HAGEMAN-AGUIAR, INC.
Underground Contamination Investigations, Groundwater Consultants, Environmental Engineering

REPORT OF ADDITIONAL SUBSURFACE INVESTIGATION

QUALITY TUNE-UP

14901 East 14th Street
San Leandro, California

January 6, 1997

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I. INTRODUCTION

The site location is the Quality Tune-up facility located at 14901 East 14th Street in San Leandro, California. The location of the site is shown in Figure 1. In conjunction with a previous service station operation, the site has historically operated three underground Gasoline storage tanks for a number of years. The tanks have been out of use for more than 10 years. The layout of the site is shown in Figure 2 (site map).

Results of Previous Investigation

On October 15, 1993, a subsurface investigation was conducted by Hageman-Aguiar, Inc. The scope of work involved the collection of soil samples for laboratory analysis at four locations in the immediate vicinity of the existing underground storage tanks. The results of the investigation were presented in the "Report of Limited Soil Investigation" by Hageman-Aguiar, Inc., dated October 26, 1993.

The results of the 1993 investigation indicated that Gasoline concentrations were detected in the vicinity of the existing underground storage tanks at concentrations of up to 180 mg/kg (ppm). Low level residual Benzene concentrations were detected in the vicinity of the existing underground storage tanks at concentrations of up to 230 µg/kg (ppb). The low-level residual Gasoline contamination in the vicinity of the existing underground storage tanks appeared to coincide with the location of the water table interface beneath the site. All of the near-surface soils encountered in the borings appeared to be unaffected by any subsurface petroleum contamination.

FIGURE 1.
Site Location Map.

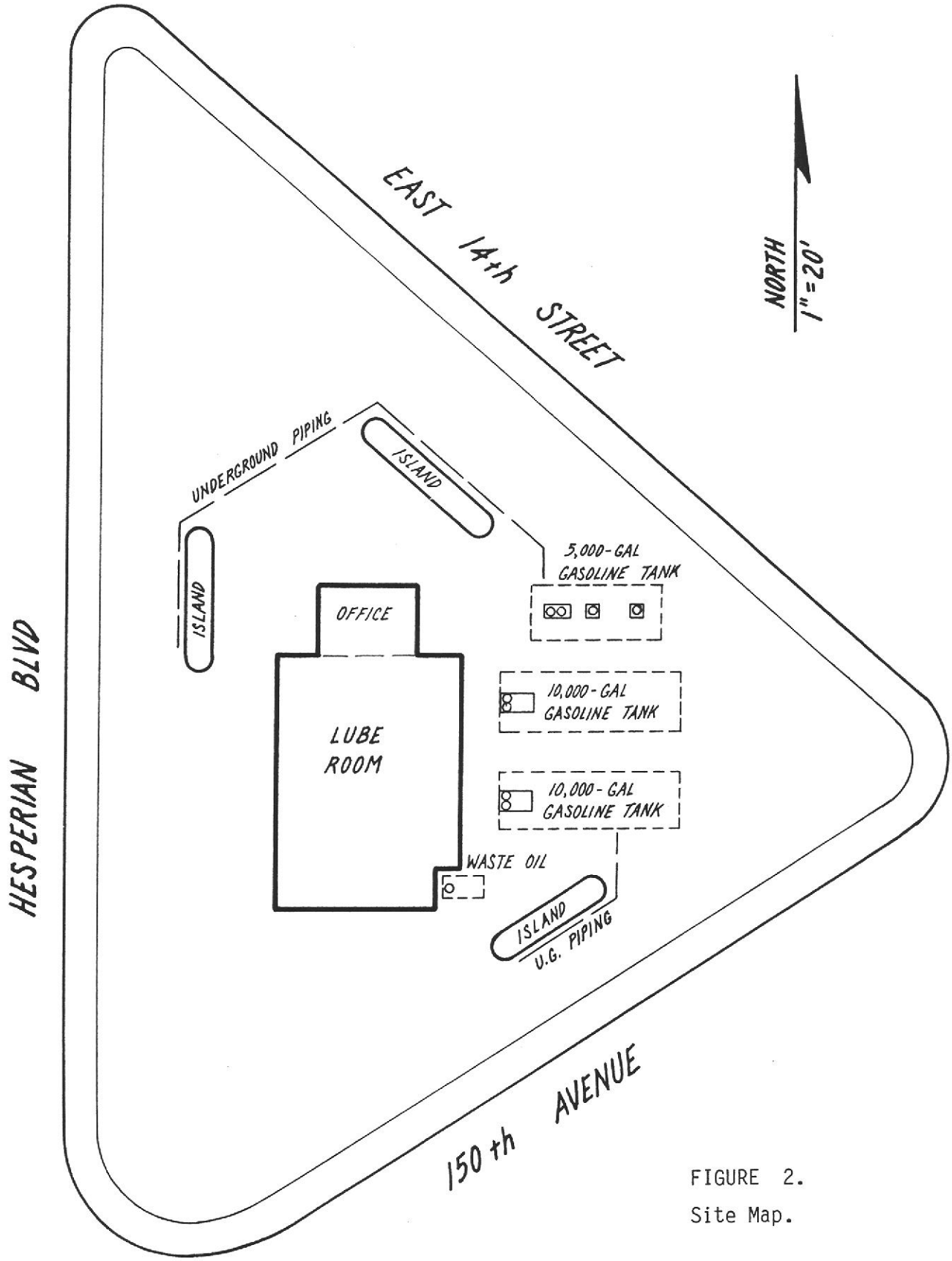


FIGURE 2.
Site Map.

Based upon analysis of the data generated from the limited soil investigation conducted in 1993, the low-level residual Gasoline concentrations found in the vicinity of the existing underground storage tanks may be due to one or more of the following: 1) tank leakage and/or overfill at one or more of the existing underground storage tank locations, 2) migration of subsurface contamination from another on-site source, such as leakage and/or spillage along piping runs or at one or more of the three existing dispenser islands, or 3) migration of subsurface contamination in the shallow groundwater from an off-site source.

Purpose of Additional Subsurface Investigation

The purpose of this subsurface investigation was to collect soil samples at several "Geoprobe" locations in order to assess the subsurface environmental conditions of the site at several locations additional to the underground tank locations. Areas of specific interest are the locations of underground piping runs and the existing pump islands.

II. SITE DESCRIPTION

Hydrogeologic Setting

The location of the site is shown on the site location map (Figure 1). The soils beneath the site consist of Quaternary Alluvium overlying uplifted Cretaceous Marine deposits that comprise the surrounding San Leandro Hills (Geologic Map of California, San Francisco Sheet, State of California Division of Mines and Geology, 1980). Based upon the surface topography, as well as the various hydrologic features in the vicinity of the site, the general regional shallow groundwater can be expected to flow from the San Leandro Hills to the north and to the east of the site (areas of groundwater recharge) and move toward San Lorenzo Creek to the south of the site or toward San Francisco Bay to the southwest (areas of discharge). Subsurface investigation at other nearby service station sites indicates that the localized shallow groundwater flow is in the south- to southeasterly direction.

The site is underlain by fine-grained alluvial deposits, the major portion of which appear to consist of silt and clay. Based upon this most recent subsurface investigation conducted by Hageman-Aguiar, Inc., the shallow groundwater is present beneath the site at a depth of approximately 11.5 feet below the ground surface. During the previous 1993 investigation, the shallow groundwater table was found to be located approximately 13 feet below the ground surface. The data indicate seasonal variations in the shallow groundwater elevation.

III. FIELD WORK

Sampling Locations

The soil and groundwater sampling operation was conducted on December 5, 1996, by Gregg Drilling of Martinez, CA. The various "Geoprobe" sampling locations are shown in Figure 3. The locations were selected based upon an attempt to assess the subsurface environmental conditions of the site at several locations additional to the underground tank locations. Areas of specific interest are the locations of underground piping runs and the existing pump islands.

Soil Sampling

Soil samples were collected at each of the "Geoprobe" locations GP-1, GP-2, GP-3, GP-4, GP-5, and GP-6. At each sampling location, a "Geoprobe" barrel was hydraulically driven into the ground. For each drive, the entire 4 feet of barrel length was fitted with a clear acrylic plastic insert. Soil samples for chemical analyses were collected at 5-foot intervals down to a depth of 15 feet. At the desired depth, the plastic "Geoprobe" insert was cut to produce a six-inch cylinder of soil packed in clear plastic. The ends of the plastic cylinder were sealed with Teflon film, over which was placed a plastic end-cap. The end-caps were then sealed with clean plastic adhesive tape. All samples were immediately placed on ice, then transported under chain-of-custody to the laboratory upon completion of the field work.

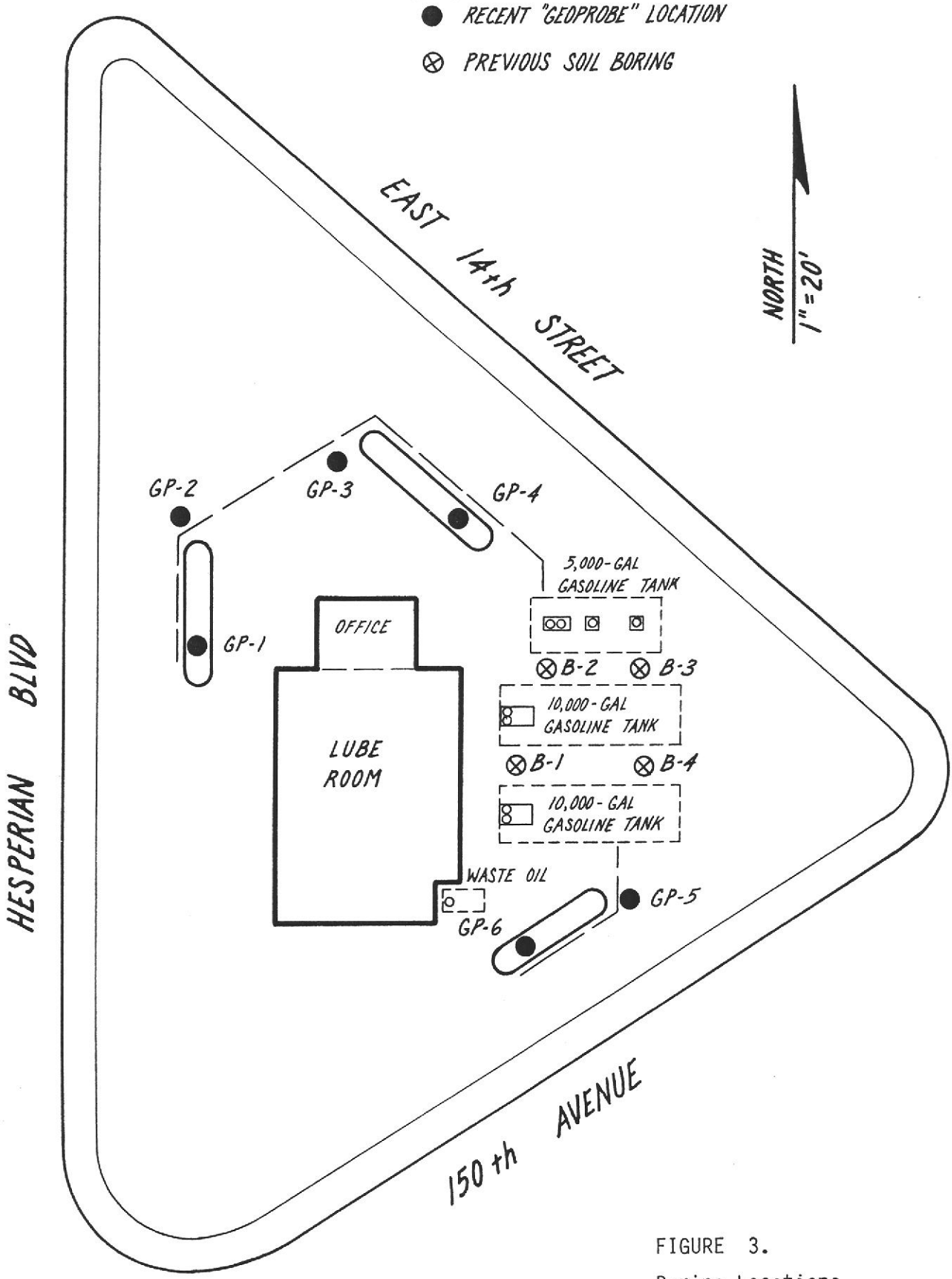


FIGURE 3.
Boring Locations.

Groundwater Sampling

Shallow "grab" groundwater samples were collected at Geoprobe locations GP-1, GP-4 and GP-6. At each "Geoprobe" location, 3/4" PVC casing and slotted well screen were installed following the completion of the soil driving activities. A "grab" groundwater sample was immediately collected using a decontaminated stainless steel bailer. The water samples were placed inside 40 ml VOA vials free of any headspace. The samples were immediately placed on ice, then delivered under chain-of-custody to the laboratory at the conclusion of the field work.

Boring Logs

The soil sampling operation was conducted under the supervision of Gary Aguiar (Registered Civil Engineer #34262). The boring logs are included as Attachment B.

Hole Sealing

Following the completion of the groundwater sampling operation, each "Geoprobe" hole was filled with neat cement grout.

Equipment Decontamination

Prior to the conduct of field work, all equipment, including "Geoprobe" barrels and rods, was steam-cleaned. All steam-cleaning was conducted by Gregg Drilling at their permitted steam-cleaning facility located in Martinez, California. Any field decontamination was conducted by washing in a water/TSP solution, followed by a double water rinse.

IV. ANALYTICAL RESULTS

Laboratory Analysis

All analyses were conducted by a California State DOHS certified laboratory in accordance with EPA recommended procedures. The laboratory analyses were performed by Priority Analytical Laboratory located in Milpitas, California.

Soil samples were analyzed for:

1) Total Petroleum Hydrocarbons as Gasoline
   (EPA method 8015),

2) Benzene, Toluene, Ethylbenzene, and Total Xylenes
   (EPA method 8020),

3) Methyl Tertiary Butyl Ether (MTBE)
   (EPA method 8020).

Groundwater samples were analyzed for:

1) Total Petroleum Hydrocarbons as Gasoline
   (EPA method 8015),

2) Benzene, Toluene, Ethylbenzene, and Total Xylenes
   (EPA method 602),

3) Methyl Tertiary Butyl Ether (MTBE)
   (EPA method 602).

Analytical Results: Soil

Table 1 presents the results of the laboratory analysis of the shallow "grab" groundwater samples collected from each of the three "Geoprobe" locations. A copy of the laboratory certificate for the soil sample analyses is provided in Attachment C.

As shown in Table 1, there appear to be very low residual Gasoline concentrations in the soil at the 10-foot depth in the vicinity of location GP-1, and at the 15-foot depth at locations GP-1, GP-4, GP-5 and GP-6. Gasoline was found in the soil at concentrations of up to 29 mg/kg (ppm).

Also shown in Table 1, Benzene was detected in the soil samples at concentrations of up to 41 µg/kg (ppb), respectively.

TABLE 1.

Soil Sampling Results

Boring	Depth (feet)	TPH as Gasoline (mg/Kg)	Benzene (ug/Kg)	Toluene (ug/Kg)	Ethyl-benzene (ug/Kg)	Total Xylenes (ug/Kg)
GP-1	05	ND	ND	ND	ND	ND
	10	**4.3**	**6.6**	ND	**6.5**	**10**
	15	**4.4**	**41**	**5.2**	ND	**28**
GP-2	05	ND	ND	ND	ND	ND
	10	ND	ND	ND	ND	ND
	15	ND	ND	ND	ND	ND
GP-3	05	ND	ND	ND	ND	ND
	10	ND	ND	ND	ND	ND
	15	ND	ND	ND	ND	ND
GP-4	05	ND	ND	ND	ND	ND
	10	ND	ND	ND	ND	ND
	15	**5.9**	**7.9**	**5.0**	**12**	**20**
GP-5	05	ND	ND	ND	ND	ND
	10	ND	ND	ND	ND	ND
	15	**7.1**	**9.7**	**5.1**	**6.9**	**10**
GP-6	05	ND	ND	ND	ND	ND
	10	ND	ND	ND	ND	ND
	15	**29**	**24**	**8.0**	**12**	**31**
Detection Limit		1	5	5	5	5

ND = Not Detected

TABLE 1. (continued)

Soil Sampling Results

Boring	Depth (feet)	TPH as Gasoline (mg/Kg)	Benzene (ug/Kg)	Toluene (ug/Kg)	Ethyl-benzene (ug/Kg)	Total Xylenes (ug/Kg)
Previous B-1	05	ND	ND	ND	ND	ND
	10	**4.5**	**5.8**	**8.1**	**14**	**35**
	15	**180**	**230**	**320**	**560**	**1,400**
Previous B-2	05	ND	ND	ND	ND	ND
	10	ND	ND	ND	ND	ND
	15	**31**	**35**	**49**	**84**	**210**
Previous B-3	05	ND	ND	ND	ND	ND
	10	ND	ND	ND	ND	ND
	15	ND	ND	ND	ND	ND
Previous B-4	05	ND	ND	ND	ND	ND
	10	ND	ND	ND	ND	ND
	15	**58**	**75**	**97**	**170**	**420**
Detection Limit		1	5	5	5	5

ND = Not Detected

Analytical Results: Groundwater

Table 2 presents the results of the laboratory analysis of the "grab" groundwater samples collected from "Geoprobe" locations GP-1, GP-4 and GP-6. A copy of the laboratory certificate for the groundwater sample analyses is provided in Attachment D.

As shown in Table 2, Gasoline was detected in the "grab" groundwater samples collected at locations GP-1, GP-4 and GP-6 at concentrations of 4,400 μg/L (ppb), 22,000 μg/L (ppb) and 210,000 μg/L, respectively.

TABLE 2.

Shallow "Grab" Groundwater Sampling Results

Boring	Date	TPH as Gasoline (ug/L)	MTBE (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl-benzene (ug/L)	Total Xylenes (ug/L)
GP-1	12-05-96	**4,400**	ND	**0.7**	ND	**1.4**	**2.0**
GP-4	12-05-96	**22,000**	ND	**4.0**	**5.7**	**10**	**23**
GP-6	12-05-96	**210,000**	ND	**200**	**180**	**180**	**420**
Detection Limit		50	0.5	0.5	0.5	0.5	0.5

ND = not detected

V. DATA ANALYSIS

The data presented in Table 1 clearly indicate that the near-surface soils encountered in the borings are largely unaffected by any subsurface petroleum contamination. The presence of Gasoline in the soil appears to coincide with the presence of the shallow groundwater table. Seasonal variation in the water table elevation is the likely reason for the presence of Gasoline concentrations in the soils at the 15-foot depth, which is clearly beneath the present shallow groundwater table.

Figure 4 shows a plot of lines of equal concentration of Gasoline in the soil at the 15-foot depth. As indicated by Figure 4, low-level residual Gasoline contamination appears to be centered around the existing underground storage tank area. Figures 5 shows lines of equal concentration for Gasoline in the shallow groundwater. Since these lines have been drawn based upon relatively limited data (three data points), the plot represents only a small portion of the respective concentration plume. The plot suggests, however, that the dissolved concentrations are centered around the existing underground storage tank area and is somewhat open-ended toward 150th Avenue.

The data analysis described above clearly indicates that Gasoline concentrations in the soil and groundwater are centered around the existing underground storage tank area. During both the previous 1993 investigation and the current investigation, the shallow groundwater table has been found to be present at, or above, the bottoms of the two 10,000-gal underground storage tanks. The data collected to date provide strong evidence that the presence of Gasoline concentrations beneath the site is due to tank leakage and/or overfill at one or more of the existing underground storage tank locations.

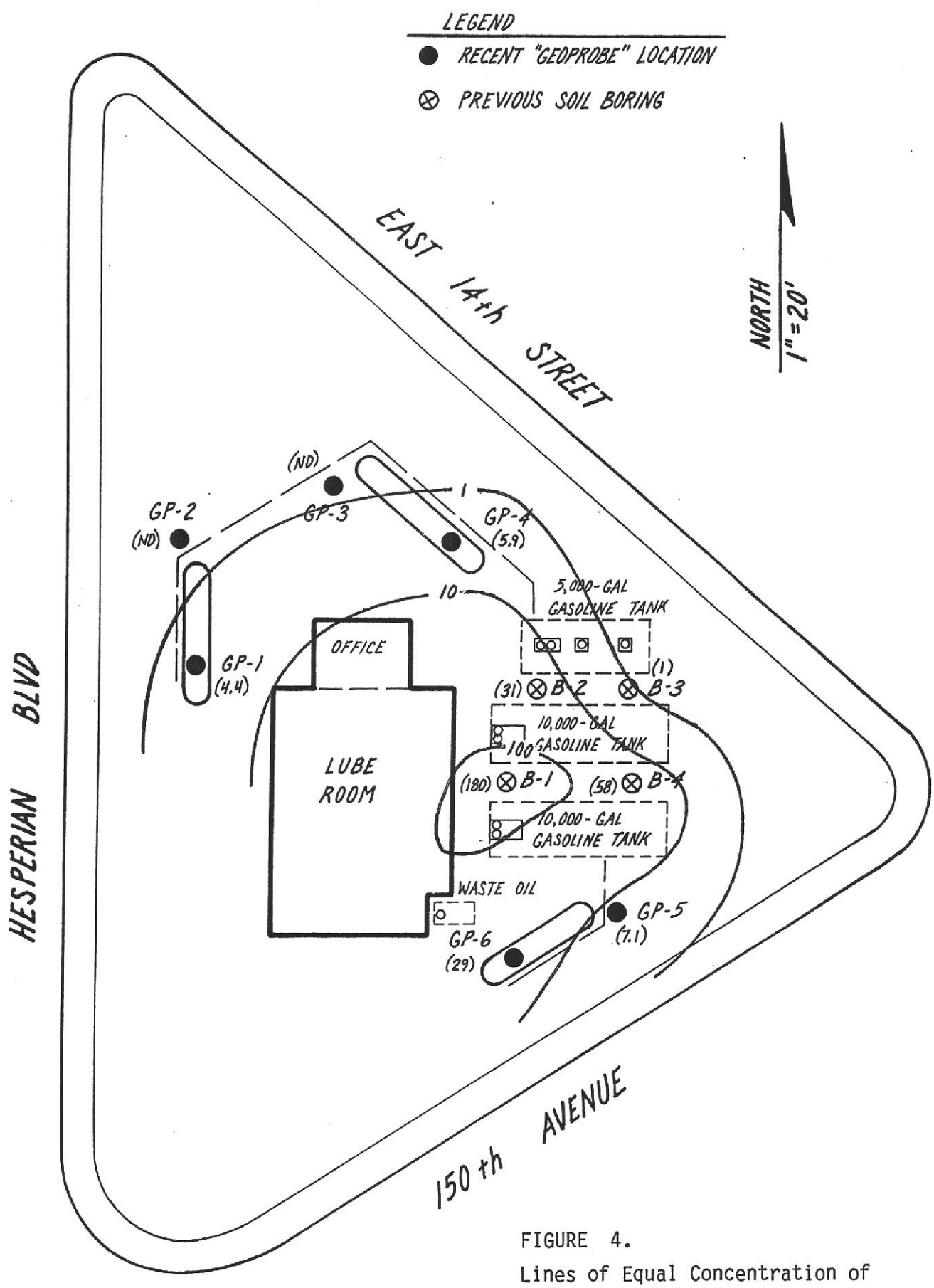


FIGURE 4.
Lines of Equal Concentration of Gasoline in mg/kg (ppm) in the SOIL at the 15-foot Depth.

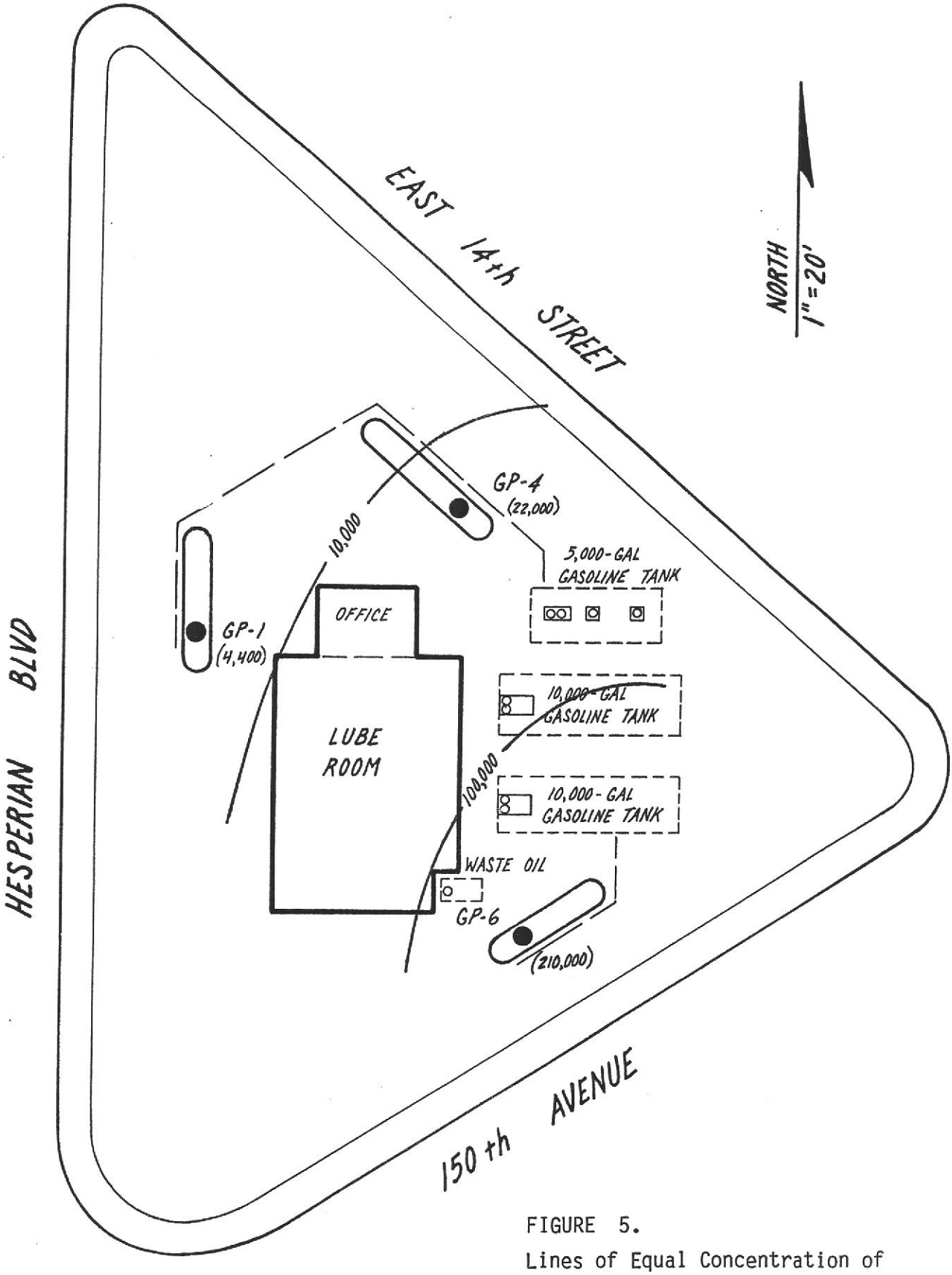


FIGURE 5.
Lines of Equal Concentration of Gasoline in ug/L (ppb) in the Shallow GROUNDWATER.

VI. SUMMARY

1. During this most recent subsurface investigation, shallow groundwater was found to be present beneath the site at a depth of approximately 11.5 feet below the ground surface. During the previous 1993 investigation, the shallow groundwater table was found to be located approximately 13 feet below the ground surface. The data indicate seasonal variations in the shallow groundwater table elevation.

2. The site is underlain by fine-grained alluvial deposits, the major portion of which appear to consist of silt and clay.

3. Low level residual Gasoline was detected in the soil at concentrations of up to 29 mg/kg (ppm). Benzene was detected in the soil samples at concentrations of up to 41 µg/kg (ppb), respectively.

4. Gasoline was detected in the "grab" groundwater samples collected at locations GP-1, GP-4 and GP-6 at concentrations of 4,400 µg/L (ppb), 22,000 µg/L (ppb) and 210,000 µg/L, respectively.

5. The analytical data indicate that the near-surface soils encountered in the borings are largely unaffected by any subsurface petroleum contamination. The presence of Gasoline in the soil appears to coincide with the presence of the shallow groundwater table.

6. Based upon analysis of soil sampling data for the 15-foot depth, low-level residual Gasoline contamination appears to be centered around the existing underground storage tank area.

7. Based upon analysis of "grab" Groundwater sampling data, dissolved Gasoline concentrations appear to be centered around the existing underground storage tank area, with a concentration plume that is somewhat open-ended toward 150th Avenue.

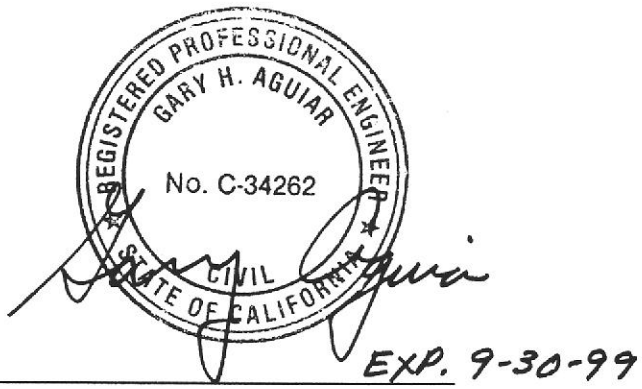
8. The data collected to date provide strong evidence that the presence of Gasoline concentrations beneath the site is due to tank leakage and/or overfill at one or more of the existing underground storage tank locations.

REPORT OF ADDITIONAL SUBSURFACE INVESTIGATION

QUALITY TUNE-UP

14901 East 14th Street, San Leandro, CA.

January 6, 1997



Gary Aguiar **RCE 34262**

ATTACHMENT A

Correspondence

City of San Leandro
Civic Center, 835 E. 14th Street
San Leandro, California 94577

November 22, 1996

Ms. Diana Pagano
6912 Broadway Terrace
Oakland, CA 94611

Dear Ms. Pagano:

Approval of Additional Subsurface Investigation Workplan for 14901 East 14th

The City of San Leandro's Hazardous Materials Division has reviewed Hageman-Aguiar's proposed workplan, dated November 4, 1996. The workplan is approved subject to the following conditions:

1. That this office be notified at least 48 hours prior to start of field work.

2. That at least one groundwater sample be collected from the area surrounding each former island.

3. That the soil sampling depths be specified and approved by this office.

4. That at each island one boring be punched through the former island and the second be punched immediately adjacent to a piping run.

The City of San Leandro's Hazardous Materials Division will oversee all remedial activities at your site. A check for $480 must be submitted to this office to pay for staff time associated with review of reports and oversight of this project. Please make the check payable to the City of San Leandro Hazardous Materials Division. The deposit will be placed into an account from which money will be drawn at the rate of $60 per hour for time spent on this project. At the end of this project all unused funds will be returned to you.

Financial assistance to pay for the cost of investigating, remediating, and monitoring your leaking underground storage tank site is available through the state underground storage tank cleanup fund. For more information on the fund and to obtain an application package please refer to the enclosed brochure.

If you have any questions, please call me at 577-3331.

Sincerely,

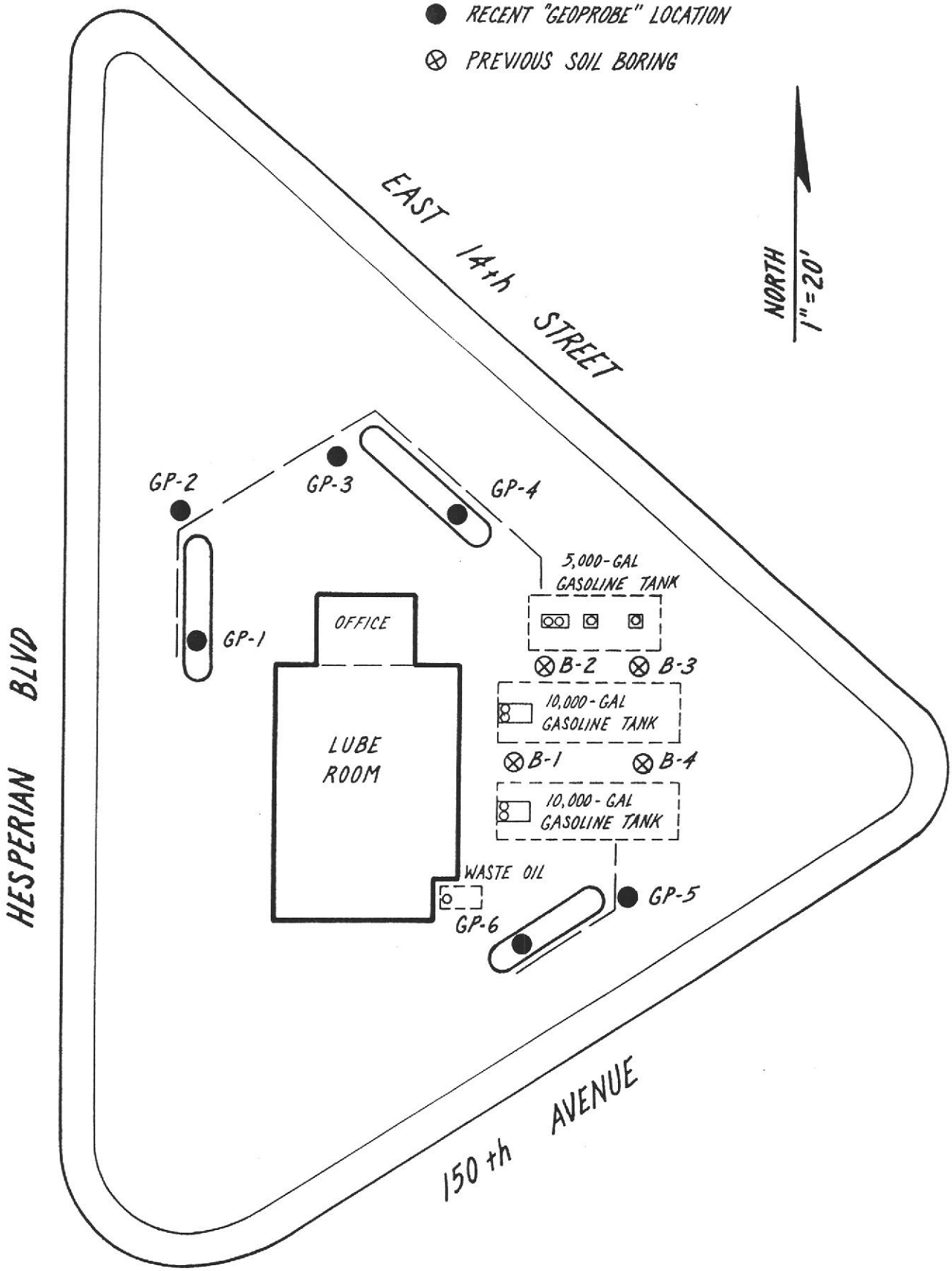
Michael Bakaldin
Hazardous Materials Coordinator

attachment

cc: Kevin Graves, SFBRWQCB
Gary Aguiar, Hageman-Aguiar

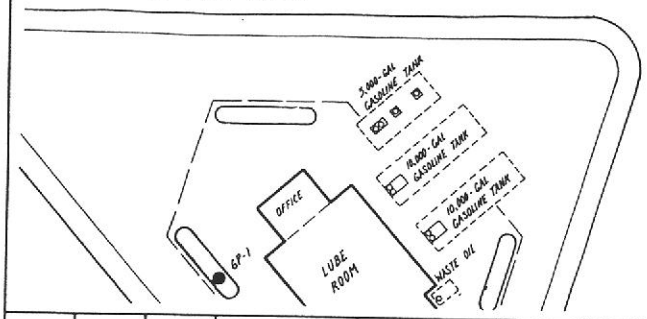
ATTACHMENT B

Boring Logs


LEGEND
RECENT "GEOPROBE" LOCATION
PREVIOUS SOIL BORING
NORTH
1" = 20'
EAST 14th STREET
HESPERIAN BLVD
150th AVENUE
GP-1
GP-2
GP-3
GP-4
GP-5
GP-6
OFFICE
LUBE ROOM
5,000-GAL GASOLINE TANK
10,000-GAL GASOLINE TANK
10,000-GAL GASOLINE TANK
B-1
B-2
B-3
B-4
WASTE OIL

LOCATION OF BORING

EAST 14th STREET



PROJECT NAME & LOCATION
QUALITY TUNE-UP, SAN LEANDRO

DRILLING METHOD: GEOPROBE

BORING GP-1

SHT 1 of 1

SAMPLING METHOD:

DRILLING

			START	FINISH
WATER LEVEL	11.81'	11.75'	TIME 0950	TIME 1015
TIME	1025	1155		
DATE	12/5/96	12/5/96	DATE 12/5/96	DATE 12/5/96
CASING DEPTH		**SCREEN**		

SAMPLER	inches DRIVEN	inches RECOVER	BLOW COUNT per 6 inches	TIME	DEPTH in feet	USCS	SURFACE CONDITIONS:
					0		CONCRETE PUMP ISLAND
					1		BLACK CLAYEY SILT (ML), DRY, VERY CLAYEY, SLIGHTLY STIFF.
					2		
					3		(NO ODOR)
					4		BLACK SILTY CLAY (CL), DRY, VERY SILTY, STIFF.
				1003	5		(NO ODOR)
					6		BRN CLAY (CL), DRY, MODERATELY SANDY, FINE GRAIN SAND.
					7		
					8		BRN SAND (SM), DRY, CRUMBLY, VERY FINE GRAIN, SLIGHTLY CLAYEY.
					9		(NO ODOR)
				1010	10		GRAY SILTY CLAY (CL), SLIGHTLY MOIST, SLIGHTLY SILTY, MODERATE PLASTICITY, BLACK STREAKS.
WATER SAMPLE COLLECTED @ 1045					11		
					2		(GASOLINE ODOR)
					3		
					4		GRAY CLAYEY SAND (SC), VERY MOIST, FINE GRAINED, SOFT, MODERATELY CLAYEY.
				1015	5		(GASOLINE ODOR)
					6		DK GRAY CLAY (CH), SLIGHTLY MOIST, HIGH PLASTICITY.
					7		
					8		TOTAL DEPTH = 16' BGS
					9		
					20		

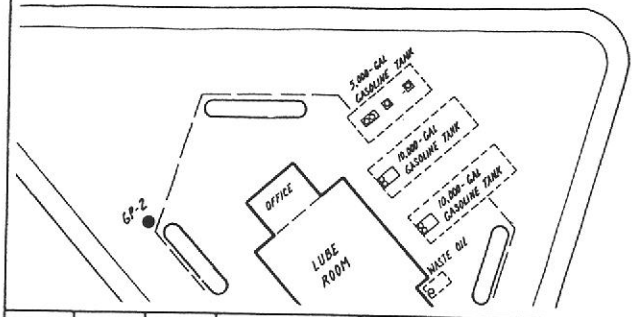
REGISTERED PROFESSIONAL ENGINEER
GARY H. AGUIAR
No. C-34262
CIVIL
STATE OF CALIFORNIA

EXP. 9-30-99

HAGEMAN - AGUIAR, INC.

LOCATION OF BORING

EAST 14th STREET



PROJECT NAME & LOCATION

QUALITY TUNE-UP, SAN LEANDRO

DRILLING METHOD: GEOPROBE

SAMPLING METHOD:

BORING GP-2

SHT 1 of 1

				DRILLING START	DRILLING FINISH
WATER LEVEL	11.56'			TIME 1030	TIME 1100
TIME	1155				
DATE	12/5/96			DATE 12/5/96	DATE 12/5/96
CASING DEPTH		SCREEN			

SAMPLER	inches DRIVEN	inches RECOVER	BLOW COUNT per 6 inches	TIME	DEPTH in feet	USCS	SURFACE CONDITIONS:
					0		ASPHALT
					1		BLACK CLAYEY SILT (ML), DRY, CRUMBLY, MODERATELY CLAYEY.
					2		
					3		(NO ODOR)
					4		BRN CLAYEY SILT (ML), DRY, CRUMBLY, VERY CLAYEY.
				1038	5		(NO ODOR)
					6		
					7		BRN SILTY SAND (SM), DRY, LOOSE, VERY FINE GRAINED.
					8		(NO ODOR)
					9		
				1042	10		BRN SILTY CLAY (CL), SLIGHTLY MOIST, MODERATELY SILTY, MODERATE PLASTICITY.
					1		(NO ODOR)
					2		
					3		→ BECOMES SOFT, SATURATED
					4		
					5		GRAY SILTY CLAY (CH), MOIST, HIGH PLASTICITY.
				1050			(NO ODOR)
					6		
					7		TOTAL DEPTH = 16 FEET BGS
					8		
					9		
					20		

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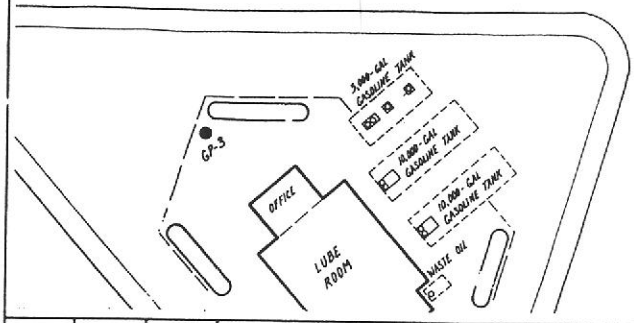
HAGEMAN - AGUIAR, INC.

LOCATION OF BORING

EAST 14th STREET



PROJECT NAME & LOCATION

QUALITY TUNE-UP, SAN LEANDRO

DRILLING METHOD: GEOPROBE				BORING GP-3
SAMPLING METHOD:				SHT 1 of 1
				DRILLING START / FINISH
WATER LEVEL	11.48'			TIME 1115 / TIME 1140
TIME	1155			
DATE	12/5/96			DATE 12/5/96 / DATE 12/5/96
CASING DEPTH		SCREEN		

SAMPLER	inches DRIVEN	inches RECOVER	BLOW COUNT per 6 inches	TIME	DEPTH in feet	USCS	SURFACE CONDITIONS:
					0		ASPHALT
					1		BRN GRAVEL BASEROCK
					2		BLACK CLAYEY SILT (ML), DRY, CRUMBLY, SLIGHTLY CLAYEY.
					3		(NO ODOR)
					4		BRN CLAYEY SILT (ML), DRY, CRUMBLY, SLIGHTLY CLAYEY.
				1123	5		(NO ODOR)
					6		
					7		BRN SILTY SAND (SM), SLIGHTLY MOIST, LOOSE, VERY FINE GRAINED, MODERATELY SILTY.
					8		(NO ODOR)
					9		
				1130	10		→ BECOMES SOFT, MOIST
					1		BRN SILTY CLAY (CL), SLIGHTLY MOIST, MODERATE PLASTICITY, MODERATELY SILTY.
					2		(NO ODOR)
					3		→ SATURATED, SOFT
					4		
				1136	5		GRAY CLAY (CH), MOIST, HIGH PLASTICITY.
					6		
					7		TOTAL DEPTH = 16 FEET BGS
					8		
					9		
					20		

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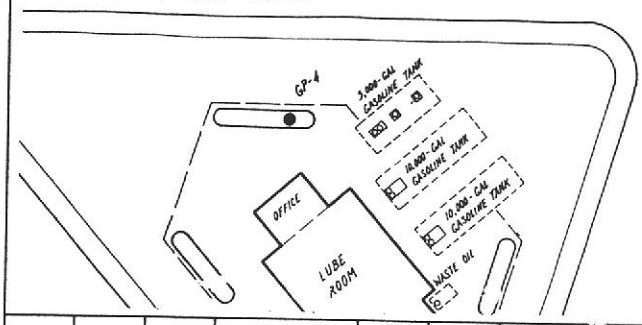
HAGEMAN - AGUIAR, INC.

LOCATION OF BORING

EAST 14th STREET



PROJECT NAME & LOCATION

QUALITY TUNE-UP, SAN LEANDRO

DRILLING METHOD: GEOPROBE

SAMPLING METHOD:

BORING GP-4

SHT 1 of 1

DRILLING

				START	FINISH
WATER LEVEL	11.48'			TIME 1145	TIME 1210
TIME	1230				
DATE	12/5/96			DATE 12/5/96	DATE 12/5/96
CASING DEPTH		SCREEN			

SURFACE CONDITIONS:

SAMPLER	inches DRIVEN	inches RECOVER	BLOW COUNT per 6 inches	TIME	DEPTH in feet	USCS	
					0		CONCRETE PUMP ISLAND
					1		BLACK CLAYEY SILT (ML), DRY, CRUMBLY, MODERATELY CLAYEY. (NO ODOR)
					2		
					3		
					4		BRN SILT (ML), DRY, CRUMBLY, SLIGHTLY CLAYEY. (NO ODOR)
				1152	5		
					6		
					7		BRN SAND (SM), SLIGHTLY MOIST, CRUMBLY, VERY FINE GRAINED, VERY SILTY. (NO ODOR)
					8		
					9		
				1200	10		GRAY SILTY CLAY (CL), SLIGHTLY MOIST, LOW PLASTICITY.
					▼1		
WATER SAMPLE COLLECTED @ 1215					2		→ BECOMES SOFT, MOIST
					3		
					4		DK GRAY CLAYEY SAND (SC), SATURATED, SOFT, FINE GRAINED SAND, MODERATELY CLAYEY. (GASOLINE ODOR)
				1207	5		
					6		GRAY SILTY CLAY (CL), SATURATED, SOFT, VERY SILTY.
					7		
					8		TOTAL DEPTH = 16 FEET BGS
					9		
					20		

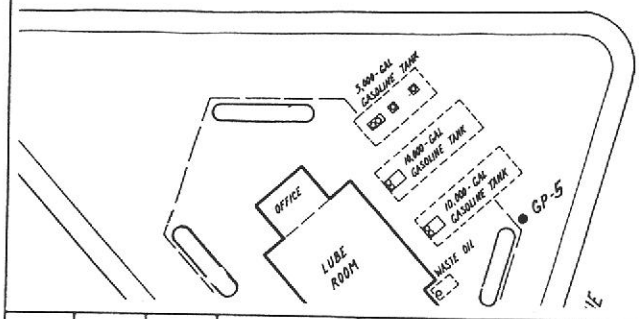
REGISTERED PROFESSIONAL ENGINEER
GARY H. AGUIAR
No. C-34262
CIVIL
STATE OF CALIFORNIA

EXP. 9-30-99

HAGEMAN - AGUIAR, INC.

LOCATION OF BORING

EAST 14th STREET



PROJECT NAME & LOCATION
QUALITY TUNE-UP, SAN LEANDRO

DRILLING METHOD: GEOPROBE

SAMPLING METHOD:

BORING GP-5

SHT 1 of 1

				DRILLING START	DRILLING FINISH
WATER LEVEL	11.18'			TIME 1215	TIME 1230
TIME	1235				
DATE	12/5/96			DATE 12/5/96	DATE 12/5/96
CASING DEPTH		SCREEN			

SAMPLER	inches DRIVEN	inches RECOVER	BLOW COUNT per 6 inches	TIME	DEPTH in feet	USCS	SURFACE CONDITIONS:
					0		ASPHALT
					1		SAND & GRAVEL (FILL)
					2		BLACK SILT (ML), DRY, MODERATELY CLAYEY, CRUMBLY.
					3		(NO ODOR)
					4		
				1220	5		BRN SILT (ML), DRY
					6		(NO ODOR)
					7		BRN SAND (SM), DRY, SLIGHTLY LOOSE, VERY SILTY, VERY FINE GRAIN.
					8		BRN CLAYEY SILT (ML), SLIGHTLY MOIST, CRUMBLY.
					9		(NO ODOR)
				1225	10		
					▼1		BRN CLAYEY SAND (SC), SATURATED, FINE GRAIN, SOFT, MODERATELY CLAYEY.
					2		(NO ODOR)
					3		
					4		DK GRAY CLAY (CH), MOIST, HIGH PLASTICITY, MODERATELY SILTY.
				1230	5		(NO ODOR)
					6		
					7		TOTAL DEPTH = 16 FEET BGS
					8		
					9		
					20		

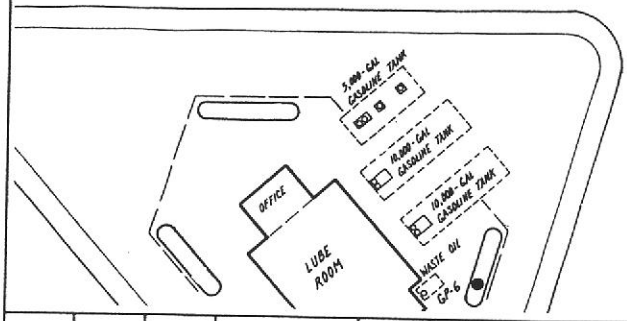
REGISTERED PROFESSIONAL ENGINEER
GARY H. AGUIAR
No. C-34262
CIVIL
STATE OF CALIFORNIA

EXP. 9-30-99

HAGEMAN - AGUIAR, INC.

LOCATION OF BORING

EAST 14th STREET



PROJECT NAME & LOCATION

QUALITY TUNE-UP, SAN LEANDRO

DRILLING METHOD: GEOPROBE

SAMPLING METHOD:

BORING GP-6

SHT 1 of 1

				DRILLING START	DRILLING FINISH
WATER LEVEL	11.40'				
TIME	1255			TIME 1235	TIME 1300
DATE	12/5/96			DATE 12/5/96	DATE 12/5/96
CASING DEPTH		SCREEN			

SAMPLER	inches DRIVEN	inches RECOVER	BLOW COUNT per 6 inches	TIME	DEPTH in feet	USCS	SURFACE CONDITIONS:
					0		CONCRETE PUMP ISLAND
					1		BLACK CLAYEY SILT (ML), DRY, CRUMBLY, MODERATELY CLAYEY.
					2		
					3		(NO ODOR)
					4		BRN CLAYEY SILT (ML), DRY, CRUMBLY, MODERATELY CLAYEY.
				1235	5		(NO ODOR)
					6		
					7		BRN SAND (SM), DRY, LOOSE, VERY FINE GRAIN, MODERATELY SILTY, SLIGHTLY CLAYEY.
					8		(NO ODOR)
					9		
				1240	10		BRN SILTY CLAY (CL), DRY, VERY SILTY, CRUMBLY, RED STREAKS.
					▼11		(NO ODOR)
					2		GRAY SILTY CLAY (CL), SLIGHTLY MOIST, SLIGHTLY CRUMBLY, VERY SILTY.
					3		(GASOLINE ODOR)
					4		GRAY CLAYEY SAND (SC), SATURATED, FINE GRAIN, SOFT, VERY CLAYEY.
				1245	5		(GASOLINE ODOR)
					6		DK GRAY CLAY (CH), MOIST, HIGH PLASTICITY.
					7		(SLIGHT GASOLINE ODOR)
					8		TOTAL DEPTH = 16 FEET BGS
					9		
					20		

WATER SAMPLE COLLECTED @ 1255

REGISTERED PROFESSIONAL ENGINEER
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No. C-34262
CIVIL
STATE OF CALIFORNIA

EXP. 9-30-99

HAGEMAN - AGUIAR, INC.

LOCATION OF BORING

SEE SITE MAP

SCALE: 1" =

PROJECT NAME & LOCATION: 14901 EAST 14th STREET, SAN LEANDRO

DRILLING METHOD: 6" HOLLOW STEM AUGER

BORING: B-1

SHT: 1 of 1

SAMPLING METHOD: 2" SPLIT BARREL SAMPLER WITH BRASS LINERS

				DRILLING START	DRILLING FINISH
WATER LEVEL	13.2'				
TIME	0930			TIME 0815	TIME 0840
DATE	10/15/93			DATE 10/15/93	DATE 10/15/93
CASING DEPTH		SCREEN			

SAMPLER	inches DRIVEN	inches RECOVER	BLOW COUNT per 6 inches	TIME	DEPTH in feet	USCS	SURFACE CONDITIONS:
					0		ASPHALT
					1		RED-BRN CLAYEY GRAVEL (BASEROCK), LOOSE, ANG & SUB-ANG TO 2"
					2		BLACK CLAY (CL), SLIGHTLY MOIST (NO ODOR)
					3		
					4		BRN SILTY CLAY (CL), SLIGHTLY MOIST, SOFT.
2" SPLIT	18	8	4/5/5	0825	5		(SLIGHT PETROLEUM ODOR) PID = 250 PPM
					6		
					7		
					8		
					9		GREY-BRN CLAY (CL), MOIST, GREY COLOR WITH RED-BRN STREAKS, LOW TO MOD. PLASTICITY.
2" SPLIT	18	14	4/5/11	0832	10		(PETROLEUM ODOR)
					1		
					2		
					3	▼	
					4		SAME, SATURATED, LOW TO MOD. PLASTICITY, VARIEGATED LT GREY & BRN COLOR, SLIGHTLY STICKY, (SLIGHT PETROLEUM ODOR)
2" SPLIT	18	18	6/6/8	0840	5		PID = 95 PPM
					6		TOTAL DEPTH = 15½' BLS
					7		
					8		
					9		
					20		

REGISTERED PROFESSIONAL ENGINEER
GARY H. AGUIAR
No. C-34262
CIVIL
STATE OF CALIFORNIA

HAGEMAN - AGUIAR, INC.

LOCATION OF BORING

SEE SITE MAP

SCALE: 1" =

PROJECT NAME & LOCATION: 14901 EAST 14th, SAN LEANDRO

DRILLING METHOD: 6" HOLLOW STEM AUGERS

BORING: B-2

SHT: 1 of 1

SAMPLING METHOD: 2" SPLIT BARREL SAMPLER WITH BRASS LINERS

				DRILLING START	DRILLING FINISH
WATER LEVEL	13.2			TIME 0900	TIME 0930
TIME	1030				
DATE	10/15/93			DATE 10/15/93	DATE 10/15/93
CASING DEPTH		SCREEN			

SAMPLER	inches DRIVEN	inches RECOVER	BLOW COUNT per 6 inches	TIME	DEPTH in feet	USCS	SURFACE CONDITIONS:
					0		ASPHALT
					1		GREY SAND & GRAVEL (BASEROCK), DRY, LOOSE, ANG + SUB-ANGULAR TO 1",
					2		BLACK CLAY (CL), SLIGHTLY MOIST, MODERATE PLASTICITY.
					3		(NO ODOR)
					4		
2" SPLIT	18	18	6/7/10	0900	5		BRN SILTY CLAY (CL), SLIGHTLY MOIST, SLIGHTLY CRUMBLY, MOD. % VERY FINE SAND.
					6		(NO ODOR)
					7		
					8		
					9		
2" SPLIT	18	14	5/5/7	0915	10		GREY-BRN CLAY (CL), SLIGHTLY MOIST, MODERATELY SILTY, LOW TO MOD. PLASTICITY, OCCASIONAL BLACK STREAKS THROUGHOUT.
					1		(NO ODOR) PID = 123 PPM
					2		
					3	▼	
					4		
2" SPLIT	18	18	5/6/7	0925	5		SAME, SATURATED, MODERATE PLASTICITY, SLIGHTLY SILTY, VARIEGATED LT GREY + BRN.
					6		(SLIGHT PETROLEUM ODOR)
					7		PID = 140 PPM
					8		TOTAL DEPTH = 15½' BLS
					9		
					20		

REGISTERED PROFESSIONAL ENGINEER
GARY H. AGUIAR
No. C-34262
CIVIL
STATE OF CALIFORNIA

HAGEMAN - AGUIAR, INC.

LOCATION OF BORING

SEE SITE MAP

SCALE: 1" =

PROJECT NAME & LOCATION: 14901 EAST 14th STREET, SAN LEANDRO

DRILLING METHOD: 6" HOLLOW STEM AUGER

BORING: B-3

SHT: 1 of 1

SAMPLING METHOD: 2" SPLIT BARREL SAMPLER WITH BRASS LINERS

				DRILLING START	DRILLING FINISH
WATER LEVEL	13.1'				
TIME	1100			TIME 0930	TIME 1005
DATE	10/15/93			DATE 10/15/93	DATE 10/15/93
CASING DEPTH		SCREEN			

SAMPLER	inches DRIVEN	inches RECOVER	BLOW COUNT per 6 inches	TIME	DEPTH in feet	USCS	SURFACE CONDITIONS:
					0		ASPHALT
					1		GREY SAND & GRAVEL (BASEROCK)
					2		BLACK CLAY (CL), NEARLY DRY, MODERATE PLASTICITY, SLIGHTLY SILTY, OCCASIONAL FINE SAND.
					3		(NO ODOR)
					4		BRN CLAYEY SAND (SC), SLIGHTLY MOIST, SLIGHT TO MOD. CLAYEY, SAND FINE TO MEDIUM GRAIN.
2" SPLIT	18	11	3/7/10	0950	5		(NO ODOR)
					6		
					7		
					8		GREY-BRN CLAY (CL), SLIGHTLY MOIST, SLIGHTLY CRUMBLY, MOD. SILTY, LOW TO MOD. PLASTICITY, OCCASIONAL THIN BLACK STREAKS THROUGHOUT.
					9		
2" SPLIT	18	12	3/5/7	1000	10		(NO ODOR)
					1		
					2		
					3	▼	
					4		SAME, SATURATED, MOD. STIFF, MODERATE PLASTICITY, VARIEGATED LT GREY & BRN COLOR.
2" SPLIT	18	18	5/7/11	1005	5		(SLIGHT PETROLEUM ODOR)
					6		PID = 150 PPM
					7		TOTAL DEPTH = 15½' BLS
					8		
					9		
					20		

REGISTERED PROFESSIONAL ENGINEER
GARY H. AGUIAR
No. C-34262
CIVIL
STATE OF CALIFORNIA

HAGEMAN - AGUIAR, INC.

LOCATION OF BORING

SEE SITE MAP

SCALE: 1" =

PROJECT NAME & LOCATION: 14901 EAST 14th STREET, SAN LEANDRO

DRILLING METHOD: 6" HOLLOW STEM AUGER

BORING: B-4

SHT: 1 of 1

SAMPLING METHOD: 2" SPLIT BARREL SAMPLER WITH BRASS LINERS

				DRILLING START	DRILLING FINISH
WATER LEVEL	13'				
TIME	1045			TIME 1020	TIME 1045
DATE	10/15/93			DATE 10/15/93	DATE 10/15/93
CASING DEPTH		SCREEN			

SAMPLER	inches DRIVEN	inches RECOVER	BLOW COUNT per 6 inches	TIME	DEPTH in feet	USCS	SURFACE CONDITIONS:
					0		ASPHALT
					1		BRN SAND & GRAVEL (BASEROCK), ANGULAR, GRADED 1/8" TO 1 1/2"
					2		
					3		BLACK CLAY (CL), SLIGHTLY MOIST, MODERATE PLASTICITY. (NO ODOR)
					4		
2" SPLIT	18	10	5/8/8	1030	5		BRN CLAYEY SAND (SC), NEARLY DRY, SLIGHTLY STIFF, MOD. CLAYEY, SAND FINE GRAIN. (NO ODOR)
					6		
					7		
					8		
					9		GREY BRN CLAY (CL), SLIGHTLY MOIST, SOFT, VARIEGATED LT GREY & BRN COLOR, OCCASIONAL THIN BLACK/RED-BRN STREAKS THROUGHOUT. (NO ODOR) PID = 60 ppm
2" SPLIT	18	14	4/4/5	1040	10		
					1		
					2		
					3	▼	
					4		SAME, SATURATED, SLIGHTLY STIFF, LOW TO MOD. PLASTICITY, VARIEGATED LT GREY & BRN COLOR. (SL. PETROLEUM ODOR)
2" SPLIT	18	15	5/7/10	1045	5		
					6		TOTAL DEPTH = 15 1/2' BLS
					7		
					8		
					9		
					20		

REGISTERED PROFESSIONAL ENGINEER
GARY H. AGUIAR
No. C-34262
CIVIL
STATE OF CALIFORNIA

HAGEMAN - AGUIAR, INC.

ATTACHMENT C

Analytical Results: Soil

PRIORITY ENVIRONMENTAL LABS

Precision Environmental Analytical Laboratory

December 09, 1996 PEL # 9612016

HAGEMAN - AGUIAR, INC. Attn: Gary Aguiar

Re: Eighteen soil samples for Gasoline/BTEX with MTBE analysis.

Project name: Quality Tune-Up - San Leandro
Project location: 14901 E. 14th St., - San Leandro

Date sampled: Dec 05, 1996 Date submitted: Dec 05, 1996
Date extracted: Dec 05-09, 1996 Date analyzed: Dec 05-09, 1996

RESULTS:

SAMPLE I.D.	Gasoline (mg/Kg)	MTBE (ug/Kg)	Benzene (ug/Kg)	Toluene (ug/Kg)	Ethyl Benzene (ug/Kg)	Total Xylene (ug/Kg)
GP-1 @ 5'	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
GP-1 @ 10'	4.3	N.D.	6.6	N.D.	6.5	10
GP-1 @ 15'	4.4	N.D.	41	5.2	N.D.	28
GP-2 @ 5'	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
GP-2 @ 10'	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
GP-2 @ 15'	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
GP-3 @ 5'	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
GP-3 @ 10'	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
GP-3 @ 15'	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
GP-4 @ 5'	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
GP-4 @ 10'	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
GP-4 @ 15'	5.9	N.D.	7.9	5.0	12	20
GP-5 @ 5'	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
GP-5 @ 10'	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
GP-5 @ 15'	7.1	N.D.	9.7	5.1	6.9	10
GP-6 @ 5'	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
GP-6 @ 10'	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
GP-6 @ 15'	29	N.D.	24	8.0	12	31
Blank	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Spiked recovery	106.8%	---	97.7%	104.7%	88.9%	100.4%
Detection limit	1.0	5.0	5.0	5.0	5.0	5.0
Method of Analysis	5030 / 8015	8020	8020	8020	8020	8020

David Duong
Laboratory Director

1764 Houret Court Milpitas, CA. 95035 Tel: 408-946-9636 Fax: 408-946-9663

PEL # 9612016 1/2

INV # 27456

CHAIN OF CUSTODY RECORD

Page 1 of 2

PROJECT NAME AND ADDRESS:

Quality Tune-up - S.L.
14901 E. 14th St.
San Leandro

SAMPLER: (Signature)

HAGEMAN - AGUIAR, INC.
3732 Mt. Diablo Blvd., Suite 372
Lafayette, CA 94549
(415)284-1661 (415)284-1664 (FAX)

CROSS REFERENCE NUMBER	DATE	TIME	SOIL	WATER	STATION LOCATION	ANALYSIS REQUESTED: TPH-Gas, BTEX, MTBE	REMARKS
GP-1@5'	12/5/96	10:03	X			X	
GP-1@10'	12/5/96	10:10	X			X	
GP-1@15'	12/5/96	10:15	X			X	
GP-2@5'	12/5/96	10:38	X			X	
GP-2@10'	12/5/96	10:42	X			X	
GP-2@15'	12/5/96	10:50	X			X	
GP-3@5'	12/5/96	11:23	X			X	
GP-3@10'	12/5/96	11:30	X			X	
GP-3@15'	12/5/96	11:36	X			X	
GP-4@5'	12/5/96	11:52	X			X	
GP-4@10'	12/5/96	12:00	X			X	
GP-4@15'	12/5/96	12:07	X			X	

RELINQUISHED BY: (Signature)	DATE 12/5/96 TIME 14:27	RECEIVED BY: (Signature) Randal Wilson	DATE 12/5/96 TIME 14:27
RELINQUISHED BY: (Signature) Randal Wilson	DATE 12/5/96 TIME 15:58	RECEIVED BY: (Signature)	DATE TIME
RELINQUISHED BY: (Signature)	DATE TIME	RECEIVED BY: (Signature)	DATE TIME
RELINQUISHED BY: (Signature)	DATE TIME	RECEIVED FOR LABORATORY BY: (Signature)	DATE 12/05/96 TIME 15:58

PE 11/6/2016 2/2.

CHAIN OF CUSTODY RECORD

PROJECT NAME AND ADDRESS:

Quality Tune-up - S.L.
14901 E. 14th St
San Leandro

SAMPLER: (Signature)

HAGEMAN - AGUIAR, INC.
3732 Mt. Diablo Blvd., Suite 372
Lafayette, CA 94549
(415)284-1661 (415)284-1664 (FAX)

ANALYSIS REQUESTED: TPH-Gas, BTEX, MTBE

CROSS REFERENCE NUMBER	DATE	TIME	SOIL	WATER	STATION LOCATION		REMARKS
GP-5@5'	12/5/96	12:20	X			X	
GP-5@10'	12/5/96	12:25	X			X	
GP-5@15'	12/5/96	12:30	X			X	
GP-6@5'	12/5/96	12:35	X			X	
GP-6@10'	12/5/96	12:40	X			X	
GP-6@15'	12/5/96	12:45	X			X	

RELINQUISHED BY: (Signature)	DATE 12/5/96 TIME 14:27	RECEIVED BY: (Signature) Randall Wilson	DATE 12/5/96 TIME 14:27
RELINQUISHED BY: (Signature) Randall Wilson	DATE 12/5/96 TIME 15:50	RECEIVED BY: (Signature)	DATE TIME
RELINQUISHED BY: (Signature)	DATE TIME	RECEIVED BY: (Signature)	DATE TIME
RELINQUISHED BY: (Signature)	DATE TIME	RECEIVED FOR LABORATORY BY: (Signature)	DATE 12/5/96 TIME 15:57

ATTACHMENT D

Analytical Results: Groundwater

PRIORITY ENVIRONMENTAL LABS

Precision Environmental Analytical Laboratory

December 09, 1996

PEL # 9612015

HAGEMAN - AGUIAR, INC.

Attn: Randal Wilson

Re: Three water samples for Gasoline/BTEX with MTBE analysis.

Project name: Quality Tune-Up - San Leandro
Project location: 14901 E. 14th St., - San Leandro

Date sampled: Dec 05, 1996
Date extracted: Dec 05-07, 1996

Date submitted: Dec 05, 1996
Date analyzed: Dec 05-07, 1996

RESULTS:

ESL(TLLA) 100 — 100 — 40 — 30 — 13

SAMPLE I.D.	Gasoline (ug/L)	MTBE (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl Benzene (ug/L)	Total Xylene (ug/L)
GP-1W	4400	N.D.	0.7	N.D.	1.4	2.0
GP-4W	22000	N.D.	4.0	5.7	10	23
GP-6W	210000	N.D.	200	180	180	420
Blank	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Spiked Recovery	106.8%	---	97.7%	104.7%	88.9%	100.4%
Detection limit	50	0.5	0.5	0.5	0.5	0.5
Method of Analysis	5030 / 8015	602	602	602	602	602

David Duong
Laboratory Director

1764 Houret Court Milpitas, CA. 95035 Tel: 408-946-9636 Fax: 408-946-9663

PEL # 9612015
INV # 27455

CHAIN OF CUSTODY RECORD

PROJECT NAME AND ADDRESS:

Quality Tune-up - S.L.
14901 E. 14th ST.
San Leandro

SAMPLER: (Signature)

HAGEMAN - AGUIAR, INC.
3732 Mt. Diablo Blvd., Suite 372
Lafayette, CA 94549
(415)284-1661 (415)284-1664 (FAX)

CROSS REFERENCE NUMBER	DATE	TIME	SOIL	WATER	STATION LOCATION	ANALYSIS REQUESTED: TPH-Gas, BTEX, MTBE	REMARKS
GP-1W	12/5/96	10:45		X		X	
GP-4W	12/5/96	12:23		X		X	
GP-6W	12/5/96	12:52		X		X	

RELINQUISHED BY: (Signature)	DATE 12/5/96 TIME 14:27	RECEIVED BY: (Signature) Randal Wilson	DATE 12/5/96 TIME 14:27
RELINQUISHED BY: (Signature) Randal Wilson	DATE 12/5/96 TIME 15:58	RECEIVED BY: (Signature)	DATE TIME
RELINQUISHED BY: (Signature)	DATE TIME	RECEIVED BY: (Signature)	DATE TIME
RELINQUISHED BY: (Signature)	DATE TIME	RECEIVED FOR LABORATORY BY: (Signature)	DATE 12/05/96 TIME 15:58