November 4, 1998

UST Local Oversight Program Alameda County Health Agency Department of Environmental Health 1131 Harbor Bay Parkway Alameda, CA 94502-6577 Avelyze for TPHG, BTOX

when culos encontrad of ~ 10' bgs

Attention:

Ms. Eva Chu

Subject:

Report of Soil and Groundwater Investigation

3838 West Street UST Site

Oakland, California

GA Project No. 140-01-01 LOP Site ID No.: 4262

Ladies and Gentlemen:

Gribi Associates is pleased to submit this report on behalf of Mr. Johnny Houston documenting a recently-completed soil and groundwater investigation at the 3838 West Street underground storage tank (UST) site in Oakland, California (see Figure 1 and Figure 2). This soil and groundwater investigation included the drilling and sampling of two soil borings immediately adjacent to a gasoline UST formerly located at the project site. The purpose of the soil boring investigation was to assess soil and groundwater quality adjacent to the former UST in order to address regulatory site closure.

Background

One 550-gallon gasoline UST, which apparently had been unused for at least 20 years, was removed from the project site on January 8, 1992. Prior to removing the UST, approximately 650 gallons of water was pumped from the tank. Following removal of the UST, the Alameda County Department of Environmental Health inspector noted holes in the tank, and hydrocarbon odors and sheens in the excavation. Two soil samples collected at about eight feet in depth in the UST excavation cavity contained no detectable gasoline constituents and low levels of lead. One four-point composite soil sample collected from the excavated soil stockpile contained 4.3 parts per million (ppm) of TPH-G, with low levels of BTEX constituents and 32 ppm of Total Lead. A grab groundwater sample collected from the UST excavation cavity following tank removal contained 16 ppm of TPH-G, with low or no detectable levels of BTEX constituents.

On July 29, 1998, Gribi Associates submitted a workplan to Alameda County UST Local Oversight Program proposing the drilling and sampling of a single hand auger boring southwest from the former UST excavation cavity. Alameda County granted approval to implement the workplan with the provision that an additional boring be drilled on the south side of the former UST excavation cavity.

LIMITATIONS

The services provided under this contract as described in this report include professional opinions and judgments based on data collected. These services have been provided according to generally accepted environmental protocol. The opinions and conclusions contained in this report are typically based on information obtained from:

- 1. Observations and measurements made by our field staff.
- 2. Contacts and discussions with regulatory agencies and others.
- 3. Review of available hydrogeologic data.

DESCRIPTION OF FIELD ACTIVITIES

The two soil borings were drilled and sampled by Mr. Jim Gribi on August 13, 1998. A temporary monitoring installed in the southwest boring was purged and sampled on August 19, 1998.

Prefield Activities

Prior to beginning field activities, Gribi Associates marked proposed boring locations and notified Underground Services Alert (USA). In addition, Gribi Associates obtained a drilling permit from Alameda County Public Works Department. A copy of this permit is contained in Appendix A.

Location of Soil Borings

Locations of the soil boring, IB-1, and the temporary monitoring well, MW-1, are shown on Figure 2. MW-1 was sited in the expected downgradient (southwest) groundwater flow direction from the former UST excavation cavity. IB-1 was installed between the former UST and the adjacent project site building in order to assess potential hydrocarbon impacts to receptors in the adjacent project site building.

Drilling and Sampling of Soil Borings

The well boring MW-1 was drilled to a depth of about 13 feet below grade, and the investigative boring IB-1 was advanced to a depth of about nine feet below surface grade. Both borings were drilled using hand auger equipment. During hand augering, retrieved soil cuttings were logged by Mr. Jim Gribi, a California-registered geologist. Boring logs for the two borings are contained in Appendix B. All hand auger and sampling equipment was thoroughly cleaned and decontaminated between each sample collection by triple rinsing first with water, then with dilute tri-sodium phosphate solution, and finally with distilled water. Following completion, the investigative boring IB-1 was grouted to match existing grade.

Soil samples were collected from each of the two soil borings at a depth of about seven feet below surface grade. Each of the soil samples was collected using the following method: (1) Exposed soil

was scraped away; (2) A clean 2-inch by 6-inch brass tube was completely filled with undisturbed soil, taking care to minimize excess void in the tube; (3) The tube was then quickly sealed with aluminum foil and plastic end caps, wrapped tightly with tape and labeled; and (4) The sealed tube was immediately placed in cold storage for transport to the laboratory.

A grab groundwater sample was collected from investigative boring IB-1 using a clean disposable PVC bailer. This water sample was collected in four 40-ml VOA vials by completely filling each container from the bailer, and then tightly sealing each container with teflon-lined septum, making sure that no air bubbles were present. Each container was then labeled and immediately placed on ice for transport to the analytical laboratory.

Installation and Sampling of Temporary Well

Groundwater monitoring well MW-1 was constructed using 1-1/4 inch diameter Schedule 40 threaded PVC casing according to the following specifications: (1) 0.020-inch slotted well casing was placed from approximately 12.5 feet to 7.5 feet in depth; (2) Filter sand was placed around the casing to a depth of about 4.5 feet below grade; (3) A bentonite seal was placed around the casing from 4.5 feet to 4.0 feet in depth; and (4) The remaining annulus was grouted using a cement/sand slurry (bentonite less than 5 percent). The top of each well was enclosed in a traffic rated locking box set in concrete slightly above grade. Well construction specifications for each well are shown on the boring log for MW-1, which is contained in Appendix B.

After allowing the cement seal to cure for at least 48 hours, the well MW-1 was developed and sampled using clean disposable PVC bailer. Well development consisted of purging the well of at least three well volumes before sampling. During well development, groundwater was periodically monitored for presence of free-floating product and odor, pH, specific conductance, temperature and visible clarity. A groundwater sampling data sheet for MW-1 is contained in Appendix C. After these parameters had stabilized, groundwater was sampled directly from the bailer in the following manner: (1) Three 40-ml glass VOA vials were completely filled directly from the bailer with a minimum of agitation; (2) After making sure that no air bubbles were present, each container was tightly sealed with a teflon-lined septum; and (3) Each container was labeled and placed in cold storage for transport to the analytical laboratory under formal chain-of-custody. All sampling equipment was thoroughly cleaned and decontaminated between each sample collection by triple rinsing as described previously in this report.

Laboratory Analysis of Soil and Groundwater Samples

A total of two soil samples, one grab groundwater sample, and one well groundwater sample were analyzed for the following parameters:

USEPA 8015M Total Petroleum Hydrocarbons as Gasoline (TPH-G) USEPA 8020/602 Benzene, Toluene, Ethylbenzene, Xylenes (BTEX) USEPA 8020/602 Methyl-t-butyl Ether (MTBE)

All laboratory analyses were conducted by Acculabs, Inc., a California-certified analytical laboratory, with two-week turn around on lab results.

RESULTS OF INVESTIGATION

General Subsurface Conditions

Subsurface soils in the two borings were generally similar, consisting of dark grey silty soil down to about two feet in depth, followed by reddish brown sandy, gravelly silt down to about five feet in depth. Soils below about five feet in depth consisted of grey green to reddish brown sandy, silty gravel down to total depth. Groundwater was encountered in both borings at about eight feet in depth.

Grey green hydrocarbon staining, with moderate to strong hydrocarbon odors, was noted in subsurface soils in MW-1 from about 5.5 feet to 9.0 feet in depth, and in subsurface soils in IB-1 from about 7.0 feet to 9.0 feet in depth. Purged groundwater from MW-1 exhibited slight to moderate hydrocarbon odors, with no hydrocarbon sheens.

Results of Laboratory Analyses

Soil and water analytical results are summarized in Table 1. Laboratory data reports for soil and water samples are contained in Appendix D.

Table 1 SUMMARY OF SOIL AND GROUNDWATER ANALYTICAL RESULTS 3838 West Street UST Site							
Sample	Sample			Constituent (pa	urts per million)		uraturat yu
ID	Depth	трн-б	В	7	E	X	MTBE
Soil Sample	Soil Samples						
IB-1.1	7.0 ft	1201	< 0.10	< 0.10	0.19	0.22	<1.0
MW-1.1	6.5 ft_	190¹	<0.25	<0.25	0.77	0.53	<2.5
Groundwat	Groundwater Samples						
IB-1W	_	26	< 0.025	0.085	0.180	0.058	< 0.250
MW-1W	7.83 ft	1.8	0.0028	0.011	0.0059	0.0027	<0.025

TPH-G = Total Petroleum Hydrocarbons as Gasoline

B = Benzene, T = Toluene, E = Ethylbenzene, X = Xylenes

MTBE = Methyl-t-butyl Ether

<0.10 = Not detected above the expressed value.

1 = Acculabs, Inc. laboratory report states "Product is not typical gasoline."

4.0 CONCLUSIONS

Field screening and laboratory analytical results from the two soil borings indicate hydrocarbon impacts in subsurface soils from about five to nine feet in depth in MW-1 and seven to nine feet in IB-1. Although soil samples from the two borings contained moderate levels of Total Petroleum Hydrocarbons as Gasoline (TPH-G), these soil samples did not encounter detectable levels of Benzene or Toluene. Thus, as laboratory chromatograms seem to confirm, the volatile fractions of residual gasoline releases in subsurface soils appear to have degraded over the more than 20 years since the USTs were in use. Based on these results, it appears likely that residual gasoline constituents present in subsurface soils beneath the site do not pose a significant risk to potential indoor air receptors at the site.

The groundwater sample from investigative boring IB-1 was a grab sample collected directly from the boring after hand augering through fuel-laden soil. Thus, laboratory analytical results from the IB-1 grab groundwater sample are not representative of true groundwater conditions. The groundwater sample from monitoring well MW-1, on the other hand, was collected from a groundwater monitoring well after purging and sampling the well. Thus, laboratory analytical results from the MW-1 groundwater sample are probably more representative of true groundwater conditions downgradient from the former UST. These MW-1 groundwater results, which are much lower than the IB-1 water results, seem to indicate minimal impact to groundwater from previous gasoline releases from the former project site UST.

In summary, although residual hydrocarbons are present in soil and groundwater beneath the site, significant natural degradation of these hydrocarbons has occurred in the two decades since the USTs were last used. Because of this natural degradation of volatile gasoline constituent, remaining less volatile residual hydrocarbons do not pose a significant risk to current and future human and environmental receptors in the project site vicinity. Based on these conclusions, we recommend that Alameda County UST Local Oversight Program review this site for regulatory case closure.

We appreciate the opportunity to provide these services for you. Please call if you have questions or require additional information.

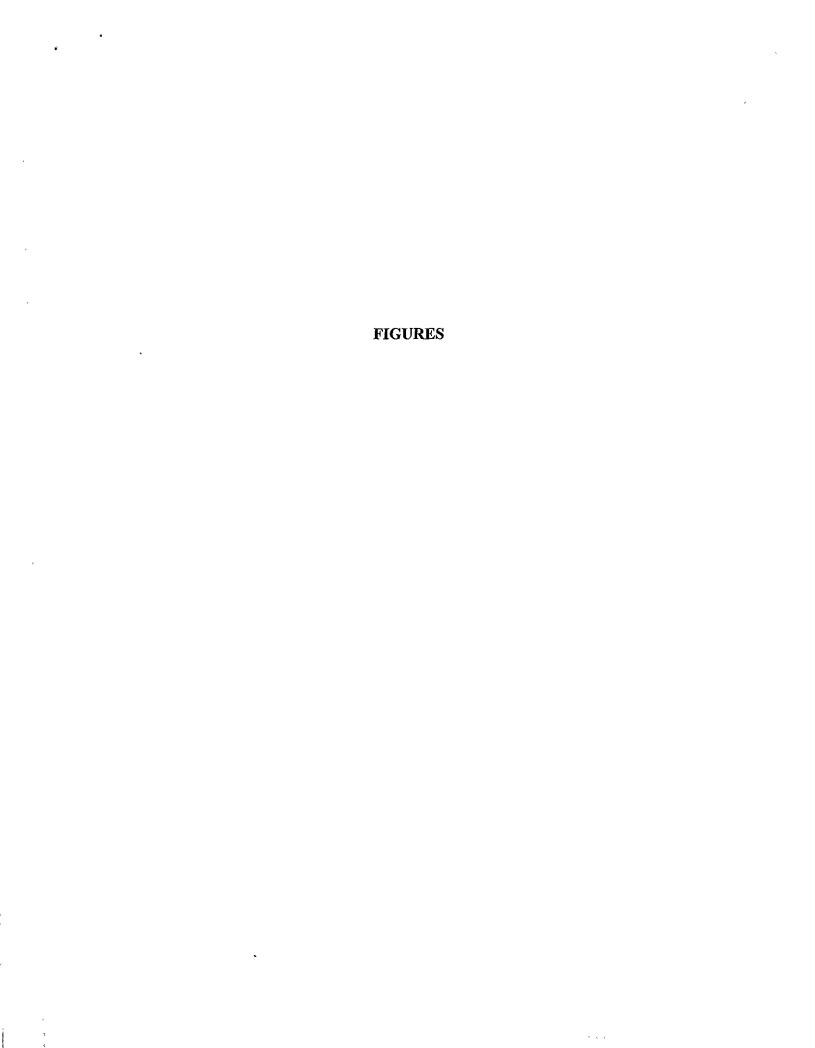
Very truly yours,

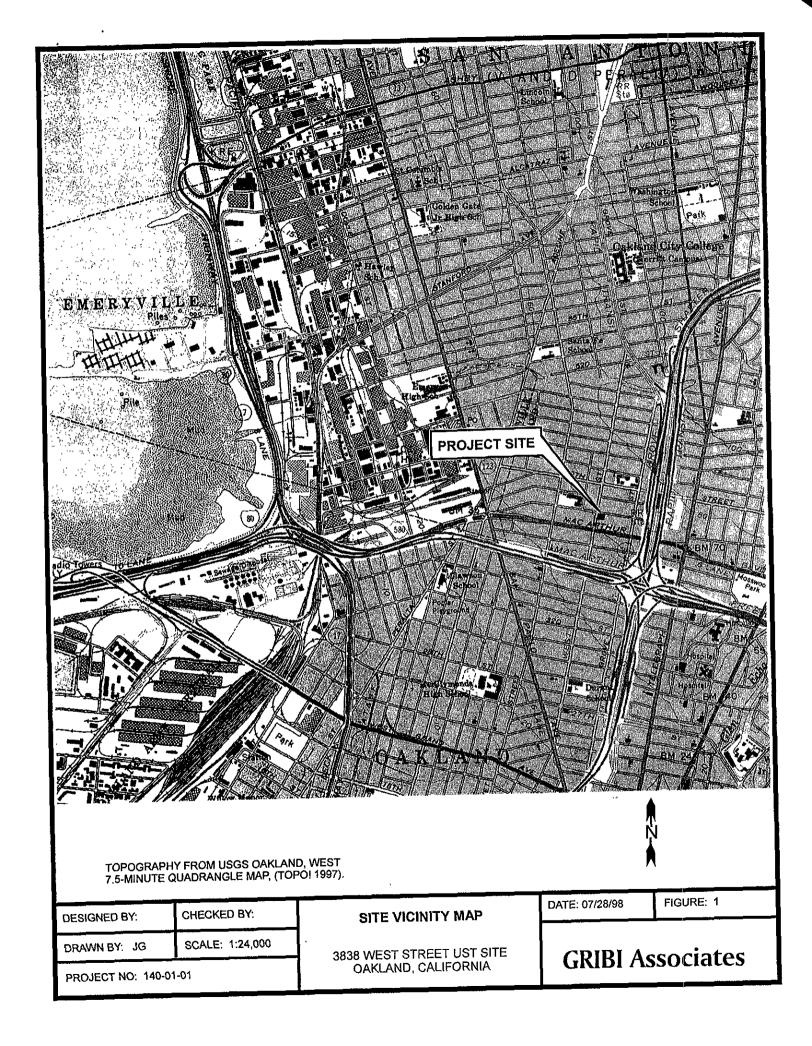
James E. Gribi Registered Geologist California No. 5843

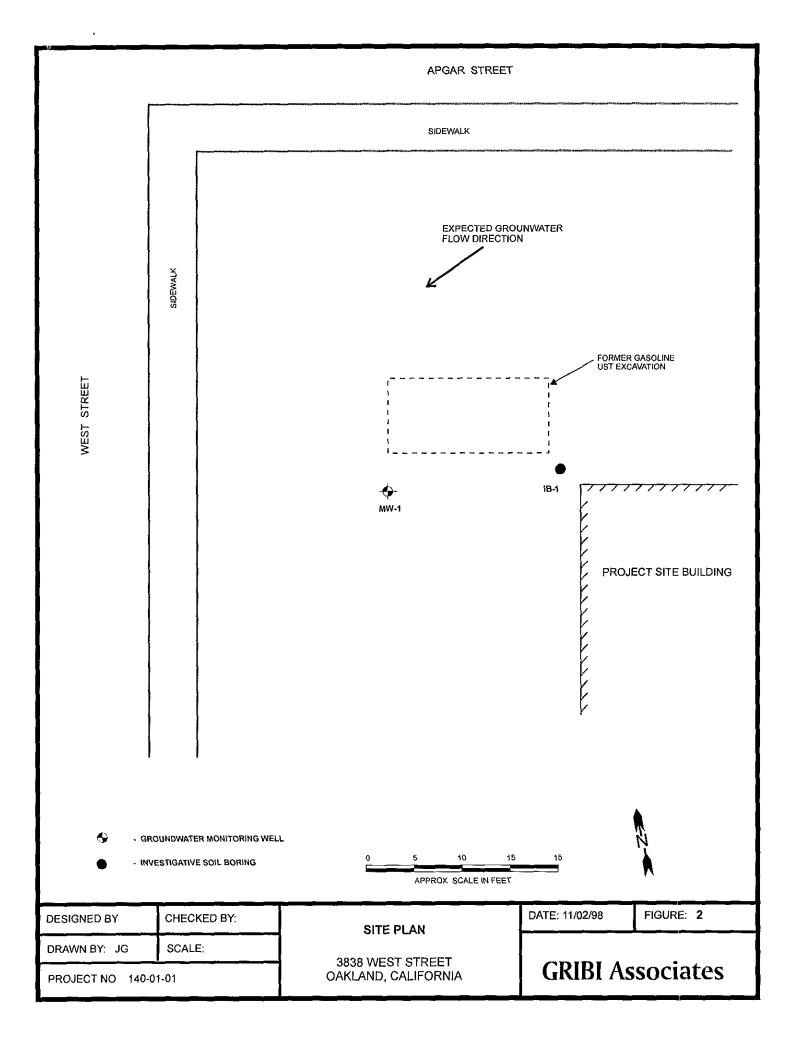
JEG/ct Enclosures

File GA-23/jh-west.rp1









APPENDIX A ALAMEDA COUNTY DRILLING PERMIT



Alameda County Ordinance No. 73-65

APPLICANT'S SIGNATURE.

DATE BROATS

ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION 951 TURNER COURT, SUITE 300, HAYWARD, CA 94545-2651 PHONE (510) 670-5575 ANDREAS CODFREY FAX (510) 670-5262

DRILLING PERM	T APPLICATION
FOR APPLICANT TO COMPLETE LOCATION OF PROJECT 3838 WEST STREET CAKLAND CALIFORNIA	FOR OFFICE USE PERMIT NUMBER 98 WR 345 WELL NUMBER
() Arcuracy # ()	PERMIT CONDITIONS
California Coordinates Source (t. CCF. (t. Accuracy & ft.	Circled Permit Requirements Apply
CLIENT Name OHNNY HOUSTON Address JOHNNY HOUSTON Address ORUND TOTAL Phone Sin/S41-5236 City OAKUND TOTAL Phone Sin/S41-5236 APPLICANT Name IM GC1 1 Fun 10-7/864-5543 Address ARU VINITABE AVP Phone Same City Suight CA Zip 34-585 TYPE OF PROJECT Well Construction Cathodic Protection Water Supply Monitoring PROPOSED WATER SUPPLY WELL USF New Dumestic C Replacement Domestic Municipal Industrial Industrial Cotton Other Cotton Other Cotton Cotton	GENERAL. 1. A permit application should be submitted so as to arrive at the ACPWA office five days prior to proposed starting date. 2. Submit to ACPWA within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report or equivalent for well projects, or drilling logs and location sketch for geotechnical projects. 3. Permit is void if project not begun within 90 days of approval date B. WATER SUPPLY WELLS 1. Minimum surface seal thickness is two inches of cement grout placed by tremite. 2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved. C. GROUNDWATER MONITORING WELLS 1. Minimum surface seal thickness is two inches of cement grout placed by tremite 2. Minimum seal depth for monitoring wells is the
DRILLING METHOD: Mud Rulary D Air Rulary 1: Auger Cable D Other Hand Auge ORILLER'S LICENSE NO NOT Applicable	maximum depth practicable or 20 feet D GEOTECHNICAL Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremied coment grout shall be used in place of compacted cuttings
WELL PROJECTS Prift Hale Dismeter in Maximum Cashing Dismeter in Depth III Number Surface Scal Depth II Number	E. CATHODIC Fill hole above anode zone with concrete placed by trem I. WULL DESTRUCTION See alliaghed. G. SPECIAL CONDITIONS
Number of Borings Alexander 12 ft. Hole Diameter 7.5 in Depth 12 ft. ESTIMATED STARTING DATE 8/14/98 ESTIMATED COMPLETION DATE 8/14/98 I hereby agree to comply with all requirements of this permit and	APPROVED andres Golfy DATE 8-1

APPENDIX B SOIL BORING LOGS

BORING NUMBER: IB-1

LOG OF BORING

START DATE: 08/13/98

COMPLETION DATE: 08/13/98

SHEET _1_ OF _1_

BORING LOCATION:

SOUTH OF FORMER UST

BORING TYPE: INVESTIGATIVE BORING

PROJECT NAME:

3838 WEST STREET UST SITE

PROJECT NUMBER: 140-01-01

GRIBI Associates

DRILLING CONTRACTOR:

DRILLING METHOD: HAND AUGER

BOREHOLE DIAMETER: 3-1/4 INCHES

BORING TOTAL DEPTH: 9 FEET

COMPLETION METHOD: GROUTED

DEPTH SCALE (FEET)	SAMPLE NO.	Sample Depth	INTERVAL	RECOVERY	BLOWS PER 6 IN.	USCS	LOG OF MATERIAL		PIEZOMETERI WELL INSTALLATION
5 — 10 — 15 — 20 —	IB-1 1	7.5 FT				ML ML GM	 0.0 - 2.0 Ft. Dark grey SILT, soft, moist, no hydrocarbon odors or staining. 20 - 4.0 Ft. Brown to reddish brown sandy SILT, moist to dry, no hydrocarbon odors or staining. 40 - 7.0 Ft. Reddish brown gravelly SILT, moist, moderately clayey, no hydrocarbon odors or staining. 7.0 - 9.0 Ft. Grey green sandy silty GRAVEL, soft to firm, clasts to 1", subrounded, moist to wet, moderate to strong hydrocarbon odors TOTAL DEPTH: 9 FEET GROUNDWATER DEPTH. APPROX. 8 FEET 		WE.
1 _	1							_1	

MW-1 BORING NUMBER:

LOG OF WELL BORING

SHEET_1_OF_1_

BORING LOCATION:

SOUTHWEST OF FORMER UST

BORING TYPE. MONITORING WELL

PROJECT NAME:

3838 WEST STREET UST SITE

PROJECT NUMBER: 140-01-01

GRIBI Associates

START DATE: 08/13/98

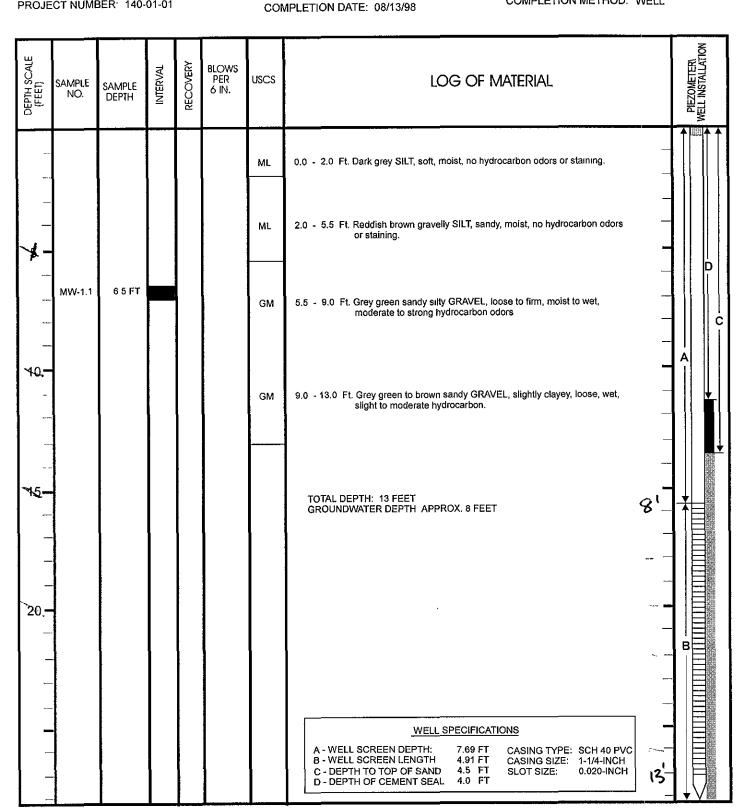
DRILLING CONTRACTOR:

DRILLING METHOD: HAND AUGER

BOREHOLE DIAMETER: 3-1/4 INCHES

BORING TOTAL DEPTH: 15 FEET

COMPLETION METHOD: WELL



APPENDIX C GROUNDWATER SAMPLING DATA SHEET

GROUNDWATER SAMPLING RECORD	GRIBI Associates
Well No.	Well Loc.
Project Name	Project No. 140-01-0)
Date 4 G G Time	TOC Elevation GW Elevation
Depth to Water 7.33	Well Depth Well Diameter
Purge Water, 2": Wtr Column X 0.163 X 3 =	Purge Water, 4": Wtr Column X 0.653 X 3 =
Purge/Sample Method	Lab Analyses
Weather Conditions	Laboratory

Time	Volume Purged	Temp.	Cond.	рН	Visual
)	36.5	1.60	11	Clr-NO FA
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Remarks					
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APPENDIX D LABORATORY DATA REPORTS



Sample Log 18898 August 20, 1998

Jim Gribi Gribi Associates 884 Vintage Suisun, CA 94585

Subject:

1 Water and 2 Soil samples

Project Name:

JH-West St.

Project Number:

140-01-01

Dear Mr. Gribi,

Chemical analysis on the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. USEPA protocols for sample storage and preservation were followed.

WEST Laboratory is certified by the State of California (# 1346). If you have any questions regarding procedures or results, please call me at 530-757-0920.

Sincerely,

Stewart Podolsky



August 19, 1998 Sample Log 18898

MTBE (Methyl-t-butyl ether) By EPA Method 8020/602

From : JH-West St. (Proj. # 140-01-01)

Sampled: 08/13/98 Received: 08/13/98

Matrix : Soil

SAMPLE	Date Analyzed	(MRL) mg/kg	Measured Value mg/kg
IB-1.1 (7.0)	08/19/98	(1.0)	<1.0
MW-1.1 (6.5')	08/19/98	(2.5)	<2.5

Approved By:

Stewart Podolsky Senior Chemist



August 19, 1998 Sample Log 18898

MTBE (Methyl-t-butyl ether) By EPA Method 8020/602

From : JH-West St. (Proj. # 140-01-01)

Sampled: 08/13/98 Received: 08/13/98

Matrix : Water

SAMPLE	Date Analyzed	(MRL) ug/L	Measured Value ug/L	
IB-1W	08/19/98	(250)	<250	

Approved By:

Stewart Podolsky E Senior Chemist



Sample Log 18898

Sample: IB-1.1 (7.0)

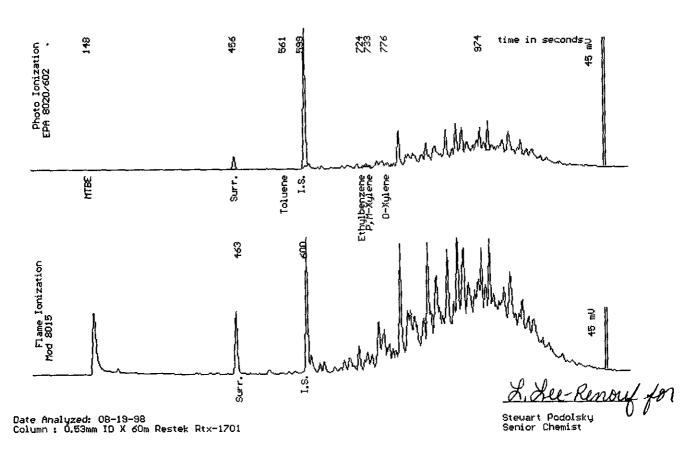
From : JH-West St. (Proj. # 140-01-01)

Sampled: 08/13/98

Dilution: 1:20 Run Log: 4176G

Matrix : Soil

Parameter	(MRL) mg/kg	Measured Value mg/kg		
		الله الله الله الله الله الله الله الله		
Benzene	(.10)	<.10		
Toluene	(.10)	<.10		
Ethylbenzene	(.10)	.19		
Total Xylenes	(.10)	.22		
TPH as Gasoline	(20)	120 *		
Surrogate Recovery * Product is not t	86 %			





Sample Log 18898 18898-02

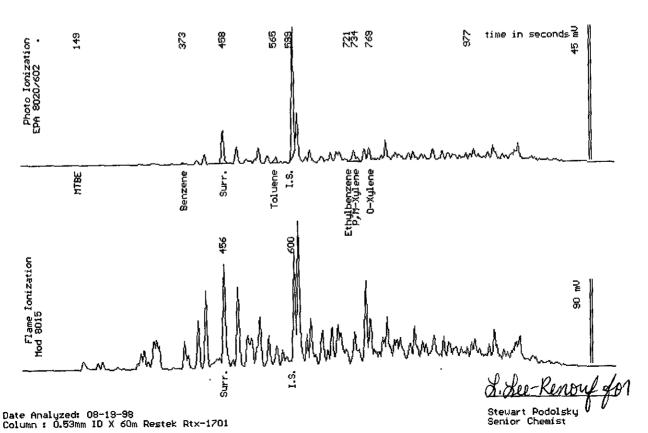
Sample: IB-1W

From : JH-West St. (Proj. # 140-01-01)

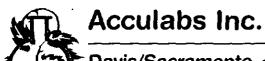
Sampled: 08/13/98 Dilution: 1:50 Run Log: 4176F

Matrix : Water

Parameter	Measured Value ug/L			
Benzene Toluene Ethylbenzene Total Xylenes TPH as Gasoline	(25) (25) (25) (25) (2500)	<25 85 180 58 26000		
Surrogate Recovery	Y	128 %		



Phoenix ■ Tucson ■ North Phoenix ■ Davis/Sacramento ■ Durango ■ Golden ■ Sparks/Reno



Sample Log 18898

Sample: MW-1.1 (6.5')

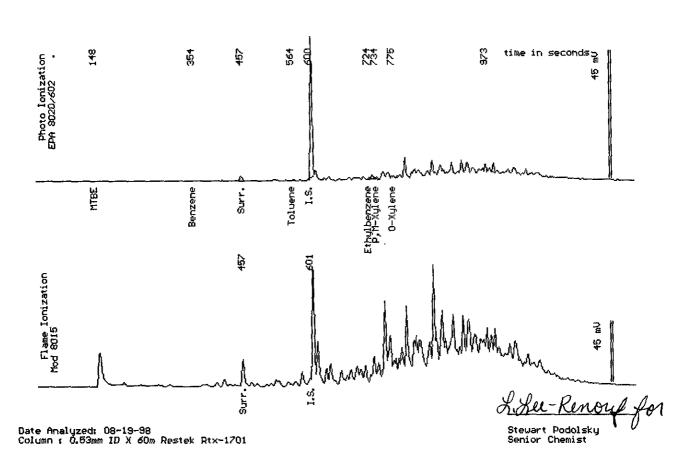
From : JH-West St. (Proj. # 140-01-01)

Sampled: 08/13/98

Dilution: 1:50 Run Log: 4176G

Matrix : Soil

Parameter	(MRL) mg/kg	Measured Value mg/kg
· · · · · · · · · · · · · · · · · · ·		
Benzene	(.25)	<,25
Toluene	(.25) (.25)	<.25
Ethylbenzene	(.25)	.77
Total Xylenes	(.25)	•53
TPH as Gasoline	(50)	190 *
Surrogate Recovery * Product is not		*** Diluted Out





August 20, 1998 Sample Log 18898

QC Report for EPA 8020 & Modified EPA 8015

Run Log: 4175W (Methanol Extracts)
From: JH-West St. (Proj. # 140-01-01)

Sample(s) Received: 08/13/98

Parameter	Laborato Spike % Recovery	ry Control Duplicate % Recovery	RPD *
Benzene	102	95	7
Ethylbenzene	105	98	7
TPH as Gasoline	141	126	11

Parameter	Method Blank		
Benzene Toluene Ethylbenzene Total Xylenes	<0.10mg/Kg <0.10mg/Kg <0.10mg/Kg <0.10mg/Kg		
TPH as Gasoline	< 20mg/Kg		

Stevart Podolsky
Senior Chemist

Parameter



Davis/Sacramento 1046 Olive Drive, Suite 2, Davis CA 95616 ■ 530-757-0920 ■ Fax 753-6091

August 19, 1998 Sample Log 18898

QC Report for EPA 602 & Modified EPA 8015

Run Log: 4176E

From : JH-West St. (Proj. # 140-01-01)

Sample(s) Received: 08/13/98

	Ma	trix Spike		
_	•	uplicate Recovery R	RPD	*

Spiked sample too contaminated for spike recovery. See LCS data.

Laboratory Control Sample

* RPD = Relative Percent Difference

	% Recovery				
Benzene	100 103				
Ethylbenzene Gasoline	114				
Parameter	Method Blank				
Benzene Toluene Ethylbenzene Total Xylenes	<0.50 ug/L <0.50 ug/L <0.50 ug/L <0.50 ug/L				
TPH as Gasoline	<50 ug/L				

Stewart Podolsky
Senior Chemist

[] 3902 E. University Dr. Phoenix AZ 85034 602-437-0979 Fax 437-0826 [] 710 E. Evans Blvd. Tucson AZ 85713 520-884-5811 Fax 884-5812 [] 2020 W. Lone Cactus Dr. Phoenix AZ 85027 602-780-4800 Fax 780-7695 [] 992 Spice (stands Dr. Sparks NV 89431 702-355-0202 Fax 355-0817 702-355-0202 Fax 355-0817 702-355-0202 Fax 247-4227 Fax 247-4220 Fax	aqualab inc				Resid Faal Lab (Number lighter)。 A Commonweal Commonw
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Client S CALLS Address & BUY Whitage AVY Confector Monitoring Monitoring Monitoring Monitoring Monitoring Compilance Monitoring Monitoring Monitoring Monitoring Compilance Monitoring Monitoring Monitoring Compilance Monitoring Monitoring Compilance Monitoring Monitoring Monitoring Compilance Monitoring Monitoring			970-247-4220 Fa		ATER SHEPLY INFORMATION
Contact Phone 707 BGH - S-GL Project Name		res			
Consider Phone 70.7 R/LH - SSCH Project Name 3H - WeST St Collection Point Fax 11 Project Number 140 - OL - OL Collector's Name P.O. Number Fax Results V N Page of Location (City) We admixed water TB = travel blank Compliance Monttoring Requested WW = washe water SD = solid WV N N Page of Location (City) WW = monitoring will SO = solid V N N Page of Location (City) Standard Lab Director Approval Lab Director Approval BI 13 S I X S S I X D S S I X D S S I X D S S I X D S S I X D S S I X D S S I X D S S I X D S S I X D S S I X D S S I X D S S I X D S S S S S S S S S S S S S S S S S S	Address 884 VIN tage Av-	<u> </u>		System Name	
Contact Project Number Project Numbe	City, State & Zip Susun Cf	<u> </u>		PWS No.	Report to State/EPA Y N
Fax /1 Project Number F40 - O Collectors Name P0 - O Collectors Nam	Contact		<u></u>	POE No.	DWR No.
Fax /1 Project Number Fax Results N Page of Location (City) Description water TB = travel blank Compliance Maniforing N N Page N Analyses Requested N Page N N N Page N N N Page N N N Page N N N N N N N N N	Phone 707/864-5564	Project Name JH	-WEST ST	Collection Point	
P.O. Number SAMPLEDVECOPES Page of Location (City) Analyses Page of Location (City) Analyses Requested Analyses Analyses Requested Analyses Analyses Requested Analyses Requested Analyses Analyses Requested Analyses Analys			. 1	Collector's Nam	e
DW = drinking water TB = travel blank Comptiance S Requested S Requested S S Solid Monitoring MW = monitoring well SO = solid Y N S Standard Lab Director Approval Special Requirements: Standard Director Approval S S Solid		Fax Results Y	Page of	Location (City)	
WW = waste water SD = solid Monitoring Y N WM = monitoring well SO = solid Y N HW = hazardous waste SL = sludge Standard Lab Director Approval Standard Lab Director Approval Section S = Shift S	SAMPLE TYPE CODES			/\^\/ / / /	1111111
MW = monitoring well SO = soil Y N HW = hagardous waste SL = sludge Y N	Dir amming mater	l I	CONTRACTOR AND	ad \$\\\	/ / / / / / / / / / / / /
HW = hazadous waste SL = studge Commission Comments Special Requirements: Com	1111 114010 114101			/X	'
Standard Lab Director Approval RUSH Special ROLENTS: AMPLE IDITECTION: Date IT Time TB-I/I (7.0) 8/13 5 1 X	HW = hazardous waste SL = sludge]		
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CALL TO A CONTROL	No. of Costalhare Value (March				
A STAN STAN STAN STAN STAN STAN STAN STA	complaints terms are you he ide	(Payment must be	received by the date	shown on the linvo	ice or any discountris void)



Sample Log 18916 August 27, 1998

Jim Gribi Gribi Associates 884 Vintage Suisun, CA 94585

Subject:

1 Water sample

Project Name:

JH-West St.

Project Number:

140-01-01

Dear Mr. Gribi,

Chemical analysis on the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. USEPA protocols for sample storage and preservation were followed.

WEST Laboratory is certified by the State of California (# 1346). If you have any questions regarding procedures or results, please call me at 530-757-0920.

Sincerely,

Stewart Podolsky



Sample Log 18916

MTBE (Methyl-t-butyl ether) By EPA Method 8020/602

From : JH-West St. (Proj. # 140-01-01)

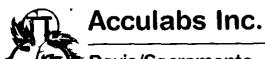
Sampled: 08/19/98 Received: 08/20/98

Matrix : Water

SAMPLE	Date Analyzed	(MRL) ug/L	Measured Value ug/L
MW-1W	08/26/98	(25)	. <25

Approved By:

Stewart Podolsky Senior Chemist



Sample Log 18916

Sample: MW-1W

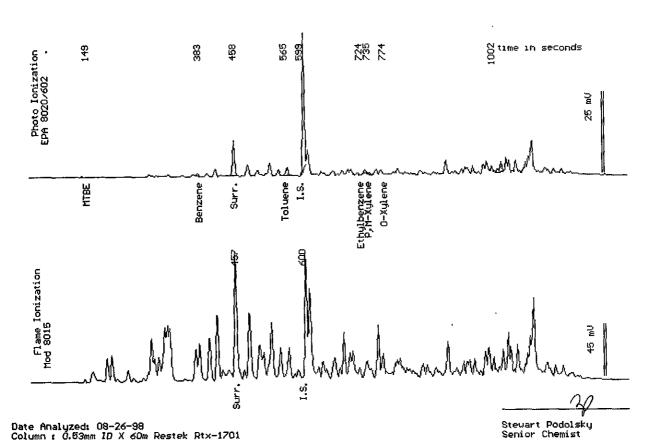
From : JH-West St. (Proj. # 140-01-01)

Sampled : 08/19/98

Dilution: 1:5 Run Log: 4176P

Matrix : Water

Parameter	(MRL) ug/L	Measured Value ug/L
Benzene	(2.5)	2.8
Toluene	(2.5)	11
Ethylbenzene	(2.5)	5.9
Total Xylenes	(2.5)	2.7
TPH as Gasoline	(250)	1800
Surrogate Recovery	I	127 %



Phoenix # Tucson - North Phoenix * Davis/Sacramento - Durango - Golden * Sparks/Reno



August 27, 1998 Sample Log 18916

QC Report for EPA 602 & Modified EPA 8015

Run Log: 4176N

From : JH-West St. (Proj. # 140-01-01)

Sample(s) Received: 08/20/98

		Matrix Spike		
Parameter .	Matrix Spike % Recovery	Duplicate % Recovery	RPD	*

Spiked sample too contaminated for spike recovery. See LCS data.

* RPD = Relative Percent Difference

Parameter	Laboratory Control Sample % Recovery
Benzene Ethylbenzene Gasoline	107 107 118
Parameter	Method Blank
Benzene Toluene Ethylbenzene Total Xylenes	<0.50 ug/L <0.50 ug/L <0.50 ug/L <0.50 ug/L
TPH as Gasoline	<50 ug/L

Stewart Podolsky Senior Chemist

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[] 710 E. Evans Blvd. Tucso						0.40		
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[] 75 Suttle St. Durango CO					x 247-422			
Client GNDI ASSOCIA	ITES				P	UBLIC WA	TER SUPPLY INFORMATION	
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City, State & Zip Sut Sua CA	- 94	585			PWS	No.	Report to State/EPA Y N	
Contact Jim Gribl					POE	No.	DWR No.	
Phone 707/864-5543	Project Na	me _H_	West	ST	Colle	ction Point		
Fax //	Project Nu	mber 140.	-01-0	1	Colle	ctor's Name		
P.O. Number	Fax Resul	ts (Y) N	Page	of	Loca	Location (City)		
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WW - waste water SD = solid	Monit 				(3)	/ / /		
MW = monitoring well SO = soil HW = hazardous waste SL = sludge	Y	N S		/	$\langle \mathcal{S} \rangle / \langle \mathcal{S} \rangle$	' / /	///////////	
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