Perjury Statement

I declare, under penalty of perjury, that the information and/or recommendations contained in the attached proposal or report is true and correct, to the best of my knowledge.

Seung Lee, owner, German Autocraft

Work Plan for Soil Vapor Investigation

German Autocraft
301 E. 14th Street
San Leandro, California

Global ID No. T0600100639
AC LOP Case # 2783

Prepared For

Mr. Seung Lee
German Autocraft
San Leandro, CA 95070

Prepared By

Groundwater Cleaners Inc.
Cleaning California from the Groundwater up
347 Frederick Street, San Francisco, California 94117
(415) 665-6181

Date of Report: February 14, 2008

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FIGURES

APPENDICES

1.0 INTRODUCTION

Groundwater Cleaners, Inc.(GCI) recently prepared a Corrective Action Plan (CAP) that, subject to results of pending feasibility/pilot testing work, proposes to reduce lingering high concentrations of subsurface petroleum hydrocarbons using a process known as dual-phase extraction and air sparging [DPE/AS (GCI November 28, 2007)]. The Alameda County Environmental Health (ACEH) letter dated December 28, 2007 agreed with the choice of DPE/AS for a pilot test feasibility study; however due to the data gap related to potential risk associated with the vapor intrusion pathway, the ACEH requested that further site characterization be performed; specifically, a soil vapor investigation.

In addition to describing GCI's planned soil vapor investigation, this Work Plan includes responses to ACEH Comment 3 (in Section 1.2 below) and Comment 5 (in Section 1.3 below). Also, as an interim response to geologic cross-section Comment 4, we have provided supplemental information in Appendix A. It is planned to enhance the cross-section itself after we obtain the subsurface information from the four exploratory borings proposed herein as they lie along the section line (see Figure 2). Regarding Comment 7, our October 25, 2007 file review at the ACEH office yielded most of the 'unknown' TOC elevations, which were included with GCI's Fourth Quarter, 2007 Monitoring Report. We are confident that additional file review time will yield the three elevations still noted as unknown and allow optimum use of accumulated water level monitoring data.

1.1 Objectives of Soil Vapor Investigation

The proposed soil vapor investigation has the following primary objectives; (a) to quantify petroleum hydrocarbon constituent concentrations in soil vapor both on-site and off-site from discrete depth intervals within the vadose zone (see Figures 1and 2); (b) to evaluate the potential risk to both the on-site, commercial use situation and the off-site residential setting; (c) to obtain grab groundwater and depth discrete soil vapor concentrations to facilitate the calculation of vertical attenuation rates and thus allow the back-calculation of groundwater values protective of vapor intrusion concerns; and finally; (d) to utilize the findings to focus the corrective action specifics as warranted.

1.2 Local Hydrogeology Clarifications

Section 2.1 of the CAP discusses the **general** hydrogeologic conditions within the San Leandro Sub-Area of the East Bay Plain Groundwater Basin as presented in the cited references. The groundwater flow tendencies are described on the basis of the four principle compass directions (i.e., east to west) and not more refined directions. Both the preponderance of numerous groundwater contour plots and subject plume's principle axis orientation suggest that the local prevailing groundwater flow direction is WNW as we mention in CAP Section 2.2. If this is generalized to just the four compass directions, it would also be considered east to west. Further, the references mention topographic

influences, but the subject site is situated well west of the basin's hilly area and this aspect does not apply.

Most, if not all, of this fuel leak case's offsite impact definition was directed and field logged by a Registered Geologist who documented that the dissolved phase fuel had migrated via the more permeable unit between 25-35 feet below grade. This unit is also where first groundwater is encountered, which is where lighter-than-water fuel impacts tend to accumulate. The case's network of groundwater wells are screened accordingly. GCI agrees that this permeable unit has been the pathway of *historic* dissolved fuel migration as covered in Section 2.5 of the CAP. However, ongoing monitoring of groundwater at the downgradient plume perimeter wells (Wells MW-1A, MW-12 and MW-13) indicates that there has been no appreciable increase in concentration or spreading of dissolved petroleum hydrocarbons for many years but rather stable or decreasing concentrations have been observed. In the future, it is unlikely for significant migration to start-up under a natural progression of conditions. Recognizing this permeable unit's importance, it is the main target for cleanup proposed in GCI's CAP.

1.3 ETM-37 and ETM-38 Findings Comments

Comment 5 of the cited ACEH letter mentions a hot spot of fuel impact that was found in exploration holes ETM-37 and ETM-38 over 12 years ago, approximately 300 feet downgradient of the site. First, GCI wholly agrees that there are multiple lines of prior evidence demonstrating that this hot-spot ".. is not site sourced and is likely the result of a release of unknown origin." Secondly, there is now a long record of groundwater quality monitoring along West Broadmoor through wells MW-11, MW-1A and MW-12 (installed after the 1995-96 ETM holes) that shows no evidence of commingling of a second plume, or of impacts being significant in this area. These wells have been free of MTBE since we began monitoring them and are consistently low in hydrocarbon contaminants, at least an order of magnitude below on-site wells.

Therefore, GCI sees no justification for German Autocraft to pursue this matter further. Assuming the prior report was accurate, the hot spot must have been quite localized and short-lived, perhaps a spill from an auto accident or a vehicle's broken fuel line.

2.0 SOIL VAPOR INVESTIGATION

Petroleum hydrocarbons emanating from the site have migrated down-gradient in groundwater within the relatively permeable sand at approximately 25 feet bgs. Overlying vadose zone soil is of lower permeable clay and silty clay. Therefore, significant attenuation of soil vapor upwards is anticipated and the following proposed scope of work has been designed to demonstrate this attenuation.

- Acquire access or encroachment agreement for the two off-site proposed borings and acquire necessary permits from the ACEH (Figure 2).

- Mark the sampling locations, notify Underground Services Alert and utilize a private geophysical locator service to clear the boring locations for subsurface utilities.
- Advance four hydraulic push borings (shown on Figure 2) into first encountered groundwater and obtain a grab sample from each boring (approximate total depth of 28 feet bgs).
- Tremie hydrated granular bentonite from the bottom of the boring to 20.5 feet bgs.
- Construct a dual-completion temporary vapor well in each boring with vapor sampling intervals at approximately 20-feet and 5-feet bgs.
- Upon allowing sufficient time for equilibration (at minimum 48-hours), sample soil vapor from each of the discrete intervals.
- Submit the groundwater samples for laboratory analysis of TPHg, BTEX compounds and MtBE by EPA Method 8260B. Submit the soil vapor samples for laboratory analysis of TPHg, BTEX compounds, MtBE and the leak check compound 2-propanol by EPA Method TO15.

The proposed sampling locations are based on the expected configuration of the contaminant plume and the need to address both on-site and off-site conditions above different concentrations of contaminants and proximity to possible sensitive receptors. Additionally, the on-site locations were selected to allow comparison of grab groundwater sample analytical results to groundwater monitoring well results. Figure 2 presents the proposed temporary soil vapor well locations. Figure 3 presents a schematic diagram of the proposed temporary soil vapor sampling well and Figure 4 presents a sketch of the sampling manifold that will be housed within a shroud during soil vapor sampling. Detailed field installation and sampling procedures are presented in Appendix B.

3.0 EVALUATIONS AND RISK ASSESSMENTS

The data from the two on-site holes should provide an adequate picture of what the core area soil vapor concentrations are stemming from a combination of residual impacts to vadose zone soil and the most heavily contaminated groundwater. The two locations along the north side of Garcia Avenue should yield adequate soil vapor data concerning the degree of upward volatilization that is occurring from the downgradient groundwater plume itself. Initial evaluation of the two data sets will be compared to the most current Environmental Screening Levels (ESLs) protective of vapor intrusion concerns under a commercial land use (for the on-site auto repair business) and residential (for the predominant offsite land use), respectively (RWQCB-SF, 2007). If the 5-foot depth measured concentration(s) exceed the ESLs, which are derived from fairly conservative, generic assumptions, GCI will conduct a more rigorous, site-specific health risk assessment utilizing regulatory-accepted model(s).

Calculating the attenuation coefficients of petroleum hydrocarbons volatilizing from groundwater to shallow soil vapor will allow the modeling of vapor flux under various concentrations. Based on the site specific attenuation coefficient, the groundwater concentration protective of vapor intrusion concerns may be back-calculated.

4.0 TENTATIVE WORK SCHEDULE

The starting schedule for this investigation depends mostly on obtaining access permission from the offsite property owner and contractor availability. Also, permits need to be obtained from the Alameda County Public Works Agency. Barring significant delays from any of these aspects, the temporary vapor wells should be able to be installed 3-4 weeks after ACEH approval of this Work Plan. Collecting the samples and having them analyzed is a 2-week time period unless the former activity is delayed due to prolonged periods of rain. Barring the need to conduct site-specific health risk modeling, the data evaluation and reporting preparation likely will require an additional two weeks. In total, about an 8-week schedule is envisioned.

5.0 PROFESSIONAL CERTIFICATION

We declare, under penalty of perjury, that to the best of our knowledge, everything presented in this Work Plan is true and correct.

Should you have any questions or require supplemental information, please do not hesitate to contact us at (415) 665-6181.

Sincerely,

Glenn Reierstad, P.E.
Project Manager, Groundwater Cleaners, Inc.

Eric R. Lautenbach, P.E.
V.P. Engineering

Ross W. Tinline, PG
Project Geologist

6.0 REFERENCES

Alameda County Environmental Health (ACEH, 2007), Letter to Seung Lee, LOP Case No, RO0000302 (global ID# T0600100639), German Autocraft, 301 E 14th Street, San Leandro, CA, December 28, 2007; unpublished regulatory letter.

California Regional Water Quality Control Board, San Francisco Bay Region (RWQCB-SF, 2007), Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, Interim Final, November 2007.

Groundwater Cleaners, Inc. (GCI, 2007), Corrective Action Plan for Core Area of Fuel Impacts, German Autocraft, 301 E 14th Street, San Leandro, California, Global ID No. T0600100639 (GeoTracker), AC LOP Case #2783, …, November 28, 2007; unpublished consultant's report.

Figures

Groundwater Cleaners, Inc.
Cleaning California from the Groundwater up
347 Frederick Street, San Francisco, California 94117
(415) 665-6181

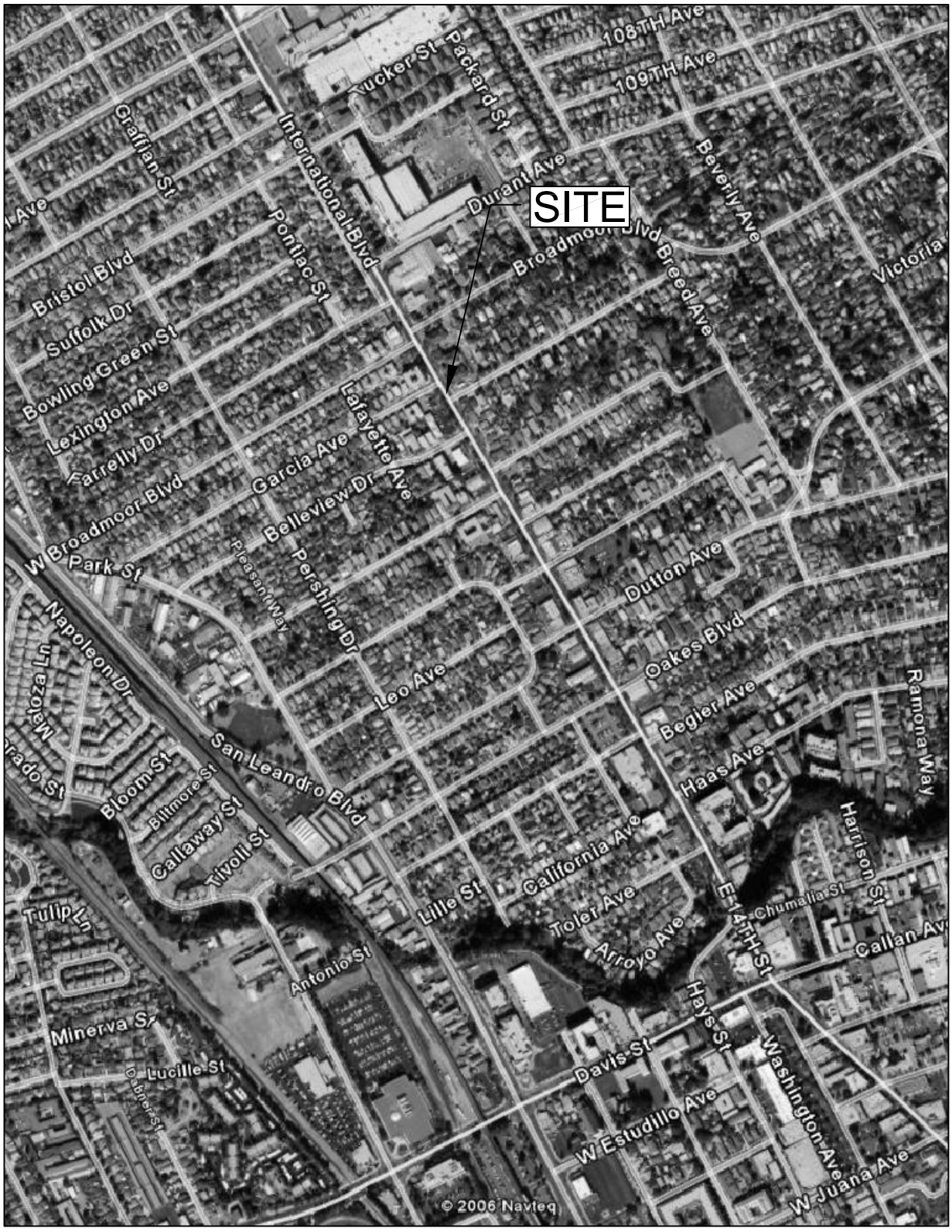
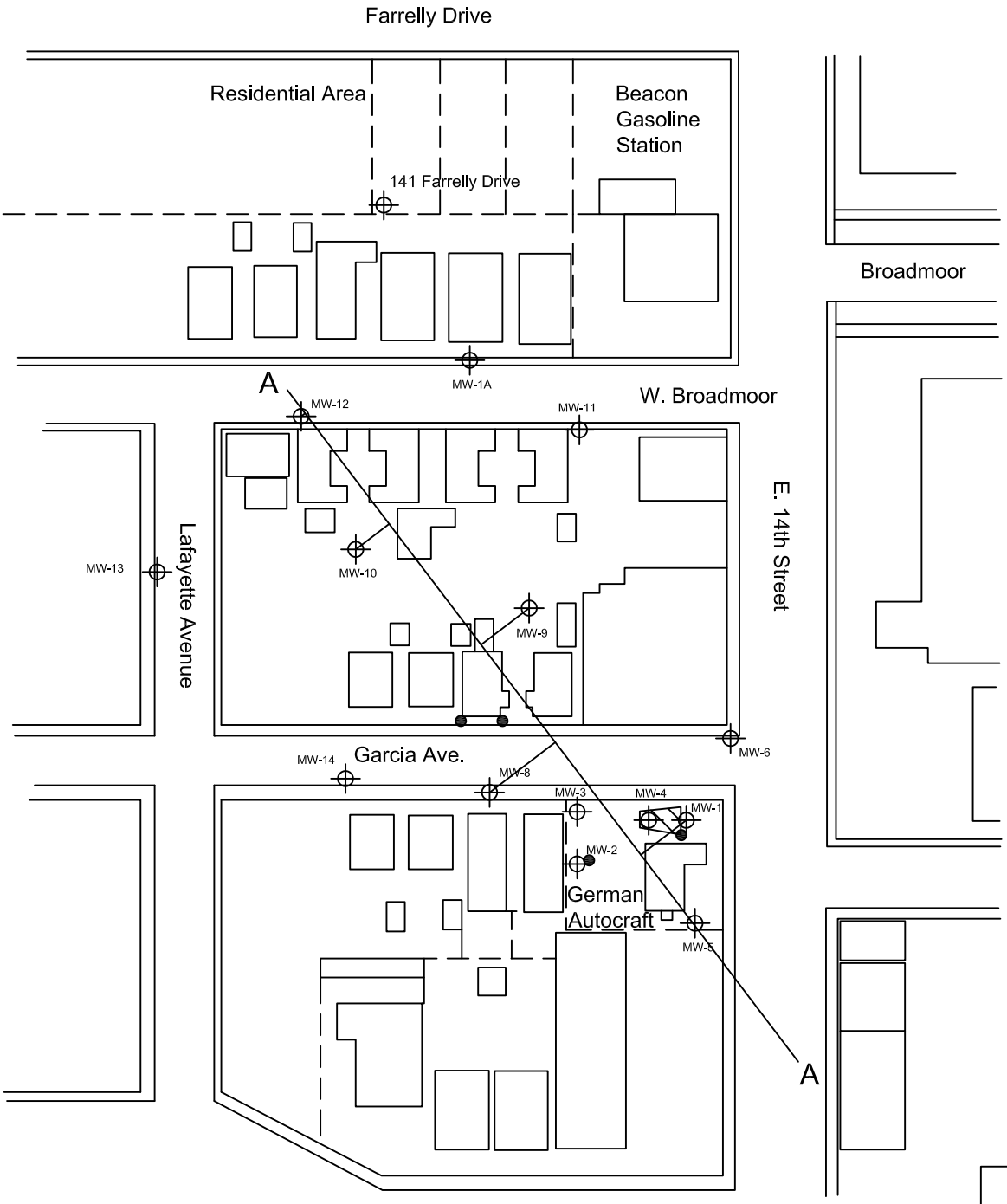


Image from Google ©2006

Groundwater GWC Cleaners Inc. *Cleaning California from the Groundwater Up* 347 Frederick Street, San Francisco, California, 94117 (415) 665-6181	German Autocraft 301 East 14th Street San Leandro, California	Figure 1 Rev. B
	Site Area Map	10.01.06



EXPLANATION:

A - A Geologic Cross Seciton - Figure 3

Proposed Soil Vapor Sampling Point

Groundwater Monitoring Well

Former Tank Pit Areas

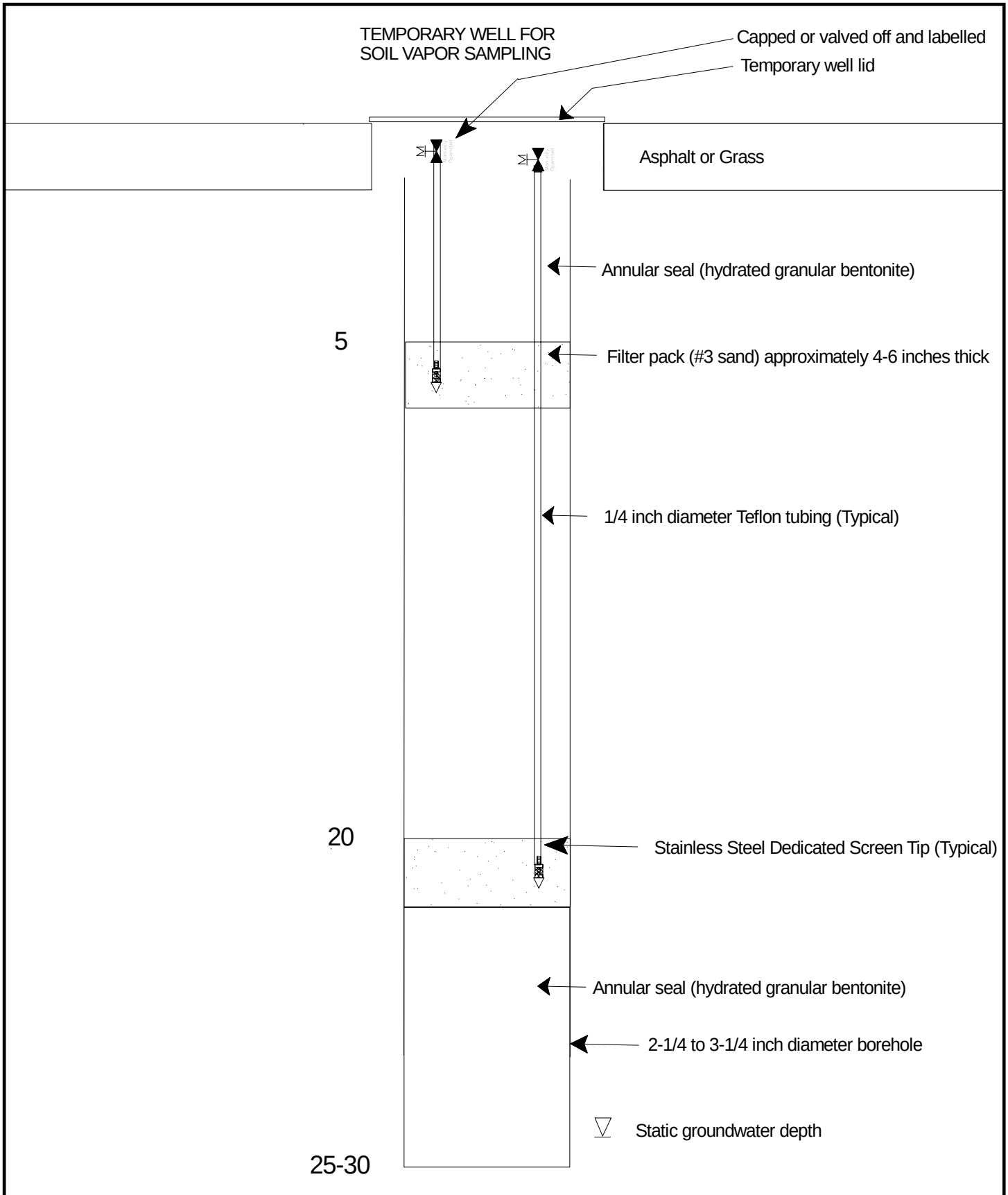
Buildings

0' 60' 120'

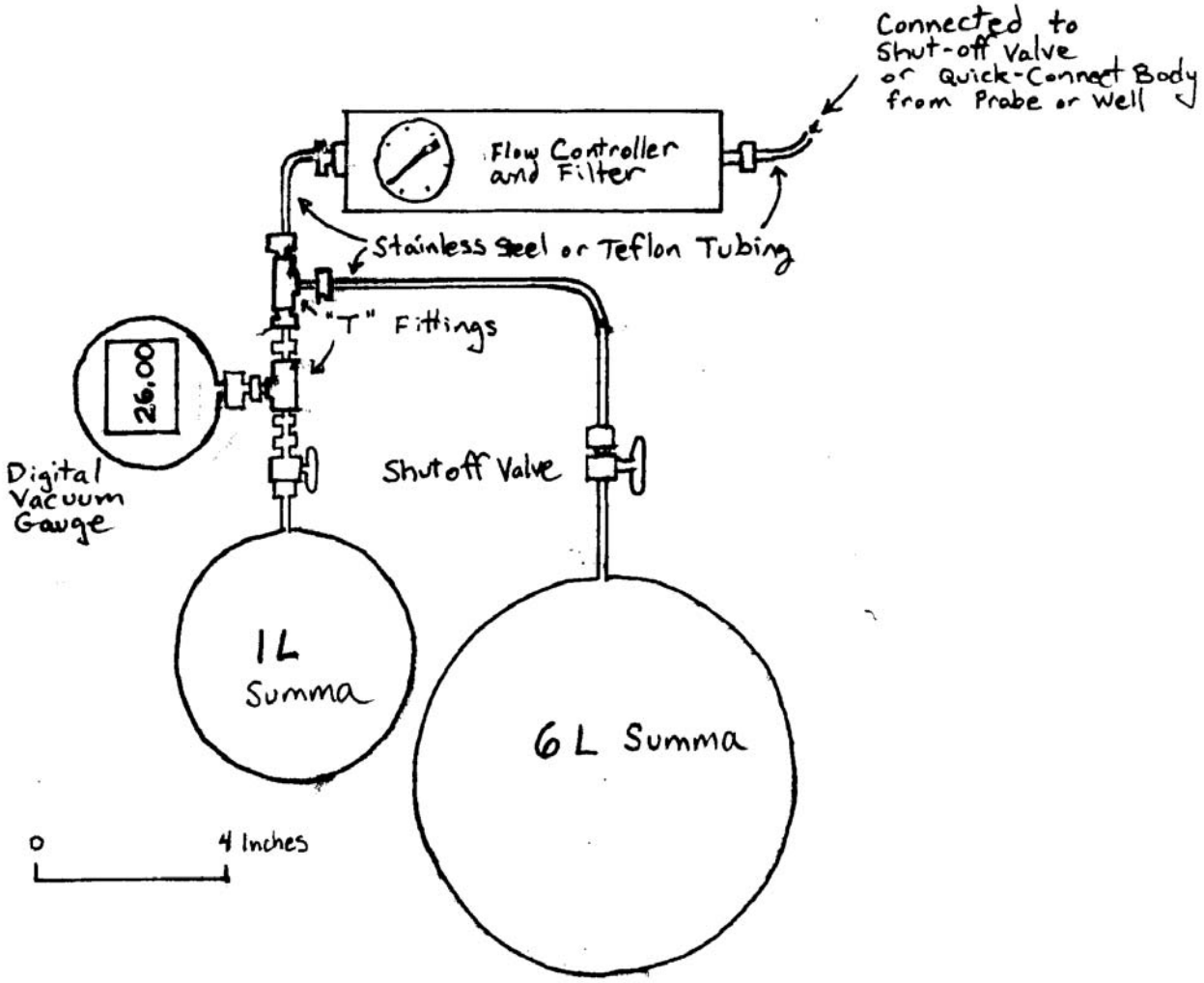
Scale: 1"=120'

N

Groundwater GWC Cleaners Inc. *Cleaning California from the Groundwater Up* 347 Frederick Street, San Francisco, California, 94117 (415) 665-6181	German Autocraft 301 East 14th Street San Leandro, California	Figure 2 Rev. A
	Fuel Leak Impact Area Plan	02.07.08



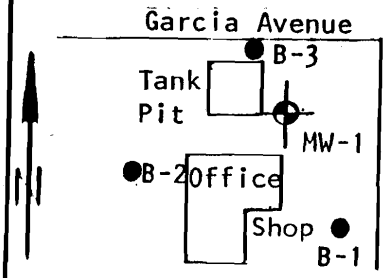
Groundwater GWC Cleaners Inc. *Cleaning California from the Groundwater Up* 347 Frederick Street, San Francisco, California, 94117 (415) 665-6181	**TEMPORARY MULTICOMPLETION VAPOR WELL DIAGRAM** German Autocraft 301 East 14th Street San Leandros, California	FIGURE: 3 PROJECT: GCI-01



Groundwater GWC Cleaners Inc. *Cleaning California from the Groundwater Up* 347 Frederick Street, San Francisco, California, 94117 (415) 665-6181	**SOIL VAPOR MANIFOLD DETAIL** German Auto Craft 301 East 14th Street San Leandro, California	FIGURE: 4 PROJECT: GCI-01.1A

Appendix A Geologic Cross-Section Supplemental Information (full logs and well as-builts, plus soil sample results; to be incorporated into a revised exhibit once the soil vapor investigation is performed)

LOCATION MAP



THE ENVIRONMENTAL CONST.CO BORING LOG

WELL NUMBER MW-1

LOCATION 301 E. 14th Street San Leandro, Ca

DATE 12/17/91

WEATHER Cloudy

LOGGED BY Tom Smith

DRILLED BY Advance Drilling

DRILLING METHOD 8 1/2 inch Hollow-stem Auger

SAMPLING METHOD 18 inch split-spoon

GRAVEL PACK Sand #3 monterey 45' to 23'

SEAL grout 21'-0' Bentonite 23'-21'

CASING TYPE PVC Schedule 40 DIAMETER 2" LENGTH 25'

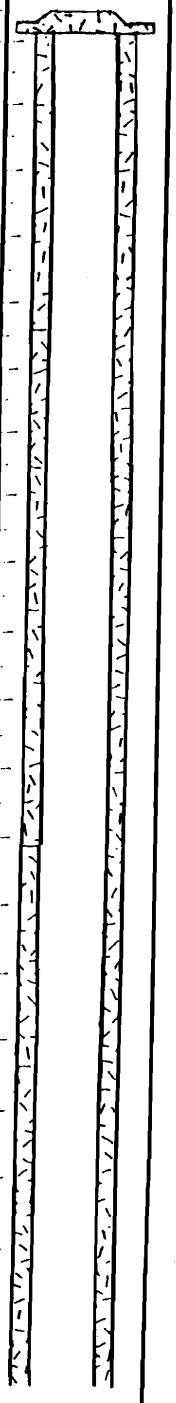
SCREEN TYPE PVC Sched. 40 SLOT 0.02 DIAMETER 2" LENGTH 20'

HOLE DIA. 8 1/2

TOTAL DEPTH 45'

MOISTURE CONTENT	SORTING	DENSITY	PLASTICITY	SAMPLE NUMBER	USCS	DEPTH	SAMPLE RECOVERY	PENETRATION RESISTANCE	LITHOLOGY/REMARKS
						0			
						1			
						2			
						3			
dmp		stf	spl	1	CL	4	1.5'		0.00'-1.50' Clay, dark brown to 5.5'
						5			
						6			
						7			
						8			
dmp		sft	vpl	2	CL	9	1.5'		0.00'-1.50' Clay, light brown
						10			
						11			
						12			
dmp		vry sft	pl	3	OL	13	1.5		0.00'-1.50' Clay, light brown, tan, faint to moderate hydrocarbon odor
						14			
						15			
						16			
						17			
						18			
dmp		sft	pl	4	OL	19	1.5'		0.00'-1.50' Clay, mottled, light gray to tan, faint to moderate hydrocarbon odor
						20			

WELL COMPLETION



EXPLANATION: GROUT, SAND, SCREEN, BENTONITE, CASING, WATER LEVEL

LOCATION MAP

THE ENVIRONMENTAL CONST.CO BORING LOG

WELL NUMBER MW-1	LOCATION
DATE	WEATHER
LOGGED BY	DRILLED BY
DRILLING METHOD	SAMPLING METHOD
GRAVEL PACK	SEAL

CASING TYPE DIAMETER LENGTH

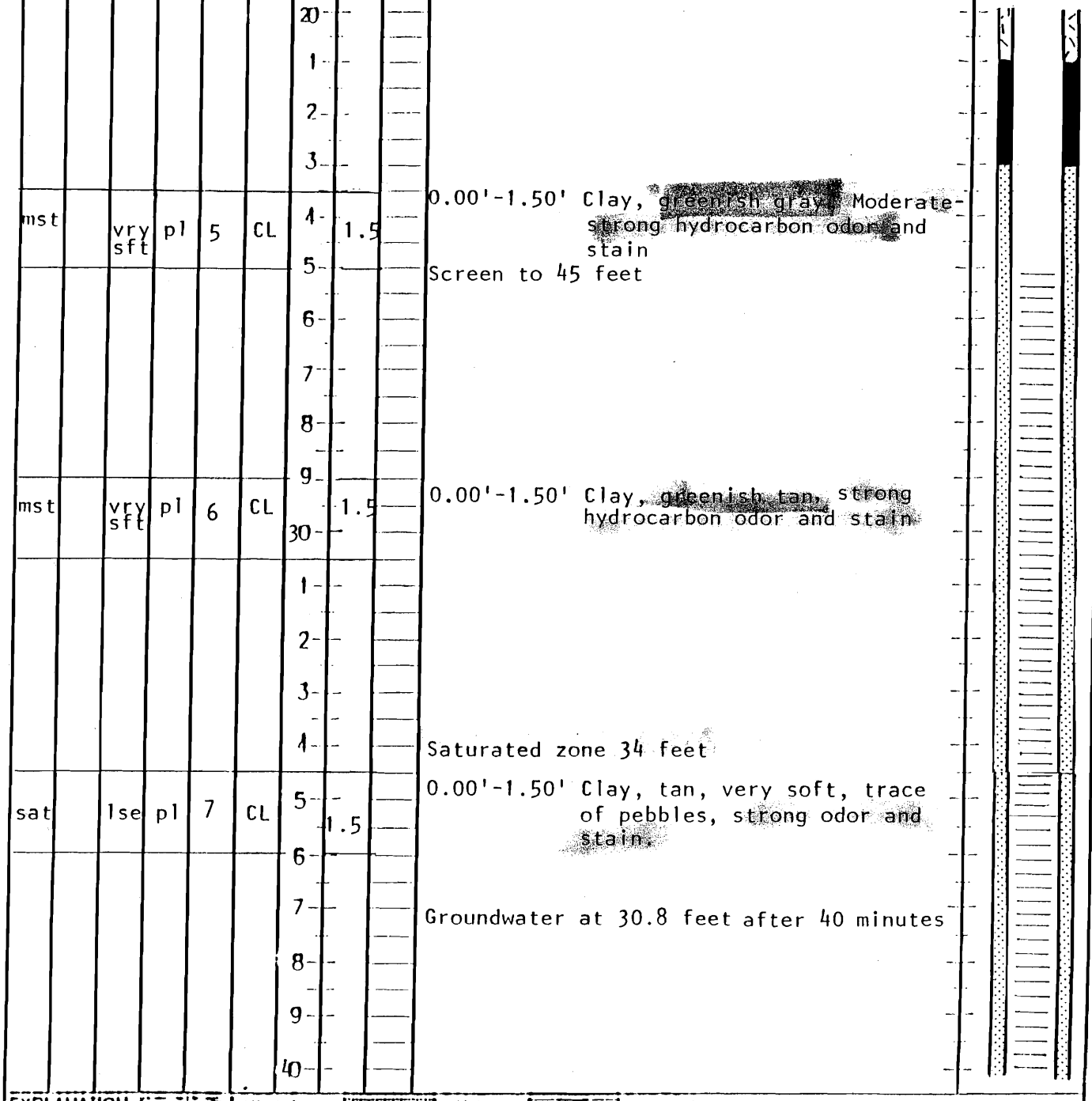
SCREEN TYPE SLOT DIAMETER LENGTH

HOLE DIA.

TOTAL DEPTH

WELL COMPLETION

MOISTURE CONTENT	SORTING	DENSITY	PLASTICITY	SAMPLE NUMBER	USCS	DEPTH	SAMPLE RECOVERY	PENETRATION RESISTANCE	LITHOLOGY/REMARKS
						20			
						1			
						2			
						3			
mst		vry sft	pl	5	CL	4	1.5		0.00'-1.50' Clay, greenish gray, Moderate-strong hydrocarbon odor and stain
						5			Screen to 45 feet
						6			
						7			
						8			
						9			
mst		vry sft	pl	6	CL	30	1.5		0.00'-1.50' Clay, greenish tan, strong hydrocarbon odor and stain
						1			
						2			
						3			
						4			Saturated zone 34 feet
sat		lse	pl	7	CL	5	1.5		0.00'-1.50' Clay, tan, very soft, trace of pebbles, strong odor and stain.
						6			
						7			Groundwater at 30.8 feet after 40 minutes
						8			
						9			
						40			



EXPLANATION: GROUT, SAND, SCREEN, BENTONITE, CASING, WATER LEVEL

LOCATION MAP

THE ENVIRONMENTAL CONST.CO BORING LOG

WELL NUMBER MW-1

DATE 12/17/90

LOGGED BY Tom Smith

DRILLING METHOD 8 1/2 Inch Hollow-stem Auger

GRAVEL PACK Sand #3 monterey 45' to 23'

LOCATION 301 East 14th Street San Leandro, CA

WEATHER Cloudy

DRILLED BY Advance Drilling

SAMPLING METHOD Split-spoon

SEAL grout 23'-0'

CASING TYPE PVC Schedule 40 DIAMETER 2" LENGTH 25'

SCREEN TYPE PVC Sched. 40 SLOT 0.02 DIAMETER 2" LENGTH 20'

HOLE DIA. 8 1/2 TOTAL DEPTH 45

WELL COMPLETION

MOISTURE CONTENT	SORTING	DENSITY	PLASTICITY	SAMPLE NUMBER	USCS	DEPTH	SAMPLE RECOVERY	PENETRATION RESISTANCE	LITHOLOGY/REMARKS
						40			
						1			
						2			
						3			Clays, silty clays to 43 feet
						4			43 feet to 45 feet gravel & clay
						5			TD 45 feet
						6			
						7			
						8			
						9			
						0			
						1			
						2			
						3			
						4			
						5			
						6			
						7			
						8			
						9			
						0			

EXPLANATION: GROUT, BENTONITE, SAND, CASING, SCREEN, WATER LEVEL

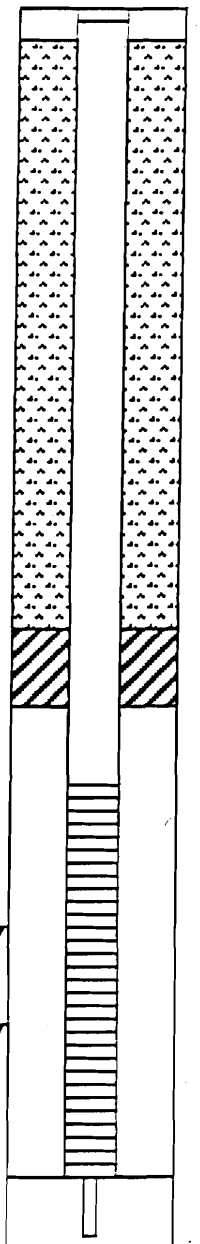
Environmental Testing and Management, San Jose, CA ***Exploratory Boring Log***

Project No. GA **Boring/Well No.** MW-5
Client: German Autocraft **Date Drilled:** Aug. 28, 1998
Location:301 E. 14th St, San Leandro, CA **Logger:** CMP
Drilling Method: 8" OD Hollowstem
Permit: City of San Leandro 98277
Water Levels: 1st Enc: 24'(?) Static: 27.74 @ 08:07

Well Installed: 2" dia. Sch 40 PVC
Total Depth: 31.5' Casing Depth: 30'
Screen Length and Size: 10' of 0.020"
Top of Sand Pack: 18' Sand Size: 2/12
Top Bentonite:16' Cement Grout Seal:16' to 0.5'
Surface vault box; Casing Elev. -- MSL

Sample No.	OV	Blow Count	Depth (ft)	Lithology Log
				Concrete Pavement
				ML - Gravelly SILT, possible artificial fill, pit backfill(?), damp.
MW-5-1	0	6	5	Same as above, contains fine gravel and concrete fragments, firm/med dense, damp.
MW-5-2	0	17	10	CL - Sandy CLAY, dark yellowish brown 10YR4/3, mod. plasticity, vf. f. sand to 30%, massive, rare crs sand grains, stiff, damp.
MW-5-3	0	11	15	Same as above, infilled rootholes w/ reduced plant matter, vf. f. sand to 20%, local sndy laminae, stiff, damp.
MW-5-4	0	9	20	CL - Silty CLAY, mottled dark gray and red brown 5YR5/6 and 5YR4/1, mod. plasticity, v/ f. sand<5% dissem., burrows and rootholes open locally wet, stiff, damp.
MW-5-5	1	5	25	SC-SP - Clayey SAND and SAND, dark gray 5YR4/1; SP f. sand 95%, massive, saturated; SC 25% clay, 75% sand, clay low plasticity dissem and in thin beds, loose and saturated overall; driller calls change at 28-29 feet
MW-5-6	0	14	30	CL - Silty CLAY w/ sand, red brown 5YR4/1, w/ gray mottles, v.f. sand 15% dissem., sand grains float in clay, low-mod. plasticity, stiff, damp.
				Bottom of Boring = 31.5 feet

Borehole Completion



Reviewed by RG/CEG

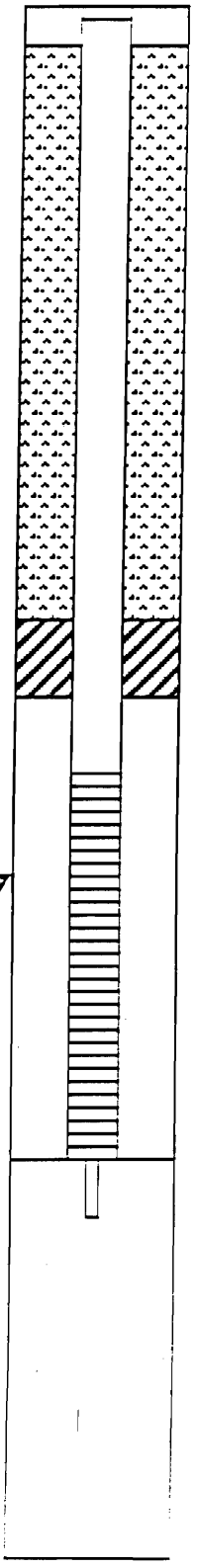
Environmental Testing and Management, San Jose, CA *Exploratory Boring Log*

Project No. GA **Boring/Well No.** MW-8
Client: German Autocraft **Date Drilled:** Aug. 27, 1998
Location:301 E. 14th St, San Leandro, CA **Logger:** CMP
Drilling Method: 8" OD Hollowstem
Permit: City of San Leandro 98277
Water Levels: 1st Enc: 23.5±@14:35 Static: NM

Well Installed: 2" dia. Sch 40 PVC
Total Depth: 31.5' Casing Depth: 30'
Screen Length and Size: 10' of 0.020"
Top of Sand Pack: 18' Sand Size: 2/12
Top Bentonite: 16' Cement Grout Seal:16' to 0.05'
Surface vault box; Casing Elev. -- MSL

Sample No.	OV	Blow Count	Depth (ft)	Lithology Log
				Concrete Pavement
				CL - Silty CLAY, dark grayish brown 10YR3/2, low plasticity, v. f. sand 15%, firm, damp.
MW-8-1	0	push	5	Same as above, firm, damp.
MW-8-2	0	13	10	CL - Silty CLAY, brown 10YR4/3, low plasticity, f.-med. sand to 20%, med.-crs. sand 5%, dissem., massive, stiff, damp. Driller calls change at 12.5 feet.
MW-8-3	0	12	15	CL - Silty CLAY, dark brown 7.5YR3/4, low-med. plasticity, v. f. sand <10%, dissem., stiff, damp.
MW-8-4	1	10	20	Same as above, burrows, sand<10%, stiff, damp.
MW-8-5	0	5	25	SP - SAND, very dark gray 7.5YRN3/, sand 85-95%, fines 5%, massive, well sorted, loose, saturated.
MW-8-6	40	16	30	CL - Silty CLAY, dark gray 2.5YN4/, mod. plasticity, v. f. sand 10-15%, silt 30%, massive, rare burrows, very stiff, damp.
				Bottom of Boring = 31.5 feet

Borehole Completion



Reviewed by RG/CEG

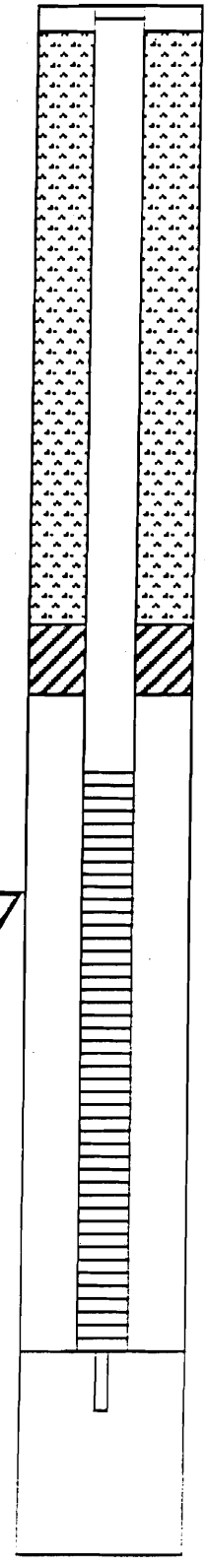
Environmental Testing and Management, San Jose, CA *Exploratory Boring Log*

Project No. GA **Boring/Well No.** MW-9
Client: German Autocraft **Date Drilled:** Aug. 31, 1998
Location:301 E. 14th St, San Leandro, CA **Logger:** CMP
Drilling Method: 8" OD Hollowstem
Permit: City of San Leandro 98277
Water Levels: 1st Enc: 24'±@10:40 Static: NM

Well Installed: 2" dia. Sch 40 PVC
Total Depth: 36.5' Casing Depth: 35'
Screen Length and Size: 15' of 0.020"
Top of Sand Pack: 18' Sand Size: 2/12
Top Bentonite: 16' Cement Grout Seal: 16' to 0.5'
Surface vault box; Casing Elev. -- MSL

Sample No.	OV	Blow Count	Depth (ft)	Lithology Log
				Concrete Pavement
				CL - Sandy CLAY, dark brown 7.5YR3/2, low plasticity, vf. to f. sand 40%, dissem., crudely bedded, damp, soft.
MW-9-1	0	4	5	Same as above, soft, damp.
MW-9-2	0	13	10	CL - Silty CLAY, dark brown 7.5YR3/2, mod. to high plasticity, vf. sand<10%, dissem, rare crs sand grains float in clay, crudely bedded, burrows and rootholes, stiff, damp.
MW-9-3	0	12	15	Same as above, 4-inch sand interbed at 16 feet, damp.
				SC - Clayey SAND, strong brown 7.5YR5/6, low plasticity, vf. sand 60-80%, clay/silt 20-40%, massive, med. dense, moist.
MW-9-4	0	13	20	CL - Silty CLAY, brown, 10YR4/3, brown, mod. plasticity, vf. sand <5%, dissem, laminated, stiff, damp-moist. Driller calls easy drilling at 23 feet
MW-9-5	0	10	25	SP - SAND, varigated gray, f. to 99%, very well sorted, massive, rootholes infilled w/ reduced plant matter, med. dense, saturated.
MW-9-6	10 0	13	30	SW - SAND, varigated, f.-crs. sand 95%, fine gravel 5%, crudely bedded, petroleum odor and sheen coating grains, med. dense, saturated; driller calls change at 34.5 feet.
MW-9-6	0	9	35	CL - Silty CLAY, very dark gray 7.5YRN3/, mod. plasticity, very weak odor, stiff, damp.
				Bottom of Boring = 36.5 feet

Borehole Completion



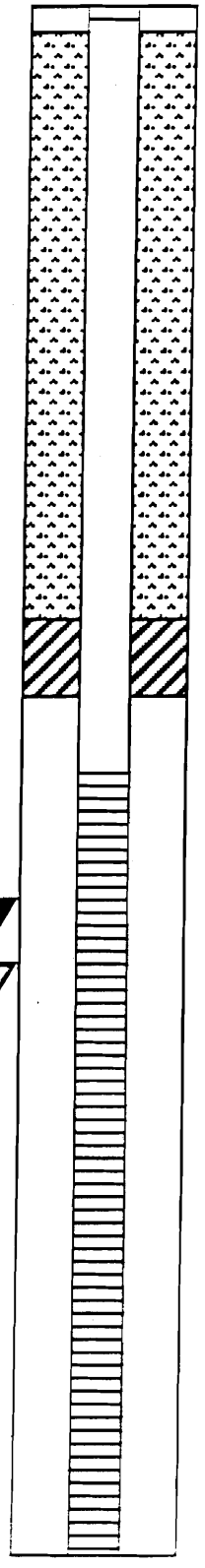
Reviewed by RG/CEG

Project No. GA **Boring/Well No.** MW-10
Client: German Autocraft **Date Drilled:** Aug. 28, 1998
Location:301 E. 14th St, San Leandro, CA **Logger:** CMP
Drilling Method: 8" OD Hollowstem
Permit: City of San Leandro 98277
Water Levels: 1st Enc: 26'@ 11:05 Static: 24'@ 11:39

Well Installed: 2" dia. Sch 40 PVC
Total Depth: 41.5' Casing Depth: 40'
Screen Length and Size: 20' of 0.020"
Top of Sand Pack: 18' Sand Size: 2/12
Top Bentonite: 16' Cement Grout Seal: 16' to 0.5'
Surface vault box; Casing Elev. -- MSL

Sample No.	OV	Blow Count	Sample	Depth (ft)	Lithology Log
					Concrete Pavement
					CL - Sandy CLAY, dark yellowish brown 10YR4/4, low plasticity, vf. sand 30%, crs sand 5%, mottled with black spots, soft, damp.
MW-10 -1	0	3		5	Same as above, soft, damp.
MW-10 -2	0	15		10	CL - Silty CLAY, black 10YR2/1, mod. plasticity, f. m. sand 25%, sand floats in clay, massive, stiff, damp.
MW-10 -3	0	14		15	CL - Silty CLAY, dark yellowish brown 10YR4/3, mod. plasticity, v.f. sand10%, burrows, massive, stiff, damp.
MW-10 -4	0	14		20	Same as above, less sand, stiff, damp.
MW-10 -5	0	8		25	Same as above, color change to yellow brown 10YR5/6, stiff moist and increasing moisture with depth.
					SC - Clayey SAND, yellow brown, 10YR5/6, low plasticity, f. sand 60%, faintly laminated, loose, saturated.
MW-10 -6	0	23		30	SP - SAND, gray 10YR4/1, f. m. sand 95%, fines<5%, massive, weak petrol. odor, possible light stain, med. dense, saturated.
MW-10 -7	0	25		35	SW - SAND, gray 10YR4/1, f. to crs sand 95-99%, very clean, massive, med. dense, saturated. Drills hard, then easier at 38 feet. hole flowing at 38 feet

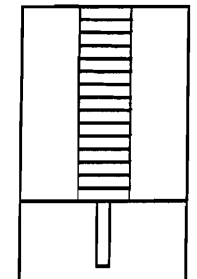
Borehole Completion



Project No. GA **Boring/Well No.** MW-10
Client: German Autocraft **Date Drilled:** Aug. 28, 1998
Location:301 E. 14th St, San Leandro, CA **Logger:** CMP
Drilling Method: 8" OD Hollowstem
Permit: City of San Leandro 98277
Water Levels: 1st Enc: 26'@ 11:05 Static: 24'@ 11:39

Well Installed: 2" dia. Sch 40 PVC
Total Depth: 41.5' Casing Depth: 40'
Screen Length and Size: 20' of 0.020"
Top of Sand Pack: 18' Sand Size: 2/12
Top Bentonite: 16' Cement Grout Seal: 16' to 0.5'
Surface vault box; Casing Elev. -- MSL

Sample No.	OV	Blow Count	Depth (ft)	Lithology Log	Borehole Completion
MW-10 -8	0	25	40	CL - Silty CLAY, motled gray and light olive brown, 2.5YN4/ and 2.5Y5/4, mod. plasticity, vf. sand 5%, clay infilled burrows, massive, very stiff, damp.	
				Bottom of Boring = 41.5 feet	



Reviewed by RG/CEG

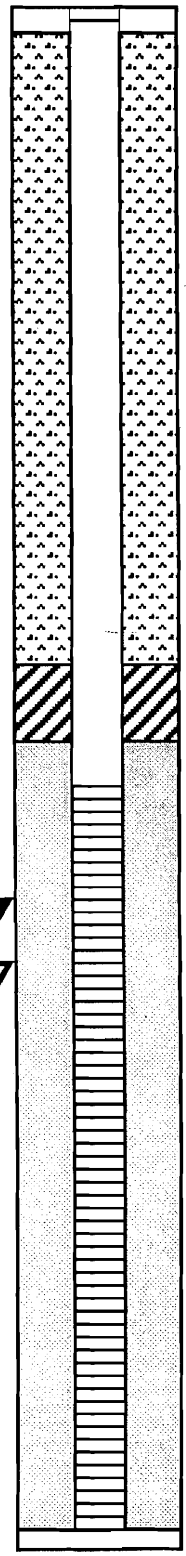
Environmental Testing and Management, San Jose, CA ***Exploratory Boring Log***

Project No. GA **Boring/Well No.** MW-12
Client: German Autocraft **Date Drilled:** Jan. 30, 2001
Location:301 E. 14th St, San Leandro, CA **Logger:** CMP
Drilling Method: 8" OD Hollowstem
Permit: Alameda Cnty. W01-014
Water Levels: 1st Enc: 26'@11:22 Static: 25.57'@12:30

Well Installed: 2" dia. Sch 40 PVC
Total Depth: 39.5' Casing Depth: 38'
Screen Length and Size: 15' of 0.020"
Top of Sand Pack: 21' Sand Size: 2/12
Top Bentonite: 19' Cement Grout Seal: 19' to 0.5'
Surface vault box; Casing Elev. -- MSL

Sample No.	OV	Blow Count	Depth (ft)	Lithology Log
		hand augered		Concrete Pavement
				Class II Fill
			5	CL - Sandy Silty CLAY, brown 10YR5/3, low plasticity, med-crs. sand 20-30%, transition to silty clay below 4 feet, color change to very dark grayish brown 10YR3/3, sand decreases to 15%, massive, firm, damp.
MW-12 -1@11.5	0	8	10	Same as above, rare root holes, f. sand dissem. in clay 20%, massive stiff, damp.
MW-12 -2@16.5	0	7	15	CL - Silty CLAY, yellowish brown 10YR5/4, moderate plasticity, massive, rare crs. sand grains float in clay, thin 1-2 inch thick sand interbeds, stiff, damp.
MW-12 -3@21.5	0	9	20	Same as above, massive, rootholes, stiff, damp.
				Driller calls change at 23 feet
MW-12 -4@25.5	0	11	25	SW - SAND, dark gray 10YR4/1, clay 10% low plasticity, f. crs. sand 90%, massive, loose, saturated.
MW-12 -5@31.5	50	15	30	Same as above, clay dec. to 5%, med. dense, saturated.
				GW - Gravel, gray 10YR5/1, f. gravel 70%, f. crs. sand 25%, fines 55, weak petroleum odor, very crudely bedded, med. dense, saturated; minor flowing.
MW-12 -6@36.5	NR	9	35	Same as above, minor flowing, loose, saturated.
MW-12 -7@39.5	0	14		CL - Silty CLAY, yellowish brown 10YR5/4, mod plasticity, v.f. sand<10% rootholes, massive, no odor or stain, stiff, damp.
				Bottom of Boring = 39.5 feet

Borehole Completion



APPENDIX B
TEMPORARY SOIL VAPOR WELL INSTALLATION AND SAMPLING PROCEDURES

Temporary Multi-Completion Well Installation

A California Professional Geologist (PG) will supervise the drilling of the soil borings. The four borings will be completed utilizing hydraulic push (Geoprobe®) equipment with continuous soil sampling capabilities at the locations proposed on Figure 2. The Geoprobe® equipment set-up uses a 2.25-inch diameter Macrocore® sampler to recover continuous cores. The core sampler will be driven into the soil to beneath first encountered groundwater to a depth of approximately 28 feet bgs. Soil cores recovered from the sampler will be inspected and field screened with a photoionization detector (PID).

To collect grab groundwater samples, polyvinyl chloride (PVC) well casing of approximately 0.75-inch diameter will be inserted in the boreholes with 0.010-inch slotted screens extending above static groundwater (or alternatively a stainless steel screened hydropunch will be driven). Grab groundwater samples will be collected immediately after drilling and casing installation using a disposable bailer. The laboratory provided containers will labeled and placed in a cooler for submittal to the designated laboratory under chain of custody. Upon completion of the grab groundwater sampling activities, the temporary PVC casing will be removed and borehole backfilled by tremie with hydrated bentonite to approximately 20.5 feet bgs.

The temporary dual-completion soil vapor wells will then be installed as follows: The vapor points will be installed by placing approximately 2 inches of sand via tremie pipe then; utilizing a tremie, place the stainless steel expendable vapor tip with stainless steel screen affixed to Teflon™ tubing on the sand. Additional sand will then be placed via tremie to create approximately a 6-inch sand pack interval around the vapor tip as the tremie hosting the Teflon™ tubing is withdrawn. The two vapor points will be installed within each boring utilizing these methods (at 20 feet bgs and 5 feet bgs) with the interval between and the surface seal of tremied hydrated granular bentonite. The Teflon™ tubing will be labeled with depth of placement and capped utilizing a Swagelok valve. Typical well completion details are presented on Figure 3. The off-site wells will be protected from tampering during equilibration by the installation of surface-mount 6-inch diameter vault boxes.

Vapor Sampling Procedure

Figure 4 includes a diagram that shows the sample train for soil vapor sample collection. The soil vapor sampling will be completed as follows:

The tubing emanating from the vapor points will be affixed to a sample shut-off valve in the off position during the time needed to reach equilibrium (48 hours). A 167 milliliters-per-minute flow regulator inclusive of particulate filter will then be fitted to the shut-off valve and the other end to a “T” fitting. One end of the “T” will be connected to the sampling summa canister. The other end of the “T” will be affixed to a digital vacuum gauge and a 1-liter summa canister utilized for purging. A sketch of the setup is presented as Figure 4.

A ten (10)-minute minimum vacuum tightness test will be performed on the manifold and connections by opening and closing the 1-liter purge canister valve and applying and

monitoring a vacuum on the vacuum gauge. The sample shut-off valve on the downhole side of the sampling manifold will remain in the closed position. When gauge vacuum is maintained for ten (10) minutes without any noticeable decrease (less than 0.1 inches of mercury (Hg) for properly connected fittings) and the time to reach equilibrium has elapsed (at 48-hours for temporary wells) since the boring was sealed, then purging may begin. The down-hole shut off valve will be opened and three pore volumes will be removed utilizing the purging summa. Purge volumes of vapor will be removed and verified by the calculated pressure drop in the 1-liter summa canister utilized for purging.
Isopropyl alcohol will be utilized as a leak detection compound during sampling by applying 5 drops to cotton gauze and placing near the bore-hole. Sampling will begin by opening the summa canister valve. Immediately upon opening the sampling valve, a shroud will be placed over and enclose the atmosphere of the borehole and entire sampling train including all connections. The shroud will be loosely sealed to the surface with a soft gasket.
Sampling will continue until the vacuum gauge indicates approximately five (5) inches of Hg remaining (approximately thirty [30] minutes for a 6-liter canister or five [5] minutes for a 1-liter canister equipped with a 167 milliliter-per-minute flow regulator). A flow controller will be utilized in the sample train to control the flow of soil gas into the Summa canisters for sample collection. Limiting the purging and sampling rate to between 100 and 200 milliliters per minute limits stripping and aids in preventing ambient air from diluting the soil gas samples. During sampling, a datalogging photoionization detector (PID) will be utilized to monitor the atmosphere inside the shroud through a bulk-head fitting. The logged data (at minimum thirty [30] second intervals) will be corrected to parts per million by volume isopropyl alcohol concentrations and utilized to evaluate the integrity of the sampling train.
One confirmation Tedlar bag sample (at minimum 20% of the total number of samples collected) will be collected of the shroud atmosphere (through the sampling port of the PID) during sample collection to confirm the correction factor of the PID to isopropyl alcohol by analyzing for isopropyl alcohol by TO-15. All field data, including equilibrium time, purge volume calculations and leak check measurements will be recorded and presented in the report.

Laboratory Analysis

The soil vapor samples will be shipped under chain-of-custody to Air Toxics Ltd. in Folsom, California. The soil vapor samples will be analyzed by EPA Method TO15 for VOCs including BTEX compounds MtBE and TPHg. Sampling train effectiveness (short-circuiting) will be evaluated by including the leak check gas in the analysis (TO-15 for isopropyl alcohol). The grab groundwater samples will be analyzed for TPH-g, BTEX and MTBE by EPA Method 8260B.