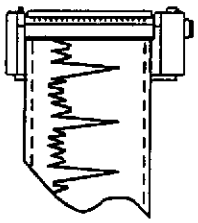
THIRD QUARTER 1998

INSTALLATION OF SIX GROUNDWATER MONITORING WELLS AND QUARTERLY MONITORING REPORT

GERMAN AUTOCRAFT
301 E. 14TH STREET, SAN LEANDRO, CALIFORNIA

Prepared by:



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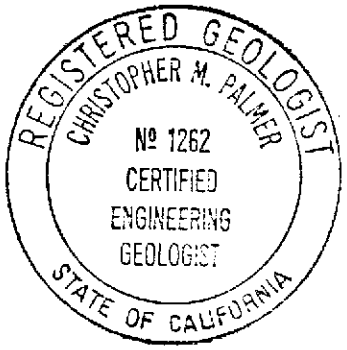

Report issued November 16, 1998

I. INTRODUCTION

Environmental Testing & Management (ETM) has continued the quarterly groundwater monitoring program and related environmental activities during the calendar third quarter of 1998 at German Autocraft (GA) located at 301 East 14th Street in the City of San Leandro, Alameda County, California (**Figure 1**). This report is submitted to the Alameda County Department of Environmental Health (ACDEH) on behalf of Mr. Seung Lee, owner of German Autocraft.

Six additional groundwater monitoring wells were installed for the site this quarter. **The existing well network also includes one well installed by the City of San Leandro along West Broadmoor. Also included in the well network as a potential receptor is private former agricultural well located at the 141 Farrelly residence.** This brings the total number of wells in the GA well network to twelve (12).

The purpose of this quarterly monitoring program is to evaluate groundwater quality in the area of five former underground fuel storage tanks (USTs) that were removed in 1990. Data accumulated by the program will be used to assess seasonal groundwater level fluctuations, changing groundwater quality conditions, and provide data which will support the development of corrective action plans at the site.

The quarterly monitoring program presents a description of the groundwater monitoring activities, a compilation of groundwater quality and elevation data, maintenance of the **passive skimmer system** in the former tank pit area, and a brief description of the progress of the development of corrective actions at the site.

II. BACKGROUND

German Autocraft is located at 301 E. 14th Street in San Leandro (see Location Map, **Figure 1**). The approximate locations of buildings, property boundaries, and adjacent streets are presented on the Site Map, **Figure 2.** For detailed descriptions of prior environmental activities at the subject site, please refer to the references section of this report for a listing of reports which have been submitted to the ACDEH.

III. WORK PERFORMED DURING THIRD QUARTER, 1998

Work included supervision and installation of groundwater monitoring wells, well development, water level gauging and sampling, data analysis, and report preparation. Activity highlights during this period are as follows:

- **August 27, 1998** - Bayland Drilling, Inc. installed monitoring wells MW-10, and MW-11 and drilled the boring for construction of MW-5.
- **August 28, 1998** - Bayland Drilling, Inc. installed monitoring wells MW-5, MW-6 and MW-8.
- **August 31, 1998** - Bayland Drilling, Inc. installed monitoring well MW-9. An additional monitoring well (what would have been MW-7) was attempted on Garcia Avenue however, a steel pipe was encountered and the boring terminated.
- **September 2 - 4, 1998** - ETM developed the newly installed wells by surging and purging approximately 55 gallons from each of the newly installed wells.
- **September 30, 1998** - ETM measured groundwater elevations and collected groundwater samples from monitoring wells MW-1, MW-2, and MW-3. The samples from MW-1, MW-2, and MW-3 were submitted to a Department of Health Services (DHS)-certified laboratory for analysis of Total Petroleum Hydrocarbons as Gasoline (TPHg) and benzene, toluene, ethyl-benzene, and xylenes (BTEX).

- what about new wells??
- " " W. Broadmoor and irrigation wells?

IV. SOIL INVESTIGATION

The objective of our subsurface soil investigation on August 27 - 31, 1998 was to collect the data necessary to further define the extent of soil and groundwater contamination in the vicinity of the previous USTs and capillary zone of the site. Specifically, the objectives of this investigation were as follows:

A. PRELIMINARY ACTIVITIES

Prior to beginning drilling, ETM obtained the necessary drilling permits from the Alameda County Public Works Agency (**Appendix A**) and encroachment permits from the City of San Leandro (**Appendix B**). The Health and Safety plan was reviewed by all workers at a "tailgate meeting" prior to commencement of field work. Prior to beginning drilling, ETM coordinated underground utility location with Underground Service Alert and Norcal Underground Locating.

B. SOIL INVESTIGATION PROCEDURES/FINDINGS

On August 27 - August 31, 1998, soil samples were collected from 6 borings (MW-5, MW-6, MW-8, MW-9, MW-10 and MW-11) drilled off the site on public and private properties and at the site for lithologic identification, and chemical analysis. The locations of the soil borings/well locations are shown on **Figure 2**.

A CME 75 truck-mounted drill rig, equipped with 7.25-inch OD and 3.25-inch ID hollow-stem augers was used to drill soil borings. Downhole equipment was decontaminated by steam cleaning in advance. The soil borings were sampled at 5 foot intervals (5 feet, 10 feet, etc.) for lithologic description and chemical analysis. Boring total depths ranged from to 31.5 to 41.5 feet below the ground surface (bgs) and were completed as monitoring wells.

Soil samples were collected for lithologic description and chemical analysis. Soil was sampled using 1.5-foot long split-spoon samplers. The split spoons were fitted with 1.5-inch OD, 6-inch long brass sleeves for sample collection. Soil cuttings were placed in drums.

Soil samples were collected for lithologic description under the direct supervision of a California licensed Registered Geologist. Boring logs are included in this report in **Appendix C**. All soil samples were field screened for organic vapors using a portable HNU photo-ionization detector (PID) analyzer calibrated for organic compounds. **Based on the results of the field inspection, selected samples were submitted for laboratory analysis.** All samples collected for chemical analysis were covered at each end with Teflon sheets, capped, taped, labeled, sealed in air-tight plastic bags, and placed on ice for delivery to the laboratory. Chain-of-custody information was recorded for each sample and shipped with the sample container. ETM delivered the samples to the Entech Analytical Labs, Inc. in Sunnyvale, California for chemical tests. The soil samples were analyzed for TPHg and BTEX by EPA Method SW 846-5030/8020.

The exploratory boring logs indicate that the underlying soil at the site generally consist of silty and sandy clays, and clayey sands to sand ranging from approximately 25 to 35 feet below ground surface. **Groundwater occurs in a sandy strata first encountered at approximately 25 feet below ground surface.** A silty clay aquitard underlies the aquifer. **The aquifer appeared to be weakly confined.**

Boring MW-5

Boring MW-5 as shown on **Figure** 2 was located on the GA site southeast of the former UST area. A soil sample collected at approximately 25 feet registered a PID concentration of 1 ppm as isobutylene. The soil sample collected at 21' feet did not contain target contaminants concentrations above laboratory detection limits for TPHg or BTEX.

Boring MW-6

Boring MW-6 was located north of the former USTs on Garcia Avenue (**Figure 3**). A soil sample collected at approximately 30 feet registered a **PID concentration of 110 ppm as isobutylene.** - analyzed @ lab?

Boring MW-8

Boring MW-8 was located southwest of the former UST on the sidewalk along Garcia Avenue (**Figure 3**). A soil sample collected at approximately 20 feet registered a PID reading of 1 ppm as isobutylene. A soil sample collected at approximately 20 feet did not contain target contaminants concentrations above laboratory detection limits for TPHg or BTEX. A soil sample collected at approximately 30 feet registered a PID reading of 40 ppm as isobutylene. A soil sample collected at approximately **30 feet** contained 1.3 mg/Kg TPHg, **0.0052 mg/Kg benzene**, <0.005 toluene, <0.005 mg/Kg ethyl-benzene, and 0.0056 mg/Kg xylenes.

Boring MW-9

Boring MW-9 was located approximately 150 feet northwest of the former USTs (**Figure 3**). A soil sample collected at approximately 21' did not contain target contaminants concentrations above laboratory detection limits for TPHg or BTEX. A soil sample collected at approximately 31 feet registered a PID reading of 100 ppm as isobutylene. A soil sample collected at approximately **36'** contained <1 mg/Kg TPHg, **0.0019 mg/Kg benzene**, <0.005 toluene, <0.005 mg/Kg ethyl-benzene, and 0.005 mg/Kg xylenes.

Boring MW-10

Boring MW-10 was located approximately 300' northwest of the former USTs (**Figure 3**). A soil sample collected at the 21' depth did not contain target contaminants concentrations above laboratory detection limits for TPHg or BTEX. A soil sample collected at approximately **31'** contained <1 mg/Kg TPHg, **0.0054 mg/Kg benzene**, <0.005 toluene, <0.005 mg/Kg ethyl-benzene, and 0.005 mg/Kg xylenes.

Boring MW-11

Boring MW-11 was located on the sidewalk along W. Broadmoor, approximately 290 feet northwest of the former USTs. A sample collected at the 21' depth did not contain target contaminants concentrations above laboratory detection limits for TPHg or BTEX.

Copies of the certified laboratory reports including chemical test results from Entech Analytical Labs are included in **Appendix D** and summarized in **Table 1** (Soil Sample Gasoline Chemical Test Results).

V. GROUNDWATER ELEVATION AND GRADIENT

no off-site wells measured!!

Static groundwater level elevation data collected from **on-site groundwater wells** on September 30, 1998, indicated that the elevation of the shallow groundwater surface beneath the site ranged from 25.68 to 25.95 feet above mean sea level. The estimated groundwater flow direction was to the southwest (approximate gradient = 0.003 ft/ft). The newly installed wells have not been surveyed and so the potentiometric data is not plotted. Groundwater contour data of the entire well array will be included in the next quarterly report.

Table 2 presents the recent groundwater elevation data and **Figure 4** shows estimated groundwater flow direction as interpreted from the groundwater potentiometric elevation data.

The potentiometric groundwater elevation at the site was observed to drop approximately five (5) feet compared to the gauging event of the previous quarter and is attributed to natural aquifer discharge.

The observed hydraulic gradient at the subject site is relatively flat. The gradient may change due to groundwater recharge or extraction, seasonal changes and natural aquifer outflow.

VI. GROUNDWATER SAMPLING AND ANALYTICAL RESULTS

- Samples not collected from used wells or W. Broadway irrigation wells

On September 30, 1998, groundwater samples were collected from MW-1, MW-2, and MW-3 following the groundwater sampling procedures presented in **Appendix E.** The groundwater samples were analyzed for TPHg and BTEX, using EPA Methods 5030, modified 8015, and 8020 by Entech Analytical Labs, Inc. of Sunnyvale, California. The laboratory report and chain-of-custody documents are included in **Appendix D.** The field sampling data sheets are presented in **Appendix F.** The quality assurance/quality control description is included in **Appendix G.**

Compared to the previous quarter, the results of the recent groundwater testing showed a general variation in TPHg and BTEX concentrations as some analyte concentrations increased while others decreased. Most of the BTEX chemical constituents continue to exceed their respective California Drinking Water Maximum Contaminant Levels (MCLs) or Federal Action Levels (AL) (**Table 4**).

The sample from MW-1, located upgradient of the former gasoline tank area, contained: TPHg at 140,000 micrograms per liter (µg/L); benzene at 5,800 µg/L which exceeds its MCL of 1 µg/L; toluene at 29,000 µg/L which exceeds its MCL of 150 µg/L; ethyl benzene at 3,500 µg/L which exceeds its MCL of 700 µg/L, and; total xylenes at 18,000 µg/L which exceeds its MCL of 1,750 µg/L,

The sample from MW-2, located down gradient of the former gasoline tank area, contained 24,000 µg/L of TPHg, 600 µg/L of benzene, 77 µg/L of toluene, 680 µg/L of ethyl benzene, and 580 µg/L of total xylenes.

Monitoring well MW-3, also located down gradient of the former gasoline tank area, contained 42,000 µg/L of TPHg, 4,300 µg/L of benzene, 1,400 µg/L of toluene, 1,800 µg/L of ethyl benzene, and 6,600 µg/L of total xylenes.

Historic groundwater chemical test data is presented in **Table 5**.

VII. DISCUSSIONS AND CONCLUSIONS

Observations made during installation of groundwater monitoring wells for the GA fuel release this quarter are consistent with historical observations for the site. Groundwater samples will be collected from all wells in the GA network during the next quarter. Samples will be tested for MtBE at that time.

Available data, including data from the third quarter 1998 monitoring events, indicate that groundwater flow patterns beneath the site are consistent with previous monitoring events. Groundwater flowed toward the southwest at the site for the single gauging event of the third calendar quarter of 1998. The recent groundwater sampling event showed a general variation in concentrations of TPHg and BTEX from those concentrations measured in the previous quarter. Various chemical constituents continue to exceed their respective California Drinking Water Maximum Contaminant Levels (MCLs) or Federal Action Levels (AL) at MW-1, MW-2 and MW-3.

VIII. RECOMMENDATIONS

We recommend that the monitoring wells continue to be monitored and gauged on a quarterly basis to comply with the ACDEH requirements and to assess trends in constituent concentrations over time. The data will be used to support development of a corrective action plan at the site.

IX. LIMITATIONS

The data, information, interpretations and recommendations contained in this report are presented to meet current suggested regulatory requirements for determining groundwater quality on the site. Environmental Testing & Mgmt. is not responsible for laboratory errors or completeness of other consultants reports, and no warranty is made or implied therein.

The conclusions and professional opinions presented herein were developed by ETM in accordance with current regulatory guidance and the opinions expressed are subject to revisions in light of new information which may develop in the future.

X. REFERENCES

California Code of Regulations, Title 22, 66260.21, "Environmental Health Standards", 6/23/95.

Code of Federal Regulations, 40 CFR 260, "Hazardous Waste Management System: General, 7/1/94.

Chemist Enterprises, *Soil and Water Investigation at German Autocraft, 301 East 14th Street, San Leandro, California*, April 12, 1995

The Environmental Construction Company, *Preliminary Soil and Groundwater Contamination Assessment, German Autocraft, 301 East 14th Street, San Leandro, California,* February 1991.

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Environmental Testing and Management, *Third Quarter 1998 Installation of Six Grounder Monitoring Wells and Quarterly Monitoring Report, German Autocraft, 301 East 14th Street, San Leandro, California*, November 16, 1998.

Environmental Testing and Management, *Second Quarter 1998 Quarterly Groundwater Monitoring Report, German Autocraft, 301 East 14th Street, San Leandro, California*, July 10, 1998.

Environmental Testing and Management, *First Quarter 1998 Quarterly Groundwater Monitoring Report, German Autocraft, 301 East 14th Street, San Leandro, California*, May 21, 1998.

Environmental Testing and Management, *Fourth Quarter 1997 Quarterly Groundwater Monitoring Report, German Autocraft, 301 East 14th Street, San Leandro, California*, December 18, 1997.

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Environmental Testing and Management, *Second Quarter 1997 Quarterly Groundwater Monitoring Report, German Autocraft, 301 East 14th Street, San Leandro, California*, June 11, 1997.

Environmental Testing and Management, *First Quarter 1997 Quarterly Groundwater Monitoring Report, German Autocraft, 301 East 14th Street, San Leandro, California*, March 24, 1997.

Environmental Testing and Management, *Fourth Quarter 1996 Quarterly Groundwater Monitoring Report, German Autocraft, 301 East 14th Street, San Leandro, California*, January 21, 1997.

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Environmental Testing and Management, *Second Quarter 1996 Environmental Activities Report, German Autocraft, 301 East 14th Street, San Leandro, California*, August 8, 1996.

Environmental Testing and Management, *Continued Soil and Water and Offsite Investigation at German Autocraft, 301 East 14th Street, San Leandro, California*, July 12, 1996.

Environmental Testing and Management, *First Quarter 1996 Environmental Activities Report, German Autocraft, 301 East 14th Street, San Leandro, California*, May 20, 1996.

Environmental Testing and Management, *Third Quarter 1995 Environmental Activities Report, German Autocraft, 301 East 14th Street, San Leandro, California*, October, 1995.

Environmental Testing and Management, *Fourth Quarter 1995 Environmental Activities Report, German Autocraft, 301 East 14th Street, San Leandro, California*, February, 1995.

Woodward-Clyde Consultants, *Hydrogeology of Central San Leandro and Remedial Investigation of Regional Groundwater Contamination, San Leandro Plume, San Leandro, California, Volume I*, December 23, 1993.

TABLE 1. SOIL SAMPLE GASOLINE CHEMICAL TEST RESULTS

Locations: MW-5, MW-6, MW-8, MW-9, MW-10, MW-11

Date Sampled: August 28 - 31, 1998 Units: mg/Kg Soil

LOCATION	SAMPLE DEPTH	TPHg	BENZENE	TOLUENE	ETHYL-BENZENE	XYLENES
MW-5	21'	<1	<0.005	<0.005	<0.005	<0.005
MW-8	21'	<1	<0.005	<0.005	<0.005	<0.005
	31'	1.3	0.0052	<0.005	<0.005	0.0056
MW-9	21'	<1	<0.005	<0.005	<0.005	<0.005
	36'	<1	<0.019	<0.005	<0.005	<0.005
MW-10	21.5'	<1	<0.005	<0.005	<0.005	<0.005
	31'	<1	0.0054	<0.005	<0.005	<0.005
MW-11	21'	<1	<0.005	<0.005	<0.005	<0.005

where is MW-6 soil data?

TABLE 2. THIRD QUARTER 1998 GROUNDWATER POTENTIOMETRIC SURFACE ELEVATION DATA

		September 30, 1998	
WELL	CASING ELEVATION[1]	Depth to Groundwater	Groundwater Elevation
MW-1	49.61	23.66	25.95
MW-2	50.14	24.46	25.68
MW-3	49.44	23.69	25.75

[1]Elevations in feet above mean sea level.

TABLE 3. HISTORIC GROUNDWATER POTENTIOMETRIC SURFACE ELEVATION DATA

	Groundwater Surface Elevation[2]		
DATE	MW-1	MW-2	MW-3
12/31/90	19.15[3]	-	-
2/10/95	29.59	29.62	29.57
7/7/95	26.63	26.47	26.50
8/10/95	25.58	25.40	25.44
9/11/95	24.68	24.49	24.54
10/2/95	24.12	23.94	24.00
11/7/95	23.36	23.13	23.21
12/8/95	22.77	22.55	22.62
1/12/96	24.35	24.20	24.25
2/12/96	29.04	29.03	29.00
3/12/96	31.75	31.60	31.67
4/13/96	29.43	29.25	29.26
5/14/96	27.89	27.68	27.71
6/20/96	27.19	26.97	27.00
7/26/96	25.95	25.74	25.76
8/19/96	25.16	24.97	25.01
9/17/96	24.44	24.22	24.27
10/21/96	23.63	23.43	23.48

[2]Elevations in feet above mean sea level.

[3]This elevation was determined by using the depth of 30.46' measured by The Environmental Construction Company shortly after installation of MW-1 on December 31, 1990 and the surveyed top of casing elevation of 49.61 at MW-1 on January 6, 1995.

DATE	MW-1	MW-2	MW-3
11/27/96	24.28	24.09	24.13
12/27/96	28.23	28.03	28.11
1/28/97	33.02	32.71	32.78
4/25/97	27.14	26.88	26.94
7/17/97	24.55	24.31	24.37
10/21/97	22.85	22.69	22.73
3/10/98	34.35	34.20	34.13
6/6/98	30.69	30.41	30.47
9/30/98	25.95	25.68	25.75

TABLE 4. GROUNDWATER CHEMICAL TEST RESULTS

Locations: MW-1, MW-2, MW-3

Date Sampled: September 30, 1998 Units: µg/L

WELL	TPHg	BENZENE	TOLUENE	ETHYL-BENZENE	XYLENES
MW-1	140,000	5,800	29,000	3,500	18,000
MW-2	24,000	600	77	680	580
MW-3	42,000	4,300	1,400	1,800	6,600
MCL/AL[4]	-	1	150	700	1,750

[4]Maximum Contaminant Level or Action Level as established by the State of California, Division of Drinking Water and Environmental Management, Department of Health Services "Summary, Maximum Contaminant and Action Levels" November, 1994.

TABLE 5. HISTORIC GROUNDWATER CHEMICAL TEST RESULTS

Locations: MW-1, MW-2, MW-3

Units: µg/L

WELL	DATE	TPHg	BENZENE	TOLUENE	ETHYL-BENZENE	XYLENES	MtBE
MW-1	12/31/90	51,000	2,200	1,200	<0.5	760	N/A[5]
	1/6/95	110,000	13,000	15,000	4,800	13,000	N/A
	1/6/95	580,000	29,000	41,000	17,000	43,000	N/A
	7/6/95	49,000	8,000	17,000	1,900	9,700	N/A
	7/6/95	47,000	4,800	9,500	930	5,000	N/A
	10/2/95	120,000	16,000	36,000	3,300	17,000	N/A
	10/2/95	160,000	20,000	47,000	5,000	23,000	N/A
	1/12/96	1,100,000	11,000	18,000	15,000	51,000	*18,000*[6]
	1/12/96	98,000	2,100	4,600	2,500	10,000	<5,000
	4/13/96	53,000	1,300	2,900	2,100	10,000	<5,000
	4/13/96	58,000	820	3,600	2,800	12,000	<5,000
	7/26/96	91,000	2,900	7,200	2,900	14,000	<5,000
	7/26/96	67,000	2,300	5,500	2,500	11,000	<5,000
	10/21/96	210,000	4,800	17,000	2,300	15,000	N/A
	10/21/96	210,000	5,400	18,000	2,600	11,000	N/A
	1/28/97	120,000	5,600	15,000	2,100	11,000	N/A
	1/28/97	130,000	5,500	15,000	2,300	12,000	N/A

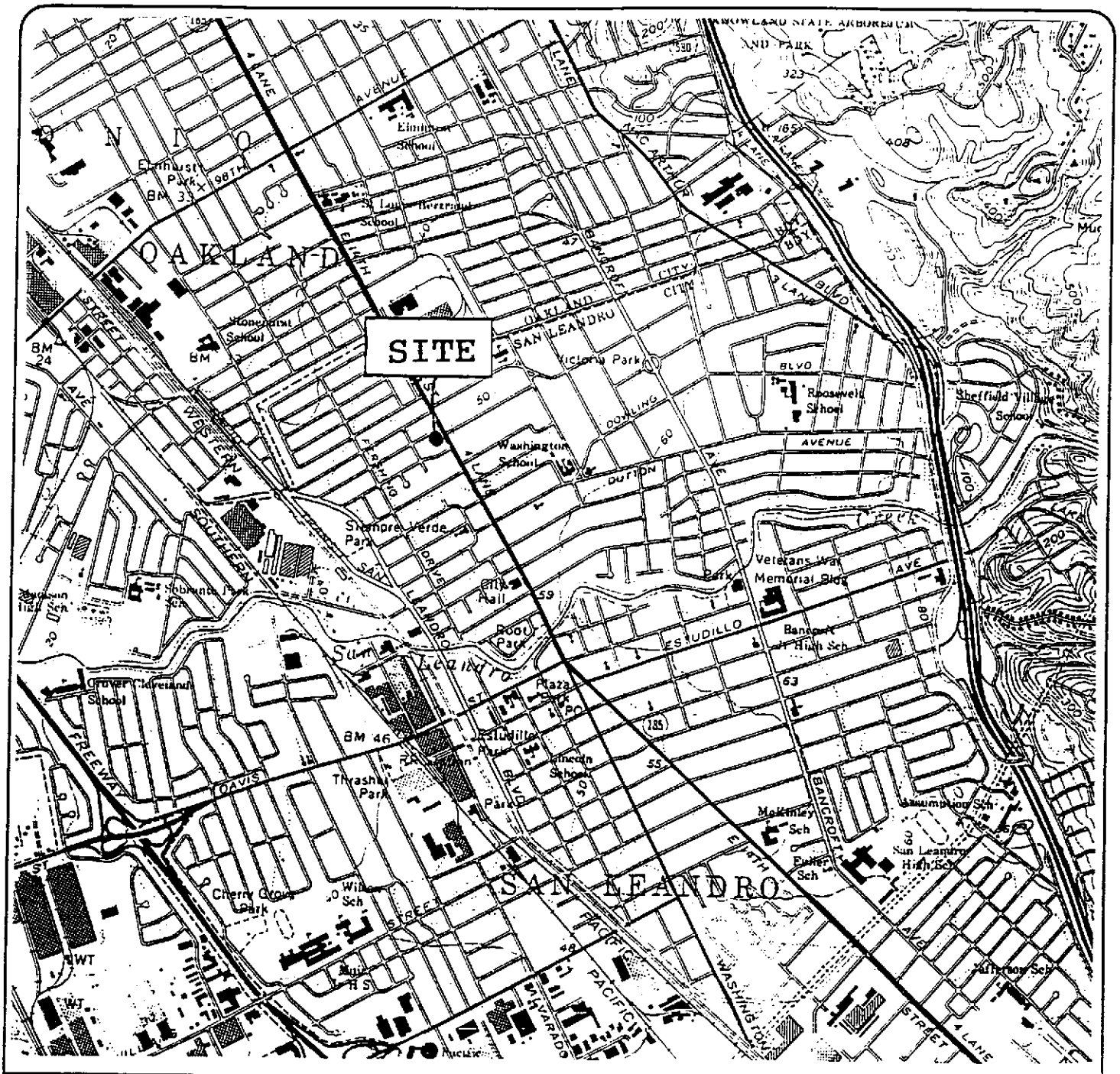
[5]N/A = Not Analyzed. The California Regional Water Quality Control Board initiated the requirement of quantitation of MtBE as an additional analyte for EPA Method 8020 as of January 12, 1996. The samples not analyzed for MtBE in this table pre-date the recent new requirement.

[6]This value may be inaccurate. Please refer to the second quarter 1996 report which includes an evaluation of MtBE which cast doubt on the validity of this laboratory test.

WELL	DATE	TPHg	BENZENE	TOLUENE	ETHYL-BENZENE	XYLENES	MtBE
MW-1	4/25/97	180,000	6,900	20,000	2,600	13,000	N/A
	4/25/97	170,000	6,500	20,000	2,500	13,000	N/A
	7/17/97	220,000	8,300	41,000	2,700	16,000	N/A
	10/21/97	240,000	9,400	33,000	3,300	22,000	<5
	3/10/98	120,000	11,000	46,000	3,700	21,000	<5
	6/6/98	110,000	7,600	32,000	4,800	23,000	<5
	9/30/98	140,000	5,800	29,000	3,500	18,000	N/A
MW-2	1/6/95	980,000	9,400	5,600	19,000	42,000	N/A
	7/6/95	71,000	5,300	1,800	6,100	9,000	N/A
	10/2/95	40,000	2,900	200	2,800	3,600	N/A
	1/12/96	260,000	2,600	2,200	6,300	7,800	<12,500
	4/13/96	30,000	1,900	370	2,300	2,400	*520*[7]
	7/26/96	180,000	1,400	640	2,100	5,000	<5,000
	10/21/96	62,000	2,100	<0.5	2,100	2,700	N/A
	1/28/97	46,000	1,500	94	1,800	2,000	N/A
	4/25/97	23,000	790	26	820	730	N/A
	7/17/97	95,000	2,200	<0.5	3,100	4,300	N/A
	10/21/97	31,000	2,000	<0.5	2,100	1,900	<5
	3/10/98	19,000	730	44	820	1,000	<5
	6/6/98	16,000	670	1,100	510	1,200	<5
	9/30/98	24,000	600	77	680	580	N/A
MW-3	1/6/95	740,000	11,000	2,300	8,300	28,000	N/A

[7]This value may be inaccurate. Please refer to the second quarter 1996 report which includes an evaluation of MtBE which cast doubt on the validity of this laboratory test.

WELL	DATE	TPHg	BENZENE	TOLUENE	ETHYL-BENZENE	XYLENES	MtBE
MW-3	7/6/95	86,000	12,000	8,600	4,900	19,000	N/A
	10/2/95	100,000	15,000	11,000	6,000	20,000	N/A
	1/12/96	84,000	6,500	4,100	3,200	12,000	<5,000
	4/13/96	48,000	7,600	3,600	2,800	9,400	<2,500
	7/26/96	62,000	6,400	3,100	3,000	11,000	<2,500
	10/21/96	110,000	5,400	2,400	2,500	9,800	N/A
	1/28/97	130,000	5,500	15,000	2,300	12,000	N/A
	4/25/97	180,000	6,900	20,000	2,600	13,000	N/A
	7/17/97	69,000	5,100	1,100	1,800	8,600	N/A
	10/21/97	58,000	4,300	1,300	2,100	8,000	<5
	3/10/98	25,000	3,000	1,300	1,100	3,700	<5
	6/6/98	52,000	4,400	1,900	2,300	6,900	<5
	9/30/98	42,000	4,300	1,400	1,800	6,600	N/A



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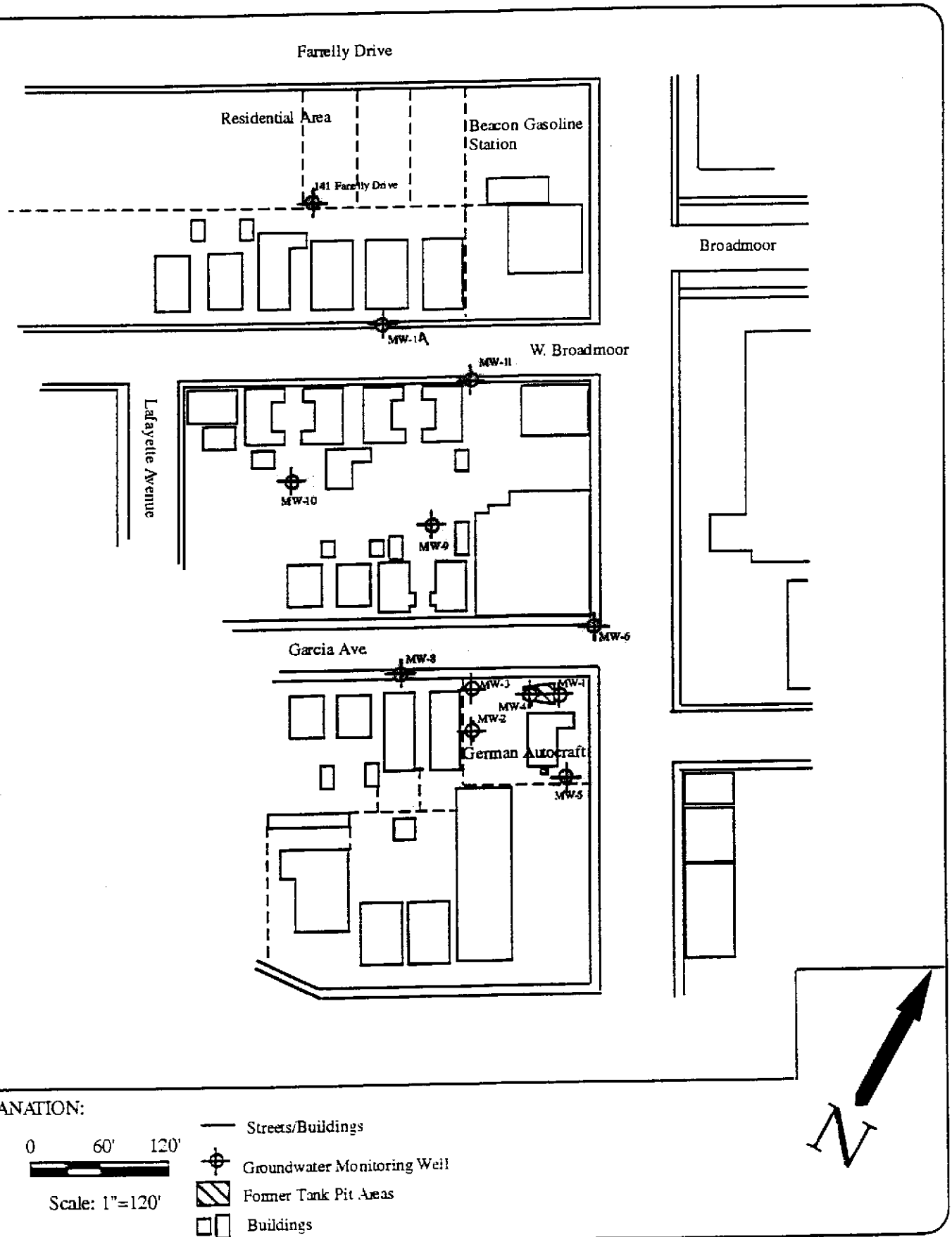
LOCATION MAP
German Autocraft
301 East 14th Street
San Leandro, California

Figure 1

Project No. 94-52
Date: 3/97



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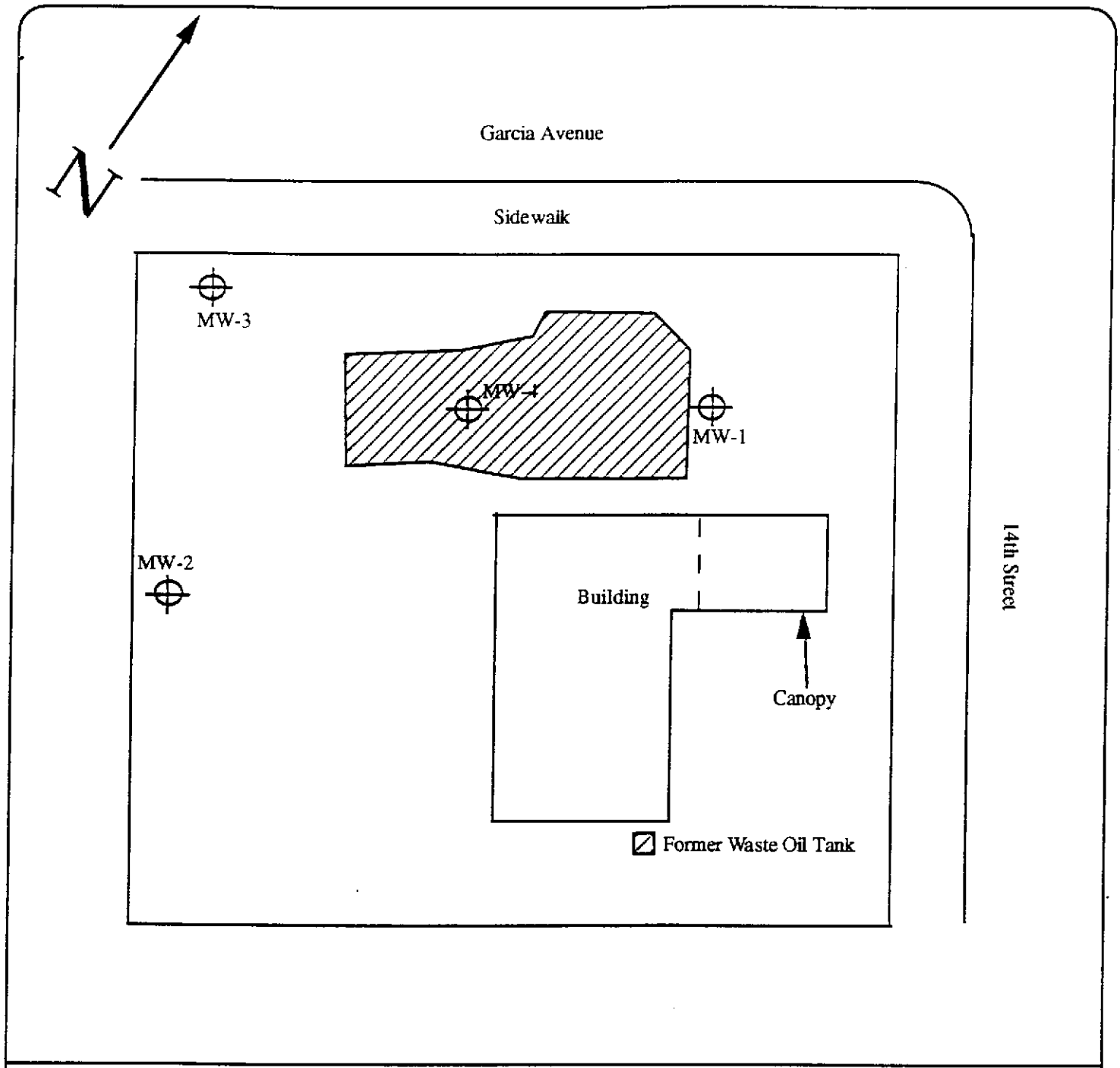
SAN JOSE, CA 95113

German Autocraft
301 East 14th Street
San Leandro, California

Figure 2

Date: 11/98



EXPLANATION:

Scale: 1"=20'

0 10 20

MW-1 Monitoring Well

Former Tank Pit/Removed Asphalt Areas

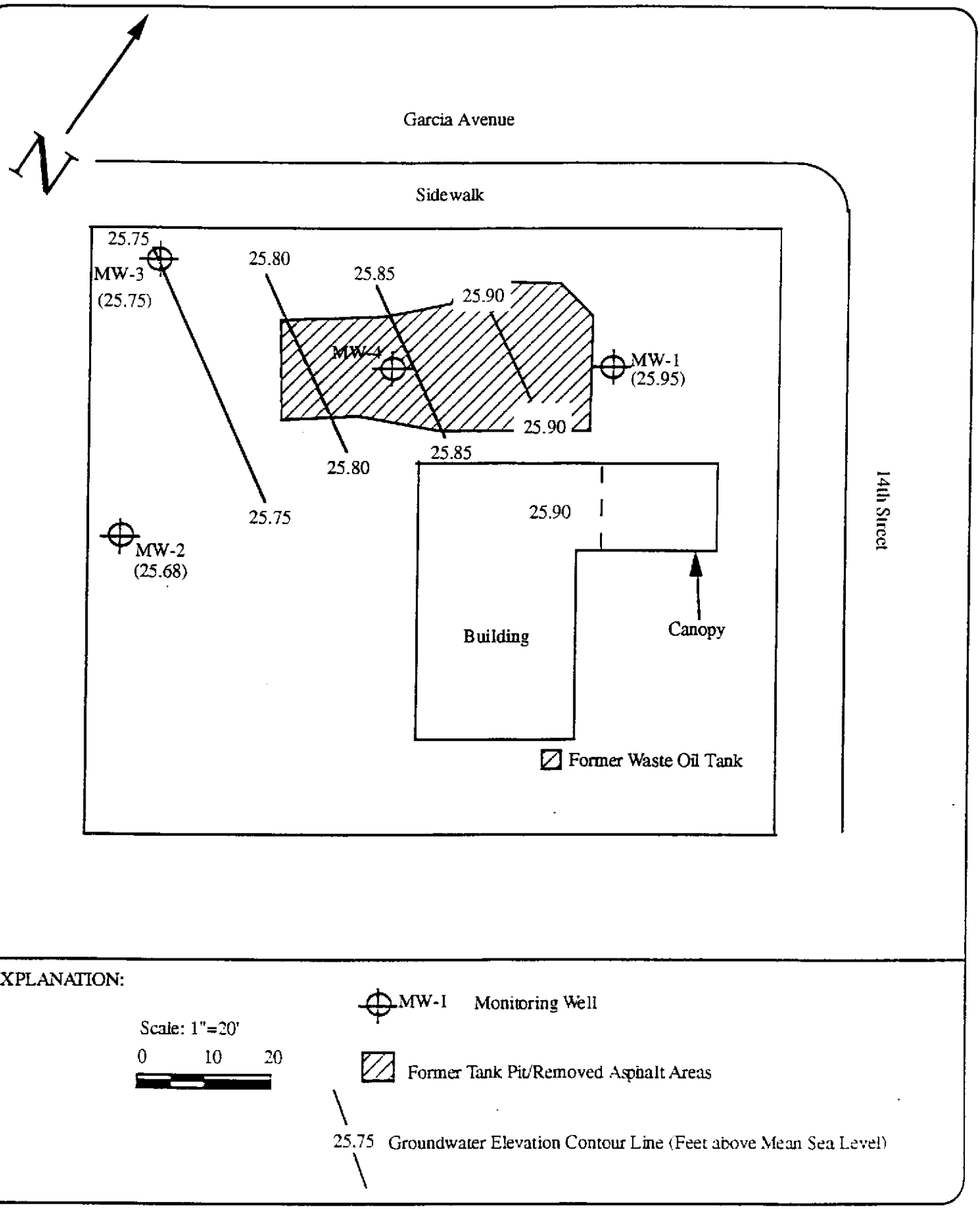
ENVIRONMENTAL TESTING & MGMT.
111 N. MARKET ST. SUITE 600
SAN JOSE, CALIFORNIA 95113

SITE MAP

German Autocraft
301 East 14th Street
San Leandro, California

Figure 3

Project No. 94-52
Date: 3/97



EXPLANATION:

MW-1 Monitoring Well

Scale: 1"=20'

0 10 20

Former Tank Pit/Removed Asphalt Areas

25.75 Groundwater Elevation Contour Line (Feet above Mean Sea Level)

ENVIRONMENTAL TESTING & MGMT.
111 N. MARKET ST. SUITE 600
SAN JOSE, CALIFORNIA 95113

GROUNDWATER POTENTIOMETRIC SURFACE ELEVATION CONTOUR MAP 9/30/98
German Autocraft
301 East 14th Street
San Leandro, California

Figure 4

Date: 11/98

ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION
951 TURNER COURT, SUITE 300, HAYWARD, CA 94545-2651
PHONE (510) 670-5575 ANDREAS GODFREY FAX (510) 670-5262
(510) 670-5248 ALVIN KAN

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT German Autocraft
301 E 14th Street, SAN LEANDRO
and neighborhood/streets

California Coordinates Source _____ ft Accuracy ± ___ ft.
CCN _____ ft CCE _____ ft
APN _____

CLIENT
Name German Autocraft/Mr. Lee
Address 301 E 14th St. Phone _____
City San Leandro CA Zip 94577

APPLICANT
Name Tom Price/Environmental Testing & Mgmt Fax (408) 939 3929
Address 111 N. Market St. 6th fl. Phone (408) 938 c939
City San Jose CA Zip 95113

TYPE OF PROJECT

Well Construction		Geotechnical Investigation	
Cathodic Protection	☐	General	☐
Water Supply	☐	Contamination	☒
Monitoring	☐	Well Destruction	☐

PROPOSED WATER SUPPLY WELL USE

New Domestic	☐	Replacement Domestic	☐
Municipal	☐	Irrigation	☐
Industrial	☐	Other Groundwater Monitoring	☒

DRILLING METHOD:

Mud Rotary	☐	Air Rotary	☐	Auger	☒
Cable	☐	Other	☐		

DRILLER'S LICENSE NO. 374152

WELL PROJECTS
Drill Hole Diameter 8 in. Maximum 40
Casing Diameter 2 in. Depth 50 ft.
Surface Seal Depth 33 ft. Number 7

GEOTECHNICAL PROJECTS
Number of Borings _____ Maximum
Hole Diameter _____ in. Depth _____ ft.

ESTIMATED STARTING DATE 8/26/98
ESTIMATED COMPLETION DATE 9/28/98

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE Tom Price DATE 8/3/98

FOR OFFICE USE

PERMIT NUMBER 98WR 355
WELL NUMBER _____
APN _____

PERMIT CONDITIONS

Circled Permit Requirements Apply

(A) 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 tremie.
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 INCLUDING PIEZOMETERS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth for monitoring wells is the 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 cement grout shall be used in place of compacted cuttings.

E. CATHODIC
Fill hole above anode zone with concrete placed by tremie.

F. WELL DESTRUCTION
See attached.

G. SPECIAL CONDITIONS

APPROVED AL-K DATE 8/18/98

Service No. _____

CITY OF SAN LEANDRO
APPLICATION TO PERFORM WORK
IN THE PUBLIC RIGHT-OF-WAY

98277
Permit Number
8-18-98
Date Approved

Work Site: German Autocraft / On sidewalk along W. Broadmoor

Applicant: Name Environmental Testing & Mgmt Address 111 N. Market St 4th Flor San Jose 95113 Tel (408) 938-0937

Owner: Name Mr. Lee Address 301 E 14th ST SAN LEANDRO Tel (510) 638 5473

Purpose of Permit:

☐ Utility ☐ Street Excavation ☐ Curb, Gutter Sidewalk, Driveway ☑ Other soil & groundwater pollution investigation.

Detailed Description and Dimensions of Work: installation of (1) groundwater monitoring well on sidewalk along W. Broadmoor. See attached figure.

Plan Submitted: Yes Y No ____ Profile Submitted: Yes ____ No ____

Date Work to be Started: 8/12/98 Date Work To Be Completed By: 8/15/98

Building Permit No. ____ State Encroachment Permit No. ____

Oro Loma Permit No. ____ Alameda County Flood Control Permit No. To be obtained

Compliance with State Labor Code: In accordance with Section 3800.

☐ Applicant has on file, with the City of San Leandro, evidence that workman's compensation insurance is carried.

☑ Applicant will not employ anyone so as to become subject to the workman's compensation laws of California.

Statement of State Contractor's License: In accordance with Section 7031.5 of the State Business and Professions Code:

☑ Applicant has State License No. A 716102, Class A in full force and effect.

☐ Applicant is exempt from the State Contractor's License Law for the following reason(s): Driller C-57 # 374152, Class C-57 Bayland Drilling

RECEIVED
CITY OF SAN LEANDRO
AUG 18 1998
TRANS.

By the application and acceptance of this permit, the undersigned intending to be legally bound does hereby agree that all work performed will be in accordance with all applicable provisions of this permit and all regulations, provisions, and specifications as adopted by the City. Further, the undersigned agrees that this permit is to serve as a guaranty for payment of all permit and/or inspection charges as billed by the City. Any misrepresentation of information requested from the applicant on this form shall make this permit null and void.

Signed: Tom Grace Environmental Testing & Mgmt. Date: 8/13/98

3308
PLEASE CALL 577-~~2708~~ FOR INSPECTIONS

SPECIAL PROVISIONS

Backfill Required Per City Standard Details

Pavement Section Required 2" AC.

Minimum Depth of Cover ____

Police & Fire Dept. to be notified 24 hours prior to start: YES ____ NO Y

* A Re-Open Fee of $25.00 per well must be submitted prior to Resampling.

SEE REVERSE SIDE FOR GENERAL PROVISIONS
APPLICABLE TO ALL PERMIT WORK

PERMIT IS VALID WHEN SIGNED

Any omission on the part of the City to specify on this permit any rule, regulation, provision, or specification shall not excuse the permittee from complying with all requirements of law and appropriate ordinances and all applicable regulations, provisions, and specifications adopted by the City.

ISSUED FOR CITY ENGINEER

INSPECTION RECORD

Date	Comments	Insp.	Hrs. Chrgd.

NOTE: 1 hr. minimum charge per inspection stop

Hours forwarded from reverse side: ____

TOTAL HOURS CHARGED: ____

FEES

PERMIT FEE: 125.00 TO ACCT #3306

RESTORE/INSPECT DEPOSIT: ____ TO CN# ____

STREET CUT FEE: ____ TO ACCT #3304

TOTAL: ____

☑ All charges collected at permit issuance

☐ All charges to be billed to CN# ____

Rev. Date 2/97

Service No. ____________

CITY OF SAN LEANDRO
APPLICATION TO PERFORM WORK
IN THE PUBLIC RIGHT-OF-WAY

98278
Permit Number
8-18-98
Date Approved

Work Site: German Autocraft / Garcia Ave - E 14 St neighborhood.

Applicant: Name Tom Price Environmental Testing & Mgmt Address 111 N. Market St. 12th Floor San Jose CA 95113 Tel (408) 938 0?73

Owner: Name Mr. Lee Address 301 E 14th St. San Leandro CA 94577 Tel. (510) 638 5473

Purpose of Permit:

☐ Utility ☐ Street Excavation ☐ Curb, Gutter Sidewalk, Driveway ☑ Other soil & groundwater pollution investigation.

Detailed Description and Dimensions of Work: installation of ~~4~~ 3 groundwater monitoring wells at locations shown on attached figure. ~~[illegible]~~ 2 wells on Garcia Ave., 1 well on sidewalk along Garcia Ave. see attached figure

Plan Submitted: Yes ✓ No ____ Profile Submitted: Yes ____ No ____

Date Work to be Started: 8/12/98 Date Work To Be Completed By: 8/15/98

Building Permit No. ____________ State Encroachment Permit No. ____________

Oro Loma Permit No. ____________ Alameda County Flood Control Permit No. to be announced

Compliance with State Labor Code: In accordance with Section 3800.

☐ Applicant has on file, with the City of San Leandro, evidence that workman's compensation insurance is carried.

☑ Applicant will not employ anyone so as to become subject to the workman's compensation laws of California.

Statement of State Contractor's License: In accordance with Section 7031.5 of the State Business and Professions Code.

☑ Applicant has State License No. 716062, Class A in full force and effect.
Driller C-57 No. 374152 Class C57 (Bayland Drilling)

☐ Applicant is exempt from the State Contractor's License Law for the following reason(s):

RECEIVED
CITY OF SAN LEANDRO
AUG 0? 1998

By the application and acceptance of this permit, the undersigned intending to be legally bound does hereby agree that all work performed will be in accordance with all applicable provisions of this permit and all regulations, provisions and specifications as adopted by the City. Further, the undersigned agrees that this permit is to serve as a guaranty for payment of all permit and/or inspection charges as billed by the City. Any misrepresentation of information requested from the applicant on this form shall make this permit null and void.

Signed: Tom Price Environmental Testing & Mgmt. Date: 8/3/98

PLEASE CALL 577-~~3308~~ 3308 FOR INSPECTIONS

SPECIAL PROVISIONS

Backfill Required Per City Standard Details

Pavement Section Required / Sakes

Minimum Depth of Cover ____________

Police & Fire Dept. to be notified 24 hours prior to start: YES ____ NO ____

* A RE-OPEN FEE OF $25.00 PER WELL MUST BE SUBMITTED PRIOR TO RESAMPLE.

SEE REVERSE SIDE FOR GENERAL PROVISIONS APPLICABLE TO ALL PERMIT WORK

PERMIT IS VALID WHEN SIGNED

Any omission on the part of the City to specify on this permit any rule, regulation, provision, or specification shall not excuse the permittee from complying with all requirements of law and appropriate ordinances and all applicable regulations, provisions, and specifications adopted by the City.

ISSUE FOR CITY ENGINEER

INSPECTION RECORD

Date	Comments	Insp.	Hrs. Chrgd.

NOTE: 1 hr. minimum charge per inspection stop

Hours forwarded from reverse side: ____________

TOTAL HOURS CHARGED: ____________

FEES

PERMIT FEE: 275.00 TO ACCT #3306

RESTORE/INSPECT DEPOSIT: ____________ TO CN# ____________

STREET CUT FEE: ____________ TO ACCT #3304

TOTAL: ____________

☑ All charges collected at permit issuance

☐ All charges to be billed to CN# ____________

Rev. Date 3/91

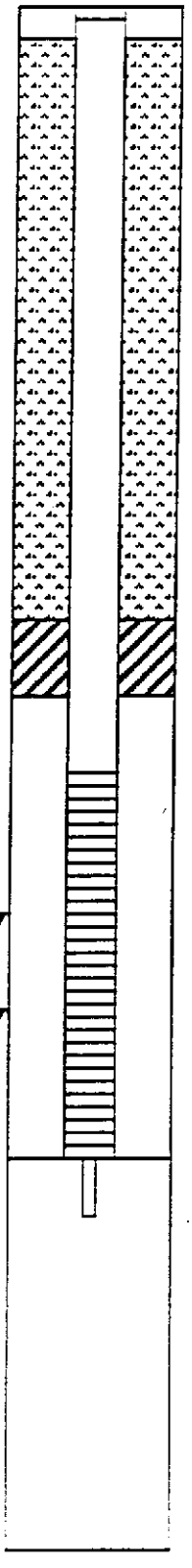
Environmental Testing and Management, San Jose, CA *Exploratory Boring Log*

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

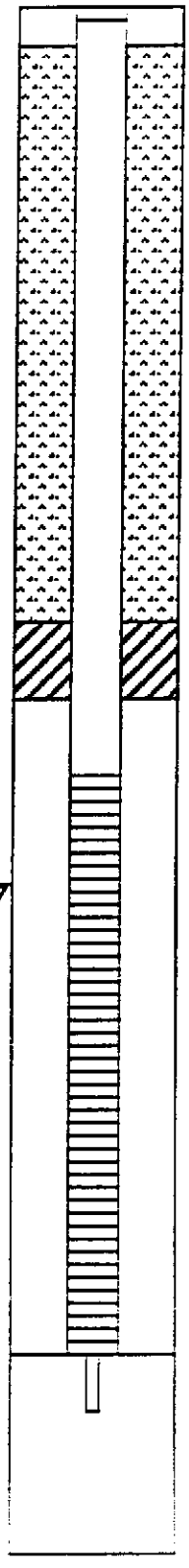
Environmental Testing and Management, San Jose, CA ***Exploratory Boring Log***

Project No. GA **Boring/Well No.** MW-6
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 ± 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 0.05'
Surface vault box; Casing Elev. -- MSL

Sample No.	OV	Blow Count	Sample	Depth (ft)	Lithology Log
					Asphalt Pavement
					CL - Silty CLAY, black 10YR2/1, low-mod. plasticity, firm-hard, damp.
MW-6-1	0	push		5	Same as above, firm, damp.
MW-6-2	0	14		10	CL - Silty CLAY, drk yellowish brown 10YR4/4, low plasticity, rare crs sand float in clay, f. sand to 30%, stiff, damp.
MW-6-3	0	13		15	Same as above, burrows, sand<10%, stiff, moist, possible stain at 16.5 feet.
MW-6-4	0	6		20	SP - SAND with Clay, dark greenish gray 5G4/1, f. sand to 95%, massive, clay 5%, low plasticity, loose, very moist to saturated.
MW-6-5	0	11		25	SP - **SAND**, varigated gray, very poorly graded, massive, f. to med. 99%, med. dense, saturated.
MW-6-6	11.0	23		30	Same as above, fine gravel interbeds at 31 feet, **weak petrol.** odor, becomes coarser with depth, dense, saturated.
MW-6-7	0	25		35	CL - Silty CLAY, olive gray 5Y4/2, low plasticity, f.-med. sand to 30%, floats in clay, locally contains fine gravel at 36-36.5', massive, very stiff, damp.
					Bottom of Boring = 36.5 feet
					Reviewed by RG/CEG

Borehole Completion



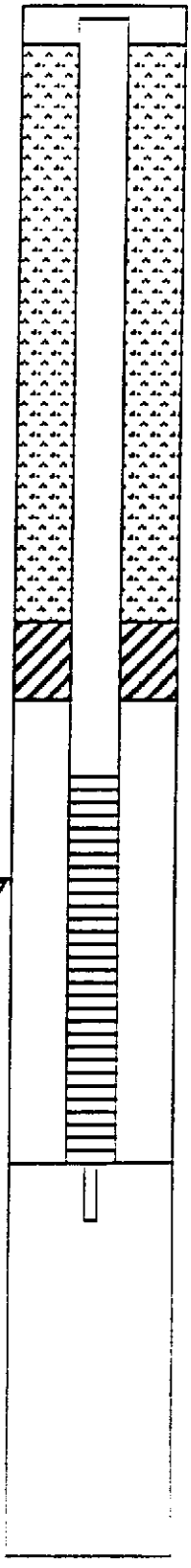
Environmental Testing and Management, San Jose, CA *Exploratory Boring Log*

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

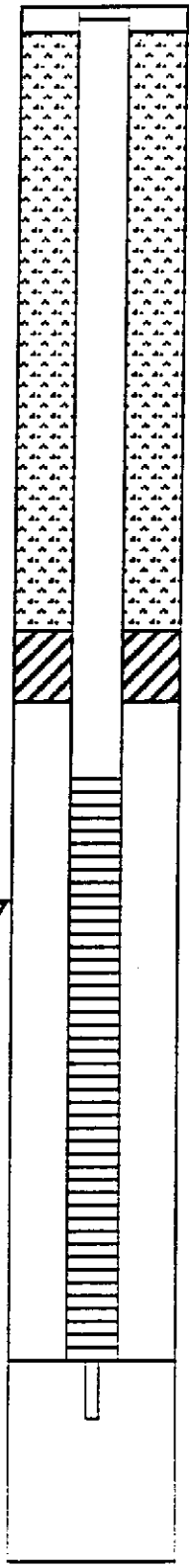
Environmental Testing and Management, San Jose, CA *Exploratory Boring Log*

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	Sample	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-9-7	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



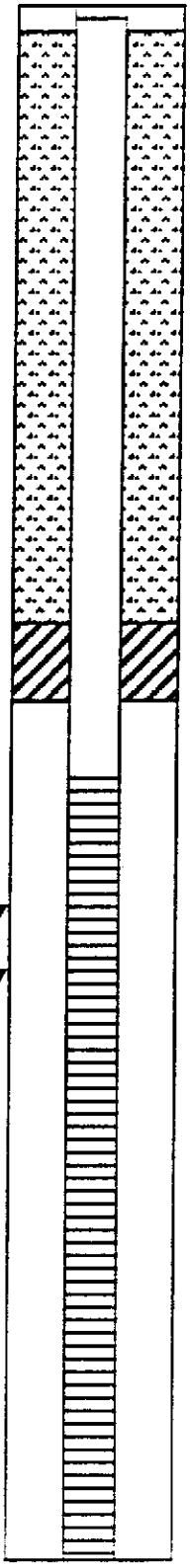
Reviewed by RG/CEG

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

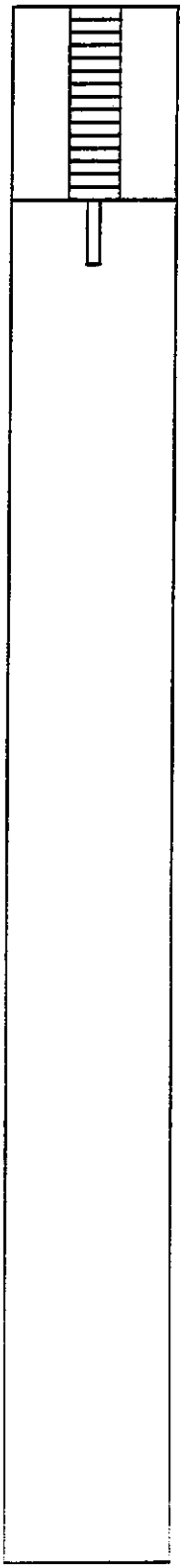


Project No. GA **Boring/Well No.** MW-10
Client: German Autocraft **Date Drilled:** Aug. 28, 1998
Location:301 E. 14th St, San Leandro, CA **Logger:** CMP
Drilling Method: 8" OD Hollowstem
Permit: City of San Leandro 98277
Water Levels: 1st Enc: 26'@ 11:05 Static: 24'@ 11:39

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
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

Borehole Completion



Reviewed by RG/CEG

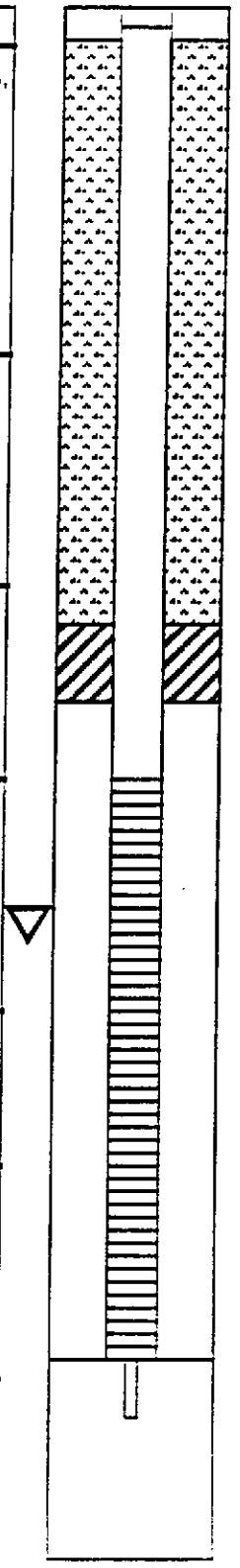
Environmental Testing and Management, San Jose, CA ***Exploratory Boring Log***

Project No. GA **Boring/Well No.** MW-11
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'@8:09 am 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	Sample	Depth (ft)	Lithology Log
					Concrete Pavement
					CL - Sandy CLAY, 10YR4/3 brown, low plsticity, v. f. sand 25%, massive, very soft, damp.
				5	
MW-11 -1	0	2			Same as above, very soft, damp.
				10	CL - sandy CLAY, 10YR4/3 brown, mod. plasticity, f. m. sand 35% dissem., massive, stiff, damp.
MW-11 -2	0	10			
				15	
MW-11 -3	0	8			SP - SAND, 10YR4/4 dark yellowish brown, f. m. sand 95%, fines 5%, massive, loose, damp.
				20	
MW-11 -4	0	11			CL - Silty CLAY, 10YR4/4 dark yellowish brown, low plasticity, f. sand 15%, rare burrows, massive, stiff, damp to moist.
					Rods wet at 24 feet
				25	
MW-11 -5	0	4			SP- SW - **SAND**, 10YR4/4 dark yellowish brown, f. m. sand 95%, fines 5%, becomes crser 26-26.5 feet, contains 2-inch thick clay bed at 25.4 feet, loose, saturated.
				30	
MW-11 -6	0	30			SW-GP - **SAND and GRAVEL** interbedded, varigated, f. crs. sand 30-31 feet, gravel 31-31.5, sahrp contact with clay above, dense, saturated.
				35	
MW-11 -7	0				CL - Sandy CLAY, 10YR5/4 yellowish brown, mod. plasticity, f. crs. sand 25% dissem., massive, sharp contact with overlying gravel, stiff, damp.
					Reviewed by RG/CEG

Borehole Completion



Entech Analytical Labs, Inc.

CA ELAP# 2224

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

Environmental Testing & Management
111 N. Market Street, Suite 600
San Jose, CA 95113
Attn: Tom Price

Date: 9/8/98
Date Received: 8/31/98
Project: GA
PO #:
Sampled By: Client

Certified Analytical Report

Soil Sample Analysis: (All results in mg/kg)

Sample ID	MW-5-4(21')			MW-10-4(21.5')			MW-10-6(31')				
Sample Date	8/28/98			8/28/98			8/28/98				
Sample Time											
Lab #	E15888			E15889			E15890				
	Result	DF	DLR	Result	DF	DLR	Result	DF	DLR	PQL	Method
Analysis Date	9/1/98			9/1/98			9/1/98				
TPH-Gas	**ND**	1.0	1	**ND**	1.0	1	**ND**	1.0	1	1	8015M
Benzene	**ND**	1.0	0.005	**ND**	1.0	0.005	**0.0054**	1.0	0.005	0.005	8020
Toluene	**ND**	1.0	0.005	**ND**	1.0	0.005	**ND**	1.0	0.005	0.005	8020
Ethyl Benzene	**ND**	1.0	0.005	**ND**	1.0	0.005	**ND**	1.0	0.005	0.005	8020
Xylenes	**ND**	1.0	0.005	**ND**	1.0	0.005	**ND**	1.0	0.005	0.005	8020

DF=Dilution Factor ND= None Detected above DLR PQL=Practical Quantitation Limit DLR=Detection Reporting Limit

· Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2224)

Michelle L. Anderson, Lab Director

Entech Analytical Labs, Inc.

CA ELAP= 2224

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Environmental Testing & Management
111 N. Market Street, Suite 600
San Jose, CA 95113
Attn: Tom Price

Date: 9/8/98
Date Received: 8/31/98
Project: GA
PO #:
Sampled By: Client

Certified Analytical Report

Soil Sample Analysis: (All results in mg/kg)

Sample ID	MW-11-4(21')			MW-9-4(21')			MW-9-7(36')				
Sample Date	8/28/98			8/31/98			8/31/98				
Sample Time											
Lab #	E15891			E15892			E15893				
	Result	DF	DLR	Result	DF	DLR	Result	DF	DLR	PQL	Method
Analysis Date	9/1/98			9/1/98			9/1/98				
TPH-Gas	**ND**	1.0	1	**ND**	1.0	1	**ND**	1.0	1	1	8015M
Benzene	**ND**	1.0	0.005	**ND**	1.0	0.005	**0.019**	1.0	0.005	0.005	8020
Toluene	**ND**	1.0	0.005	**ND**	1.0	0.005	**ND**	1.0	0.005	0.005	8020
Ethyl Benzene	**ND**	1.0	0.005	**ND**	1.0	0.005	**ND**	1.0	0.005	0.005	8020
Xylenes	**ND**	1.0	0.005	**ND**	1.0	0.005	**ND**	1.0	0.005	0.005	8020

DF=Dilution Factor ND= None Detected above DLR PQL=Practical Quantitation Limit DLR=Detection Reporting Limit

· Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2224)

Michelle L. Anderson, Lab Director

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY

METHOD: Gas Chromatography

QC Batch #: GBG2980901
Matrix: Soil
Units: ug/kg

Date Analyzed: 09/01/98
Quality Control Sample: E15957

PARAMETER	Method #	MB ug/kg	SA ug/kg	SR ug/kg	SP ug/kg	**SP % R**	SPD ug/kg	**SPD %R**	RPD	QC LIMITS RPD	QC LIMITS %R
Benzene	8020	<5.0	80	ND	82	**103**	87	**108**	5.1	25	78-116
Toluene	8020	<5.0	80	ND	81	**102**	86	**107**	5.5	25	80-114
Ethyl Benzene	8020	<5.0	80	ND	81	**101**	84	**106**	4.4	25	79-116
Xylenes	8020	<5.0	240	ND	237	**99**	250	**104**	5.2	25	82-116
Gasoline	8015	<1000.00	1000	ND	940	**94**	970	**97**	3.1	25	67-121

Note: LCS and LCSD results reported for the following Parameters:
Gasoline

Acceptable LCS and LCSD results are reported when matrix interferences cause MS and MSD results to fall outside established QC limits.

Definition of Terms:

- na: Not Analyzed in QC batch
- MB: Method Blank
- SA: Spike Added
- SR: Sample Result
- RPD(%): Duplicate Analysis - Relative Percent Difference
- SP: Spike Result
- SP (%R): Spike % Recovery
- SPD: Spike Duplicate Result
- SPD (%R): Spike % Recovery
- NC: Not Calculated

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • Telephone: (408) 735-1550 (800) 287-1799 • Fax: (408) 735-1554

Chain of Custody/Analysis Work Order

Client: GA

Address: 301 E 14 St, SAN LEANDRO

Contact:

Telephone #:

Date Received:

Turn Around: Normal

Project ID:

Purchase Order #:

Sampler/Company: Tom Price/Env. Testing & Mgmt Telephone #: 938-0939

Special Instructions/Comments

LAB USE ONLY

Samples arrived chilled and intact: Yes No

Notes:

Sample Information

Lab #	Sample ID	Grab/ Composite	Matrix	Date Collected	Time Collected	Pres.	Sample Container
12358	MW-5-1(21')	G	S	8/28/98	—	chill	Brass
12359	MW-10-1(21.5')	G	S	8/28/98	—	"	"
12360	MW-10-L(31')	G	S	"	—	"	"
12361	MW-11-1(21')	G	S	"	—	"	"
12362	MW-9-1(21')	G	S	8/31/98	—	"	"
12363	MW-7 7(31')	G	S	"	—	"	"

Requested Analysis

TPH G/BTEX
✓
✓
✓
✓
✓
✓

Relinq By: Tom Price	Received By:	Date: 8/31/98	Time: 2:26 pm
Relinq By:	Received By:	Date:	Time:
Relinq By:	Received By:	Date:	Time:

Entech Analytical Labs, Inc.

CA ELAP# 2224

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Environmental Testing & Management
111 N. Market Street, Suite 600
San Jose, CA 95113
Attn: Tom Price

Date: 9/3/98
Date Received: 8/27/98
Project:
PO #:
Sampled By: Client

Certified Analytical Report

Soil Sample Analysis: (All results in mg/kg)

Sample ID	MW-8-4			MW-8-6							
Sample Date	8/27/98			8/27/98							
Sample Time											
Lab #	E15768			E15769							
	Result	DF	DLR	Result	DF	DLR				PQL	Method
Analysis Date	8/31/98			8/31/98							
TPH-Gas	**ND**	1.0	1	**1.3**	1.0	1				1	8015M
Benzene	**ND**	1.0	0.005	**0.0052**	1.0	0.005				0.005	8020
Toluene	**ND**	1.0	0.005	**ND**	1.0	0.005				0.005	8020
Ethyl Benzene	**ND**	1.0	0.005	**ND**	1.0	0.005				0.005	8020
Xylenes	**ND**	1.0	0.005	**0.0056**	1.0	0.005				0.005	8020

DF=Dilution Factor ND= None Detected above DLR PQL=Practical Quantitation Limit DLR=Detection Reporting Limit

· Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2224)

M. Golden, Lab Director

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY

METHOD: Gas Chromatography

QC Batch #: GBG4980831
Matrix: Soil
Units: ug/kg

Date Analyzed: 08/31/98
Quality Control Sample: E15490

PARAMETER	Method #	MB ug/kg	SA ug/kg	SR ug/kg	SP ug/kg	**SP % R**	SPD ug/kg	**SPD %R**	RPD	QC LIMITS RPD	QC LIMITS %R
Benzene	8020	<5.0	100	ND	90	**90**	84	**84**	6.7	25	76-117
Toluene	8020	<5.0	100	ND	88	**88**	85	**85**	3.4	25	76-117
Ethyl Benzene	8020	<5.0	100	ND	87	**87**	86	**86**	1.3	25	74-119
Xylenes	8020	<5.0	300	ND	257	**86**	250	**83**	2.5	25	75-120
Gasoline	8015	<1000.00	1000	ND	1160	**116**	1210	**121**	4.2	25	58-120

Note: LCS and LCSD results reported for the following Parameters:
Gasoline

Acceptable LCS and LCSD results are reported when matrix interferences cause MS and MSD results to fall outside established QC limits.

Definition of Terms:

na: Not Analyzed in QC batch
MB: Method Blank
SA: Spike Added
SR: Sample Result
RPD(%): Duplicate Analysis - Relative Percent Difference
SP: Spike Result
SP (%R): Spike % Recovery
SPD: Spike Duplicate Result
SPD (%R): Spike % Recovery
NC: Not Calculated

Entech Analytical Labs, Inc.

CA ELAP# 2224

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

Environmental Testing & Management
111 N. Market Street, Suite 600
San Jose, CA 95113
Attn: Tom Price

Date: 10/9/98
Date Received: 10/2/98
Project:
PO #:
Sampled By: Client

Certified Analytical Report

Water Sample Analysis:

Sample ID	MW-1			MW-2			MW-3				
Sample Date	9/30/98			9/30/98			9/30/98				
Sample Time											
Lab #	E17929			E17930			E17931				
	Result	DF	DLR	Result	DF	DLR	Result	DF	DLR	PQL	Method
Results in µg/Liter:											
Analysis Date	10/7/98			10/6/98			10/7/98				
TPH-Gas	**140,000**	400	20000	**24,000**	100	5000	**42,000**	100	5000	50	8015M
Benzene	**5,800**	400	200	**600**	100	50	**4,300**	100	50	0.50	8020
Toluene	**29,000**	400	200	**77**	100	50	**1,400**	100	50	0.50	8020
Ethyl Benzene	**3,500**	400	200	**680**	100	50	**1,800**	100	50	0.50	8020
Xylenes	**18,000**	400	200	**580**	100	50	**6,600**	100	50	0.50	8020

DF=Dilution Factor ND= None Detected above DLR PQL=Practical Quantitation Limit DLR=Detection Reporting Limit

· Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2224)

Michelle L. Anderson, Lab Director

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY

METHOD: Gas Chromatography

QC Batch #: GBG2981006
Matrix: Water
Units: ug/L

Date Analyzed: 10/06/98
Quality Control Sample: E18040

PARAMETER	Method #	MB ug/L	SA ug/L	SR ug/L	SP ug/L	**SP % R**	SPD ug/L	**SPD %R**	RPD	QC LIMITS RPD	QC LIMITS %R
Benzene	8020	<0.50	40	ND	39	**99**	38	**96**	2.5	25	78-112
Toluene	8020	<0.50	40	ND	40	**99**	39	**98**	1.6	25	79-111
Ethyl Benzene	8020	<0.50	40	ND	40	**99**	39	**97**	2.8	25	79-114
Xylenes	8020	<0.50	120	ND	122	**102**	118	**99**	2.9	25	79-116
Gasoline	8015	<50.0	1000	ND	890	**89**	890	**89**	0.0	25	65-125

Note: LCS and LCSD results reported for the following Parameters:
Gasoline

Acceptable LCS and LCSD results are reported when matrix interferences cause MS and MSD results to fall outside established QC limits.

Definition of Terms:

na: Not Analyzed in QC batch
MB: Method Blank
SA: Spike Added
SR: Sample Result
RPD(%): Duplicate Analysis - Relative Percent Difference
SP: Spike Result
SP (%R): Spike % Recovery
SPD: Spike Duplicate Result
SPD (%R): Spike % Recovery
NC: Not Calculated

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

QUALITY CONTROL RESULTS SUMMARY

METHOD: Gas Chromatography

QC Batch #: GBG2981007
Matrix: Water
Units: ug/L

Date Analyzed: 10/07/98
Quality Control Sample: Blank Spike

PARAMETER	Method #	MB ug/L	SA ug/L	SR ug/L	SP ug/L	**SP % R**	SPD ug/L	**SPD %R**	RPD	QC LIMITS RPD	QC LIMITS %R
Benzene	8020	<0.50	80	ND	78	**98**	81	**101**	2.9	25	78-112
Toluene	8020	<0.50	80	ND	79	**98**	84	**105**	6.3	25	79-111
Ethyl Benzene	8020	<0.50	80	ND	85	**106**	88	**110**	3.7	25	79-114
Xylenes	8020	<0.50	240	ND	269	**112**	278	**116**	3.5	25	79-116
Gasoline	8015	<50.0	1000	ND	910	**91**	940	**94**	3.2	25	65-125

Note: LCS and LCSD results reported for the following Parameters:
All

Acceptable LCS and LCSD results are reported when matrix interferences cause MS and MSD results to fall outside established QC limits.

Definition of Terms:

na: Not Analyzed in QC batch
MB: Method Blank
SA: Spike Added
SR: Sample Result
RPD(%): Duplicate Analysis - Relative Percent Difference
SP: Spike Result
SP (%R): Spike % Recovery
SPD: Spike Duplicate Result
SPD (%R): Spike % Recovery
NC: Not Calculated

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • Telephone: (408) 735-1550 (800) 287-1799 • Fax: (408) 735-1554

Chain of Custody/Analysis Work Order

Client: G A
Address: 301 E 14 St
San Leandro
Contact:
Telephone #:
Date Received:
Turn Around: NORMAL

Project ID:
Purchase Order #:

Sampler/Company: Tom Price/Environmental Testing & Mgmt.
Telephone #:
Special Instructions/Comments

LAB USE ONLY

Samples arrived chilled and intact: (Yes) No
Notes:

Lab #	Sample ID	Grab/ Composite	Matrix	Date Collected	Time Collected	Pres.	Sample Container	TPHg/ BTEX							
11129	mw-1	G	W	9/30/98	—	HCl/ Chill	40 ml VOAs	✓							
11130	mw-2	↓	↓	↓	—	↓	↓	✓							
11131	mw-3	↓	↓	↓	—	↓	↓	✓							

Relinq By: Tom Price	Received By: C. Bailey	Date 10/2	Time 3 P.M.
Relinq By: C. Bailey 10/2 3:30 P.M.	Received By: [signature]	Date 10/2/98	Time 3:30 pm
Relinq/ By:	Received By:	Date	Time

APPENDIX E: FIELD SAMPLING AND GAUGING PROCEDURES

GROUNDWATER LEVEL MEASURING AND SAMPLING:

Sampling procedures commenced with measuring static water levels in monitoring wells using an electronic water level indicator accurate to 0.01 inch. Groundwater samples were collected using Teflon™ or stainless steel bailers. The bailers were cleaned prior to lowering into the groundwater by washing with Liquinox or laboratory grade detergent, rinsing with tap water, and drying. Floating product thickness was measured by gently lowering a bailer or preferably an interface sampler into the well casing. The liquid level in the sampler was allowed to equilibrate with the liquid level in the well. After raising the sampler, the thickness of floating product, if present, was measured in the transparent sampler with a ruler or noting the presence of sheen and odor. The wells were then purged a minimum of four well volumes or until the parameters of temperature, conductance, and pH stabilized.

Groundwater samples were collected by gently pouring from the bailer into a 40-milliliter vial until a positive meniscus formed at the top of the vial, each vial was capped, and visually inspected to make sure no bubbles were present. Sample containers are labeled for sampling point reference and chilled on ice immediately after collection. Chain-of-custody documentation was maintained until the samples were received by the laboratory.

ENVIRONMENTAL TESTING & MGMT.
111 N. MARKET ST., SUITE 600
SAN JOSE, CALIFORNIA 95113
408.938.0939 FAX: 408.938.3929

Date: 9/30/02 Project Name: GA

Project No.: ______ Well No./Description: MW-1

Depth of Well: 37.6 1 Well Volume: 2.2

Depth to Water: 23.66 4 Well Volumes: ______

Casing Diameter: ✓ 2" __ 4" Actual Volume Purged: ______

Calculations: 14 / .16 / 5.4 / 2.2

2" - * 0.1632
4" - * 0.653

Purge Method: ✓ Bailer __ Displacement Pump __ Impinger/Vacuum __

Sample Method: ✓ Bailer __ Other Specify: ______

Sheen: __ No __ Yes, Describe ______

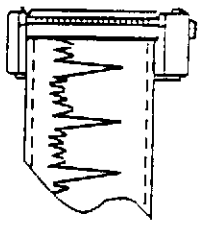
Odor: __ No __ Yes, Describe ______

Field Measurements:

Time	Volume	pH	Temp.	E.C.	Color
223	2.5	7.02	66	2.7E3	gray
230	5.1	6.5	67	0.9E3	"
235	7.5	6.5	63	1.0E3	

Remarks: ______

Sampler: ______



ENVIRONMENTAL TESTING & MGMT.
111 N. MARKET ST., SUITE 600
SAN JOSE, CALIFORNIA 95113
408.938.0939 FAX: 408.938.3929

Date: 9/30/98 Project Name: GT

Project No.: _____ Well No./Description: MW-2

Depth of Well: 33.77 1 Well Volume: ~5

Depth to Water: 24.46 4 Well Volumes: _____

Casing Diameter: ✓2" __4" Actual Volume Purged: _____

Calculations: 5

2" - * 0.1632
4" - * 0.653

Purge Method: ✓Bailer ___Displacement Pump ___Impinger/Vacuum ___

Sample Method: ✓Bailer ___ Other Specify: _____

Sheen: ___ No ___ Yes, Describe HC

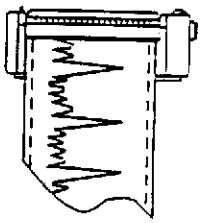
Odor: ___ No ✓ Yes, Describe HC

Field Measurements:

Time	Volume	pH	Temp.	E.C.	Color
255	5.5	6.6	64	1.4E3	black
300	5.0	6.7	65	1.4E3	
305	7.0	6.7	66	1.4E3	

Remarks: _____

Sampler: _____



ENVIRONMENTAL TESTING & MGMT.
111 N. MARKET ST., SUITE 600
SAN JOSE, CALIFORNIA 95113
408.938.0939 FAX: 408.938.3929

Date: 9/30/99 Project Name: GA

Project No.: _____ Well No./Description: MW-3

Depth of Well: 34.9 1 Well Volume: ~ 2

Depth to Water: 23.69 4 Well Volumes: _____

Casing Diameter: ✓ 2" __ 4" Actual Volume Purged: _____

Calculations:

2" - * 0.1632
4" - * 0.653

Purge Method: ✓ Bailer ___Displacement Pump ___Impinger/Vacuum ___

Sample Method: ✓ Bailer ___ Other Specify: _____

Sheen: ✓ No ___ Yes, Describe _____

Odor: ___ No ✓ Yes, Describe HC.

Field Measurements:

Time	Volume	pH	Temp.	E.C.	Color
315	2.5	7.1	64	1.0E3	gray
320	5.0	6.9	65	0.9E3	"
325	7.0	6.9	64	1.0E3	"

Remarks: _____

Sampler: _____

APPENDIX G: QUALITY ASSURANCE/QUALITY CONTROL PROGRAM

The quality assurance/quality control measures used for groundwater sampling conducted on September 30, 1998 included the following:

- Groundwater samples were collected in triplicate 40 milliliter vials.

APPENDIX H: REPORT DISTRIBUTION LIST

Copies of this report have been mailed to the attention of the following parties:

Seung Lee
German Autocraft
301 E. 14th Street
San Leandro, California 94577

Scott O. Seery
Alameda County Department of Environmental Health
1131 Harbor Bay Parkway, #250
Alameda, California 94502-6577

Mike Bakaldin
City of San Leandro Fire Department
835 E. 14th Street, Suite 200
San Leandro, California 94577