CERTIFIED
ENVIRONMENTAL
CONSULTING INC.

August 5, 1991

REF: 157-473.217

Mr. Ralph P. Hill
Hill Lumber
1259 Brighton Ave.
Albany, California 94706
(415) 525-1000

RE: Site Investigation

Dear Mr. Hill:

Certified Environmental Consulting Inc. (CEC) is pleased to report the results of our investigation of the two underground gasoline tanks on your property. CEC performed this investigation because SEMCO found evidence of soil contamination when removing the tanks.

SEMCO's soil samples showed heavy gasoline contamination (3,700 ppm) at the east end of the excavation in the sidewalk where the large gas tank was located. On July 11, 1991, CEC collected a groundwater sample from the same site to determine whether groundwater had become contaminated by the leaky gas tank. The water sample contained 2924 ppb of gasoline and 59 ppb of benzene. CEC also collected two soil samples eight feet east of the tank site to determine the limits of gasoline leakage. However, none of the soil samples collected below the sidewalk contained detectable amounts of gasoline or benzene, toluene, ethyl benzene, or xylene (BTEX). This suggests that groundwater has been contaminated below the sidewalk but that soil contamination is localized around the tank site. The results of SEMCO's and CEC's sampling are summarized in Table 1.

Samples collected by SEMCO below the smaller tank in the yard were moderately contaminated with gasoline (210 ppm), toluene (660 ppb), benzene (1500 ppb), and xylene (17,000 ppb). CEC collected a soil sample in the parking lot about eight feet east of the smaller tank location to determine whether gasoline had migrated away from the tank. This soil sample did not contain detectable amounts of gasoline or BTEX, suggesting that contamination around the tank site in the yard is also limited and could be removed by overexcavation.

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In summary it appears that soil contamination is limited to a small area around each tank. The contaminated soil should be removed because the groundwater is high and the Regional Water Quality Control Board (RWQCB) will not otherwise approve a tank closure. The groundwater below the tank site in the sidewalk also has some contamination. The RWQCB normally requires the installation of at least one monitoring well whenever any groundwater contamination is found.

Please let us know if we can assist you in this work.

Very truly yours,

Stanley L. Klemetson, Ph.D., P.E.
Vice President

Thomas Suggs
Staff Hydrogeologist

SLK/sm

cc: Terry Hamilton, SEMCO

Sample Number	Customer Label	TPH-G (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl Benzene (ug/L)	Xylenes (ug/L)
L1	211512 (water)	2924.8	59.3	479.2	LDL	408.1
Detection Limits:		**50.0**	**0.5**	**0.5**	**0.5**	**0.5**

Sample Number	Customer Label	TPH-G (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethyl Benzene (mg/Kg)	Xylenes (mg/Kg)
L2	211514 (soil)	LDL	LDL	LDL	LDL	LDL
L3	211515 "	LDL	LDL	LDL	LDL	LDL
L4	211516 "	LDL	LDL	LDL	LDL	LDL
Detection Limits:		**1.0**	**0.005**	**0.005**	**0.005**	**0.005**

LDL indicates the samples are less than detection limits.

CARTER ANALYTICAL LABORATORY

Warren Belisle
Lab Supervisor

Dan Turgeon
Sales Manager

SUPERIOR ANALYTICAL LABORATORY, INC.
1555 BURKE, UNIT I • SAN FRANCISCO, CA 94124 • PHONE (415) 647-2081 DHS #1332

CERTIFICATE OF ANALYSIS

LABORATORY NO.: 53473
CLIENT: SEMCO
CLIENT JOB NO.: RALPH HILL

DATE RECEIVED: 04/17/91
DATE REPORTED: 04/25/91

ANALYSIS FOR BENZENE, TOLUENE, ETHYL BENZENE & XYLENES
by EPA SW-846 Methods 5030 and 8020

LAB #	Sample Identification	Concentration(ug/Kg) Benzene	Toluene	Ethyl Benzene	Xylenes
1	#1-500G	ND<300	2400	7100	17000
2	#2-500	ND<30	660	1500	3600
3	#3-500CS	ND<300	680	1100	3500
4	#4-1KG	ND<3	33	14	120
5	#5-1KG	ND<300	94000	63000	410000
6	#6-1KG	ND<3	52	58	420

ug/kg - parts per billion (ppb)

Minimum Detection Limit in Soil: 3.0ug/kg

QAQC Summary:
Daily Standard run at 20ug/L: & Diff 8020 = <15%
MS/MSD Average Recovery = 84% ; Duplicate RPD = <7%

Richard Srna, Ph.D.
Laboratory Director

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CERTIFICATE OF ANALYSIS

LABORATORY NO.: 53473
CLIENT: SEMCO
CLIENT JOB NO.: RALPH HILL

DATE RECEIVED: 04/17/91
DATE REPORTED: 04/25/91

ANALYSIS FOR TOTAL PETROLEUM HYDROCARBONS
by Modified EPA SW-846 Method 8015

LAB #	Sample Identification	Concentration (mg/Kg) Diesel Range
1	#1-500G	230
2	#2-500	ND<10
3	#3-500CS	1.6
4	#4-1KG	ND<10
5	#5-1KG	190
6	#6-1KG	ND<10

Minimum Detection Limit for Gasoline and Diesel in Soil: 10mg/kg

QAQC Summary:

Daily Standard run at 200mg/L: % Diff Gasoline <15 %
MS/MSD Average Recovery = 83%: Duplicate RPD = 1 %

Richard Srna, Ph.D.
Laboratory Director

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ANALYSIS FOR TOTAL PETROLEUM HYDROCARBONS
by Modified EPA SW-846 Method 5030 and 8015

LAB #	Sample Identification	Concentration (mg/Kg) Gasoline Range
1	#1-500G	890
2	#2-500	210
3	#3-500CS	230
4	#4-1KG	2
5	#5-1KG	3700
6	#6-1KG	9

mg/kg = parts per million (ppm)
Minimum Detection Limit for Gasoline in Soil: 1mg/kg

QAQC Summary:
Daily Standard run at 2mg/L: % Diff Gasoline = <15 %
MS/MSD Averages Recovery =80 %: Duplicate RPD = 6%

Richard Sytsma, Ph.D.
Laboratory Director

SEMCO
JAMES C. BATEMAN PETROLEUM SERVICES, INC.
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SEMCO
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1741 Leslie St. San Mateo, Calif. 94402
General & Engineering Contractors
(415) 572-8033
FAX (415) 572-9734

CHAIN OF CUSTODY RECORD

PROJECT NAME: Ralph Hill

SAMPLERS (signature): Chuck Kipp

Station Number	Date	Time	Comp.	Grab	Station Location	Number of Containers	Analysis Required: TPH-G-D	Analysis Required: BTEX	REMARKS
#1-500G	4/16	2:45		✓	#1-500-G-W-7'	#1	✓	✓	
#2-500	4/16	2:55		✓	#2-500 Bot. Exc. 8½'	1	✓	✓	
#3-500CS	4/16	3:00	✓		#3-500 Comp. Spoils	2	✓	✓	
#4-1KG	4/16	3:05	✓		#4-4 1KG Comp Spoils	3	✓	✓	
#5-1KG	4/16	3:08		✓	#5-1KG E-10'	1	✓	✓	
#6-1KG	4/16	3:20		✓	#6-1KG W-11'	1	✓	✓	

Relinquished by(signature): Chuck Kipp Company or Agency: Semco	Date / Time 4/17 12:3	Received by (signature): Rhonda Kippe Company or Agency: SEMCO	Relinquished by(signature): Company or Agency:	Date / Time Received by (signature): Company or Agency:
Relinquished by(signature): Rhonda Kippe Company or Agency: SEMCO	Date / Time 4/17/91 1:00 P.M.	Received by (signature): Company or Agency:	Relinquished by: Company or Agency:	Date / Time Received by (signature): Company or Agency:
Relinquished by(signature): Company or Agency:	Date / Time	Received for Laboratory by: (signature)	Date / Time	Remarks/Shipping Information

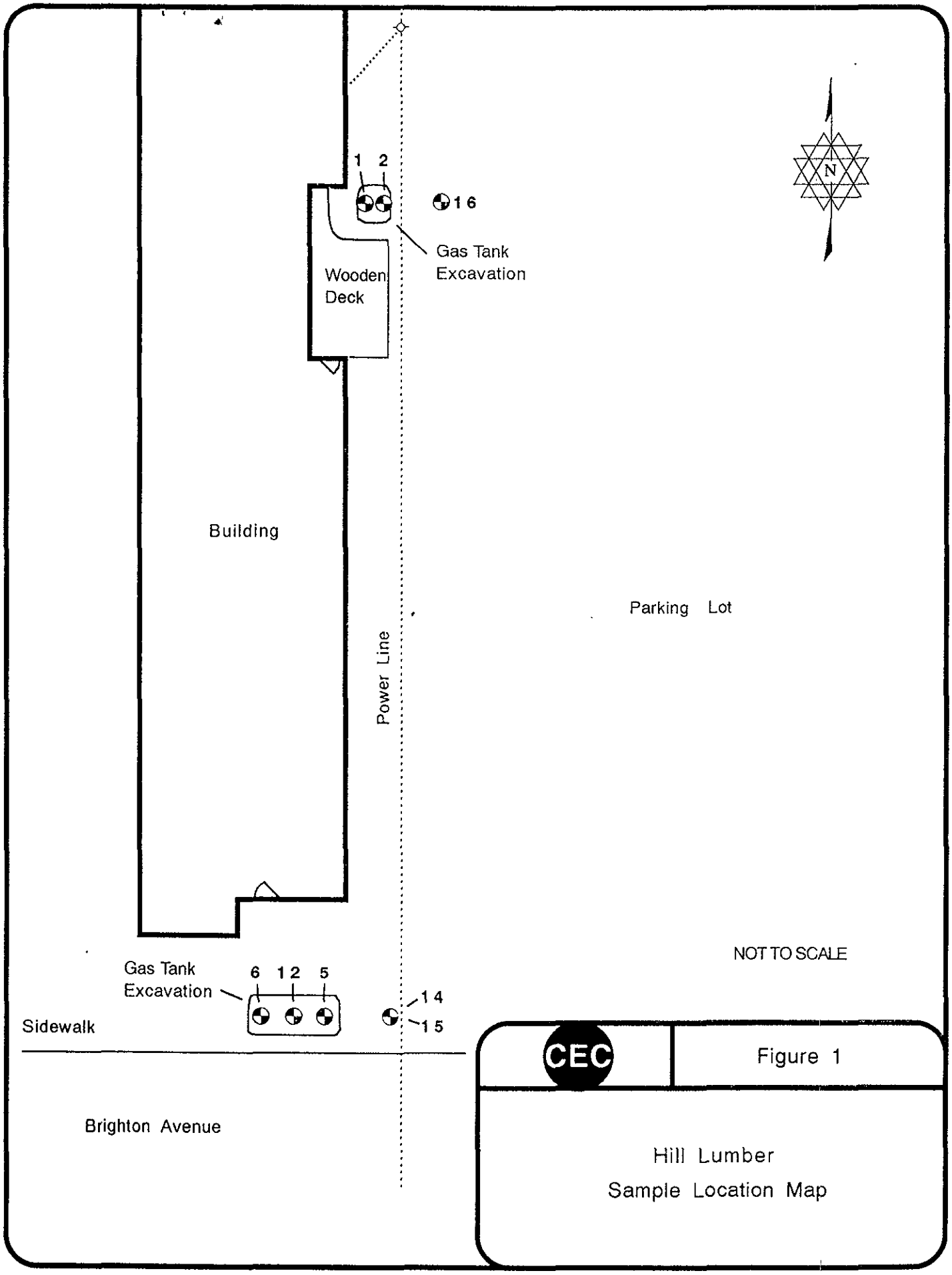
1 2
16
Gas Tank
Excavation
Wooden
Deck
N
Building
Power Line
Parking Lot
NOT TO SCALE
Gas Tank
Excavation
6 12 5
14
15
Sidewalk
Brighton Avenue
CEC
Figure 1
Hill Lumber
Sample Location Map

Table 1. Analytical Results

Sample No.	Date Sampled	Matrix	Depth (ft.)	TPH-D (ppm)	TPH-G (ppm)	Benzene (ppb)	Toluene (ppb)	Ethyl Benzene (ppb)	Xylene (ppb)
1	4/17/91	soil	7.0	230	890	LDL	2400	7100	17000
2	4/17/91	soil	8.5	LDL	210	LDL	660	1500	3600
5	4/17/91	soil	10.0	190	3700	LDL	680	1100	3500
6	4/17/91	soil	11.0	LDL	9	LDL	33	14	120
Detection limits				10	1	3	3	3	3
14	7/11/91	soil	9.5	NT	LDL	LDL	LDL	LDL	LDL
15	7/11/91	soil	10.0	NT	LDL	LDL	LDL	LDL	LDL
16	7/11/91	soil	11.6	NT	LDL	LDL	LDL	LDL	LDL
Detection Limits					1	5	5	5	5
12	7/11/91	water	9.7	NT	2924	59	479	LDL	408
Detection Limits					0.05	0.5	0.5	0.5	0.5

ppm: parts per million
ppb: parts per billion
NT: not tested
LDL: less than detection limits