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May 8, 1992
SCI 609.001

Ms. Jennifer Eberle
Hazardous Materials Specialist
Alameda County Health Care Services Agency
80 Swan Way, Room 200
Oakland, California 94621

Project Update - STID #259
Underground Storage Tank Closure
4055 Hubbard Street
Oakland, California

Dear Ms. Eberle:

Subsurface Consultants, Inc. (SCI) has been retained by the property owner, Buttner Properties, Inc., to provide engineering consultation services at the referenced site. As previously reported in the progress report dated November 27, 1990, two underground storage tanks and a dispenser island were removed from the site in 1990. [The extent of contamination in the tank areas has been defined and no further investigation in the tank areas is planned.] However, additional excavation will be required to define the extent of contamination beneath the previous dispenser. Attached you will find copies of analytical test reports for samples analyzed during tank removal.

Since the issuance of the November 1990 progress report, no site activities have been performed due to new tenant arrangements on-site. Remediation activities and a groundwater investigation are scheduled to begin later this year. In general, remediation will involve the following:

1. Re-excavate soil replaced in the tank excavation,
2. Excavate soils beneath the previous dispenser until limits of contamination are determined,
3. Backfill open excavations with clean imported soils,
4. Biotreat excavated soils on-site, and

■ **Subsurface Consultants, Inc.**

*I'm not sure - need a map w/ sample locations
See last report*

when?

Ms. Jennifer Eberle
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5. Dispose of properly treated soils at a Class III landfill.

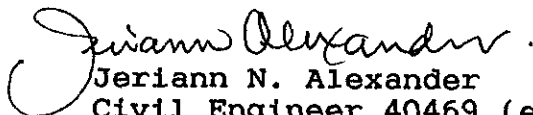
A tank closure report will be prepared following completion of these activities. The report will document all site activities to date.

A work plan will be prepared for the groundwater investigation once remediation activities have been completed. As previously discussed with Mr. Dennis Byrnes, since the gradient is well established in the vicinity as being toward the west, only one well will be installed during the investigation.

We will keep you informed of site activities. If you have any questions, please call.

Yours very truly,

Subsurface Consultants, Inc.


Jeriann N. Alexander
Civil Engineer 40469 (expires 3/31/95)

JNA:RWR:sld

Attachments: Analytical Test Results



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

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

DATE RECEIVED: 07/23/90

DATE REPORTED: 08/07/90

RECEIVED

LAB NUMBER: 101151

AUG 20 1990
AM PM
7 8 9 10 11 12 1 2 3 4 5 6

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CLIENT: SUBSURFACE CONSULTANTS

REPORT ON: 10 SOIL SAMPLES
1 SOIL COMPOSITE
2 WATER SAMPLES

PROJECT #: 609.001
LOCATION: HUBBARD TANK

RESULTS: SEE ATTACHED

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QA/QC Approval

Final Approval

Berkeley

Wilmington

Los Angeles

LAB NUMBER: 101151
 CLIENT: SUBSURFACE CONSULTANTS
 PROJECT # : 609.001
 LOCATION: HUBBARD TANK

DATE RECEIVED: 07/23/90
 DATE ANALYZED: 07/27/90
 DATE REPORTED: 08/07/90

ANALYSIS: HYDROCARBON OIL AND GREASE
 METHOD: SMWW 17:5520F (503E)

see 11-27-90 report for map

LAB ID	SAMPLE ID	RESULT	UNITS	REPORTING LIMIT
101151-1	6 @ 10	ND	mg /Kg	50
101151-2	7 @ 5	ND	mg /Kg	50
101151-3	8 @ 5	ND	mg /Kg	50
101151-4	9 @ 5	ND	mg /Kg	50
101151-5	DISPENSER	7,800	mg /Kg	50
101151-12	1 @ 5	ND	mg /Kg	50
101151-13	2 @ 5	ND	mg /Kg	50
101151-14	3 @ 10	ND	mg /Kg	50
101151-15	4 @ 3	ND	mg /Kg	50
101151-16	5 @ 5	ND	mg /Kg	50
101151-17	SP1, 3, 5, 7	490	mg /Kg	50

ND = Not detected at or above reporting limit

QA/QC SUMMARY

RPD, %	4
RECOVERY, %	87



LAB NUMBER: 101151
CLIENT: SUBSURFACE CONSULTANTS
PROJECT # : 609.001
LOCATION: HUBBARD TANK

DATE RECEIVED: 07/23/90
DATE ANALYZED: 08/02/90
DATE REPORTED: 08/07/90

ANALYSIS: HYDROCARBON OIL AND GREASE
METHOD: SMWW 17:5520F (503E)

LAB ID	SAMPLE ID	RESULT	UNITS	REPORTING LIMIT
101151-6	DIESEL EXCAVATION WATER	ND	mg / L	20
101151-7	GAS EXCAVATION WATER	ND	mg / L	20

ND = Not detected at or above reporting limit

QA/QC SUMMARY

RPD, %	4
RECOVERY, %	85

LABORATORY NUMBER: 101151
 CLIENT: SUBSURFACE CONSULTANTS
 JOB #: 609.001
 LOCATION: HUBBARD TANK

DATE RECEIVED: 07/23/90
 DATE EXTRACTED: 07/24/90
 DATE ANALYZED: 07/26/90
 DATE REPORTED: 08/07/90

Extractable Petroleum Hydrocarbons in Soils & Wastes
 California DOHS Method
 LUFT Manual October 1989

LAB ID	CLIENT ID	GASOLINE RANGE (mg/Kg)	KEROSENE RANGE (mg/Kg)	DIESEL RANGE (mg/Kg)	REPORTING LIMIT (mg/Kg)
101151-1	6 @ 10	ND	ND	27	10
101151-2	7 @ 5	ND	ND	ND	10
101151-3	8 @ 5	ND	ND	ND	10
101151-4	9 @ 5	ND	ND	ND	10
101151-5	DISPENSER	ND	ND	10,000	100
101151-12	1 @ 5	ND	ND	ND	10
101151-13	2 @ 5	ND	ND	ND	10
101151-14	3 @ 10	ND	ND	24	10
101151-15	4 @ 3	ND	ND	ND	10
101151-16	5 @ 5	ND	ND	ND	10
101151-17	SP1,3,5,7	ND	ND	820	10

ND = Not Detected at or above reporting limit.

QA/QC SUMMARY

RPD, % 4
 RECOVERY, % 87

LABORATORY NUMBER: 101151
 CLIENT: SUBSURFACE CONSULTANTS
 JOB #: 609.001
 LOCATION: HUBBARD TANK

DATE RECEIVED: 07/23/90
 DATE EXTRACTED: 07/25/90
 DATE ANALYZED: 07/26/90
 DATE REPORTED: 08/07/90

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)
101151-6	DIESEL EXCAVATION WATER	ND	ND	250	5.0
101151-7	GAS EXCAVATION WATER	ND	ND	490	5.0

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

RPD, %	3
RECOVERY, %	100

LABORATORY NUMBER: 101151
 CLIENT: SUBSURFACE CONSULTANTS
 JOB NUMBER: 609.001
 JOB LOCATION: HUBBARD TANK

DATE RECEIVED: 07/23/90
 DATE ANALYZED: 07/25/90
 DATE REPORTED: 08/07/90

Benzene, Toluene, Ethyl Benzene, Xylenes by EPA 8020
 Extraction by EPA 5030 Purge and Trap

LAB ID	CLIENT ID	BENZENE (ug/kg)	TOLUENE (ug/kg)	TOTAL XYLENES (ug/kg)	ETHYL BENZENE (ug/kg)	REPORTING LIMIT * (ug/kg)
101151-1	6 @ 10	ND	ND	ND	ND	5.0
101151-2	7 @ 5	ND	ND	ND	ND	5.0
101151-3	8 @ 5	ND	ND	ND	ND	5.0
101151-4	9 @ 5	ND	ND	ND	ND	5.0
101151-5	DISPENSER	47	150	220	60	5.0
101151-12	1 @ 5	ND	ND	ND	ND	5.0
101151-13	2 @ 5	ND	ND	23	ND	5.0
101151-14	3 @ 10	16	34	34	14	5.0
101151-15	4 @ 3	ND	7.0	14	ND	5.0
101151-16	5 @ 5	ND	ND	ND	ND	5.0
101151-17	SP1, 3, 5, 7	ND	ND	40	ND	5.0

ND = Not detected at or above reporting limit.

* Reporting Limit applies to all analytes.

QA/QC SUMMARY

RPD, %	2
RECOVERY, %	88

LABORATORY NUMBER: 101151
 CLIENT: SUBSURFACE CONSULTANTS
 JOB NUMBER: 609.001
 JOB LOCATION: HUBBARD TANK

DATE RECEIVED: 07/23/90
 DATE ANALYZED: 07/26/90
 DATE REPORTED: 08/07/90

Benzene, Toluene, Ethyl Benzene, Xylenes by EPA 8020
 Extraction by EPA 5030 Purge and Trap

LAB ID	CLIENT ID	BENZENE (ug/L)	TOLUENE (ug/L)	TOTAL XYLENES (ug/L)	ETHYL BENZENE (ug/L)	REPORTING LIMIT * (ug/L)
101151-6	DIESEL EXCAVATION WATER	3.1	ND	ND	ND	1.0
101151-7	GAS EXCAVATION WATER	4.0	ND	ND	ND	1.0

ND = Not detected at or above reporting limit.

* Reporting Limit applies to all analytes.

QA/QC SUMMARY

RPD, %	18
RECOVERY, %	98

LABORATORY NUMBER: 101151-17
 CLIENT: SUBSURFACE CONSULTANTS
 JOB #: 609.001
 SAMPLE ID: SP1,3,5,7

DATE RECEIVED: 07/23/90
 DATE ANALYZED: 08/02/90
 DATE REPORTED: 08/07/90

EPA METHOD 8240: VOLATILE ORGANICS IN SOILS & WASTES
 Extraction Method: EPA 5030 - Purge & Trap

COMPOUND	Result ug/kg	Reporting Limit (ug/kg)
chloromethane	ND	500
bromomethane	ND	500
vinyl chloride	ND	500
chloroethane	ND	500
methylene chloride	ND	250
acetone	ND	500
carbon disulfide	ND	250
trichlorofluoromethane	ND	250
1,1-dichloroethene	ND	250
1,1-dichloroethane	ND	250
1,2-dichloroethene (total)	ND	250
chloroform	ND	250
freon 113	ND	250
1,2-dichloroethane	ND	250
2-butanone	ND	500
1,1,1-trichloroethane	ND	250
carbon tetrachloride	ND	250
vinyl acetate	ND	500
bromodichloromethane	ND	250
1,2-dichloropropane	ND	250
cis-1,3-dichloropropene	ND	250
trichloroethylene	ND	250
dibromochloromethane	ND	250
1,1,2-trichloroethane	ND	250
benzene	ND	250
trans-1,3-dichloropropene	ND	250
2-chloroethylvinyl ether	ND	500
bromoform	ND	250
2-hexanone	ND	500
4-methyl-2-pentanone	ND	500
1,1,2,2-tetrachloroethane	ND	250
tetrachloroethylene	ND	250
toluene	ND	250
chlorobenzene	ND	250
ethyl benzene	ND	250
styrene	ND	250
total xylenes	ND	250

ND = Not detected at or above reporting limit

QA/QC SUMMARY: SURROGATE RECOVERIES

1,2-Dichloroethane-d4	101%
Toluene-d8	106%
Bromofluorobenzene	114%

LABORATORY NUMBER: 101151-17
 CLIENT: SUBSURFACE CONSULTANTS
 JOB #: 609.01
 SAMPLE ID: SP1,3,5,7

DATE RECEIVED: 07/23/90
 DATE EXTRACTED: 07/25/90
 DATE ANALYZED: 07/30/90
 DATE REPORTED: 08/07/90

EPA 8270: Base/Neutral and Acid Extractables in Soils & Wastes
 Extraction Method: EPA 3550 Sonication

ACID COMPOUNDS	RESULT	REPORTING
	ug/kg	LIMIT ug/kg
Phenol	ND	330
2-Chlorophenol	ND	330
Benzyl Alcohol	ND	330
2-Methylphenol	ND	330
4-Methylphenol	ND	330
2-Nitrophenol	ND	1650
2,4-Dimethylphenol	ND	330
Benzoic Acid	ND	1650
2,4-Dichlorophenol	ND	330
4-Chloro-3-methylphenol	ND	330
2,4,6-Trichlorophenol	ND	330
2,4,5-Trichlorophenol	ND	1650
2,4-Dinitrophenol	ND	1650
4-Nitrophenol	ND	1650
4,6-Dinitro-2-methylphenol	ND	1650
Pentachlorophenol	ND	1650
BASE/NEUTRAL COMPOUNDS		
N-Nitrosodimethylamine	ND	330
Aniline	ND	330
Bis(2-chloroethyl)ether	ND	330
1,3-Dichlorobenzene	ND	330
1,4-Dichlorobenzene	ND	330
1,2-Dichlorobenzene	ND	330
Bis(2-chloroisopropyl)ether	ND	330
N-Nitroso-di-n-propylamine	ND	330
Hexachloroethane	ND	330
Nitrobenzene	ND	330
Isophorone	ND	330
Bis(2-chloroethoxy)methane	ND	330
1,2,4-Trichlorobenzene	ND	330
Naphthalene	ND	330
4-Chloroaniline	ND	330
Hexachlorobutadiene	ND	330
2-Methylnaphthalene	1,400	330
Hexachlorocyclopentadiene	ND	330
2-Chloronaphthalene	ND	330
2-Nitroaniline	ND	1650

LABORATORY NUMBER: 101151-17
 SAMPLE ID: SP1,3,5,7

EPA 8270

BASE/NEUTRAL COMPOUNDS

	RESULT ug/kg	REPORTING LIMIT ug/kg
Dimethylphthalate	ND	330
Acenaphthylene	ND	330
2,6-Dinitrotoluene	ND	330
3-Nitroaniline	ND	1650
Acenaphthene	ND	330
Dibenzofuran	ND	330
2,4-Dinitrotoluene	ND	330
Diethylphthalate	ND	330
4-Chlorophenyl-phenylether	ND	330
Fluorene	ND	330
4-Nitroaniline	ND	1650
N-Nitrosodiphenylamine	ND	330
Azobenzene	ND	330
4-Bromophenyl-phenylether	ND	330
Hexachlorobenzene	ND	330
Phenanthrene	590	330
Anthracene	ND	330
Di-n-butylphthalate	ND	330
Fluoranthene	ND	330
Benzidine	ND	330
Pyrene	ND	330
Butylbenzylphthalate	ND	330
3,3'-Dichlorobenzidine	ND	1650
Benzo (a) anthracene	ND	330
Chrysene	ND	330
Bis (2-ethylhexyl)phthalate	ND	330
Di-n-octylphthalate	ND	330
Benzo (b) fluoranthene	ND	330
Benzo (k) fluoranthene	ND	330
Benzo (a) pyrene	ND	330
Indeno (1,2,3-cd) pyrene	ND	330
Dibenzo (a,h) anthracene	ND	330
Benzo (g,h,i) perylene	ND	330

ND = Not detected at or above reporting limit.

LABORATORY NUMBER: 101151-17
 SAMPLE ID: SP1,3,5,7

EPA 8270

COMPOUND	RESULT ug/kg	REPORTING LIMIT ug/kg
CHLORINATED PESTICIDES		
alpha-BHC	ND	330
beta-BHC	ND	330
gamma-BHC	ND	330
delta-BHC	ND	330
Heptachlor	ND	330
Aldrin	ND	330
Heptachlor Epoxide	ND	330
Endosulfan I	ND	330
4,4'-DDE	ND	330
Dieldrin	ND	330
Endrin	ND	330
Endosulfan II	ND	330
4,4'-DDD	ND	330
Endrin Aldehyde	ND	330
Endosulfan Sulfate	ND	330
4,4'-DDT	ND	330
Chlordane	ND	1650
Toxaphene	ND	1650
Methoxychlor	ND	1650
Aroclor 1016	ND	1650
Aroclor 1221	ND	1650
Aroclor 1232	ND	1650
Aroclor 1242	ND	1650
Aroclor 1248	ND	1650
Aroclor 1254	ND	1650
Aroclor 1260	ND	1650

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

Compound	%Recovery	Compound	%Recovery
2-Fluorophenol	32	Nitrobenzene-d5	84
Phenol-d5	67	2-Flourobiphenyl	72
2,4,6-Tribromophenol	37	Terphenyl	48

LABORATORY NUMBER: 101151-17
 CLIENT: SUBSURFACE CONSULTANTS
 PROJECT #: 609.001
 LOCATION: HUBBARD TANK
 SAMPLE ID: SP1,3,5,7

DATE RECEIVED: 07/23/90
 DATE ANALYZED: 07/26/90
 DATE REPORTED: 08/07/90

Title 26 Metals in Soils & Wastes
 Digestion Method: EPA 3050

METAL	RESULT mg / Kg	REPORTING LIMIT mg / Kg	METHOD
Antimony	ND	5	EPA 6010
Arsenic	6.2	2.5	EPA 7060
Barium	95	0.5	EPA 6010
Beryllium	ND	0.5	EPA 6010
Cadmium	3.8	0.5	EPA 6010
Chromium (total)	40	0.5	EPA 6010
Cobalt	11	0.5	EPA 6010
Copper	130	1	EPA 6010
Lead	67	2.5	EPA 6010
Mercury	ND	0.1	EPA 7471
Molybdenum	ND	0.5	EPA 6010
Nickel	37	0.5	EPA 6010
Selenium	ND	2.5	EPA 6010
Silver	ND	1	EPA 6010
Thallium	ND	5	EPA 6010
Vanadium	26	1	EPA 6010
Zinc	200	0.5	EPA 6010

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

	RPD, %	RECOVERY, %		RPD, %	RECOVERY, %
Antimony	2	93	Mercury	4	100
Arsenic	16	109	Molybdenum	<1	91
Barium	7	103	Nickel	1	110
Beryllium	2	104	Selenium	<1	108
Cadmium	2	75	Silver	<1	82
Chromium	<1	122	Thallium	<1	94
Cobalt	2	99	Vanadium	2	109
Copper	3	102	Zinc	3	77
Lead	6	99			

Subsurface Consultants

10/15/91

CHAIN OF CUSTODY RECORD
& ANALYTICAL TEST REQUEST

Project Name: Hubbard Tank
 SCI Job Number: 609.001
 Project Contact at SCI: J. Alexander
 Sampled By: J. Lopez
 Analytical Laboratory: Curtis & Tompkins
 Analytical Turnaround: Normal

Sample ID	Sample Type ¹	Container Type ²	Sampling Date	Hold	Analysis	Analytical Method
1 ✓ 6at10	S	T	7/20	TOC,	TEH w/gas,	BTXE
2 ✓ 7at5	S	✓	✓	TOC,	TEH w/gas	BTXE
3 ✓ 8at5	S	✓	✓	TOC,	TEH w/gas	BTXE
4 ✓ 9at5	S	✓	✓	TOC,	TEH w/gas	BTXE
5 ✓ Dispenser	S	T	7/17	TOC,	TEH w/gas	BTXE
6 ✓ DIESEL Excavation Water			7/17/90	TOC,	TEH w/gas,	BTXE
7 ✓ GAS Excavation Water			7/20/90	TOC,	TEH w/gas,	BTXE

* * * * *

Released by: *[Signature]* Date: July 23-90
 Released by Courier: *[Signature]* Date: _____
 Received by Laboratory: *[Signature]* Date: 7/23/90 1130a
 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

Project Name: Hubbard Tank
 SCI Job Number: 1009.C01
 Project Contact at SCI: J. Alexander
 Sampled By: J. Lopez
 Analytical Laboratory: Curtis's Tompkins
 Analytical Turnaround: Normal

Sample ID	Sample Type ¹	Container Type ²	Sampling Date	Hold	Analysis	Analytical Method
8 - SP1	S	T	7/17	Composite for EPA 8240, 8270+ pests+PCBS	TOG TEH with gas BTXE	CAM metals
9 - SP3	S	T	7/17			
10 - SP5	S	T	7/20			
11 - SP7	S	T	7/20			
12 - 1 at 5'	S	T	7/17	TOG,	TEH w/gas	BTXE
13 - 2 at 5'	✓	✓	✓	TOG,	TEH w/gas,	BTXE
14 - 3 at 10'	✓	✓	✓	TOG	TEH w/gas	BTXE
15 - 4 at 3'	✓	-	✓	TOG	TEH w/gas	BTXE
16 - 5 at 5'	✓	✓	✓	TOG,	TEH w/gas	BTXE

* * * * *

Released by: [Signature] Date: July 23-90
 Released by Courier: _____ Date: _____
 Received by Laboratory: [Signature] Date: 7/23/90 1130^a
 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