GRIBI Associates

Geological and Environmental Consulting Services

May 9, 2001

MAY 22 2001

Alameda County Department of
Environmental Health
1131 Harbor Bay Parkway, 2nd Floor
Alameda, CA 94502-6577

Attention: Ms. Susan Hugo

Subject: Site Closure Summary
Liquid Sugars UST Site
1275 66th Street, Emeryville, California
GA Project No.: 149-01-03

Ladies and Gentlemen:

Pursuant to our recent meeting with Ms. Susan Hugo and Mr. Ravi Arulanantham, this letter provides a closure summary for the Liquid Sugars underground storage tank (UST) site at 1275 66th Street in Emeryville, California. It is our understanding that regulatory closure will be granted for the site, with no restrictions.

The attached closure summary has been modeled directly from those issued to our office recently by the San Francisco Bay Area Regional Water Quality Control Board for other sites in Contra Costa County, where they provide direct oversite of LUSTIS sites. We trust that the closure summary will be adequate. All information on the closure summary form is true and accurate to the best of our knowledge.

We appreciate the opportunity to present this closure summary for your review. Please call if you have questions or require additional information.

Very truly yours,

James E. Gribi
Registered Geologist
California No. 5843

JEG/ct
Enclosures

E:\My Documents\My Files\Reports\Completed\LSI Middle\LSI-M-CLOSE1-5-01.wpd

c Mr. Mike Alo, Liquid Sugars, Inc.

jegribi@msn.com

1350 Hayes Street, Suite C-14 • Benicia • California • 94510 • Phone (707)748-7743 • Fax (707)748-7763

Site Summary Form

09-May-01

Site: Liquid Sugars, Inc.
1275 66th Street, Emeryville, CA

County: Alameda
ACEH STID: 537

Nearest Surface Water:	SF Bay, ½-mile W-SW	**Pit Samples Submitted?:**	Yes	**Highest GW Depth:**	3.89'
Potential Ecological Risk:		**Number of Borings**	21	**Lowest GW Depth:**	9.08'
Distance to Wells:		**Number of Wells:**	5	**Direction of GW Flow:**	SW
Human Health Risk:		**Ground Elevation**	28' MSL		

Staff Notes:

Geology: Silts and clays down to at least 20 feet; occasional thin sand layers, particularly southwest of USTs; GW @ 7'.

Comments: Two 1,000-gallon gasoline USTs and one 10,000-gallon diesel UST removed in 11/90. Soil samples taken beneath the USTs contained TPHd levels ranging from 17 ppm to 10,300 ppm, and TPHg levels ranging from 710 ppm to 3,400 ppm. Benzene levels ranged from 0.008 ppm to 33 ppm. 8 borings drilled around backfilled UST cavity in November 1991, showing elevated levels of TPHg & TPHd immediately northeast and southwest from USTs. Installed MW-1 & MW-2 in April 1993, and sampled wells eight times between April 1993 and May 1995. Installed wells MW-3, MW-4, and MW-5 in June 1999. Conducted one year of quarterly groundwater monitoring of five site wells. Groundwater samples from near-source wells MW-1 and MW-2 have shown up to 1.7 ppm of TPHg and 21 ppm of TPHd, but have attenuated since 1993. Groundwater samples from downgradient wells MW-4 and MW-5 have shown little or no detectable concentrations of BTEX and MTBE. A RBCA assessment conducted in July 2000 found no significant risk for residential receptors. A low-risk groundwater case.

Management Rqmts:

Reports: UST Removal Activities, ECI, 1990; Excavation Backfilling, Stockpile Sampling, and Soil Boring Investigation, Century West, 12/91; Groundwater Investigation, Century West, 6/93; 6 Quarterly Monitoring reports (2 wells), Century West 9/93-8/95; Soil Boring Investigation and Partial Risk Assessment, 8/99, Gribi Associates; 2 Quarterly Monitoring reports (5 wells), Gribi Associates, 10/99-1/00; Fourth Quarterly Monitoring and Risk Assessment report, Gribi Associates, 08/00.

Remedial Activity

	Action Taken	Amount
Free Product:		
Soil:	Overexcavation, hauled to Vasco Road LF, 9/91.	70 cubic yards
Groundwater:		0
Vapor		0

Groundwater Results, ppb

		TPH-gas		TPH-diesel		Benzene		Toluene		Ethylbenzene		Xylenes		MTBE		Other	
Date	Location	Initial	Final	Initial	Final	Initial	Final	Initial	Final	Initial	Final	Initial	Final	Initial	Final	Initial	Final
04/93	MW-2	1,100		2,100		320		6.5		8.2		13					
03/00	MW-2		1,400		1,200		27		1.2		5.8		<1		<10		
03/00	MW-5		420		<50		130		<1		<1		2.8		30		
03/00	MW-4		240		<50		17		<0.5		15		<0.5		<5		

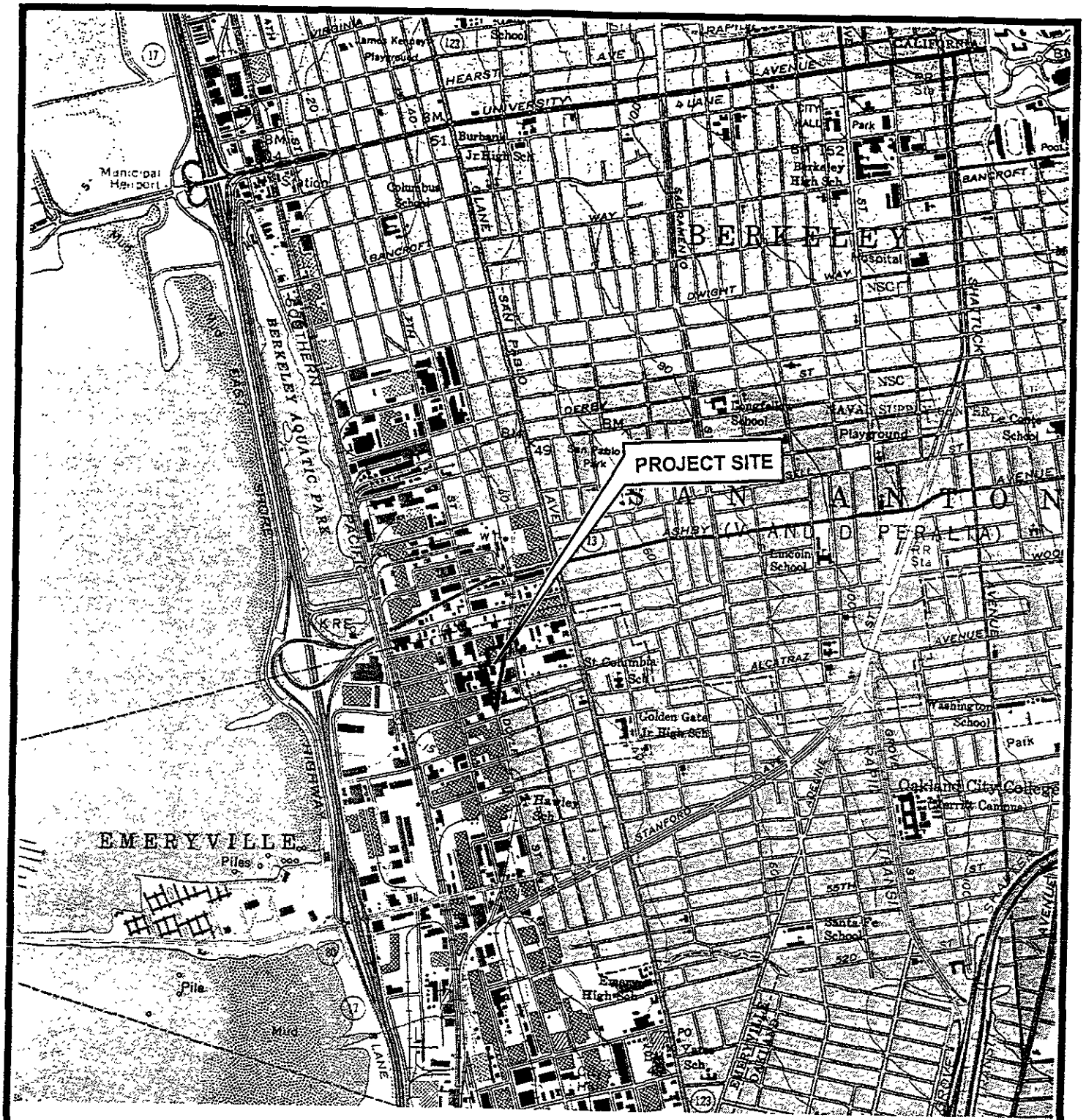
Soil Results, ppm

		TPH-gas		TPH-diesel		Benzene		Toluene		Ethylbenzene		Xylenes		MTBE		Other	
Date	Location	Initial	Final	Initial	Final	Initial	Final	Initial	Final	Initial	Final	Initial	Final	Initial	Final	Initial	Final
11/90	UST pit	3,400		10,300		33		95		43		210					
04/93	MW-2, 10.5 ft		670		940		0.74		0.94		1.6		3.4				
05/99	IB-5, 6.5 ft		74		910		0.16		0.11		0.096		0 11		<0.251		<0.67[1]
05/99	IB-7, 10.5 ft		32		<1		0.055		0.010		0.047		0.046		<0.10		

1 = Semi-volatile organic compounds, sample contained 16 ppm of Total Lead.

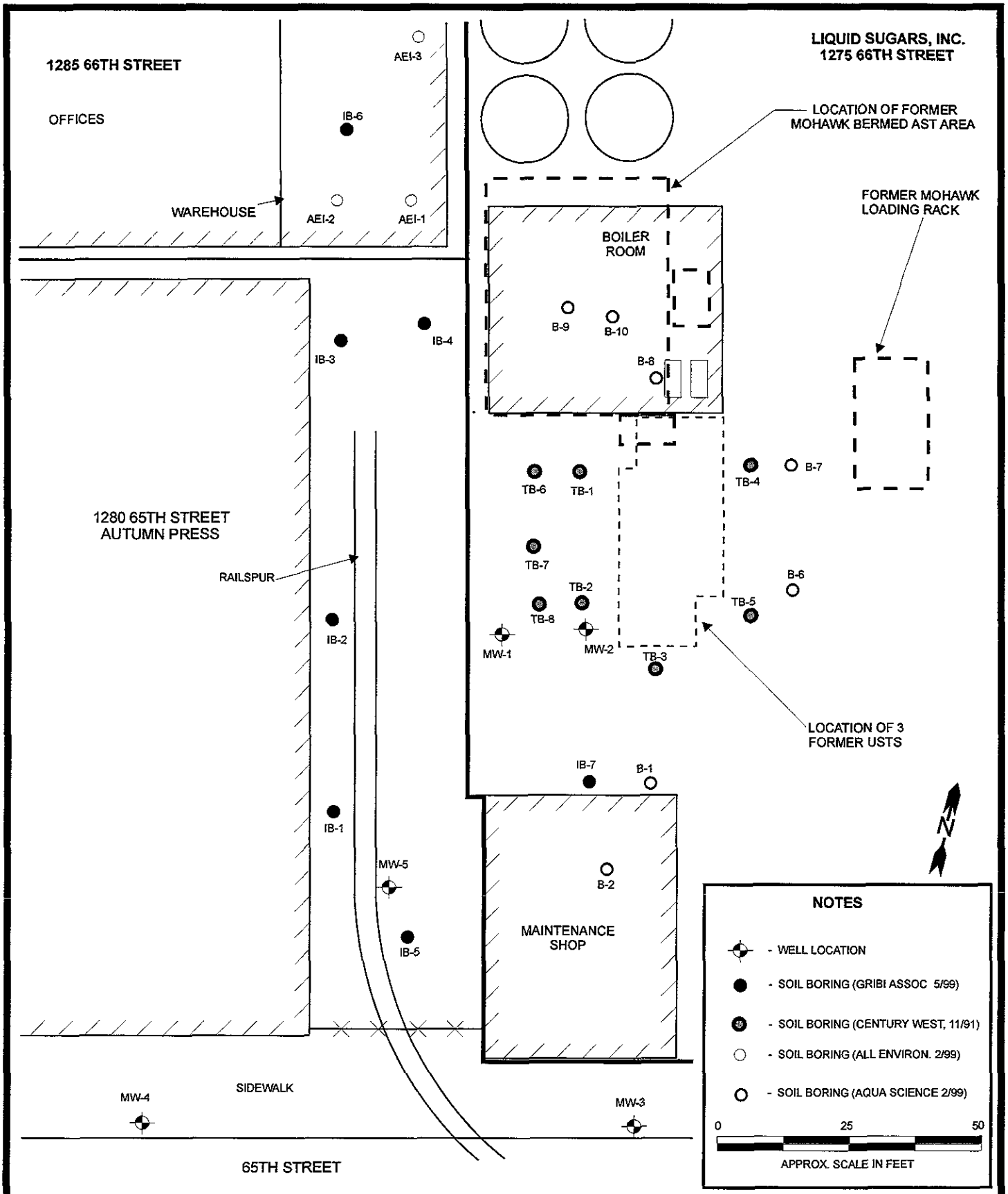
Tank Information

Tank No.	Size	Contents	Removed?	Action	Date
1	1,000	Gasoline	Yes	Removed and disposed	11/02/90
2	1,000	Gasoline	Yes	Removed and disposed	11/02/90
3	10,000	Diesel	Yes	Removed and disposed	11/02/90

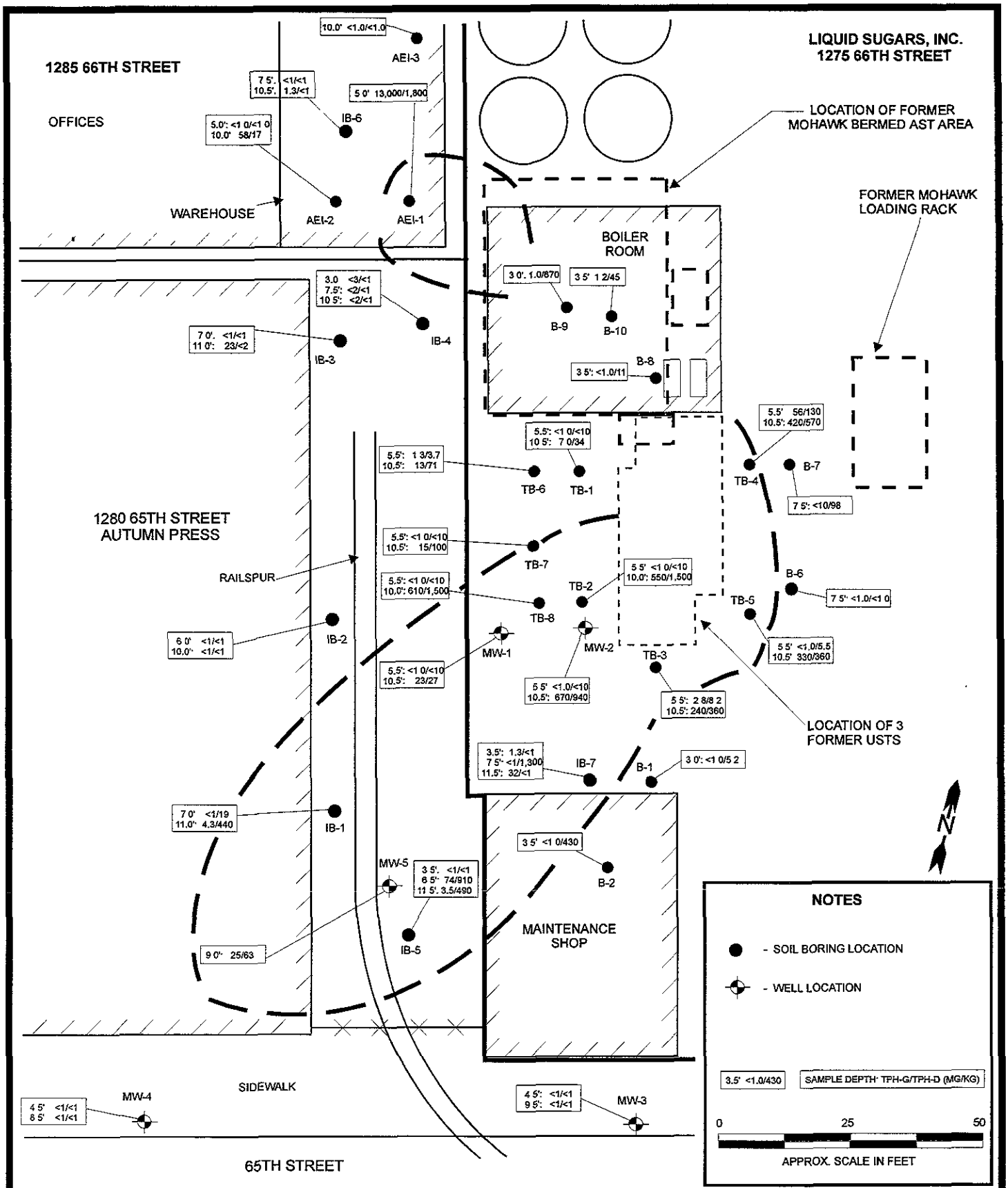


TOPOGRAPHY FROM USGS OAKLAND, WEST, CALIFORNIA
7.5-MINUTE QUADRANGLE MAPS, (TOPO! 1997).

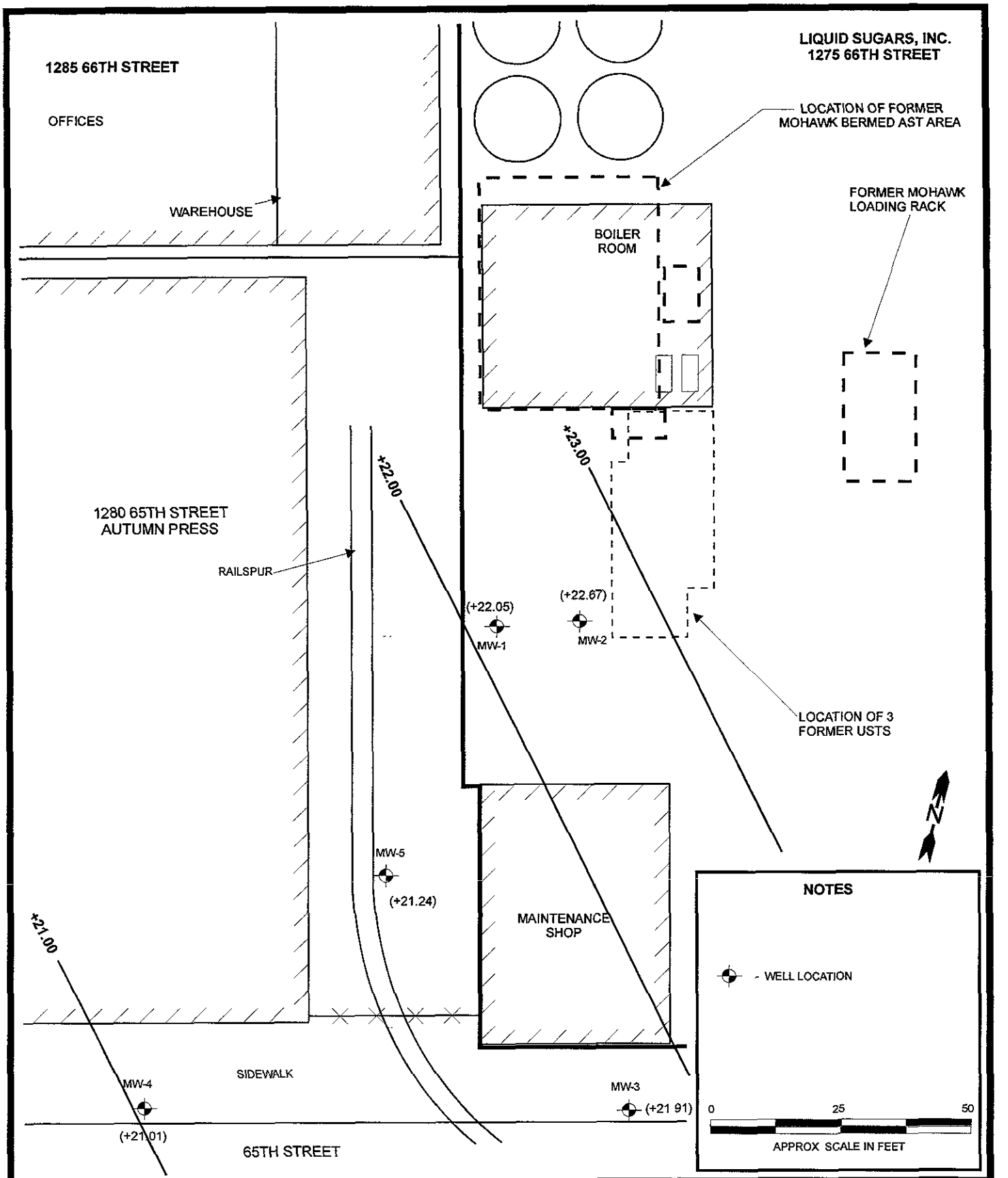
DESIGNED BY:	CHECKED BY:	**SITE VICINITY MAP**	DATE: 11/09/98	FIGURE: 1
DRAWN BY: JG	SCALE: 1:24,000			
PROJECT NO: 149-01-01		LIQUID SUGARS, INC. EMERYVILLE, CALIFORNIA	**GRIBI Associates**	



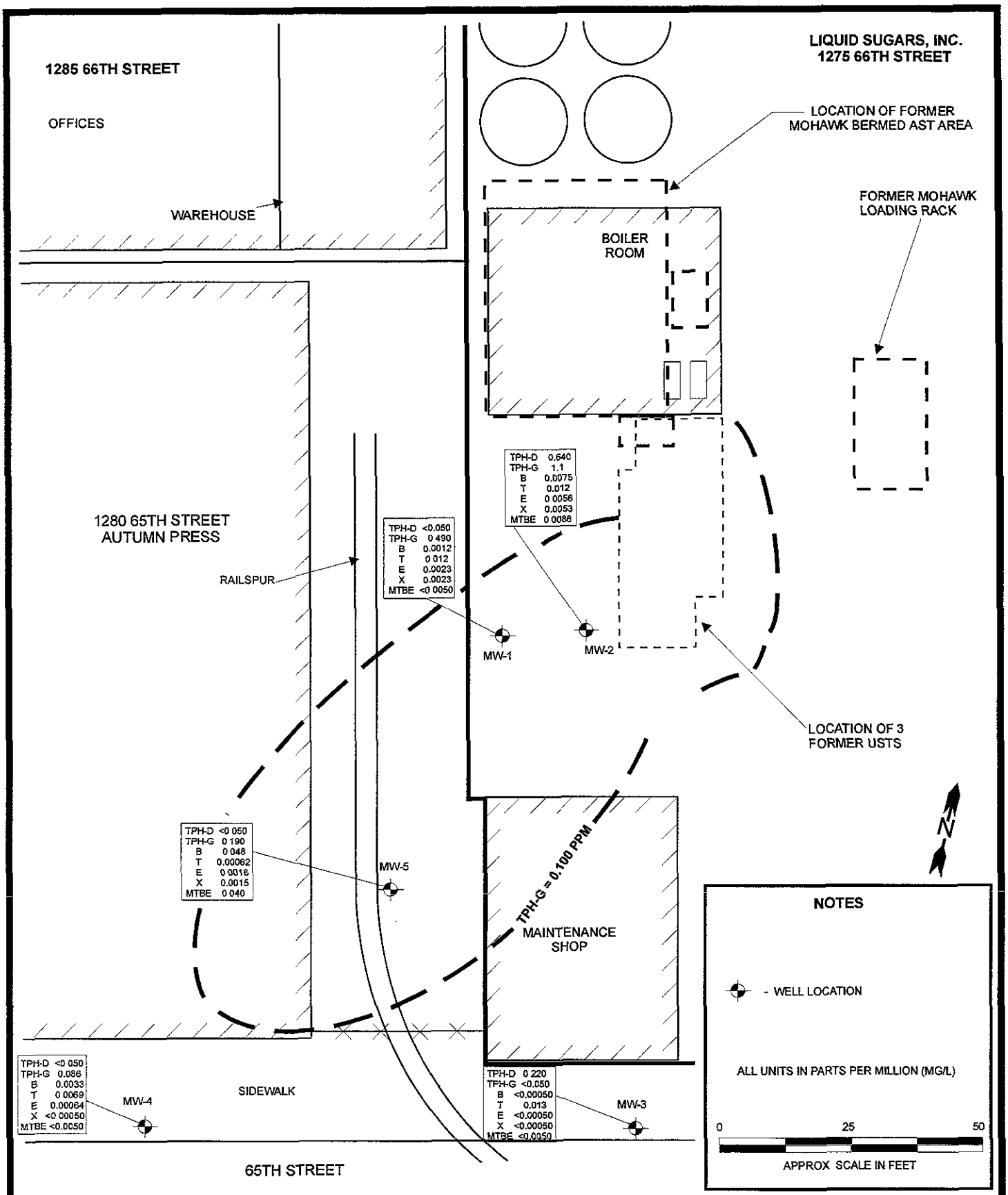
DESIGNED BY:	CHECKED BY: SS	**SITE PLAN**	DATE: 07/14/00 / FIGURE: 2
DRAWN BY: JG	SCALE:	LIQUID SUGARS, INC. SITE 1275 & 1285 66TH STREET EMERYVILLE, CALIFORNIA	GRIBI Associates
PROJECT NO: 149-01-03			



DESIGNED BY:	CHECKED BY: SS	**SOIL TPH-G AND TPH-D RESULTS**	DATE: 07/14/00	FIGURE: 3
DRAWN BY: JG	SCALE:	LIQUID SUGARS, INC. SITE 1275 & 1285 66TH STREET EMERYVILLE, CALIFORNIA	**GRIBI Associates**	
PROJECT NO: 149-01-03				



DESIGNED BY:	CHECKED BY: SS	**GROUNDWATER GRADIENT MAP** **03/23/00**	DATE: 07/14/00	FIGURE: 4
DRAWN BY: JG	SCALE:	LIQUID SUGARS, INC. SITE 1275 & 1285 66TH STREET EMERYVILLE, CALIFORNIA	GRIBI Associates	
PROJECT NO: 149-01-03				



DESIGNED BY:	CHECKED BY: SS	**GROUNDWATER HYDROCARBON RESULTS**	DATE: 07/14/00	FIGURE: 5
DRAWN BY: JG	SCALE:	LIQUID SUGARS, INC. SITE 1275 & 1285 66TH STREET EMERYVILLE, CALIFORNIA	GRIBI Associates	
PROJECT NO: 149-01-03				

Table 1
SUMMARY OF ANALYTICAL RESULTS FROM GROUNDWATER MONITORING
Liquid Sugars UST Site, 1275 66th Street Site

Well Number	Sample Date	Groundwater Elevation	Constituent (ppm)									
			TPH-D	TPH-MO	TPH-G	B	T	E	X	MTBE	SVOCs	PB
MW-1	04/23/93	21.22 ft	**0.99**	--	**0.64**	**0.0063**	<0.0005	**0.0056**	**0.0025**	--	--	--
<27 94>	07/13/93	19.94 ft	**1.50**	--	**0.70**	**0.032**	**0.0012**	**0.0033**	**0.0110**	--	--	--
	11/02/93	18.99 ft	**1.70**	--	**0.87**	**0.019**	<0.0005	**0.0066**	**0.0044**	--	--	--
	02/15/94	20.03 ft	**2.00**	--	**1.20**	**0.022**	**0.0018**	**0.01**	**0.0064**	--	--	--
	05/18/94	20.29 ft	**2.60**[1]	--	**1.70**	**0.057**	**0.021**	**0.30**	**0.13**	--	--	--
	08/17/94	19 43 ft	**2.20**[1]	--	**1.20**	**0.013**	**0.0019**	**0.0008**	**0.0082**	--	--	--
	12/22/94	21.36 ft	**2.40**[2,3]	--	**1.10**	**0.027**	**0.0069**	**0.0014**	**0.0059**	--	--	--
	05/09/95	21.21 ft	**2.00**[2,3]	--	**1.20**	**0.014**	**0.0082**	**0.0120**	**0.0062**	--	--	--
	11/05/98	18.86 ft	<0.050	<0.100	**0.380**	**0.0040**	**0.0064**	**0.0042**	**0.0019**	<0.0050	--	--
	2/05/99	20 66 ft	<0.050	<0 100	**0.490**	**0.0012**	**0.0061**	**0.0046**	**0.0019**	<0 0050	--	--
	06/02/99	19.61 ft	**0.770**	<0.100	**0.340**	**0.029**	**0.0040**	**0.0058**	**0.0015**	<0 0050	--	--
	06/28/99	19.08 ft	<0.050	<0.100	**0.460**	**0.0073**	**0.0049**	**0.0026**	**0.0022**	<0.0050	--	--
	09/28/99	18 93 ft	**0.099**	<0.100	**0.580**	**0.0015**	**0.0025**	**0.0053**	**0.0055**	<0.0050	--	--
	12/28/99	--	<0.050	<0.100	**0.490**	**0.0012**	**0.012**	**0.0023**	**0.0023**	<0 0050	--	--
	3/23/00	22.05 ft 5.89	**1.6**	<0.100	**0.690**	**0.013**	**0.0015**	**0.0058**	**0.0028**	<0.0050	--	--
MW-2	04/23/93	21.14 ft	**2.10**	--	**1.10**	**0.320**	**0.0065**	**0.0082**	**0.013**	--	--	--
<27.87>	07/13/93	19.49 ft	**0.21**	--	**0.48**	**0.033**	**0.0025**	**0.0052**	**0.0047**	--	--	--
	11/02/93	18.82 ft	**1.80**	--	**0.43**	**0.016**	**0.0009**	**0.0019**	**0.0021**	--	--	--
	02/15/94	21.05 ft	**2.80**	--	**1.40**	**0.056**	**0.0029**	**0.0075**	**0.0071**	--	--	--
	05/18/94	20 31 ft	**3.00**	--	**0.54**	**0.024**	**0.0013**	**0.0026**	**0.0034**	--	--	--
	08/17/94	19.37 ft	**2.20**[1]	--	**0.88**	**0.025**	**0.0030**	**0.0028**	**0.0086**	--	--	--
	12/22/94	21.64 ft	**3.10**[2,3]	--	**0.61**[4]	**0.0036**	**0.0033**	**0.0054**	**0.0016**	--	--	--
	05/09/95	21.16 ft	**5.20**	--	**2.30**	**0.0150**	**0.0060**	**0.0110**	**0.0130**	--	--	--
	11/05/98	19 04 ft	**9.10**	**0.200**	**1.20**[5]	**0.0065**	**0.0018**	**0.0059**	**0.0014**	<0.010	--	--

Table 1
SUMMARY OF ANALYTICAL RESULTS FROM GROUNDWATER MONITORING
Liquid Sugars UST Site, 1275 66th Street Site

Well Number	Sample Date	Groundwater Elevation	Constituent (ppm)									
			TPH-D	TPH-MO	TPH-G	B	T	E	X	MTBE	SVOCs	PB
	2/05/99	20.96 ft	**3.50**	<0.100	**0.790**[5]	**0.017**	**0.0049**	**0.0064**	**0.0016**	<0.0050	--	--
	06/02/99	19 84 ft	**21.0**	<0 500	**0.480**	**0.032**	**0.0040**	**0.0059**	**0.0016**	<0.0050	<0.010[6]	**0.008**
	06/28/99	19.29 ft	**0.650**	<0.100	**0.380**	**0.010**	**0.0020**	**0.0033**	**0.00077**	<0.0050	--	--
	09/28/99	19.23 ft	**7.00**	<0.100	**1.6**	<0.0025	**0.0079**	**0.0091**	**0.013**	<0 025	--	--
	12/28/99	20.36 ft.	**0.640**	<0.100	**1.1**[5]	**0.0075**	**0.012**	**0.0056**	**0.0053**	**0.0086**	--	--
	3/23/00	22 67 ft	**1.2**	<0.100	**1.4**	**0.027**	**0.0012**	**0.0058**	<0.0010	<0.010	--	--
MW-3	06/28/99	18.77 ft	**0.300**	<0.100	**0.066**	<0.00050	<0.00050	<0.00050	<0.00050	<0.0050	--	--
<26.19>	09/28/99	19.05 ft	**0.350**	<0 100	<0 050	<0.00050	<0.00050	<0.00050	<0.00050	<0.0050	--	--
	12/28/99	20.07 ft.	**0.220**	<0.100	<0.050	<0.00050	**0.013**	<0.00050	<0.00050	<0.0050	--	--
	3/23/00	21.91 ft	<0.050	<0.100	**0.052**	<0.00050	<0 00050	<0.00050	<0.00050	<0.0050	--	--
MW-4	06/28/99	18.49 ft	**0.320**	<0.100	**0.110**	**0.00052**	**0.0011**	**0.0022**	<0.00050	<0.0050	--	--
<24.90>	09/28/99	18 45 ft	**0.060**	<0 100	**0.110**	**0.0034**	<0.00050	**0.0018**	<0.00050	**0.0068**	--	--
	12/28/99	19.24 ft.	<0.050	<0.100	**0.086**	**0.0033**	**0.0069**	**0.00064**	<0.00050	<0.0050	--	--
	3/23/00	21.01 ft	<0.050	<0 100	**0.240**	**0.017**	<0.00050	**0.015**	<0.00050	<0.0050	--	--
MW-5	06/28/99	18 64 ft	<0.050	<0 100	**0.140**	**0.0030**	**0.0017**	<0.00050	<0.00050	**0.024**[7]	--	--
<25.90>	09/28/99	18.56 ft	<0.050	<0.100	**0.140**	**0.010**	**0.00083**	**0.00081**	**0.00084**	**0.034**[7]	--	–
	12/28/99	18.98 ft.	<0.050	<0 100	**0.190**	**0.048**	**0.00062**	**0.0018**	**0.0015**	**0.040**	--	--
	3/23/00	21 24 ft	<0.050	<0 100	**0.420**	**0.130**	<0.0010	<0.0010	**0.0028**	**0.030**	--	--

Groundwater Elevation = Groundwater mean sea level elevation
TPH-G = Total Petroleum Hydrocarbons as Gasoline
TPH-D = Total Petroleum Hydrocarbons as Diesel
TPH-MO = Total Petroleum Hydrocarbons as Motor Oil
B = Benzene
T = Toluene
E = Ethylbenzene
X = Xylenes
MTBE = Methyl-t-Butyl Ether
SVOCS = Semi-Volatile Organic Compounds
Pb = Total Lead

<27 94> = Top of casing mean sea level elevation
<0 0005 = Not detected above the expressed detection level
-- = Not analyzed for this analyte
1 = Lab report states "The positive result has an atypical pattern for Diesel analysis "
2 = Lab report states "The positive result appears to be a heavier hydrocarbon than Diesel "
3 = Lab report states "The positive result appears to be a lighter hydrocarbon than Diesel "
4 = Lab report states "The positive result appears to be a heavier hydrocarbon than Gasoline "
5 = Lab report states "Product is not typical gasoline "
6 = No detectable levels of 69 SVOC analytes
7 = MTBE result confirmed using USEPA Method 8260B

Table 3
TOTAL PATHWAY RISK ESTIMATES
West-Northwest Area, Liquid Sugars UST Site, 1275 66th Street

Exposure Pathway	Carcinogenic Risk				Toxic Effects Risk			
	Individual COC Risk		Cumulative COC Risk		Individual COC Risk		Cumulative COC Risk	
	Maximum Value	Target Risk	Total Value	Target Risk	Hazard Index	Applicable Limit	Hazard Quotient	Applicable Limit
Outdoor air exposure pathways	9.5×10^{-9}	1×10^{-5}	9.5×10^{-9}	1×10^{-4}	1.3×10^{-4}	1	1.3×10^{-4}	1
Indoor air exposure pathways	6.2×10^{-6}	1×10^{-5}	6.2×10^{-6}	1×10^{-4}	8.5×10^{-2}	1	8.6×10^{-2}	1

5.3 Evaluation of RBCA Model Results

Based on model risk estimates, it appears that there is no significant risk of exposure from any identified hydrocarbon constituents present at the project site. The total pathway individual and cumulative carcinogenic risk (risk from benzene exposure) associated with both outdoor and indoor vapor exposure for the southwest project site area are well below the individual and cumulative target risk levels of 1.0×10^{-5} and 1.0×10^{-4}, respectively. Also, the total pathway individual and cumulative toxic risk (risk from toluene, ethylbenzene, and xylenes exposure) associated with both outdoor and indoor vapor exposure for the southwest project site area are well below the individual and cumulative risk target level of 1.0.

6.0 REQUEST FOR REGULATORY SITE CLOSURE

Based on results of site investigations and the RBCA assessment, we request that regulatory closure be granted for this site. We believe that this site should be closed as a low-risk soil and groundwater case based on the following known conditions:

- **There is no free product present in project site wells.** There has been no free product measured in groundwater in any of the project site wells. Slight to moderate hydrocarbon sheens have been observed in groundwater purged from well MW-2, located about five feet southwest from the former UST excavation. However, these sheens are strictly seasonal, and seem to occur only when groundwater depths are relatively low (i.e. in the summer and fall months). These hydrocarbon sheens are not measurable and clearly do not represent free product.

- **The hydrocarbon plume is stable.** Historical groundwater monitoring results from median plume wells MW-2, MW-1, MW-5, and MW-4 clearly define a stable hydrocarbon plume, extending about 100 feet in a downgradient (southwesterly) direction from the former USTs.

- **No ongoing hydrocarbon sources are present at the site.** The three subject USTs were removed from the site in November 1990, and approximately 70 cubic yards of hydrocarbon-impacted soil was removed from the site in September 1991. Subsequent soil boring data indicates that only moderate levels of hydrocarbon-impacted soils are present in a relatively narrow layer southwest from the former USTs.

- **Results of RBCA assessment activities indicate no significant risk posed by residual hydrocarbons.** Calculated risk estimates for both outdoor and indoor air exposure pathways are below target risk levels for both carcinogenic and toxic risk. Also, there are no groundwater or surface water receptors within close proximity to the site, and there is no evidence of significant hydrocarbon impacts to near-surface soils at the site.

Subject to concurrence from Alameda County Department of Environmental Health, a Risk Management Plan (RMP) will be prepared for the site. This RMP will address potential risks associated with possible future site development.

Note that the RBCA assessment was conducted using both residential and commercial receptors. Due to the apparent high degree of natural attenuation, the concentrations of BTEX constituents in soil and groundwater are relatively low, and thus, the RBCA assessment indicates no significant risk for both residential and commercial receptors. For this reason, we do not believe that a deed restriction is warranted as a condition of site closure.

ALAMEDA COUNTY HEALTH CARE SERVICES AGENCY
DEPARTMENT OF ENVIRONMENTAL HEALTH
HAZARDOUS MATERIALS DIVISION
80 SWAN WAY, ROOM 200
OAKLAND, CA 94621
PHONE NO. 415/271-4320

ACCEPTED
DEPARTMENT OF ENVIRONMENTAL HEALTH
470 - 27th Street, third Floor

Project #: 577102
Fee Paid: $744.
Date: 10/30/90

Any change or alterations of these plans and specifications must be submitted to this Department and to the Fire and Building Inspection Department to determine if such changes meet the requirements of State and local laws. Notify this Department at least 48 hours prior to the following required inspections:

✓ Removal of Tank and Piping
✓ Sampling
✓ Final Inspection

Issuance of a permit to operate is dependant on compliance with accepted plans and all applicable laws and regulations.

THERE IS A FINANCIAL PENALTY FOR NOT OBTAINING THESE INSPECTIONS.

* Note change made on page 1, 82, 3rd ¶. Susan L. Hugo 11-1-90

UNDERGROUND TANK CLOSURE/MODIFICATION PLANS

1. Business Name LIQUID SUGAR
   Business Owner MOONEY & SERONI
2. Site Address * ~~1274 65TH ST.~~ 1275 66th Street
   City EMERYVILLE, CA. Zip ~~94604~~ 94608 Phone 415-420-7163
3. Mailing Address P.O. BOX 96
   City OAKLAND, CA. Zip 94604 Phone 415-420-7100
4. Land Owner MOONEY & SERONI
   Address P.O. BOX 96 City, State OAKLAND CA Zip 94604
5. EPA I.D. No. CAC000533568
6. Contractor VERL'S CONSTRUCTION, INC.
   Address 753 PERALTA AVE.
   City SAN LEANDRO, CA. Phone 415-568-1234
   License Type A, B & HAZ. ID# 487537
7. Consultant ENVIRONMENTAL GEO-TECHNICIAN CONSULTANT
   Address 2495 INDUSTRIAL PARKWAY WEST
   City HAYWARD, CA. 94545 Phone 415-786-0243

*

8. Contact Person for Investigation

Name SKIP BENEFIEL Title MANAGER

Phone 415-420-7189

9. Total No. of Tanks at facility 3

10. Have permit applications for all tanks been submitted to this office? Yes [X] No [ ]

11. State Registered Hazardous Waste Transporters/Facilities

a) Product/Waste Tranporter

Name DILLIARD TRUCKING EPA I.D. No. CAD981692809

Address ROUTE 1, BOX 73

City BYRON State CA. Zip 94514

b) Rinsate Transporter

Name SAME EPA I.D. No. _____

Address _____

City _____ State _____ Zip _____

c) Tank Transporter

Name SAME EPA I.D. No. _____

Address _____

City _____ State _____ Zip _____

d) Tank Disposal Site

Name ERICKSON EPA I.D. No. CAD000946592

Address 255 PARR BLVD.

City RICHMOND State CA. Zip 94801

* e) Contaminated Soil Transporter

Name DILLIARD TRUCKING EPA I.D. No. _____

Address _____

City _____ State _____ Zip _____

12. Sample Collector

Name GREG MILIKAN

Company ENVIRONMENTAL GEO-TECH CONSULTANT

Address 2495 INDUSTRIAL PARKWAY WEST

City HAYWARD State CA Zip 94545 Phone 415-786-0243

13. Sampling Information for each tank or area

Tank or Area		Material sampled	Location & Depth
Capacity	Historic Contents (past 5 years)		
10 K GALLON	DIESEL	SOIL/Water	One sample beneath each tank end, no deeper than 2 feet below the tank bottom.
550 GALLON	GASOLINE	SOIL/Water	
550 GALLON	GASOLINE	SOIL/Water Sample ground water if present.	
	* One sample must be collected for every 20 ft. of piping.		

2' BELOW TANK

14. Have tanks or pipes leaked in the past? Yes [✓] No [ ]

If yes, describe. UNKNOWN

15. NFPA methods used for rendering tank inert? Yes [✓] No [ ]

If yes, describe. STEAM RINSE T 330 lbs DRY-ICE 15 pounds per 1000 gallons dry ice.

An explosion proof combustible gas meter shall be used to verify tank inertness.

16. Laboratories

Name (NET) NATIONAL ENVIRONMENTAL TESTING INC.

Address 435 TESCONI CIRCLE

City SANTA ROSA State CA Zip 95401

State Certification No. 178

All piping must be flushed into the tanks before tanks are inerted. All piping must be removed.

17. Chemical Methods to be used for Analyzing Samples

Contaminant Sought	EPA, DHS, or Other Sample Preparation Method Number	EPA, DHS, or Other Analysis Number
DIESEL		LUFT MANUAL GUIDELINE MODIFIED 8015
GASOLINE		BTX + E 8020 & 8240
TPHG	GCFID (5030)	5030
TPHD	GC FID (3550)	3550
BTX&E	8020 or 8240	8020 or 8240
Total Lead	AA	

* The following RWQCB detection limits must be met:
TPHG – 1.0 ppm (soil) — 50.0 ppb (water)
TPHD – 1.0 ppm (soil) — 50.0 ppb (water)
BTX&E – 5.0 ppb (soil) — 0.5 ppb (water)

18. Submit Site Safety Plan

19. Workman's Compensation: Yes [X] No [ ]

Copy of Certificate enclosed? Yes [X] No [ ]

Name of Insurer STATE FUND INSURANCE

20. Plot Plan submitted? Yes [X] No [ ]

21. Deposit enclosed? Yes [X] No [ ]

22. Please forward to this office the following information within 60 days after receipt of sample results.

a) Chain of Custody Sheets

b) Original Signed Laboratory Reports

c) TSD to Generator copies of wastes shipped and received

d) Attachment A summarizing laboratory results

I declare that to the best of my knowledge and belief the statements and information provided above are correct and true. I understand that information in addition to that provided above may be needed in order to obtain an approval from the Department of Environmental Health and that no work is to begin on this project until this plan is approved.

I understand that any changes in design, materials or equipment will void this plan if prior approval is not obtained.

I understand that all work performed during this project will be done in compliance with all applicable OSHA (Occupational Saftey and Health Administration) requirements concerning personnel and safety.

I will notify the Department of Environmental Health at least two (2) working days (48 hours) after approval of this closure plan in advance to schedule any required inspections. I understand that site and worker safety are solely the responsibility of the property owner or his agent and that this responsibility is not shared nor assumed by the County of Alameda.

Signature of Contractor

Name (please type) CATHERINE R. MAYER / VERL'S CONST. - INC.

Signature _____

Date 10-29-90

Signature of Site Owner or Operator

Name (please type) Liquid Sugars, Inc

Signature _____, Agent

Date 10/29/90

NOTES:

1. Any changes in this document must be approved by this Department.

2. Any leaks discovered must be submitted to this office on an underground storage tank unauthorized leak/contamination site report form within 5 days of its discovery.

3. Three (3) copies of this plan must be submitted to this Department. One copy must be at the construction site at all times.

4. After approval of plan, notification of at least two (2) working days (48 hours) must be given to this Department prior to removal of tank(s).

5. A copy of your approved plan must be sent to the landowner.

6. Triple rinse means that:

   a) Final rinse must contain less than 100 ppm of Gasoline (EPA method 8020 for soil, or EPA method 602 for water) or Diesel (EPA method 418.1). Other methods for halogenated volatile organics (EPA method 8010 for soil, EPA method 601 for water) may be required. The composition of the final rinse must be demonstrated by an original or facsimile report from a laboratory certified for the above analyses.

   b) Tank interior is shown to be free from deposits or residues upon a visual examination of tank interior.

   c) Tank should be labelled as "tripled rinsed; laboratory certified analysis available upon request" with the name and address of the contractor.

If all the above requirements cannot be met, the tank must be transported as a hazardous waste.

7. Any cutting into tanks requires local fire department approval.

UNDERGROUND TANK CLOSURE/MODIFICATION PLANS

ATTACHMENT A

SAMPLING RESULTS

Tank or Area	Contaminant	Location & Depth	Results (specify units)

INSTRUCTIONS

2. SITE ADDRESS
Address at which closure or modification is taking place.

5. EPA I.D. NO.
This number may be obtained from the State Department of Health Services, 916/324-1781.

6. CONTRACTOR
Prime contractor for the project.

7. OTHER
List professional consultants here.

12. SAMPLE COLLECTOR
Persons who are collecting samples.

13. SAMPLING INFORMATION
Historic contents - the principal product(s) used in the last 5 years.

Material sampled - i.e., water, oil, sludge, soil, etc.

16. LABORATORIES
Laboratories used for chemical and geotechnical analyses.

17. CHEMICAL METHODS:
All sample collection methods and analyses should conform to EPA or DHS methods.

Contaminant - Specify the chemical to be analyzed.

Sample Preparation Method Number - The means used to prepare the sample prior to analyses - i.e., digestion techniques, solvent extraction, etc. Specify number of method and reference if not an EPA or DHS method.

Analysis Method Number - The means used to analyze the sample - i.e., GC, GC-MS, AA, etc. Specify number of method and reference if not a DHS or EPA method.

NOTE:
Method Numbers are available from certified laboratories.

18. SITE SAFETY PLAN
A plan outlining protective equipment and additional specialized personnel in the event that significant amount of hazardous materials are found. The plan should consider the availability of respirators, respirator cartridges, self-contained breathing apparatus (SCBA) and industrial hygienists.

19. ATTACH COPY OF WORKMAN'S COMPENSATION

20. PLOT PLAN

The plan should consists of a scaled view of the facility at which the tank(s) are located and should include the following information:

a) Scale

b) North Arrow

c) Property Line

d) Location of all Structures

e) Location of all relevant existing equipment including tanks and piping to be removed

f) Streets

g) Underground conduits, sewers, water lines, utilities

h) Existing wells (drinking, monitoring, etc.)

i) Depth to ground water

j) All existing tanks in addition to the ones being pulled

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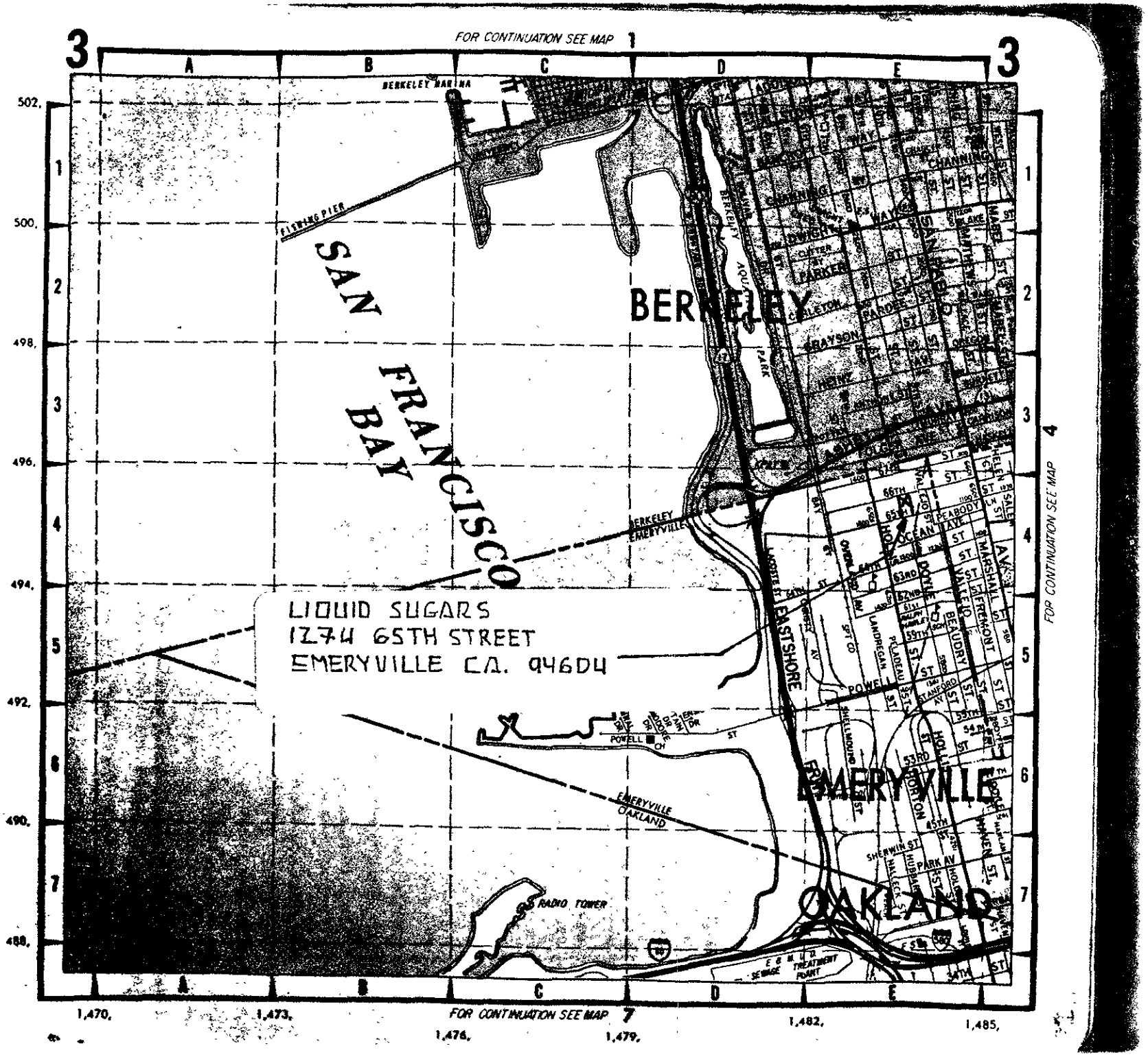
FOR CONTINUATION SEE MAP 1
3
A
B
C
D
E
3
502.
500.
498.
496.
494.
492.
490.
488.
1
2
3
4
5
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7
BERKELEY MARINA
FISHING PIER
SAN FRANCISCO BAY
BERKELEY
EMERYVILLE
LIQUID SUGARS
1274 65TH STREET
EMERYVILLE CA. 94604
POWELL
EMERYVILLE
OAKLAND
EMERYVILLE OAKLAND
RADIO TOWER
SEWAGE TREATMENT PLANT
FOR CONTINUATION SEE MAP 4
FOR CONTINUATION SEE MAP 7
1,470.
1,473.
1,476.
1,479.
1,482.
1,485.

Consumer Affairs

State of California
Department of Consumer Affairs
CONTRACTORS STATE LICENSE BOARD

License Number
487537

Entity
CORP

Name/Namestyle
VERL'S CONSTRUCTION INC.

Classification(s)
A B HAZ

Expiration Date
02/29/92

STATE COMPENSATION INSURANCE FUND
P.O. BOX 807, SAN FRANCISCO, CA 94101-0807

CERTIFICATE OF WORKERS' COMPENSATION INSURANCE

POLICY NUMBER: 0758432-90
CERTIFICATE EXPIRES: 07-08-91

OCTOBER 25,1990

CITY OF EMERYVILLE
BUILDING DEPT
2449 POWELL ST
EMERYVILLE, CA 94608

This is to certify that we have issued a valid Workers' Compensation insurance policy in a form approved by the California Insurance Commissioner to the employer named below for the policy period indicated.

This policy is not subject to cancellation by the Fund except upon ten days' advance written notice to the employer.

We will also give you TEN days' advance notice should this policy be cancelled prior to its normal expiration.

This certificate of insurance is not an insurance policy and does not amend, extend or alter the coverage afforded by the policies listed herein. Notwithstanding any requirement, term, or condition of any contract or other document with respect to which this certificate of insurance may be issued or may pertain, the insurance afforded by the policies described herein is subject to all the terms, exclusions and conditions of such policies.

John A. Klebb
PRESIDENT

FAX/568-2218

EMPLOYER

VERL'S CONSTRUCTION INC
753 PERALTA AVE
SAN LEANDRO, CA 94577

* Health & Safety Officer – Merlin Bowen

* Copy of the Health & Safety Plan must be on site at all times.

SITE HEALTH AND SAFETY PLAN

Introduction

This health and safety plan prescribes the work-place procedures which will be followed during the soil and groundwater assessment of the site located at 1275 66th St. Emeryville 94608 California. The provisions of this plan are mandatory for all VEI personnel and subcontractors assigned to this project. All authorized visitors to the site will be required to abide by the procedures. The requirements in this plan may change due to changes in the work conditions, however, no changes will be made without prior written approval of the Health and Safety Consultant and the Project Manager.

VERL'S CONSTRUCTION, INCORPORATED . is committed to providing a safe and healthful working environmental for all its employees and subcontractors.

ASSIGNMENT OF RESPONSIBILITY

Project Manager

VEI's Project Manager will be BOB WARD , who will be responsible for oversight and management of the project. MERLIN BOWEN will be responsible for the implementation and management of the Health and Safety Plan.

Health and Safety Consultant

Mr. BOWEN or his designee will visit the site periodically and during critical phases of the project. The Health and Safety Consultant is responsible for preparation of this plan.

VCI Site Representative/Safety and Health Officer

During most of this project there will be an VCI representative on site. That representative will be responsible for day to day implementation of the health and safety plan and overall direction of subcontractor personnel. The VCI representative is empowered to stop all site work in the case of violation of the requirements of the health and safety plan.

Other Project Personnel/Subcontractor

All project and subcontractor personnel will be responsible for understanding and complying with the project health and safety requirements.

HAZARD CHARACTERIZATION AND RISK ANALYSIS

Petroleum Contaminated Water and Soils

Gasoline and its constituents pose health hazards in two major classifications: explosivity and toxicity. The extreme flammability of gasoline is commonly known. The lower explosion limit (LEL) of gasoline vapor is 1.3 percent in air. If the concentration

of gasoline vapor in air exceeds 1.3 percent (13,000 parts per million) and sufficient quantities of oxygen are present, then the introduction of sufficient heat, spark, or flame will result in an explosion.

Prior to conducting any subsurface excavation in the vicinity of a fuel tank, the tank should be emptied of all liquid product and receive sufficient quantities of dry ice (frozen carbon dioxide) so that available oxygen is displaced from the tank atmosphere.

A lesser known health hazard resulting from exposure to gasoline is toxicity. Over exposure to petroleum hydrocarbon vapor can cause depression of the central nervous system. Inhalation of high concentrations of gasoline can cause chemical pneumonia and/or pulmonary edema. Repeated or prolonged skin exposure to gasoline or gasoline contaminated materials can cause dermatitis or even blistering of the skin. Several common constituents of gasoline have been linked to various health problems. The constituents of gasoline that have been shown to cause serious health problems resulting from relatively minor exposures include benzene, toluene, meta, para, and ortho xylenes, ethyl benzene and tetraethyl lead.

Typical percentages (by weight) of these constituents in gasoline are: benzene - 0.12-3.50%, toluene - 2.73-21.80%, meta xylene - 1.77-3.87%, para xylene - 0.77-1.58%, ortho xylene - 0.68-2.66%, and ethyl benzene - 0.36-2.86%. Typical percentage of tetraethyl lead is not available.

Units used to describe occupational exposures to hazardous substances include: exposure limit, also known as the "threshold limit value" (TLV), ceiling limit, and the concentration level that is "immediately dangerous to life and health" (IDLH). The exposure limit defines the maximum concentration of a substance to which one can be exposed during an 8 hour period without suffering significant health effects. The ceiling limit is the concentration level that cannot be exceeded at any time; i.e., a suitable respirator must be worn if concentration values reach the ceiling limit. The IDLH level represents a maximum concentration from which one could escape within 30 minutes of respirator failure without experiencing escape-impairment or irreversible health damage. IDLH values are not listed for substances that are potential human carcinogens.

EXPOSURE TABLE

Substance	Exposure Limit	Ceiling Limit	IDLH
Benzene	0.1 ppm (8 hrs)	1 ppm (15 min)	Carcinogen
Toluene	100 ppm (10 hrs)	200 ppm (10 min)	2000 ppm
Xylene	100 ppm (8 hrs)	200 ppm (10 min)	1000 ppm
Ethyl Benzene	100 ppm (8 hrs)	N/A	2000 ppm
Tetraethyl Lead	0.0067 ppm	N/A	3.6 ppm

Prolonged exposures to concentrations above the limits noted may affect the central nervous system, cardiovascular system, respiratory system, eyes, skin, kidneys, bones and bone marrow. Research has shown that benzene is a carcinogen.

Immediate symptoms of over-exposure include: eye irritation, nose irritation, throat irritation, headache, nausea, dizziness, drowsiness, weakness, confusion, euphoria, excitement, staggered gait, abdominal pain, respiratory difficulties, muscle fatigue, and coma.

In order to protect against over-exposure to these compounds, the ambient air will be monitored with a "lower explosion limit/oxygen content" meter and/or a handheld photo ionizing detector (PID). As soon as vapor concentrations approach 75% of the exposure limit value, work will cease until all on-site personnel have donned protective clothing and suitable respiratory devices.

Due to the inherent physical danger of working in the vicinity of moving heavy machinery, all personnel will weak hardhats and steeltoed footwear at all times.

Personnel exposures to excessive job-related hazards are expected to be minimal using these safeguards.

It should be noted that summertime heat may initiate weather stress-related problems and decrease productivity on the job site.

Based upon VEI's experience with investigations of potentially gasoline contaminated soils and water, overexposure of personnel to gasoline vapor is unlikely. Personnel

however may be exposed to short term vapor concentrations approaching 100 ppm. Respiratory protection plans will be directed to protecting personnel from the transient exposures.

Drilling Activities

Various hazards are present during excavating procedures.

- electrical hazards due to overhead and underground utility lines
- excessive noise
- confined space
- moving portions of the drilling
- falling of heavy overhead objects
- fall hazards due to working at heights

SITE CONTROL

A site map has been attached to this plan. The areas where work will occur, will be on the site, and may be barricaded to prevent unauthorized access. Only authorized personnel shall be allowed in the work areas and any unauthorized visitors must remain outside any barricaded area.

The site is small enough that normal voice communication can be used. In the vicinity of the excavation, common hand signals will be used.

TRAINING

VEI Personnel

All VEI project personnel shall have completed 40 hours of off-site health and safety training, related to hazardous waste operations. In general, the VEI personnel will have completed a combination of paid training courses which meet the requirements of both the interim and final Occupational Safety and Health Administration (OSHA) rule for Hazardous Waste and Emergency Response Operations (29 CFR 1910.120). All VEI supervisory personnel on site will have completed an additional 8 hours of relevant health and safety training.

VEI personnel who may visit the site occasionally, and are unlikely to be exposed to chemical hazards will have completed at least 24 hours of relevant health and safety training.

Any VEI or contractor personnel operating specialized industrial equipment such as forklifts, heavy equipment, drilling equipment, etc. shall be able to demonstrate their competency in the safe operation of such items.

Subcontractor Personnel

All subcontractor personnel who are likely to be exposed to hazardous materials either by inhalation or dermal contact shall have completed 40 hours of off-site health and safety training, in accordance with the OSHA interim and final Hazardous Waste and Emergency Operations rule. Subcontractor personnel who are required to work on the site for short periods of time (1-day or less), and who will not be required to wear any protective equipment, shall have completed at least 24 hours of off-site health and safety training.

All Site Personnel

Prior to starting off the project, a kick-off safety meeting will be held on the site. During this meeting all personnel will be briefed on the requirements contained within the health and safety plan, and will be told the site safety rules. The kick-off safety meeting will be conducted jointly by the project manager and the HSO.

At the beginning of each work shift, or whenever new personnel arrive on the site, a tailgate safety meeting will be held. The purpose of such meetings is to highlight health and safety concerns and to ensure that employees are fully briefed on the site work procedures to be followed during the shift. The tailgate safety meetings will be conducted by the first line supervisors. The project manager will review records all tailgate safety meetings.

MEDICAL SURVEILLANCE

All VCI subcontractor personnel shall provide proof of having successfully completed a preplacement or annual update physical examination. This examination shall have been designed to comply with regulatory requirements for hazardous waste operations and shall include the following:

- medical and occupational history form
- physical examination
- blood analysis
- urinalysis
- chest x-ray
- pulmonary function test
- audiogram
- electrocardiogram (if indicated during the physical exam)
- alcohol and illegal drug screening

GOVERNMENT AND VCI STANDARDS

Currently the health and safety of workers performing hazardous waste activities regulated by OSHA (29 CFR 1910.120).

The OSHA PEL for gasoline vapor is 300 ppm averaged over an eight-hour period. The 15-minute short term exposure limit is 500 ppm. To ensure that no project workers

monitored several times each day using either a photoionization detector (PID) or colorimetric indicator tubes.

If the PID or colorimetric indicator tube samples indicate that hydrocarbon vapor levels are 50 ppm or greater, then daily air samples will be collected from representative project personnel using charcoal tube sampling methods (OSHA Method 1M1S1340). Personnel will be notified in writing of the results of any personal air samples and their significance. A copy of this report will be maintained in the employee's medical surveillance file.

ACCESS AND DECONTAMINATION

Access

Access to the project work area zones shall be regulated and limited to authorized persons. A daily log shall be kept of all persons entering such areas. The work area itself shall be cordoned off using barrier tape or other suitable barriers.

Decontamination

Due to the low toxicity of the material involved (gasoline), the anticipated low levels of contamination, and the minimal hazard posed by spread of contaminated soil, formal decontamination procedures will not be required. The following site requirements will be enforced:

- Eating, drinking and smoking within the work area are prohibited.
- Project personnel may eat, drink or smoke outside the work area, only if they have washed their hands and face.
- An emergency eye-wash station shall be located on the job site adjacent to the work area.

Any potentially contaminated equipment will either be disposed of, or washed off with soap and water.

Any equipment used in the contaminated zone should be washed with soap and water before it is removed from the site.

EMERGENCY RESPONSE

In the event of an emergency such as a sickness, injury or fire, the following procedures will be followed:

- Emergency procedures will be initiated by the first person recognizing the emergency situation. This person shall immediately notify the VCI site representative.

- The designated VCI First Aid/CPR provider and a project member shall provide assistance to any injured or sick employee. In the case of suspected release of toxic material, these personnel shall first don protective suits and self-contained breathing apparatus. The injured employee will first be moved to a safe location, before any attempt at treatment is made.

- A project member will be designated to call the emergency services number (911) to obtain paramedic or fire department assistance if it is needed. Any injured employees will be taken to: MERITT HOSPITAL
  3400 SUMMIT ST.
  OAKLAND, CA. 94608 ✓

- In the event of a fire on the project site, VCI personnel will immediately notify the Fire Department at: 63RD ST.
  OAKLAND, CA. 94608

- While waiting for assistance from the fire department, project personnel will use available fire extinguishers (if safe to do so) to extinguish the fire.

Any injuries or incidents which have the potential to result in an injury will be recorded by the VCI site representative on the supervisor's employee injury report form. This form, when completed by the site representative, shall be forwarded to the VCI project manager, and the VCI Corporate Health and Safety Department.