

ALCO
HAZMAT

94 AUG 26 PM 3:50

SEACOR

Science & Engineering
Analysis Corporation

August 25, 1994

Mr. Brian P. Oliva
Hazardous Material Inspector
ACDEH
1131 Harbor Bay Pkwy., 2nd Floor
Alameda, CA 94502-6577

**REF : SOIL SAMPLING RESULTS, 4331 SAN PABLO AVENUE, EMERYVILLE,
CALIFORNIA**

Dear Mr. Oliva,

The following letter of transmittal contains the chemical analytical results, requested in your Hazardous Material Inspection form dated August 16, 1994, for four sidewall soil samples and a confirmatory excavation soil sample collected following overexcavation beneath the former fuel dispenser, at the above referenced Site. Soil sampling was conducted by SEACOR on August 16, 1994.

Sampling of the excavation sidewalls was conducted under the supervision of Mr. Brian Oliva of the ACDEH. Samples 1, 2, 3 and 4, were collected at a depth of seven (7) feet below ground surface from each of the four sidewalls of the existing excavation (See Figure for sample locations). Each of the sidewalls was first scarified at the desired sampling location, and then samples were collected using the following procedures described below.

Overexcavation was performed in the area of the former fuel dispenser to remove hydrocarbon- affected soils. The excavation was approximately three (3) feet wide and encompassed the region in and around the former fuel dispenser. At a depth of approximately three (3) feet below ground surface (bgs), concrete was encountered at the base and the sidewalls of the excavation. Further excavation towards the building and the sidewalls was not performed because the sample concrete would have prevented the migration of the fuel product towards other areas in and around the excavation. The backhoe was then used to break the concrete only at the base so as to obtain a confirmatory soil sample (Sample 5) beneath the concrete. This sample was taken at an approximate depth of five (5) feet bgs.

Soil samples were collected by scooping soil from the desired sample location with a backhoe and driving brass sample tubes into the soil in the excavator bucket. The sample tubes were then capped, labeled, and placed in a cooler containing dry ice. Soil samples were transported to Superior Analytical Laboratory (Superior) in San Francisco, California and analyzed for total petroleum hydrocarbons as gasoline (TPHg) and diesel (TPHd) by U.S. Environmental Protection Agency (EPA) Method 8015 modified, and benzene, toluene, ethylbenzene, and total xylenes (BTEX compounds) by EPA Method 8020.

Soil samples collected from the excavation sidewalls were reported to contain TPHg at concentrations ranging from 3 parts per million (ppm) to a maximum of 190 ppm, and TPHd concentrations ranging

EMRYSWAL.LTR
50100-003-07

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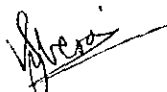
from 28 ppm to 260 ppm. The highest TPHg concentrations (150 ppm and 190 ppm) were detected in samples 1 and 2 collected from the western and southern sidewalls, respectively. TPHg concentrations in the northern and eastern sidewall samples were 29 ppm and 3 ppm, respectively. TPHd concentrations in the sidewall samples ranged from 28 ppm to a maximum of 260 ppm. The highest TPHd concentration (260 ppm) was detected in the southern sidewall sample (Sample 2). TPHd concentrations in other sidewall samples were below 100 ppm. BTEX concentrations for the four sidewall samples ranged from below the 0.005 ppm detection limit to a maximum of 9.6 ppm. Sidewall sampling results reveal that soil containing petroleum hydrocarbons in excess of 100 ppm are present to the south and west of the former UST, while soil along the eastern and northern sidewalls contain negligible TPHg (less than 50 ppm) and TPHd (less than 100 ppm) concentrations.

The TPHg concentration in the confirmatory soil sample collected from beneath the former fuel dispenser (Sample 5) was 5 ppm, and TPHd was not detected above 10 ppm. BTEX was detected in Sample 5 at a maximum concentration of 0.36 ppm. These results indicate that overexcavation beneath the former fuel dispenser removed the majority of the hydrocarbon-affected soil, and only minor concentrations remain.

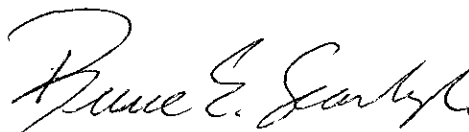
It is our understanding that the case will be transferred to the local oversight program for further review. We are presently in the process of consultation with the City of Emeryville with regards to a future course of action for the Site. If you have any questions or require any additional information, please feel free to contact us at (415) 882-1548.

Sincerely,

Science & Engineering Analysis Corporation



Varinder S. Oberoi
Project Engineer



Bruce E. Scarbrough, R.E.A., R.G.
Principal-in-Charge

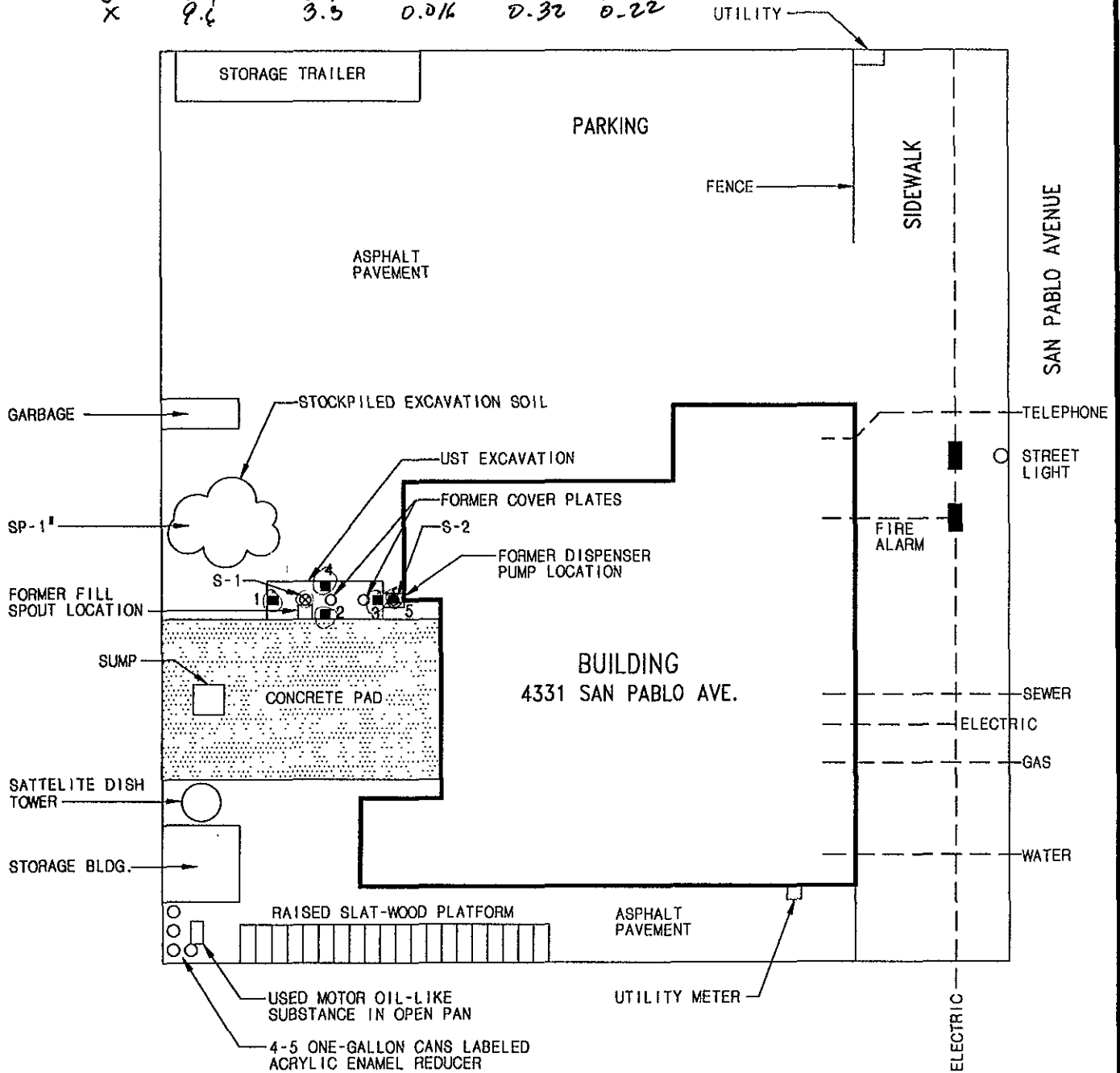
Attachments: 1) Figure
2) Analytical Laboratory Report

cc: Mr. Juan Arreguin, City of Emeryville DPW

8/19/94

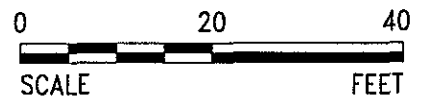
(CRW)

	S1	S2	S3	S4	S5
TPHs	150	190	3	29	5
TPHd	49	260	96	28	ND
BTEX	ND	0.38	ND	0.12	0.20
	0.37	0.34	.057	.079	0.023
	2.4	3.9	0.05	0.63	0.36
	9.6	3.5	0.016	0.32	0.22



LEGEND:

- COMPOSITE SAMPLE
- SIDEWALL SOIL SAMPLE
- ▲ OVEREXCAVATION SOIL SAMPLE



199407.281516 \JOBS\EMERY\SITE

SEACOR
ENVIRONMENTAL
ENGINEERING

DRAWN	CCR
APPR	SB
DATE	17AUG94
JOB NO.	50100-003-01

FIGURE
CITY OF EMERYVILLE
4331 SAN PABLO AVENUE
EMERYVILLE, CALIFORNIA

SITE PLAN



Superior Precision Analytical, Inc.

A member of ESSCON Environmental Support Service Consortium

SEACOR
Attn: BRUCE SCARBROUGH

Project 50100-003-01
Reported 19-August-1994

ANALYSIS FOR GASOLINE, BENZENE, TOLUENE, ETHYLBENZENE, AND XYLENES
by EPA SW-846 Methods 5030/8015M/8020.

Chronology

Laboratory Number 58576

Identification	Sampled	Received	Extracted	Analyzed	Run #	Lab #
1	08/16/94	08/16/94	08/16/94	08/16/94		1
2	08/16/94	08/16/94	08/16/94	08/17/94		2
3	08/16/94	08/16/94	08/16/94	08/17/94		3
4	08/16/94	08/16/94	08/16/94	08/17/94		4
5	08/16/94	08/16/94	08/16/94	08/17/94		5



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SEACOR
Attn: BRUCE SCARBROUGH

Project 50100-003-01
Reported 19-August-1994

ANALYSIS FOR GASOLINE, BENZENE, TOLUENE, ETHYLBENZENE, AND XYLENES

Laboratory Number	Sample Identification	Matrix
58576- 1	1	Soil
58576- 2	2	Soil
58576- 3	3	Soil
58576- 4	4	Soil
58576- 5	5	Soil

RESULTS OF ANALYSIS

Laboratory Number:	58576- 1	58576- 2	58576- 3	58576- 4	58576- 5
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Gasoline_Range:	150	190	3	29	5
Benzene:	ND<0.25	0.38	ND<.005	0.12	0.20
Toluene:	0.37	0.34	0.057	0.079	0.023
Ethyl Benzene:	2.4	3.9	0.050	0.63	0.36
Total Xylenes:	9.6	3.3	0.016	0.32	0.22

Concentration:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
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-- Surrogate % Recoveries --

Trifluorotoluene (SS):	112	105	MI	128	MI
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MI - MATRIX INTERFERENCES.



Superior Precision Analytical, Inc.

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ANALYSIS FOR GASOLINE, BENZENE, TOLUENE, ETHYLBENZENE, AND XYLENES Quality Assurance and Control Data - Soil

Laboratory Number 58576

Compound	Method Blank (mg/kg)	RL (mg/kg)	Spike Recovery (%)	Limits (%)	RPD (%)
Gasoline_Range:	ND<1	1	107/101	55-139	6%
Benzene:	ND<.005	.005	90/110	67-141	20%
Toluene:	ND<.005	.005	92/92	67-141	0%
Ethyl Benzene:	ND<.005	.005	90/90	67-141	0%
Total Xylenes:	ND<.005	.005	96/98	67-141	2%

Definitions:

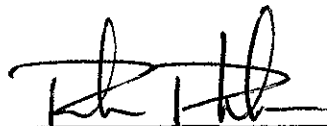
ND = Not Detected

RPD = Relative Percent Difference

RL = Reporting Limit

mg/kg = Parts per million (ppm)

QC File No. 58576

 8/19/94

Senior Chemist
Account Manager



Superior Precision Analytical, Inc.

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SEACOR
Attn: BRUCE SCARBROUGH

Project 50100-003-01
Reported 19-August-1994

TOTAL PETROLEUM HYDROCARBONS AS DIESEL
BY EPA METHOD 8015M

Chronology				Laboratory Number 58576		
Identification	Sampled	Received	Extracted	Analyzed	Run #	Lab #
1	08/16/94	08/16/94	08/17/94	08/18/94		1
2	08/16/94	08/16/94	08/17/94	08/18/94		2
3	08/16/94	08/16/94	08/17/94	08/18/94		3
4	08/16/94	08/16/94	08/17/94	08/18/94		4
5	08/16/94	08/16/94	08/17/94	08/19/94		5



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SEACOR
Attn: BRUCE SCARBROUGH

Project 50100-003-01
Reported 19-August-1994

TOTAL PETROLEUM HYDROCARBONS AS DIESEL

Laboratory Number	Sample Identification	Matrix
58576- 1	1	Soil
58576- 2	2	Soil
58576- 3	3	Soil
58576- 4	4	Soil
58576- 5	5	Soil

RESULTS OF ANALYSIS

Laboratory Number:	58576- 1	58576- 2	58576- 3	58576- 4	58576- 5
Diesel Range:	49*	260	96	28	ND<10
Concentration:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg

* - DOES NOT MATCH TYPICAL DIESEL PATTERN - LIGHTER HYDROCARBONS PRESENT.



Superior Precision Analytical, Inc.

A member of ESSECON Environmental Support Service Consortium

TOTAL PETROLEUM HYDROCARBONS AS DIESEL Quality Assurance and Control Data - Soil

Laboratory Number 58576

Compound	Method Blank (mg/kg)	RL (mg/kg)	Spike Recovery (%)	Limits (%)	RPD (%)
Diesel Range:	ND<10	10	97/88	50-150	10%

Definitions:

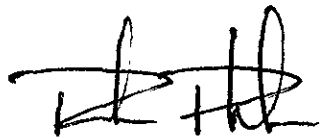
ND = Not Detected

RPD = Relative Percent Difference

RL = Reporting Limit

mg/kg = Parts per million (ppm)

QC File No. 58576

 8/19/94

Senior Chemist
Account Manager

58574

Chain-of-Custody Number: A

8114

SEACOR Chain-of-Custody Record

Address
SEACOR
90 New Montgomery St. #620
SAN FRANCISCO, CA 94103

Project # 50100-003-01 Task # _____
 Project Manager BRUCE SCARBOROUGH
 Laboratory SUPERIOR ANALYTICAL
 Turn-around time: STANDARD
 Sampler's Name: VARINDER GBERUJ
 Sampler's Signature: [Signature]

Analysis Request

Sample ID	Date	Time	Matrix	TPHg/BTEX 8015 (modified)/8020	TPHd 8015 (modified)	TPH 418.1	Aromatic Volatiles 602/8020	Volatile Organics 624/8240 (GC/MS)	Halogenated Volatiles 601/8010	Semi-volatile Organics 625/8270 (GC/MS)	Pesticides/PCB's 608/8080	Total Lead 7421	Priority Pollutant Metals (13)	TCLP Metals	Comments/ Instructions	Number of Containers
1	08/16	0845	SOIL	X	X											
2	/	0850	/	X	X											
3	/	0855	/	X	X											
4	/	0905	/	X	X											
5	/	1015	/	X	X											

Please initial: PK
 Samples Stored in ice YES
 in appropriate containers YES
 that are preserved NO
 with appropriate preservative NA
 Comments: OK

Special Instructions/Comments:

Relinquished by:
 Sign [Signature]
 Print V. S. G. GBERUJ
 Company SEACOR
 Time 1450 Date 08/16/94

Received by:
 Sign _____
 Print _____
 Company _____
 Time _____ Date _____

Sample Receipt

Total no. of containers 3
 Chain of custody seals: N/A
 Rec'd good condition/cold: YES
 Conforms to record: YES

Relinquished by:
 Sign [Signature]
 Print _____
 Company APRO
 Time 2:50 PM Date 8-16-94

Received by:
 Sign [Signature]
 Print R. ROMERO
 Company SUPERIOR ANALYTICAL
 Time 7:35 PM Date 8/16/94

Client: _____
 Client Contact: _____
 Client Phone Number: _____