIES, INC.
6790 Florin-Perkins Road
Sacramento, CA 95828
(916) 381-7953

Order No: 90-10-088
Hazardous Waste Testing
Certification: E765

CLIENT: SUBSURFACE CONSULTANTS	DATE RECEIVED: 10/08/1990
PROJECT: 98TH & EDES	DATE EXTRACTED: 10/11/1990
SCI JOB #: 272.016	DATE COMPLETED: 10/17/1990
SAMPLE ID: MW4	DATE SAMPLED: 10/04/1990

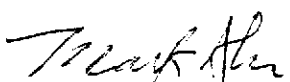
<u>PETROLEUM HYDROCARBONS</u>	<u>CONCENTRATION</u> <u>[mg/L (ppm)]</u>	<u>DETECTION LIMIT</u> <u>[mg/L (ppm)]</u>
Gasoline Range	<0.1	0.1
Diesel Range	<0.2	0.2
Motor Oil Range	<0.5	0.5
Total Petroleum Hydrocarbons	-	-

CARBON NO. RANGE

Gasoline Range	-	-
Diesel Range	-	-
Motor Oil Range	-	-

PEAK CARBON NO

Gasoline Range	-	-
Diesel Range	-	-
Motor Oil Range	-	-



Mark Shih, Ph.D.
Chemist

October 22, 1990
Date

TOTAL PETROLEUM HYDROCARBONS
EPA METHOD 8015 (MODIFIED)

EUREKA LABORATORIES, INC.
6790 Florin-Perkins Road
Sacramento, CA 95828
(916) 381-7953

Order No: 90-10-088
Hazardous Waste Testing
Certification: E765

CLIENT: SUBSURFACE CONSULTANTS
PROJECT: 98TH & EDES
SCI JOB #: 272.016
SAMPLE ID: MW5

DATE RECEIVED: 10/08/1990
DATE EXTRACTED: 10/11/1990
DATE COMPLETED: 10/17/1990
DATE SAMPLED: 10/04/1990

<u>PETROLEUM HYDROCARBONS</u>	<u>CONCENTRATION</u> [mg/L (ppm)]	<u>DETECTION LIMIT</u> [mg/L (ppm)]
Gasoline Range	<0.1	0.1
Diesel Range	<0.2	0.2
Motor Oil Range	<0.5	0.5
Total Petroleum Hydrocarbons	-	-

CARBON NO. RANGE

Gasoline Range	-	-
Diesel Range	-	-
Motor Oil Range	-	-

PEAK CARBON NO

Gasoline Range	-	-
Diesel Range	-	-
Motor Oil Range	-	-



Mark Shih, Ph.D.
Chemist

October 22, 1990
Date

TOTAL PETROLEUM HYDROCARBONS
EPA METHOD 8015 (MODIFIED)

EUREKA LABORATORIES, INC.
6790 Florin-Perkins Road
Sacramento, CA 95828
(916) 381-7953

Order No: 90-10-088
Hazardous Waste Testing
Certification: E765

CLIENT: SUBSURFACE CONSULTANTS
PROJECT: 98TH & EDES
SCI JOB #: 272.016
SAMPLE ID: MW18

DATE RECEIVED: 10/08/1990
DATE EXTRACTED: 10/11/1990
DATE COMPLETED: 10/17/1990
DATE SAMPLED: 10/04/1990


<u>PETROLEUM HYDROCARBONS</u>	<u>CONCENTRATION</u> [mg/L (ppm)]	<u>DETECTION LIMIT</u> [mg/L (ppm)]
Gasoline Range	5.7	0.1
Diesel Range	<0.2	0.2
Motor Oil Range	<0.5	0.5
Total Petroleum Hydrocarbons	5.7	-

CARBON NO. RANGE

Gasoline Range	C9-C12	-
Diesel Range	-	-
Motor Oil Range	-	-

PEAK CARBON NO

Gasoline Range	C10	-
Diesel Range	-	-
Motor Oil Range	-	-



Mark Shih, Ph.D.
Chemist

October 22, 1990
Date

TOTAL PETROLEUM HYDROCARBONS
MODIFIED EPA METHOD 8015 (Modified)

EUREKA LABORATORIES, INC.
6790 Florin-Perkins Road
Sacramento, CA 95828
(916) 381-7953

Order No: 90-10-088
Hazardous Waste Testing
Certification: E765

CLIENT: SUBSURFACE CONSULTANTS
PROJECT: 98TH & EDES
SCI JOB #: 272.016
SAMPLE ID: REAGENT SPIKE RECOVERY *

DATE RECEIVED: 10/08/1990
DATE EXTRACTED: 10/11/1990
DATE COMPLETED: 10/17/1990

PETROLEUM HYDROCARBONS

SPIKE RECOVERY

Gasoline Range	93%
Diesel Range	-
Motor Oil Range	83%
Total Petroleum Hydrocarbons	-


CARBON NO. RANGE

Gasoline Range	-
Diesel Range	-
Motor Oil Range	-

PEAK CARBON NO

Gasoline Range	-
Diesel Range	-
Motor Oil Range	-

* Reagent spike set is used due to insufficient sample provided.



Mark Shih, Ph.D.
Chemist

October 22, 1990
Date

TOTAL PETROLEUM HYDROCARBONS
MODIFIED EPA METHOD 8015 (Modified)

EUREKA LABORATORIES, INC.
6790 Florin-Perkins Road
Sacramento, CA 95828
(916) 381-7953

Order No: 90-10-088
Hazardous Waste Testing
Certification: E765

CLIENT: SUBSURFACE CONSULTANTS	DATE RECEIVED: 10/08/1990
PROJECT: 98TH & EDES	DATE EXTRACTED: 10/11/1990
SCI JOB #: 272.016	DATE COMPLETED: 10/17/1990
SAMPLE ID: REAGENT SPIKE RECOVERY DUPLICATE *	

<u>PETROLEUM HYDROCARBONS</u>	<u>SPIKE RECOVERY</u>
Gasoline Range	90%
Diesel Range	-
Motor Oil Range	90%
Total Petroleum Hydrocarbons	-


CARBON NO. RANGE

Gasoline Range	-
Diesel Range	-
Motor Oil Range	-

PEAK CARBON NO

Gasoline Range	-
Diesel Range	-
Motor Oil Range	-

* Reagent spike set is used due to insufficient sample provided.



Mark Shih, Ph.D.
Chemist

October 22, 1990
Date

ORGANIC ANALYSIS REPORT

Halogenated Volatile Organics, EPA 601

EUREKA LABORATORIES, INC.
6790 Florin-Perkins Road
Sacramento, CA 95828
(916) 381-7953

Order No: 90-10-088
Hazardous Waste Testing
Certification: E765

CLIENT: SUBSURFACE CONSULTANTS
PROJECT: 98TH & EDES
SCI JOB #: 272.016
SAMPLE ID: BLANK

DATE RECEIVED: 10/08/1990
DATE EXTRACTED: 10/12/1990
DATE COMPLETED: 10/17/1990

COMP. No.	COMPOUND	ug/L	DETECTION	
			LIMIT	ug/L (ppb)
V1	Bromodichloromethane	<0.5	0.5	
V2	Bromoform	<0.5	0.5	
V3	Bromomethane	<0.5	0.5	
V4	Carbon tetrachloride	<0.5	0.5	
V5	Chlorobenzene	<0.5	0.5	
V6	Chloroethane	<0.5	0.5	
V7	Chloroform	<0.5	0.5	
V8	Chloromethane	<0.5	0.5	
V9	Dibromochloromethane	<0.5	0.5	
V10	Dibromomethane	<0.5	0.5	
V11	1,2-Dichlorobenzene	<0.5	0.5	
V12	1,3-Dichlorobenzene	<0.5	0.5	
V13	1,4-Dichlorobenzene	<0.5	0.5	
V14	1,1-Dichloroethane	<0.5	0.5	
V15	1,2-Dichloroethane	<0.5	0.5	
V16	1,1-Dichloroethylene (Vinylidene chloride)	<0.5	0.5	
V17	trans-1,2-Dichloroethylene	<0.5	0.5	
V18	Dichloromethane	<0.5	0.5	
V19	1,2-Dichloropropane	<0.5	0.5	
V20	cis-1,3-Dichloropropylene	<0.5	0.5	
V21	trans-1,3-Dichloropropylene	<0.5	0.5	
V22	1,1,2,2-Tetrachloroethane	<0.5	0.5	
V23	1,1,1,2-Tetrachloroethane	<0.5	0.5	
V24	Tetrachloroethylene	<0.5	0.5	
V25	1,1,1-Trichloroethane	<0.5	0.5	
V26	1,1,2-Trichloroethane	<0.5	0.5	
V27	Trichloroethylene	<0.5	0.5	
V28	Vinyl chloride	<0.5	0.5	
V29	Dichlorodifluoromethane	<0.5	0.5	
V30	Trichlorofluoromethane	<0.5	0.5	

Huey-Chen Chow
Huey-Chen Chow
Chemist

October 22, 1990

Date

ORGANIC ANALYSIS REPORT

Halogenated Volatile Organics, EPA 601

EUREKA LABORATORIES, INC.
6790 Florin-Perkins Road
Sacramento, CA 95828
(916) 381-7953

Order No: 90-10-088
Hazardous Waste Testing
Certification: E765

CLIENT: SUBSURFACE CONSULTANTS
PROJECT: 98TH & EDES
SCI JOB #: 272.016
SAMPLE ID: MW1

DATE RECEIVED: 10/08/1990
DATE EXTRACTED: 10/12/1990
DATE COMPLETED: 10/17/1990
DATE SAMPLED: 10/04/1990

COMP. No.	COMPOUND	ug/L	DETECTION LIMIT ug/L (ppb)
V1	Bromodichloromethane	<2500	2500
V2	Bromoform	<2500	2500
V3	Bromomethane	<2500	2500
V4	Carbon tetrachloride	<2500	2500
V5	Chlorobenzene	<2500	2500
V6	Chloroethane	<2500	2500
V7	Chloroform	<2500	2500
V8	Chloromethane	<2500	2500
V9	Dibromochloromethane	<2500	2500
V10	Dibromomethane	<2500	2500
V11	1,2-Dichlorobenzene	<2500	2500
V12	1,3-Dichlorobenzene	<2500	2500
V13	1,4-Dichlorobenzene	<2500	2500
V14	1,1-Dichloroethane	<2500	2500
V15	1,2-Dichloroethane	<2500	2500
V16	1,1-Dichloroethylene (Vinylidene chloride)	<2500	2500
V17	trans-1,2-Dichloroethylene	<2500	2500
V18	Dichloromethane	<2500	2500
V19	1,2-Dichloropropane	<2500	2500
V20	cis-1,3-Dichloropropylene	<2500	2500
V21	trans-1,3-Dichloropropylene	<2500	2500
V22	1,1,2,2-Tetrachloroethane	<2500	2500
V23	1,1,1,2-Tetrachloroethane	<2500	2500
V24	Tetrachloroethylene	<2500	2500
V25	1,1,1-Trichloroethane	<2500	2500
V26	1,1,2-Trichloroethane	<2500	2500
V27	Trichloroethylene	<2500	2500
V28	Vinyl chloride	<2500	2500
V29	Dichlorodifluoromethane	<2500	2500
V30	Trichlorofluoromethane	<2500	2500

* Higher detection limit is due to matrix interference.

Huey-Chen Chow
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Chemist

October 22, 1990

Date

ORGANIC ANALYSIS REPORT

Halogenated Volatile Organics, EPA 601

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6790 Florin-Perkins Road
Sacramento, CA 95828
(916) 381-7953

Order No: 90-10-088
Hazardous Waste Testing
Certification: E765

CLIENT: SUBSURFACE CONSULTANTS
PROJECT: 98TH & EDES
SCI JOB #: 272.016
SAMPLE ID: MW2

DATE RECEIVED: 10/08/1990
DATE EXTRACTED: 10/12/1990
DATE COMPLETED: 10/17/1990
DATE SAMPLED: 10/04/1990

COMP. No.	COMPOUND	ug/L	DETECTION LIMIT ug/L (ppb)
V1	Bromodichloromethane	<0.5	0.5
V2	Bromoform	<0.5	0.5
V3	Bromomethane	<0.5	0.5
V4	Carbon tetrachloride	<0.5	0.5
V5	Chlorobenzene	<0.5	0.5
V6	Chloroethane	<0.5	0.5
V7	Chloroform	<0.5	0.5
V8	Chloromethane	<0.5	0.5
V9	Dibromochloromethane	<0.5	0.5
V10	Dibromomethane	<0.5	0.5
V11	1,2-Dichlorobenzene	<0.5	0.5
V12	1,3-Dichlorobenzene	<0.5	0.5
V13	1,4-Dichlorobenzene	<0.5	0.5
V14	1,1-Dichloroethane	2.4	0.5
V15	1,2-Dichloroethane	<0.5	0.5
V16	1,1-Dichloroethylene (Vinylidene chloride)	<0.5	0.5
V17	trans-1,2-Dichloroethylene	<0.5	0.5
V18	Dichloromethane	<0.5	0.5
V19	1,2-Dichloropropane	<0.5	0.5
V20	cis-1,3-Dichloropropylene	<0.5	0.5
V21	trans-1,3-Dichloropropylene	<0.5	0.5
V22	1,1,2,2-Tetrachloroethane	<0.5	0.5
V23	1,1,1,2-Tetrachloroethane	<0.5	0.5
V24	Tetrachloroethylene	6.8	0.5
V25	1,1,1-Trichloroethane	6.3	0.5
V26	1,1,2-Trichloroethane	<0.5	0.5
V27	Trichloroethylene	18.7	0.5
V28	Vinyl chloride	<0.5	0.5
V29	Dichlorodifluoromethane	<0.5	0.5
V30	Trichlorofluoromethane	<0.5	0.5

Note: All positively identified compounds were second column confirmed.

Huey-Chen Chow

Huey-Chen Chow
Chemist

October 22, 1990

Date

ORGANIC ANALYSIS REPORT

Halogenated Volatile Organics, EPA 601

EUREKA LABORATORIES, INC.
6790 Florin-Perkins Road
Sacramento, CA 95828
(916) 381-7953

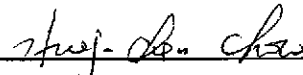
Order No: 90-10-088
Hazardous Waste Testing
Certification: E765

CLIENT: SUBSURFACE CONSULTANTS
PROJECT: 98TH & EDDES
SCI JOB #: 272.016
SAMPLE ID: MW3

DATE RECEIVED: 10/08/1990
DATE EXTRACTED: 10/12/1990
DATE COMPLETED: 10/17/1990
DATE SAMPLED: 10/04/1990

COMP. No.	COMPOUND	ug/L	DETECTION LIMIT ug/L (ppb)
V1	Bromodichloromethane	<0.5	0.5
V2	Bromoform	<0.5	0.5
V3	Bromomethane	<0.5	0.5
V4	Carbon tetrachloride	<0.5	0.5
V5	Chlorobenzene	<0.5	0.5
V6	Chloroethane	<0.5	0.5
V7	Chloroform	<0.5	0.5
V8	Chloromethane	<0.5	0.5
V9	Dibromochloromethane	<0.5	0.5
V10	Dibromomethane	<0.5	0.5
V11	1,2-Dichlorobenzene	<0.5	0.5
V12	1,3-Dichlorobenzene	<0.5	0.5
V13	1,4-Dichlorobenzene	<0.5	0.5
V14	1,1-Dichloroethane	<0.5	0.5
V15	1,2-Dichloroethane	<0.5	0.5
V16	1,1-Dichloroethylene (Vinylidene chloride)	<0.5	0.5
V17	trans-1,2-Dichloroethylene	<0.5	0.5
V18	Dichloromethane	<0.5	0.5
V19	1,2-Dichloropropane	<0.5	0.5
V20	cis-1,3-Dichloropropylene	<0.5	0.5
V21	trans-1,3-Dichloropropylene	<0.5	0.5
V22	1,1,2,2-Tetrachloroethane	<0.5	0.5
V23	1,1,1,2-Tetrachloroethane	<0.5	0.5
V24	Tetrachloroethylene	5.1	0.5
V25	1,1,1-Trichloroethane	11.0	0.5
V26	1,1,2-Trichloroethane	<0.5	0.5
V27	Trichloroethylene	24.5	0.5
V28	Vinyl chloride	<0.5	0.5
V29	Dichlorodifluoromethane	<0.5	0.5
V30	Trichlorofluoromethane	<0.5	0.5

Note: All positively identified compounds were second column confirmed.



Huey-Chen Chow
Chemist

October 22, 1990

Date

ORGANIC ANALYSIS REPORT

Halogenated Volatile Organics, EPA 601

EUREKA LABORATORIES, INC.
6790 Florin-Perkins Road
Sacramento, CA 95828
(916) 381-7953

Order No: 90-10-088
Hazardous Waste Testing
Certification: E765

CLIENT: SUBSURFACE CONSULTANTS
PROJECT: 98TH & EDES
SCI JOB #: 272.016
SAMPLE ID: MW4

DATE RECEIVED: 10/08/1990
DATE EXTRACTED: 10/12/1990
DATE COMPLETED: 10/17/1990
DATE SAMPLED: 10/04/1990

COMP. No.	COMPOUND	ug/L	DETECTION LIMIT ug/L (ppb)
V1	Bromodichloromethane	<0.5	0.5
V2	Bromoform	<0.5	0.5
V3	Bromomethane	<0.5	0.5
V4	Carbon tetrachloride	<0.5	0.5
V5	Chlorobenzene	<0.5	0.5
V6	Chloroethane	<0.5	0.5
V7	Chloroform	0.7	0.5
V8	Chloromethane	<0.5	0.5
V9	Dibromochloromethane	<0.5	0.5
V10	Dibromomethane	<0.5	0.5
V11	1,2-Dichlorobenzene	<0.5	0.5
V12	1,3-Dichlorobenzene	<0.5	0.5
V13	1,4-Dichlorobenzene	<0.5	0.5
V14	1,1-Dichloroethane	<0.5	0.5
V15	1,2-Dichloroethane	<0.5	0.5
V16	1,1-Dichloroethylene (Vinylidene chloride)	<0.5	0.5
V17	trans-1,2-Dichloroethylene	<0.5	0.5
V18	Dichloromethane	<0.5	0.5
V19	1,2-Dichloropropane	<0.5	0.5
V20	cis-1,3-Dichloropropylene	<0.5	0.5
V21	trans-1,3-Dichloropropylene	<0.5	0.5
V22	1,1,2,2-Tetrachloroethane	<0.5	0.5
V23	1,1,1,2-Tetrachloroethane	<0.5	0.5
V24	Tetrachloroethylene	95.5	0.5
V25	1,1,1-Trichloroethane	1.1	0.5
V26	1,1,2-Trichloroethane	<0.5	0.5
V27	Trichloroethylene	2.8	0.5
V28	Vinyl chloride	<0.5	0.5
V29	Dichlorodifluoromethane	<0.5	0.5
V30	Trichlorofluoromethane	<0.5	0.5

Note: All positively identified compounds were second column confirmed.

Huey Chen Chow

Huey-Chen Chow
Chemist

October 22, 1990

Date

ORGANIC ANALYSIS REPORT

Halogenated Volatile Organics, EPA 601

EUREKA LABORATORIES, INC.
6790 Florin-Perkins Road
Sacramento, CA 95828
(916) 381-7953

Order No: 90-10-088
Hazardous Waste Testing
Certification: E765

CLIENT: SUBSURFACE CONSULTANTS
PROJECT: 98TH & EDES
SCI JOB #: 272.016
SAMPLE ID: MW5

DATE RECEIVED: 10/08/1990
DATE EXTRACTED: 10/12/1990
DATE COMPLETED: 10/17/1990
DATE SAMPLED: 10/04/1990

COMP. No.	COMPOUND	ug/L	DETECTION LIMIT ug/L (ppb)
V1	Bromodichloromethane	<0.5	0.5
V2	Bromoform	<0.5	0.5
V3	Bromomethane	<0.5	0.5
V4	Carbon tetrachloride	<0.5	0.5
V5	Chlorobenzene	<0.5	0.5
V6	Chloroethane	<0.5	0.5
V7	Chloroform	<0.5	0.5
V8	Chloromethane	<0.5	0.5
V9	Dibromochloromethane	<0.5	0.5
V10	Dibromomethane	<0.5	0.5
V11	1,2-Dichlorobenzene	<0.5	0.5
V12	1,3-Dichlorobenzene	<0.5	0.5
V13	1,4-Dichlorobenzene	<0.5	0.5
V14	1,1-Dichloroethane	<0.5	0.5
V15	1,2-Dichloroethane	<0.5	0.5
V16	1,1-Dichloroethylene (Vinylidene chloride)	<0.5	0.5
V17	trans-1,2-Dichloroethylene	<0.5	0.5
V18	Dichloromethane	<0.5	0.5
V19	1,2-Dichloropropane	<0.5	0.5
V20	cis-1,3-Dichloropropylene	<0.5	0.5
V21	trans-1,3-Dichloropropylene	<0.5	0.5
V22	1,1,2,2-Tetrachloroethane	<0.5	0.5
V23	1,1,1,2-Tetrachloroethane	<0.5	0.5
V24	Tetrachloroethylene	0.7	0.5
V25	1,1,1-Trichloroethane	0.5	0.5
V26	1,1,2-Trichloroethane	<0.5	0.5
V27	Trichloroethylene	<0.5	0.5
V28	Vinyl chloride	<0.5	0.5
V29	Dichlorodifluoromethane	<0.5	0.5
V30	Trichlorofluoromethane	<0.5	0.5

Note: All positively identified compounds were second column confirmed.

Huey-Chen Chow
Huey-Chen Chow
Chemist

October 22, 1990

Date

ORGANIC ANALYSIS REPORT

Halogenated Volatile Organics, EPA 601

EUREKA LABORATORIES, INC.
6790 Florin-Perkins Road
Sacramento, CA 95828
(916) 381-7953

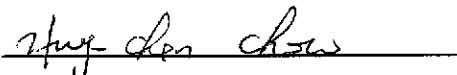
Order No: 90-10-088
Hazardous Waste Testing
Certification: E765

CLIENT: SUBSURFACE CONSULTANTS
PROJECT: 98TH & EDES
SCI JOB #: 272.016
SAMPLE ID: MW18

DATE RECEIVED: 10/08/1990
DATE EXTRACTED: 10/12/1990
DATE COMPLETED: 10/17/1990
DATE SAMPLED: 10/04/1990

COMP. No.	COMPOUND	ug/L	DETECTION LIMIT ug/L (ppb)
V1	Bromodichloromethane	<5	5
V2	Bromoform	<5	5
V3	Bromomethane	<5	5
V4	Carbon tetrachloride	<5	5
V5	Chlorobenzene	<5	5
V6	Chloroethane	<5	5
V7	Chloroform	<5	5
V8	Chloromethane	<5	5
V9	Dibromochloromethane	<5	5
V10	Dibromomethane	<5	5
V11	1,2-Dichlorobenzene	<5	5
V12	1,3-Dichlorobenzene	<5	5
V13	1,4-Dichlorobenzene	<5	5
V14	1,1-Dichloroethane	<5	5
V15	1,2-Dichloroethane	<5	5
V16	1,1-Dichloroethylene (Vinylidene chloride)	<5	5
V17	trans-1,2-Dichloroethylene	<5	5
V18	Dichloromethane	<5	5
V19	1,2-Dichloropropane	<5	5
V20	cis-1,3-Dichloropropylene	<5	5
V21	trans-1,3-Dichloropropylene	<5	5
V22	1,1,2,2-Tetrachloroethane	<5	5
V23	1,1,1,2-Tetrachloroethane	<5	5
V24	Tetrachloroethylene	6	5
V25	1,1,1-Trichloroethane	9	5
V26	1,1,2-Trichloroethane	<5	5
V27	Trichloroethylene	91	5
V28	Vinyl chloride	<5	5
V29	Dichlorodifluoromethane	<5	5
V30	Trichlorofluoromethane	<5	5

Note: All positively identified compounds were second column confirmed.
Higher detection limit is due to matrix interference.


Huey-Chen Chow
Chemist

October 22, 1990

Date

ORGANIC ANALYSIS REPORT

Halogenated Volatile Organics, EPA 601

EUREKA LABORATORIES, INC.
6790 Florin-Perkins Road
Sacramento, CA 95828
(916) 381-7953


Order No: 90-10-088
Hazardous Waste Testing
Certification: E765

CLIENT: SUBSURFACE CONSULTANTS
PROJECT: 98TH & EDES
SCI JOB #: 272.016
SAMPLE ID: REAGENT SPIKE RECOVERY *

DATE RECEIVED: 10/08/1990
DATE EXTRACTED: 10/12/1990
DATE COMPLETED: 10/17/1990

COMP. No.	COMPOUND		COMP No.	COMPOUND	
V1	Bromodichloromethane	-	V16	1,1-Dichloroethylene	82%
V2	Bromoform	-		(Vinylidene chloride)	
V3	Bromomethane	-	V17	trans-1,2-Dichloroethylene	81%
V4	Carbon tetrachloride	-	V18	Dichloromethane	-
V5	Chlorobenzene	99%	V19	1,2-Dichloropropane	88%
V6	Chloroethane	112%	V20	cis-1,3-Dichloropropylene	85%
V7	Chloroform	86%	V21	trans-1,3-Dichloropropylene	82%
V8	Chloromethane	-	V22	1,1,2,2-Tetrachloroethane	102%
V9	Dibromochloromethane	-	V23	1,1,1,2-Tetrachloroethane	-
V10	Dibromomethane	-	V24	Tetrachloroethylene	79%
V11	1,2-Dichlorobenzene	104%	V25	1,1,1-Trichloroethane	-
V12	1,3-Dichlorobenzene	101%	V26	1,1,2-Trichloroethane	93%
V13	1,4-Dichlorobenzene	98%	V27	Trichloroethylene	84%
V14	1,1-Dichloroethane	86%	V28	Vinyl chloride	-
V15	1,2-Dichloroethane	92%	V29	Dichlorodifluoromethane	-
			V30	Trichlorofluoromethane	81%

* Reagent spike set is used due to insufficient sample provided.


Huey-Chen Chow
Chemist

October 22, 1990
Date

ORGANIC ANALYSIS REPORT

Halogenated Volatile Organics, EPA 601

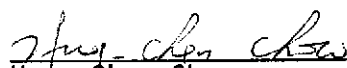
EUREKA LABORATORIES, INC.
6790 Florin-Perkins Road
Sacramento, CA 95828
(916) 381-7953

Order No: 90-10-088
Hazardous Waste Testing
Certification: E765

CLIENT: SUBSURFACE CONSULTANTS	DATE RECEIVED: 10/08/1990
PROJECT: 98TH & EDES	DATE EXTRACTED: 10/12/1990
SCI JOB #: 272.016	DATE COMPLETED: 10/17/1990
SAMPLE ID: REAGENT SPIKE RECOVERY DUPLICATE *	

COMP. No.	COMPOUND		COMP No.	COMPOUND	
V1	Bromodichloromethane	-	V16	1,1-Dichloroethylene	82%
V2	Bromoform	-		(Vinylidene chloride)	
V3	Bromomethane	-	V17	trans-1,2-Dichloroethylene	86%
V4	Carbon tetrachloride	-	V18	Dichloromethane	-
V5	Chlorobenzene	95%	V19	1,2-Dichloropropane	89%
V6	Chloroethane	86%	V20	cis-1,3-Dichloropropylene	89%
V7	Chloroform	93%	V21	trans-1,3-Dichloropropylene	81%
V8	Chloromethane	-	V22	1,1,2,2-Tetrachloroethane	104%
V9	Dibromochloromethane	-	V23	1,1,1,2-Tetrachloroethane	-
V10	Dibromomethane	-	V24	Tetrachloroethylene	93%
V11	1,2-Dichlorobenzene	92%	V25	1,1,1-Trichloroethane	-
V12	1,3-Dichlorobenzene	94%	V26	1,1,2-Trichloroethane	90%
V13	1,4-Dichlorobenzene	95%	V27	Trichloroethylene	84%
V14	1,1-Dichloroethane	88%	V28	Vinyl chloride	-
V15	1,2-Dichloroethane	87%	V29	Dichlorodifluoromethane	-
			V30	Trichlorofluoromethane	84%

* Reagent spike set is used due to insufficient sample provided.


Huey Chen Chow
Chemist

October 22, 1990
Date

ORGANIC ANALYSIS REPORT
Aromatic Volatile Organics, EPA Method 602

EUREKA LABORATORIES, INC.
6790 Florin-Perkins Road
Sacramento, CA 95828
(916) 381-7953

Order No: 90-10-088
Hazardous Waste Testing
Certification: E765

CLIENT: SUBSURFACE CONSULTANTS
PROJECT: 98TH & EDES
SCI JOB #: 272.016
SAMPLE ID: BLANK

DATE RECEIVED: 10/08/1990
DATE EXTRACTED: 10/12/1990
DATE COMPLETED: 10/17/1990

COMP. NO.	COMPOUND	ug/L (ppb)	DETECTION LIMIT ug/L (ppb)
V1	Benzene	<0.5	0.5
V2	Chlorobenzene	<0.5	0.5
V3	1,2-Dichlorobenzene	<0.5	0.5
V4	1,3-Dichlorobenzene	<0.5	0.5
V5	1,4-Dichlorobenzene	<0.5	0.5
V6	Ethyl benzene	<0.5	0.5
V7	Toluene	<0.5	0.5
V8	Xylenes (Dimethyl benzenes)	<0.5	0.5

Huey-Chen Chow
Huey-Chen Chow October 22, 1990
Chemist Date

ORGANIC ANALYSIS REPORT
Aromatic Volatile Organics, EPA Method 602

EUREKA LABORATORIES, INC.
6790 Florin-Perkins Road
Sacramento, CA 95828
(916) 381-7953

Order No: 90-10-088
Hazardous Waste Testing
Certification: E765

CLIENT: SUBSURFACE CONSULTANTS
PROJECT: 98TH & EDES
SCI JOB #: 272.016
SAMPLE ID: MW1


DATE RECEIVED: 10/08/1990
DATE EXTRACTED: 10/12/1990
DATE COMPLETED: 10/17/1990
DATE SAMPLED: 10/04/1990

COMP. NO.	COMPOUND	ug/L (ppb)	DETECTION LIMIT ug/L (ppb)
V1	Benzene	7780	2500
V2	Chlorobenzene	<2500	2500
V3	1,2-Dichlorobenzene	<2500	2500
V4	1,3-Dichlorobenzene	<2500	2500
V5	1,4-Dichlorobenzene	<2500	2500
V6	Ethyl benzene	20000	2500
V7	Toluene	26700	2500
V8	Xylenes (Dimethyl benzenes)	203000	2500

* Higher detection limit is due to matrix interference.

Note:

All positively identified compounds were second column confirmed.


Huey-Chen Chow
Chemist

October 22, 1990
Date

ORGANIC ANALYSIS REPORT
Aromatic Volatile Organics, EPA Method 602

EUREKA LABORATORIES, INC.
6790 Florin-Perkins Road
Sacramento, CA 95828
(916) 381-7953

Order No: 90-10-088
Hazardous Waste Testing
Certification: E765

CLIENT: SUBSURFACE CONSULTANTS	DATE RECEIVED: 10/08/1990
PROJECT: 98TH & EDES	DATE EXTRACTED: 10/12/1990
SCI JOB #: 272.016	DATE COMPLETED: 10/17/1990
SAMPLE ID: MW2	DATE SAMPLED: 10/04/1990

COMP. NO.	COMPOUND	ug/L (ppb)	DETECTION LIMIT ug/L (ppb)
V1	Benzene	<0.5	0.5
V2	Chlorobenzene	<0.5	0.5
V3	1,2-Dichlorobenzene	<0.5	0.5
V4	1,3-Dichlorobenzene	<0.5	0.5
V5	1,4-Dichlorobenzene	<0.5	0.5
V6	Ethyl benzene	<0.5	0.5
V7	Toluene	<0.5	0.5
V8	Xylenes (Dimethyl benzenes)	<0.5	0.5

Huey Chen Chow
Huey Chen Chow October 22, 1990
Chemist Date

ORGANIC ANALYSIS REPORT
Aromatic Volatile Organics, EPA Method 602

EUREKA LABORATORIES, INC.
6790 Florin-Perkins Road
Sacramento, CA 95828
(916) 381-7953

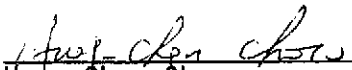
Order No: 90-10-088
Hazardous Waste Testing
Certification: E765

CLIENT: SUBSURFACE CONSULTANTS	DATE RECEIVED: 10/08/1990
PROJECT: 98TH & EDES	DATE EXTRACTED: 10/12/1990
SCI JOB #: 272.016	DATE COMPLETED: 10/17/1990
SAMPLE ID: MW3	DATE SAMPLED: 10/04/1990

COMP. NO.	COMPOUND	ug/L (ppb)	DETECTION LIMIT ug/L (ppb)
V1	Benzene	<0.5	0.5
V2	Chlorobenzene	<0.5	0.5
V3	1,2-Dichlorobenzene	<0.5	0.5
V4	1,3-Dichlorobenzene	<0.5	0.5
V5	1,4-Dichlorobenzene	<0.5	0.5
V6	Ethyl benzene	<0.5	0.5
V7	Toluene	<0.5	0.5
V8	Xylenes (Dimethyl benzenes)	8.5	0.5

Note:

All positively identified compounds were second column confirmed.


Huey-Chen Chow October 22, 1990
Chemist Date

ORGANIC ANALYSIS REPORT
Aromatic Volatile Organics, EPA Method 602

EUREKA LABORATORIES, INC.
6790 Florin-Perkins Road
Sacramento, CA 95828
(916) 381-7953

Order No: 90-10-088
Hazardous Waste Testing
Certification: E765

CLIENT: SUBSURFACE CONSULTANTS
PROJECT: 98TH & EDES
SCI JOB #: 272.016
SAMPLE ID: MW4

DATE RECEIVED: 10/08/1990
DATE EXTRACTED: 10/12/1990
DATE COMPLETED: 10/17/1990
DATE SAMPLED: 10/04/1990

COMP. NO.	COMPOUND	ug/L (ppb)	DETECTION LIMIT ug/L (ppb)
V1	Benzene	<0.5	0.5
V2	Chlorobenzene	<0.5	0.5
V3	1,2-Dichlorobenzene	<0.5	0.5
V4	1,3-Dichlorobenzene	<0.5	0.5
V5	1,4-Dichlorobenzene	<0.5	0.5
V6	Ethyl benzene	<0.5	0.5
V7	Toluene	<0.5	0.5
V8	Xylenes (Dimethyl benzenes)	<0.5	0.5

Huey-Chen Chow
Huey-Chen Chow
Chemist

October 22, 1990
Date

ORGANIC ANALYSIS REPORT
Aromatic Volatile Organics, EPA Method 602

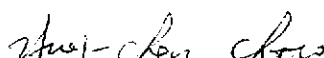
EUREKA LABORATORIES, INC.
6790 Florin-Perkins Road
Sacramento, CA 95828
(916) 381-7953

Order No: 90-10-088
Hazardous Waste Testing
Certification: E765

CLIENT: SUBSURFACE CONSULTANTS
PROJECT: 98TH & EDES
SCI JOB #: 272.016
SAMPLE ID: MW5

DATE RECEIVED: 10/08/1990
DATE EXTRACTED: 10/12/1990
DATE COMPLETED: 10/17/1990
DATE SAMPLED: 10/04/1990

COMP. NO.	COMPOUND	ug/L (ppb)	DETECTION LIMIT ug/L (ppb)
V1	Benzene	<0.5	0.5
V2	Chlorobenzene	<0.5	0.5
V3	1,2-Dichlorobenzene	<0.5	0.5
V4	1,3-Dichlorobenzene	<0.5	0.5
V5	1,4-Dichlorobenzene	<0.5	0.5
V6	Ethyl benzene	<0.5	0.5
V7	Toluene	<0.5	0.5
V8	Xylenes (Dimethyl benzenes)	<0.5	0.5


Huey-Chen Chow
Chemist

October 22, 1990
Date

ORGANIC ANALYSIS REPORT
Aromatic Volatile Organics, EPA Method 602

EUREKA LABORATORIES, INC.
6790 Florin-Perkins Road
Sacramento, CA 95828
(916) 381-7953

Order No: 90-10-088
Hazardous Waste Testing
Certification: E765

CLIENT: SUBSURFACE CONSULTANTS
PROJECT: 98TH & EDES
SCI JOB #: 272.016
SAMPLE ID: MW18

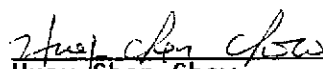
DATE RECEIVED: 10/08/1990
DATE EXTRACTED: 10/12/1990
DATE COMPLETED: 10/17/1990
DATE SAMPLED: 10/04/1990

COMP. NO.	COMPOUND	ug/L (ppb)	DETECTION LIMIT ug/L (ppb)
V1	Benzene	82	5
V2	Chlorobenzene	<5	5
V3	1,2-Dichlorobenzene	<5	5
V4	1,3-Dichlorobenzene	<5	5
V5	1,4-Dichlorobenzene	<5	5
V6	Ethyl benzene	190	5
V7	Toluene	40	5
V8	Xylenes (Dimethyl benzenes)	635	5

* Higher detection limit is due to matrix interference.

Note:

All positively identified compounds were second column confirmed.


Huey-Chen Chow
Chemist

October 22, 1990
Date

ORGANIC ANALYSIS REPORT
Aromatic Volatile Organics, EPA Method 602

EUREKA LABORATORIES, INC.
6790 Florin-Perkins Road
Sacramento, CA 95828
(916) 381-7953

Order No: 90-10-088
Hazardous Waste Testing
Certification: E765

CLIENT: SUBSURFACE CONSULTANTS
PROJECT: 98TH & EDES
SCI JOB #: 272.016
SAMPLE ID: REAGENT SPIKE RECOVERY *

DATE RECEIVED: 10/08/1990
DATE EXTRACTED: 10/12/1990
DATE COMPLETED: 10/17/1990

<u>COMP. NO.</u>	<u>COMPOUND</u>	<u>SPIKE RECOVERY</u>
V1	Benzene	85%
V2	Chlorobenzene	95%
V3	1,2-Dichlorobenzene	-
V4	1,3-Dichlorobenzene	92%
V5	1,4-Dichlorobenzene	90%
V6	Ethyl benzene	85%
V7	Toluene	91%
V8	Xylenes (Dimethyl benzenes)	87%

* Reagent spike set is used due to insufficient sample provided.

Huey-Chen Chow
Huey-Chen Chow
Chemist

October 22, 1990
Date

ORGANIC ANALYSIS REPORT
Aromatic Volatile Organics, EPA Method 602

EUREKA LABORATORIES, INC.
6790 Florin-Perkins Road
Sacramento, CA 95828
(916) 381-7953

Order No: 90-10-088
Hazardous Waste Testing
Certification: E765

CLIENT: SUBSURFACE CONSULTANTS	DATE RECEIVED: 10/08/1990
PROJECT: 98TH & EDES	DATE EXTRACTED: 10/12/1990
SCI JOB #: 272.016	DATE COMPLETED: 10/17/1990
SAMPLE ID: REAGENT SPIKE RECOVERY DUPLICATE *	

<u>COMP.</u> <u>NO.</u>	<u>COMPOUND</u>	<u>SPIKE RECOVERY</u>
V1	Benzene	107%
V2	Chlorobenzene	102%
V3	1,2-Dichlorobenzene	-
V4	1,3-Dichlorobenzene	101%
V5	1,4-Dichlorobenzene	96%
V6	Ethyl benzene	95%
V7	Toluene	99%
V8	Xylenes (Dimethyl benzenes)	98%

* Reagent spike set is used due to insufficient sample provided.

Huey Chen Chow October 22, 1990
Huey Chen Chow Date
Chemist



Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878

2323 Fifth Street, Berkeley, CA 94710, Phone (415) 486-0900

DATE RECEIVED: 07/03/90

DATE REPORTED: 07/16/90

PAGE 1 OF 9

LAB NUMBER: 100961

CLIENT: SUBSURFACE CONSULTANTS

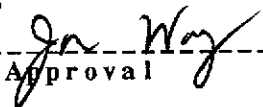
REPORT ON: 6 WATER SAMPLES

PROJECT #: 272.016
LOCATION: 98TH & EDES, PHASE 2

RESULTS: SEE ATTACHED



QA/QC Approval



Final Approval



LABORATORY NUMBER: 100961
CLIENT: SUBSURFACE CONSULTANTS
JOB #: 272.016
LOCATION: 98TH & EDES, PHASE 2

DATE RECEIVED: 07/03/90
DATE EXTRACTED: 07/06/90
DATE ANALYZED: 07/09/90
DATE REPORTED: 07/16/90
PAGE 2 OF 9

Extractable Petroleum Hydrocarbons in Aqueous Solutions
California DOHS Method
LUFT Manual October 1989

LAB ID	CLIENT ID	GASOLINE RANGE (mg/L)	KEROSENE RANGE (mg/L)	DIESEL RANGE (mg/L)	REPORTING LIMIT (mg/L)
100961-1	MW1 (6/30/90)	0.95	ND	ND	0.5
100961-2	MW2 (6/30/90)	ND	ND	ND	0.5
100961-3	MW3 (6/30/90)	2.6	ND	ND	0.5
100961-4	MW4 (6/30/90)	ND	ND	ND	0.5
100961-5	MW5 (6/30/90)	ND	ND	ND	0.5
100961-6	18 (6/30/90)	26	ND	2.4	0.5

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

RPD, %	4
RECOVERY, %	91



LABORATORY NUMBER: 100961
CLIENT: SUBSURFACE CONSULTANTS
JOB NUMBER: 272.016
JOB LOCATION: 98TH & EDES, PHASE 2

DATE RECEIVED: 07/03/90
DATE ANALYZED: 07/16/90
DATE REPORTED: 07/16/90
PAGE 3 OF 9

Total Volatile Hydrocarbons with BTXE in Aqueous Solutions
TVH by California DOHS Method/LUFT Manual October 1989
BTXE by EPA 5030/8020

LAB ID	CLIENT ID	TVH AS GASOLINE (ug/L)	BENZENE (ug/L)	TOLUENE (ug/L)	ETHYL BENZENE (ug/L)	TOTAL XYLENES (ug/L)
100961-1	MW1 (6/30/90)	ND(50)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
100961-2	MW2 (6/30/90)	ND(50)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
100961-3	MW3 (6/30/90)	850	ND(0.5)	ND(0.5)	ND(0.5)	44
100961-4	MW4 (6/30/90)	ND(50)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
100961-5	MW5 (6/30/90)	ND(50)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
100961-6	18 (6/30/90)	20,000	660	470	180	2,000

ND = Not detected at or above reporting limit; Reporting limit indicated in parentheses.

QA/QC SUMMARY

RPD, %	1
RECOVERY, %	106

LABORATORY NUMBER: 100961-1
 CLIENT: SUBSURFACE CONSULTANTS
 PROJECT #: 262.016
 LOCATION: 98TH & EDES, PHASE 2
 SAMPLE ID: MW1 (6/30/90)

DATE RECEIVED: 07/03/90
 DATE ANALYZED: 07/03/90
 DATE REPORTED: 07/16/90
 PAGE 4 OF 9

EPA 8010
 Purgeable Halocarbons in Water

Compound	Result ug/L	Reporting Limit ug/L
chloromethane	ND	2.0
bromomethane	ND	2.0
vinyl chloride	ND	2.0
chloroethane	ND	2.0
methylene chloride	ND	1.0
trichlorofluoromethane	ND	1.0
1,1-dichloroethene	ND	1.0
1,1-dichloroethane	4.1	1.0
1,2-dichloroethene (total)	ND	1.0
chloroform	ND	1.0
freon 113	ND	1.0
1,2-dichloroethane	ND	1.0
1,1,1-trichloroethane	8.0	1.0
carbon tetrachloride	ND	1.0
bromodichloromethane	ND	1.0
1,2-dichloropropane	ND	1.0
cis-1,3-dichloropropene	ND	1.0
trichloroethylene	13	1.0
1,1,2-trichloroethane	ND	1.0
trans-1,3-dichloropropene	ND	1.0
dibromochloromethane	ND	1.0
2-chloroethylvinyl ether	ND	1.0
bromoform	ND	1.0
tetrachloroethene	2.8	1.0
1,1,2,2-tetrachloroethane	ND	1.0
chlorobenzene	ND	1.0
1,3-dichlorobenzene	ND	1.0
1,2-dichlorobenzene	ND	1.0
1,4-dichlorobenzene	ND	1.0

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

RPD, %	4
RECOVERY, %	82

LABORATORY NUMBER: 100961-2
 CLIENT: SUBSURFACE CONSULTANTS
 PROJECT #: 262.016
 LOCATION: 98TH & EDES, PHASE 2
 SAMPLE ID: MW2 (6/30/90)

DATE RECEIVED: 07/03/90
 DATE ANALYZED: 07/03/90
 DATE REPORTED: 07/16/90
 PAGE 5 OF 9

EPA 8010
 Purgeable Halocarbons in Water

Compound	Result ug/L	Reporting Limit ug/L
chloromethane	ND	2.0
bromomethane	ND	2.0
vinyl chloride	ND	2.0
chloroethane	ND	2.0
methylene chloride	ND	1.0
trichlorofluoromethane	ND	1.0
1,1-dichloroethene	3.1	1.0
1,1-dichloroethane	5.1	1.0
1,2-dichloroethene (total)	4.8	1.0
chloroform	ND	1.0
freon 113	ND	1.0
1,2-dichloroethane	ND	1.0
1,1,1-trichloroethane	15	1.0
carbon tetrachloride	ND	1.0
bromodichloromethane	ND	1.0
1,2-dichloropropane	ND	1.0
cis-1,3-dichloropropene	ND	1.0
trichloroethylene	35	1.0
1,1,2-trichloroethane	ND	1.0
trans-1,3-dichloropropene	ND	1.0
dibromochloromethane	ND	1.0
2-chloroethylvinyl ether	ND	1.0
bromoform	ND	1.0
tetrachloroethene	16	1.0
1,1,2,2-tetrachloroethane	ND	1.0
chlorobenzene	ND	1.0
1,3-dichlorobenzene	ND	1.0
1,2-dichlorobenzene	ND	1.0
1,4-dichlorobenzene	ND	1.0

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

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RPD, %                                     4
RECOVERY, %                               82
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LABORATORY NUMBER: 100961-3
 CLIENT: SUBSURFACE CONSULTANTS
 PROJECT #: 262.016
 LOCATION: 98TH & EDES, PHASE 2
 SAMPLE ID: MW3 (6/30/90)

DATE RECEIVED: 07/03/90
 DATE ANALYZED: 07/03/90
 DATE REPORTED: 07/16/90
 PAGE 6 OF 9

EPA 8010
 Purgeable Halocarbons in Water

Compound	Result ug/L	Reporting Limit ug/L
chloromethane	ND	2.0
bromomethane	ND	2.0
vinyl chloride	ND	2.0
chloroethane	ND	2.0
methylene chloride	ND	1.0
trichlorofluoromethane	ND	1.0
1,1-dichloroethene	1.3	1.0
1,1-dichloroethane	2.1	1.0
1,2-dichloroethene (total)	3.5	1.0
chloroform	ND	1.0
freon 113	ND	1.0
1,2-dichloroethane	ND	1.0
1,1,1-trichloroethane	21	1.0
carbon tetrachloride	ND	1.0
bromodichloromethane	ND	1.0
1,2-dichloropropane	ND	1.0
cis-1,3-dichloropropene	ND	1.0
trichloroethylene	26	1.0
1,1,2-trichloroethane	ND	1.0
trans-1,3-dichloropropene	ND	1.0
dibromochloromethane	ND	1.0
2-chloroethylvinyl ether	ND	1.0
bromoform	ND	1.0
tetrachloroethene	6.2	1.0
1,1,2,2-tetrachloroethane	ND	1.0
chlorobenzene	ND	1.0
1,3-dichlorobenzene	ND	1.0
1,2-dichlorobenzene	ND	1.0
1,4-dichlorobenzene	ND	1.0

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

RPD, %	4
RECOVERY, %	82



LABORATORY NUMBER: 100961-4
CLIENT: SUBSURFACE CONSULTANTS
PROJECT #: 262.016
LOCATION: 98TH & EDES, PHASE 2
SAMPLE ID: MW4 (6/30/90)

DATE RECEIVED: 07/03/90
DATE ANALYZED: 07/03/90
DATE REPORTED: 07/16/90
PAGE 7 OF 9

EPA 8010
Purgeable Halocarbons in Water

Compound	Result ug/L	Reporting Limit ug/L
chloromethane	ND	2.0
bromomethane	ND	2.0
vinyl chloride	ND	2.0
chloroethane	ND	2.0
methylene chloride	ND	1.0
trichlorofluoromethane	ND	1.0
1,1-dichloroethene	ND	1.0
1,1-dichloroethane	ND	1.0
1,2-dichloroethene (total)	ND	1.0
chloroform	ND	1.0
freon 113	ND	1.0
1,2-dichloroethane	ND	1.0
1,1,1-trichloroethane	2.7	1.0
carbon tetrachloride	ND	1.0
bromodichloromethane	ND	1.0
1,2-dichloropropane	ND	1.0
cis-1,3-dichloropropene	ND	1.0
trichloroethylene	3.0	1.0
1,1,2-trichloroethane	ND	1.0
trans-1,3-dichloropropene	ND	1.0
dibromochloromethane	ND	1.0
2-chloroethylvinyl ether	ND	1.0
bromoform	ND	1.0
tetrachloroethene	260	1.0
1,1,2,2-tetrachloroethane	ND	1.0
chlorobenzene	ND	1.0
1,3-dichlorobenzene	ND	1.0
1,2-dichlorobenzene	ND	1.0
1,4-dichlorobenzene	ND	1.0

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

RPD, %	4
RECOVERY, %	82

LABORATORY NUMBER: 100961-5
 CLIENT: SUBSURFACE CONSULTANTS
 PROJECT #: 262.016
 LOCATION: 98TH & EDES, PHASE 2
 SAMPLE ID: MW5 (6/30/90)

DATE RECEIVED: 07/03/90
 DATE ANALYZED: 07/03/90
 DATE REPORTED: 07/16/90
 PAGE 8 OF 9

EPA 8010
 Purgeable Halocarbons in Water

Compound	Result ug/L	Reporting Limit ug/L
chloromethane	ND	2.0
bromomethane	ND	2.0
vinyl chloride	ND	2.0
chloroethane	ND	2.0
methylene chloride	ND	1.0
trichlorofluoromethane	ND	1.0
1,1-dichloroethene	ND	1.0
1,1-dichloroethane	ND	1.0
1,2-dichloroethene (total)	ND	1.0
chloroform	ND	1.0
freon 113	ND	1.0
1,2-dichloroethane	ND	1.0
1,1,1-trichloroethane	1.3	1.0
carbon tetrachloride	ND	1.0
bromodichloromethane	ND	1.0
1,2-dichloropropane	ND	1.0
cis-1,3-dichloropropene	ND	1.0
trichloroethylene	ND	1.0
1,1,2-trichloroethane	ND	1.0
trans-1,3-dichloropropene	ND	1.0
dibromochloromethane	ND	1.0
2-chloroethylvinyl ether	ND	1.0
bromoform	ND	1.0
tetrachloroethene	2.1	1.0
1,1,2,2-tetrachloroethane	ND	1.0
chlorobenzene	ND	1.0
1,3-dichlorobenzene	ND	1.0
1,2-dichlorobenzene	ND	1.0
1,4-dichlorobenzene	ND	1.0

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

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RPD, %                                4
RECOVERY, %                            82
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LABORATORY NUMBER: 100961-6
 CLIENT: SUBSURFACE CONSULTANTS
 PROJECT #: 262.016
 LOCATION: 98TH & EDES, PHASE 2
 SAMPLE ID: 18 (6/30/90)

DATE RECEIVED: 07/03/90
 DATE ANALYZED: 07/06/90
 DATE REPORTED: 07/16/90
 PAGE 9 OF 9

EPA 8010
 Purgeable Halocarbons in Water

Compound	Result ug/L	Reporting Limit ug/L
chloromethane	ND	20
bromomethane	ND	20
vinyl chloride	ND	20
chloroethane	ND	20
methylene chloride	ND	10
trichlorofluoromethane	ND	10
1,1-dichloroethene	ND	10
1,1-dichloroethane	ND	10
1,2-dichloroethene (total)	ND	10
chloroform	ND	10
freon 113	ND	10
1,2-dichloroethane	ND	10
1,1,1-trichloroethane	ND	10
carbon tetrachloride	ND	10
bromodichloromethane	ND	10
1,2-dichloropropane	ND	10
cis-1,3-dichloropropene	ND	10
trichloroethylene	ND	10
1,1,2-trichloroethane	ND	10
trans-1,3-dichloropropene	ND	10
dibromochloromethane	ND	10
2-chloroethylvinyl ether	ND	10
bromoform	ND	10
tetrachloroethene	ND	10
1,1,2,2-tetrachloroethane	ND	10
chlorobenzene	ND	10
1,3-dichlorobenzene	ND	10
1,2-dichlorobenzene	ND	10
1,4-dichlorobenzene	ND	10

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

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 RPD, % 5
 RECOVERY, % 80
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