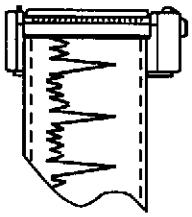
THIRD QUARTER 1995
ENVIRONMENTAL ACTIVITIES REPORT

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

Prepared by:



ENVIRONMENTAL TESTING & MGMT.
2916 MAGLIOCCO DRIVE #2
SAN JOSE, CALIFORNIA 95128
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Prepared For:

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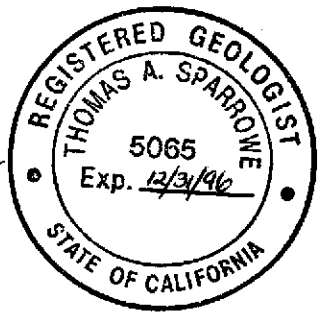

Report submitted October 2, 1995

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I. INTRODUCTION

In accordance with recommendations set forth in the Soil And Groundwater Investigation (SWI) Workplan, dated June 7, 1995, Environmental Testing & Management (ETM, formerly Chemist Enterprises) has initiated a Quarterly Monitoring Program (QMP) and related environmental activities at German Autocraft 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.

The purpose of the QMP is to evaluate potential impacts from soil contamination on groundwater in the area of six former underground fuel storage tanks (USTs) that were removed in 1990. Data accumulated from the QMP will be used to assess seasonal groundwater level fluctuations, changing groundwater quality conditions, and to further determine groundwater sampling locations in the upcoming SWI.

This report presents a description of the groundwater monitoring activities, a compilation of groundwater quality and gradient data, updated information on waste characterization and disposal activities, and installation of a groundwater monitoring well and passive skimmer system in the former tank pit area during the 3rd Quarter of 1995.

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 can be found on the Site Map, **Figure 2.** For detailed descriptions of prior environmental activities at the subject site, please refer to the following documents, all of which have been submitted to the ACDEH:

- *Soil and Water Investigation at German Autocraft*
  (Chemist Enterprises, April 12, 1995);
- *Preliminary Soil and Groundwater Contamination Assessment*

(The Environmental Construction Company, February 1991);

- *Underground Storage Tank Removals*

  (The Environmental Construction Company, November 1990)

III. WORK PERFORMED DURING THIRD QUARTER, 1995

In general, work has included groundwater monitoring, installation of MW-4 and a passive skimmer system, coordinating private property access, making applications for permits related to the on-going SWI, and general planning. Activity highlights during this period are as follows:

- **July 6, 1995** - ETM measured groundwater elevations and collected groundwater samples from monitoring wells MW-1, MW-2, and MW-3. ETM also collected soil cutting, rinsate water, and purge water samples that are temporarily stored in 55-gallon drums on the Site. The samples were submitted to Inchcape Testing Services in San Jose, California. The groundwater samples were submitted for analysis of Total Petroleum Hydrocarbons as Gasoline (TPHg), Benzene, Toluene, Ethyl Benzene, and Xylenes (BTEX). The soil and groundwater waste samples were submitted for analysis of TPHg, BTEX, Reactivity, Corrosivity, Ignitibility, and Heavy Metals. In addition, waste water samples were submitted to Romic Environmental Technologies Corporation for internal profiling.
- **July 18, 1995** - Zone 7 Water Agency issued a drilling permit for the installation of MW-4 for immediate source removal in the former UST area. This permit is included in **Appendix E.**
- **July 26, 1995** - ETM distributed fliers to property owners and tenants in the vicinity of German Autocraft informing them of the upcoming SWI which will include soil and groundwater sampling on private properties. A list of property owners whose properties may be affected by the proposed SWI was compiled.
- **August 10, 1995** - ETM measured groundwater elevations in monitoring wells MW-1, MW-2, and MW-3. ETM inspected each well for the presence of floating product or sheen. A light

sheen was observed in well MW-2. Wells MW-1 and MW-3 did not exhibit sheen, however, detectable hydrocarbon odors were apparent.

- August 31, 1995 - Groundwater monitoring well MW-4, was installed in the former UST area for immediate source removal. **Figure 2** shows the location of this well.
- September 11, 1995 - ETM measured groundwater elevations in monitoring wells MW-1, MW-2, and MW-3 and measured floating product thickness at MW-4. ETM inspected each well for the presence of floating product or sheen. Wells MW-1, MW-2, and MW-3 did not exhibit sheen, however, detectable hydrocarbon odors were apparent. **The clear amber floating product thickness measured at MW-4 was 0.07 feet.** ~1"
- September 22, 1995 - MW-4 was developed and a Petrotrap™ passive skimmer system was installed in MW-4 for immediate source removal. **Prior to installation of the skimmer, the floating product thickness was measured at 0.10 feet with the upper 0.07 feet of clear amber floating product and a lower 0.03 feet of dark gray product.** ~1.2"

IV. GROUNDWATER GRADIENT

The estimated groundwater gradient on the Site appears to have changed direction from those measured in earlier in the year (February 1995). The estimated groundwater flow in February was approximately 0.001 ft/ft^{-1} in a west-northwesterly direction (**Figure 3a**). Between February and July the groundwater flow gradient slightly increased and the flow direction changed. **The estimated groundwater flow in July, August, and September were approximately 0.002 ft/ft^{-1} in a southwesterly direction (Figures 3b, c, and d).** The observed groundwater gradient increase and change in flow direction may be the result of seasonal water level fluctuations. The observed change also suggests that the flow direction is now heading toward a mapped former channel of San Leandro Creek (Edes Avenue Channel) mapped by Woodward-Clyde Consultants (1992) that could act as a conduit to disperse contaminants from the Site.

Table 1 presents the groundwater elevation measurement data obtained during July and August 1995. Historic groundwater elevation data are presented in **Table 2.** Groundwater level measuring procedures are presented in **Appendix A.**

V. GROUNDWATER SAMPLING AND ANALYTICAL RESULTS

On July 6, 1995, groundwater samples were collected from MW-1 through MW-3 and generally followed the groundwater sampling procedures presented in the SWI. Well sampling procedures are presented in **Appendix A.** The groundwater samples were analyzed for TPHg and BTEX using EPA Method 5030 and 8020 by Inchcape Testing Services of San Jose, California, a Department of Health Services (DHS)-certified laboratory. The laboratory report and chain-of-custody documents are included in **Appendix B.** The field sampling data sheets are presented in **Appendix C.** The quality assurance/quality control description is included in **Appendix D.** Historic groundwater quality data is presented in **Table 4.**

The results of the recent groundwater sampling effort showed a general decrease in TPHg and BTEX concentrations from those measured in February 1995. However, all of the constituents continue to exceed their respective California Drinking Water Maximum Contaminant Levels (MCLs) or Federal Action Levels (AL) (**Table 3**). Estimated groundwater benzene and TPHg isoconcentration maps are presented in **Figure 4** and **Figure 5** respectively.

The sample from MW-1, located upgradient of the former gasoline tank area and wells MW-2 and 3, contained: 8,000 µg/L of benzene which exceeds its MCL of 1 µg/L; 17,000 µg/L of toluene which exceeds its MCL of 150 µg/L; 1,900 µg/L of ethyl benzene which exceeds its MCL of 700 µg/L, and ; 9,700 µg/L of total xylenes which exceeds its MCL of 1,750 µg/L.

The sample from MW-2, located down gradient of the former gasoline tank area and well MW-1, contained 5,300 µg/L of benzene, 1,800 µg/L of toluene, 6,100 µg/L of ethyl benzene, and 9,000 µg/L of total xylenes.

Monitoring well MW-3, also located down gradient of the former gasoline tank area, contained 12,000 µg/L of benzene, 8,600 µg/L of toluene, 4,800 µg/L of ethyl benzene, and 19,000 µg/L of total xylenes.

The floating product thickness measured in MW-4 on September 22, 1995 was 0.10 feet. The passive skimmer now in place will facilitate interim immediate source removal at least until a comprehensive corrective plan is initiated.

VI. CHEMICAL PROFILING OF PROJECT WASTES

A. SOIL CUTTINGS

The laboratory analytical test results of samples collected from soil cuttings temporarily stored in four (4) DOT-rated 55-gallon drums on July 6, 1995 are presented in **Tables 5a,** and **5b**. The analytical results were compared to state and federal standards to determine an appropriate disposal option. The tests indicate that the soil cuttings are suitable for disposal at a Class II landfill facility. ETM will coordinate the proper transportation and disposal of the soil cutting wastes as a future project task.

B. DRILLING RINSATE WATER

The laboratory test result of one grab rinsate water sample collected on July 6, 1995 is presented in **Table 6**. The analytical results were compared to state and federal standards to determine an appropriate treatment option. In general, the results indicate that heavy metals are not present in these wastes above their respective laboratory limit of detection however, the total hydrocarbon

concentration is 92 µg/L. ETM will coordinate the proper transportation and treatment of these wastes as a future project task.

C. MONITORING WELL PURGE WATER

The laboratory test results of one composite purge groundwater sample from wells MW-1, MW-2, and MW-3 collected on July 6, 1995 are presented in **Table 7** and compared to state and federal standards to determine an appropriate treatment option. In general, the results indicate that the toxic heavy metal constituents are present at levels below their respective toxicity characteristic standard however, a toxic benzene concentration is exhibited. ETM will coordinate the proper transportation and treatment of these wastes as a future project task.

VII. CONCLUSIONS

Available data, including data from the current monitoring event, suggest that groundwater flow patterns beneath the site have changed appreciably since the last monitoring period in February 1995. Groundwater presently flows toward the southwest.

The recent groundwater sampling showed a slight decrease in concentrations of TPHg and BTEX from those measured in February 1995. However, the concentrations of the constituents of concern are remain above their respective MCL. ETM will continue the QMP and monthly groundwater level measuring activities during the next phase of work (SWI).

VII. RECOMMENDATIONS

ETM recommends that groundwater levels continue to be monitored on a monthly basis and water quality in the monitoring wells continue to be monitored quarterly to comply with the ACDEH requirements, and to assess trends in constituent concentrations over time.

IX. LIMITATIONS

The data, information, interpretations and recommendations contained in technical work or report are presented solely as beneficial in meeting minimum requirements for determining groundwater quality on the site and does not take into account omissions or errors on behalf of parties identified in this report.

The conclusions and professional opinions presented herein were developed by ETM in accordance with generally accepted environmental principles and practices. As with all work performed by ETM, the opinions expressed are subject to revisions in light of new information which may develop in the future; no warranties are expressed or implied.

This report has not been prepared for use by parties other than ACDEH and Mr. Seung Lee. It may not contain sufficient information for the purposes of other parties or other uses. If changes are made or new information is discovered, the conclusions and recommendations contained herein should not be considered valid, unless the changes are reviewed by ETM and the recommendations are modified in writing.

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.

The Environmental Construction Company, *Underground Storage Tank Removals, German Autocraft, 301 East 14th Street, San Leandro, California,* November 1990.

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. THIRD QUARTER GROUNDWATER ELEVATION DATA

WELL	CASING ELEVATION	July 7, 1995		August 10, 1995		September 11, 1995	
		Depth to Groundwater	Groundwater[1] Elevation	Depth to Groundwater	Groundwater Elevation	Depth to Groundwater	Groundwater Elevation
MW-1	49.61	22.98	26.63	24.03	25.58	24.93	24.68
MW-2	50.14	23.67	26.47	24.74	25.40	25.65	24.49
MW-3	49.44	22.94	26.50	24.00	25.44	24.90	24.54

[1]Elevations in feet above mean sea level.

TABLE 2. HISTORIC GROUNDWATER ELEVATION DATA

	Groundwater Surface Elevation[1]		
DATE	MW-1	MW-2	MW-3
12/31/90	19.15[2]	-	-
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

[1]Elevations in feet above mean sea level.

[2]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.

TABLE 3. GROUNDWATER CHEMICAL TEST RESULTS

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

Date Sampled: July 6, 1995 Units: µg/L

WELL	TPHg	BENZENE	TOLUENE	ETHYL-BENZENE	XYLENES
MW-1[3]	49,000	8,000	17,000	1,900	9,700
MW-1	47,000	4,800	9,500	930	5,000
MW-2	71,000	5,300	1,800	6,100	9,000
MW-3	86,000	12,000	8,600	4,900	19,000
Detection Limit	50	0.5	0.5	0.5	0.5
MCL[4]	-	1	150	700	1,750

[3]This sample was labeled 'MW-9" and submitted to the lab as a blind duplicate.

[4]Maximum Contaminant 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 4. HISTORIC GROUNDWATER QUALITY TEST RESULTS

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

Units: µg/L

WELL	DATE	TPHg	BENZENE	TOLUENE	ETHYL-BENZENE	XYLENES	Total Pb
MW-1	12/31/90	51,000	2,200	1,200	<0.5	760	-
	1/6/95	110,000	13,000	15,000	4,800	13,000	134
	1/6/95	580,000	29,000	41,000	17,000	43,000	-
	7/6/95	[illegible]	[illegible]	17,000	1,900	9,700	-
	7/6/95	47,000	4,800	9,500	930	5,000	-
MW-2	1/6/95	980,000	9,400	5,600	19,000	42,000	411
	7/6/95	[illegible]	[illegible]	1,800	6,100	9,000	-
MW-3	1/6/95	740,000	11,000	2,300	8,300	28,000	237
	7/6/95	[illegible]	[illegible]	8,600	4,900	19,000	-

TABLES 5a, b. TEST RESULTS OF SOIL CUTTINGS

Chemical Testing

Units: mg/Kg

Analyte	Concentration
TPHg	540
Benzene	6.2
Toluene	3.1
Ethyl-Benzene	6.8
Xylenes	19
STLC[5] for Lead	<0.40

Characteristics Testing

Characteristic	Description
Reactivity	Non-Reactive
Corrosivity	pH 8.0
Ignitibility	>100°C

[5]Soluble Threshold Limiting Concentration.

TABLE 6. TESTING RESULTS OF DRILLING RINSATE WATERS

Units: µg/L

Analyte	Concentration	STLC[6] or Toxicity Characteristic
TPHg	92	-
Benzene	<0.5	500
Toluene	<0.5	-
Ethyl-Benzene	0.79	-
Xylenes	0.67	-
Arsenic	<10	5,000
Barium	<100	100,000
Cadmium	<5	1,000
Chromium	<10	5,000
Lead	<40	5,000
Mercury	<0.20	200
Selenium	<5	1,000
Silver	<10	5,000

[6]Soluble Threshold Limiting Concentration

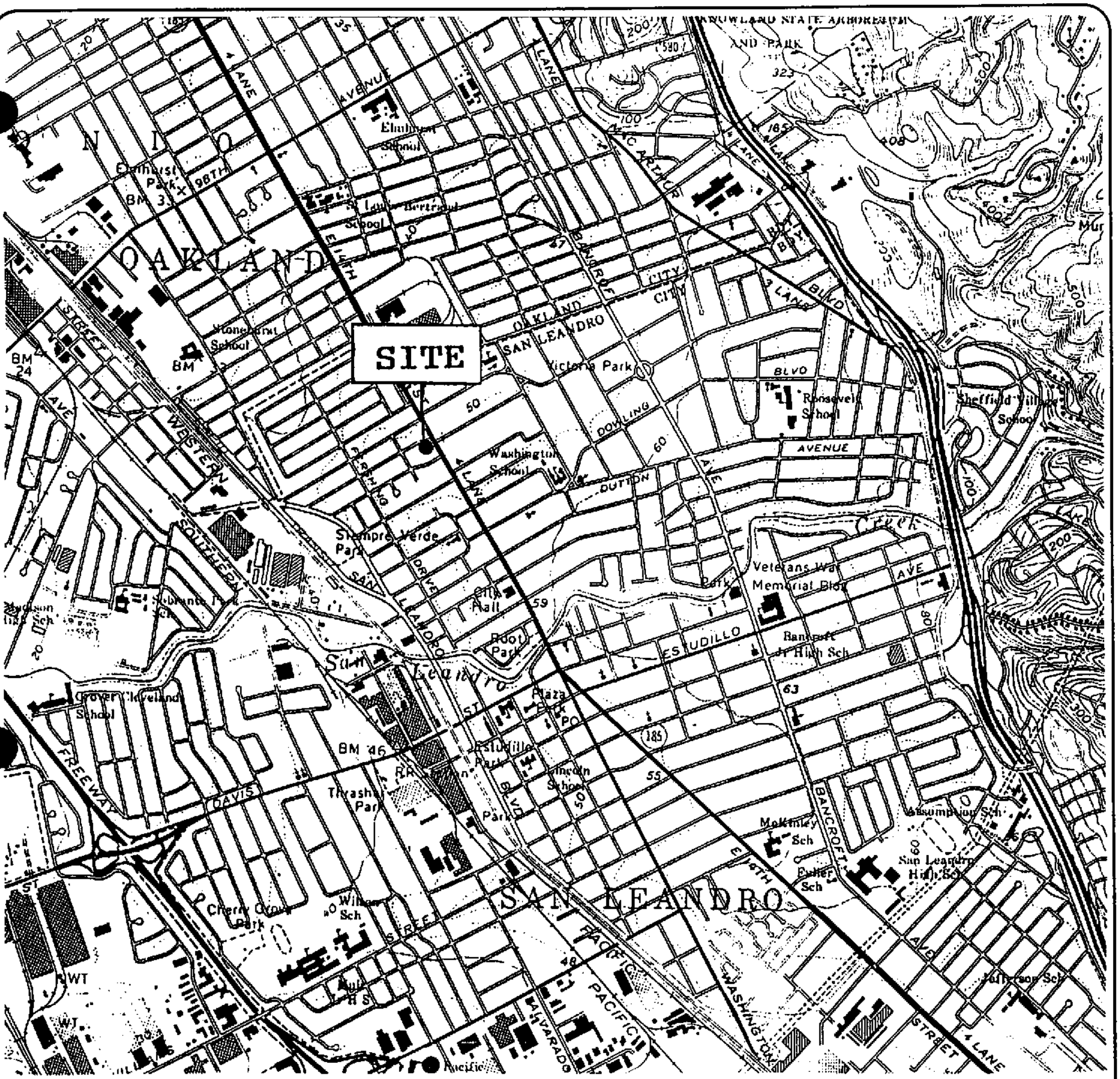
TABLE 7. TESTING RESULTS OF GROUNDWATER PURGING WASTES

Units: µg/L

Analyte	Concentration	STLC[7] or Toxicity Characteristic
Benzene	7525[8]	500
Arsenic	48.5	5,000
Barium	1400	10,000
Cadmium	16.3	1,000
Chromium	250	5,000
Lead	80.6	5,000
Mercury	1.1	200
Selenium	<25	1,000
Silver	<10	5,000

[7]Soluble Threshold Limiting Concentration.

[8]This concentration is based on the average benzene concentration for MW-1, MW-2, and MW-3 determined as part of the groundwater monitoring on 7/6/95.



EXPLANATION:

Scale: 1"=2000'

0 1000' 2000'

Base Map Reference: U.S.G.S. San Leandro 7.5 Minute Topographic, Quadrangle.

N

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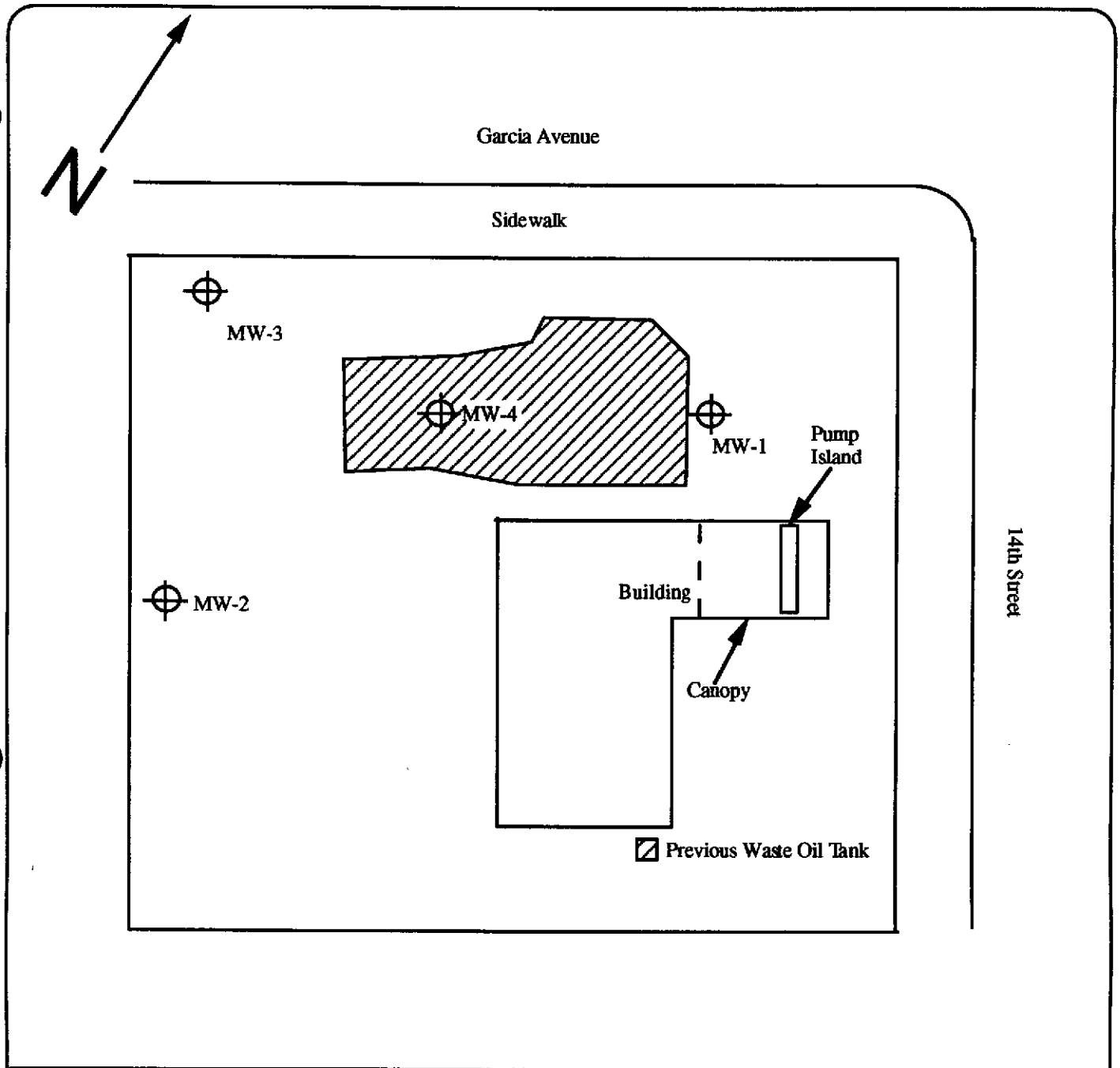
LOCATION MAP
German Autocraft
301 East 14th Street
San Leandro, California

Figure 1

Project No. 94-52
Date: 8/95



EXPLANATION:

Scale: 1"=20'

0 10 20

Monitoring Well

Former Tank Pit/Removed Asphalt Areas

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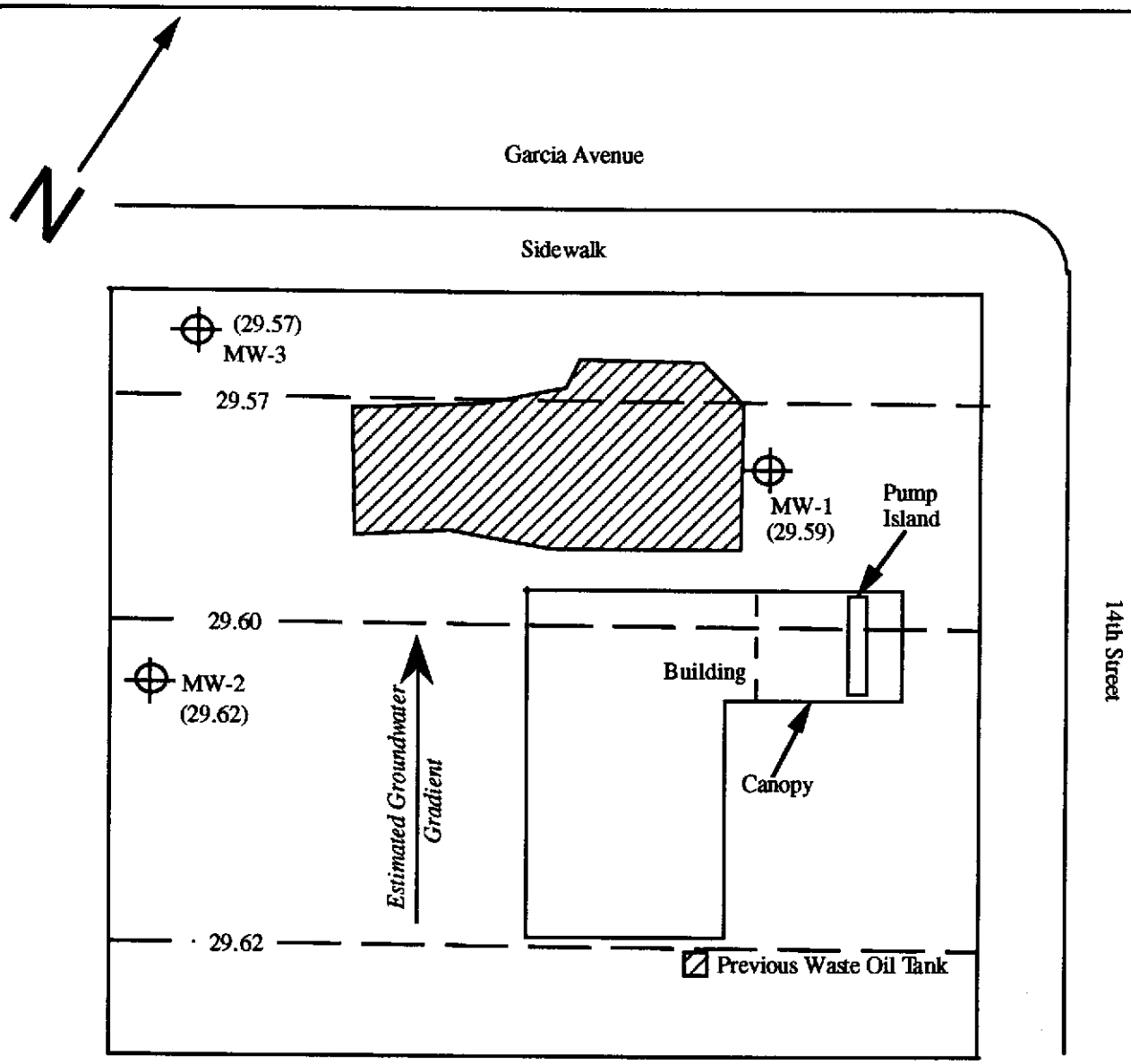
408.248.5892

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

Figure 2

Project No. 94-52
Date: 9/95



EXPLANATION:

Scale: 1"=20'

0 10 20

Monitoring Well

Former Tank Pit/Removed Asphalt Areas

29.60 Groundwater Elevation Contour Line

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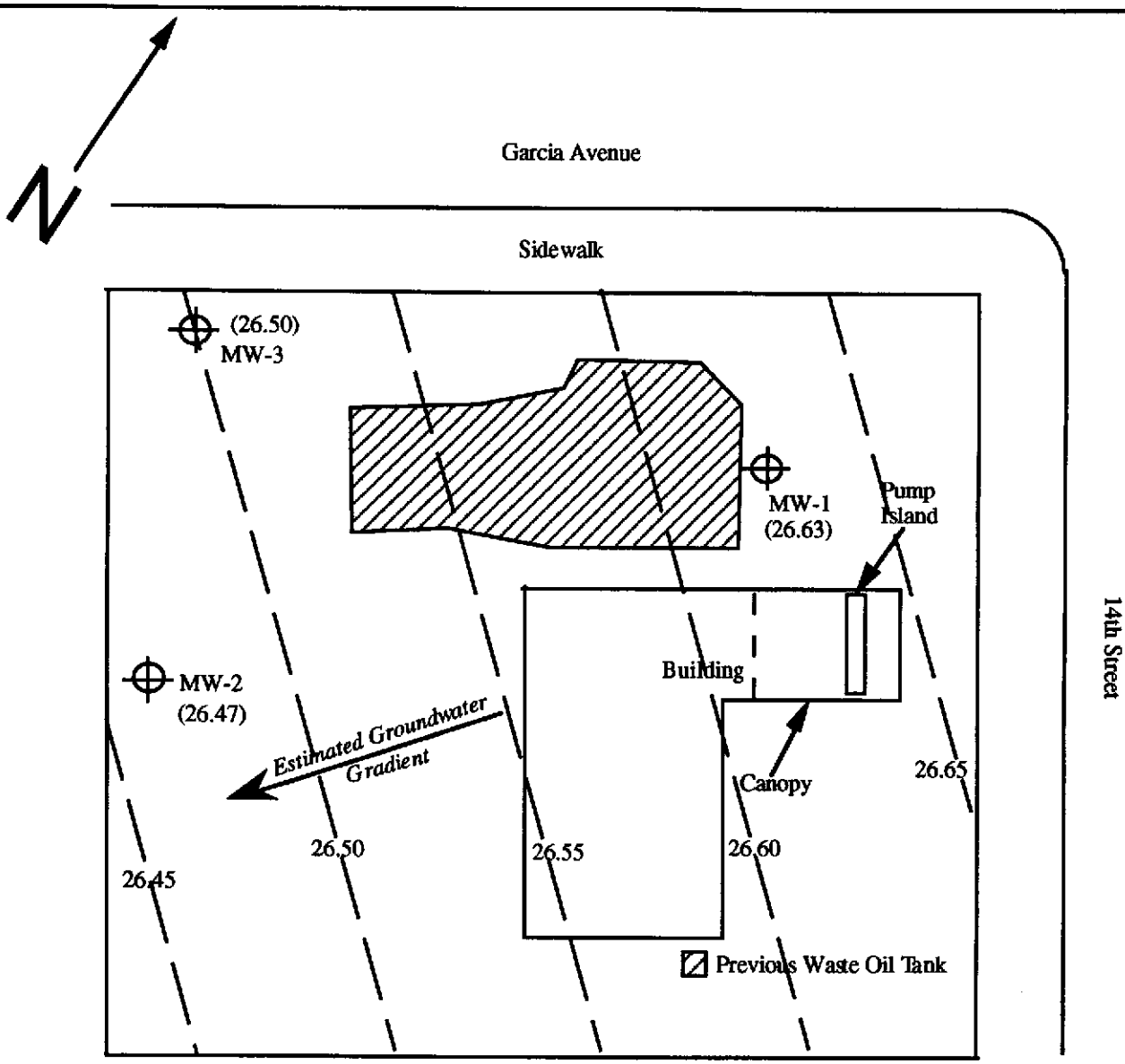
GROUNDWATER ELEVATION CONTOUR MAP 2/10/95
German Autocraft
301 East 14th Street
San Leandro, California

Figure 3a

Project No. 94-52
Date: 8/95



EXPLANATION:

Scale: 1"=20'

0 10 20

MW-1 Monitoring Well

Former Tank Pit/Removed Asphalt Areas

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

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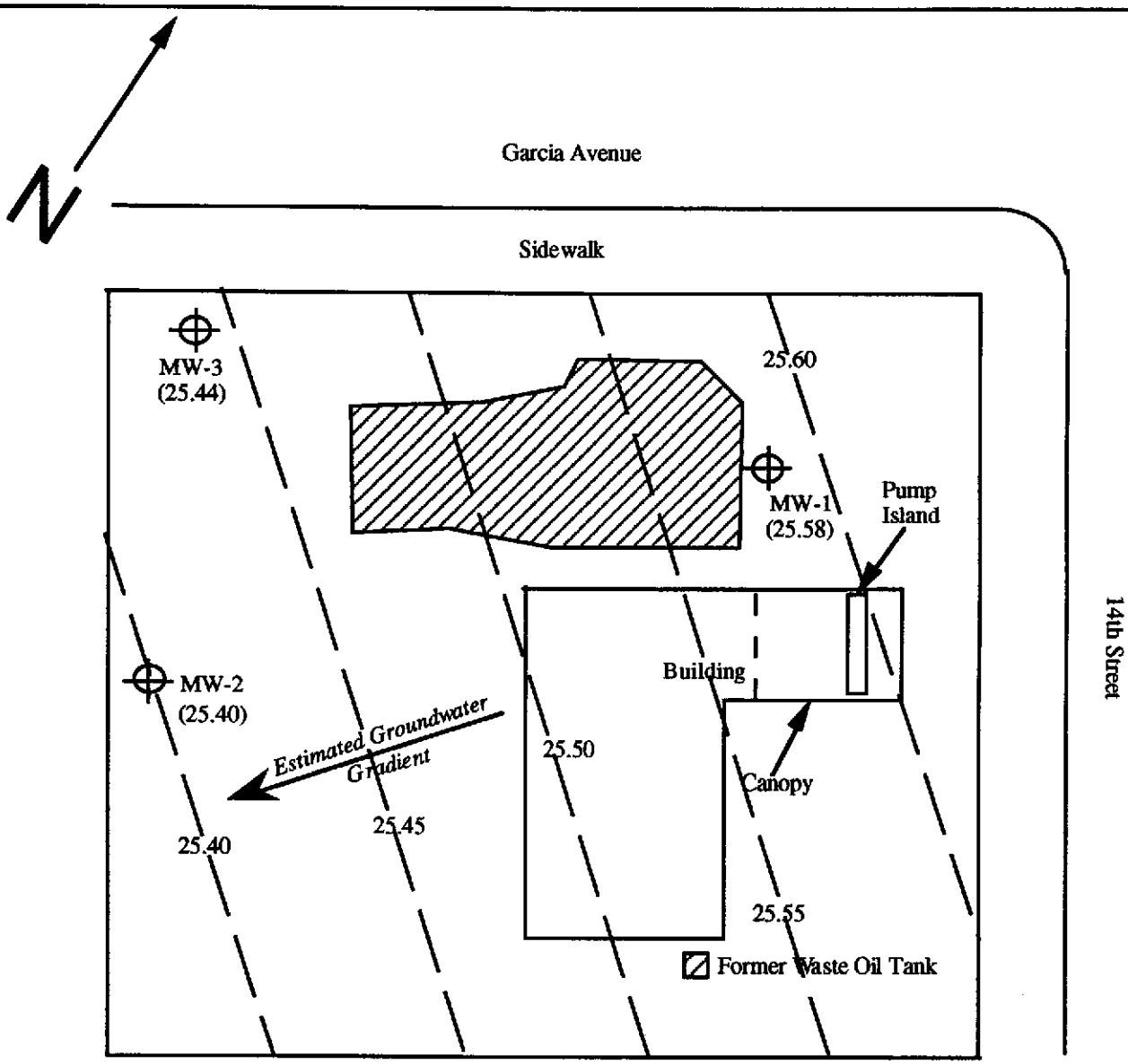
GROUNDWATER ELEVATION CONTOUR MAP 7/6/95
German Autocraft
301 East 14th Street
San Leandro, California

Figure 3b

Project No. 94-52
Date: 8/95



EXPLANATION:

Scale: 1"=20'

0 10 20

MW-1 Monitoring Well

Former Tank Pit/Removed Asphalt Areas

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

ENVIRONMENTAL TESTING & MGMT.
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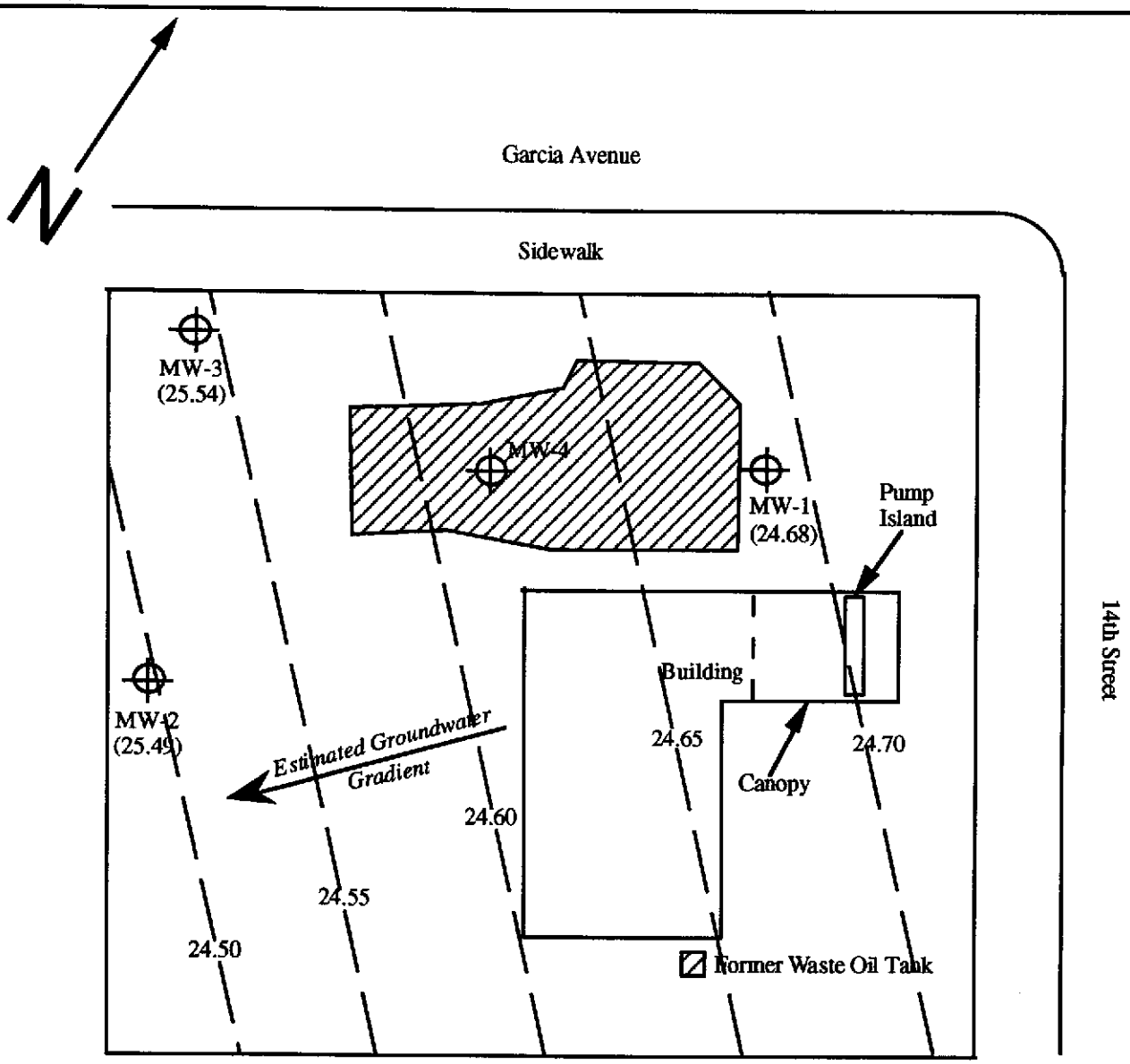
GROUNDWATER ELEVATION CONTOUR MAP 8/10/95
German Autocraft
301 East 14th Street
San Leandro, California

Figure 3c

Project No. 94-52
Date: 8/95



EXPLANATION:

Scale: 1"=20'

0 10 20

MW-1 Monitoring Well

Former Tank Pit/Removed Asphalt Areas

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

ENVIRONMENTAL TESTING & MGMT.
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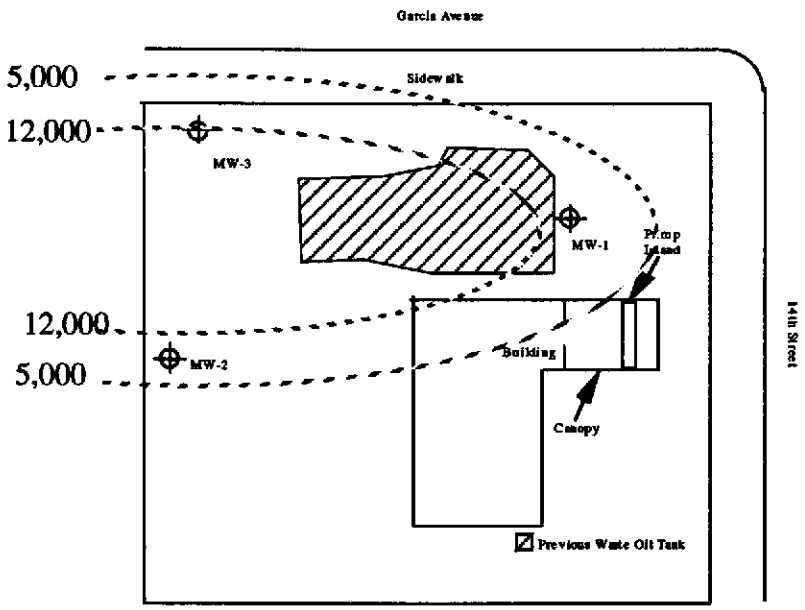
GROUNDWATER ELEVATION CONTOUR MAP 9/11/95
German Autocraft
301 East 14th Street
San Leandro, California

Figure 3d

Project No. 94-52
Date: 9/95



EXPLANATION:

Approximate Scale: 1"=35'

0 17.5 35

MW-1 Monitoring Well

Former Tank Pit/Removed Asphalt Areas

5,000 Approximate Benzene Isoconcentration Countours Units: Micrograms/Liter

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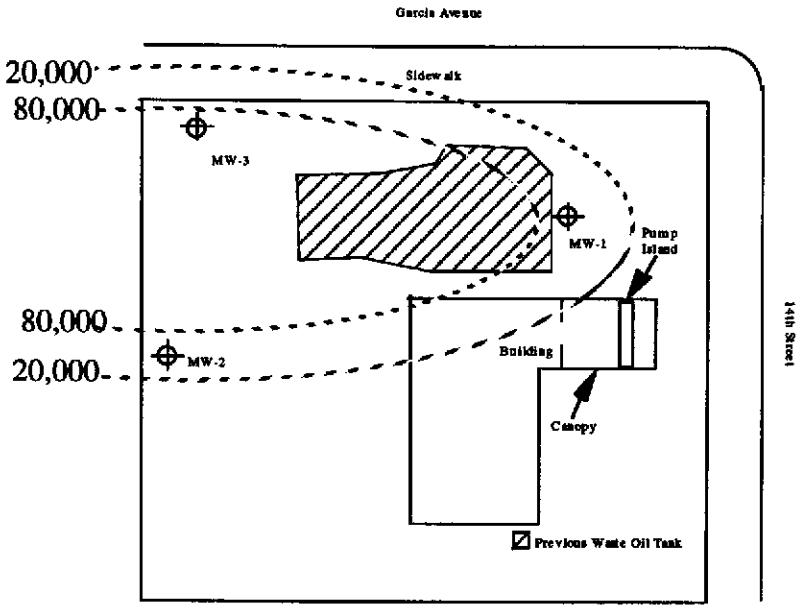
Groundwater Benzene Plume Contour Map 8/95
German Autocraft
301 East 14th Street
San Leandro, California

Figure 4

Project No. 94-52
Date: 8/95



EXPLANATION:

Approximate Scale: 1"=35'

0 17.5 35

MW-1 Monitoring Well

Former Tank Pit/Removed Asphalt Areas

20,000 Approximate TPHg Isoconcentration Countours Units: Micrograms/Liter

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Groundwater TPHg Plume Contour Map 7/6/95
German Autocraft
301 East 14th Street
San Leandro, California

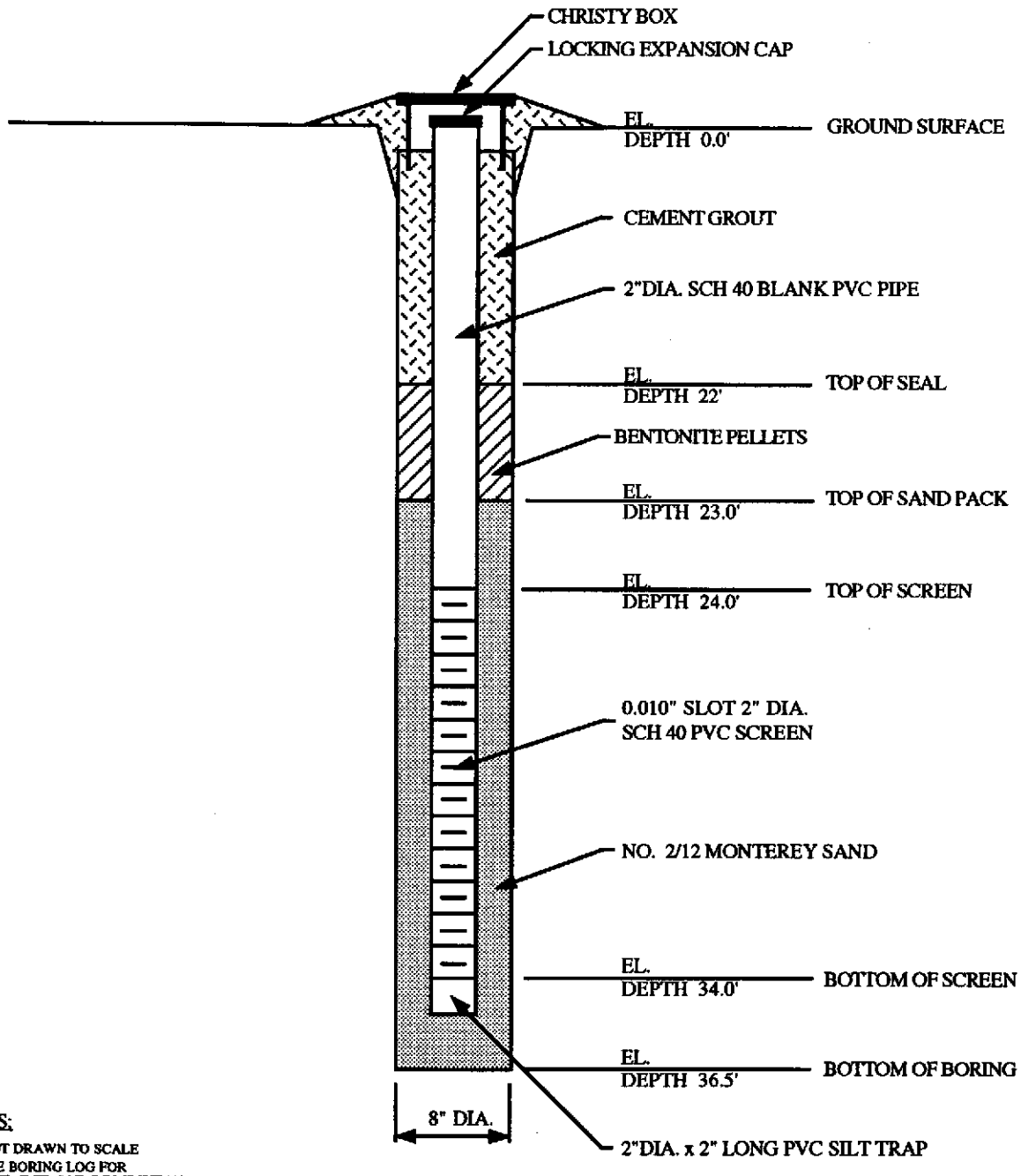
Figure 5

Project No. 94-52
Date: 8/95

Figure 6 Monitoring Well Detail

PROJECT NAME: GERMAN AUTOCRAFT WELL NO. : MW-4

WELL LOCATION: 310 E. 14th Street, San Leandro, CA DATE INSTALLED: 8/31/95



NOTES:

1. NOT DRAWN TO SCALE
2. SEE BORING LOG FOR DETAILED SOIL DESCRIPTION.

APPENDIX A: FIELD SAMPLING AND GAUGING PROCEDURES

1. 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 followed by a distilled water rinse. 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 and/or until groundwater temperature, pH, and specific conductance stabilized. Groundwater sampling field data sheets are presented in **Appendix C.**

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.

2. GRAB SOIL SAMPLING

Grab soil samples were collected using a barrel sampler and slide hammer. The barrel sampler fitted with a 2-inch diameter brass sleeve. The ends were capped with Teflon film or aluminum foil, and plastic end caps. The samples were sealed with tape and labeled for sampling point

reference. The samples were placed on ice immediately after sampling and delivered to the laboratory under chain-of-custody documentation.

Inchcape Testing Services
Anametrix Laboratories

1961 Concourse Drive
Suite E
San Jose, CA 95131
Tel: 408-432-8192
Fax: 408-432-8198

MR. TOM PRICE
CHEMIST ENTERPRISES
333-B CAMINO VERDE
BOULDER CREEK, CA 95006

Workorder # : 9507030
Date Received : 07/06/95
Project ID : GERMAN AUTOCRAFT
Purchase Order: N/A

The following samples were received at Anametrix for analysis :

ANAMETRIX ID	CLIENT SAMPLE ID
9507030- 1	MW-9
9507030- 2	MW-1
9507030- 3	MW-2
9507030- 4	MW-3
9507030- 5	RINSATE1
9507030- 6	TBLANK
9507030- 7	MW-123
9507030- 8	CUTTINGS

This report is organized in sections according to the specific Anametrix laboratory group which performed the analysis(es) and generated the data.

The results contained within this report relate to only the sample(s) tested. Additionally, these data should be considered in their entirety and Anametrix cannot be responsible for the detachment, separation, or otherwise partial use of this report.

Anametrix is certified by the California Department of Health Services (DHS) to perform environmental testing under Certificate Number 1234.

If you have any further questions or comments on this report, please call your project manager as soon as possible. Thank you for using Inchcape Testing Services.

Corinne Ham for
Susan Kraska Yeager
Laboratory Director

07/20/95
Date

Joyce Voleida
Project Manager

This report consists of 28 pages.

Organic Analysis Data Sheet
Total Petroleum Hydrocarbons as Gasoline with BTEX
ITS - Anametrix Laboratories - (408)432-8192

Lab Workorder : 9507030
Matrix : WATER

Client Project ID : GERMAN AUTOCRAF
Units : ug/L

Compound Name	Method Reporting Limit*	Client ID MW-9 Lab ID 9507030-01	Client ID MW-1 Lab ID 9507030-02	Client ID MW-2 Lab ID 9507030-03	Client ID MW-3 Lab ID 9507030-04	Client ID RINSATE1 Lab ID 9507030-05
Benzene	0.50	8000	4800	5300	12000	ND
Toluene	0.50	17000	9500	1800	8600	ND
Ethylbenzene	0.50	1900	930	6100	4900	0.79
Total Xylenes	0.50	9700	5000	9000	19000	0.67
TPH as Gasoline	50	49000	47000	71000	86000	92
Surrogate Recovery		114%	103%	128%	123%	105%
Instrument ID		HP4	HP4	HP4	HP4	HP4
Date Sampled		07/06/95	07/06/95	07/06/95	07/06/95	07/06/95
Date Analyzed		07/11/95	07/13/95	07/12/95	07/12/95	07/13/95
RLMF		250	500	250	500	1
Filename Reference		FPL03001.D	FTL03002.D	FPL03003.D	FRL03004.D	FPL03005.D

* The Method Reporting Limit must be multiplied by the Reporting Limit Multiplication Factor (RLMF) to achieve the compound's reporting limit in the analysis.

ND : Not detected at or above the reporting limit for the analysis as performed.
TPHg : Determined by GC/FID following sample purge & trap by EPA Method 5030.
BTEX : Determined by modified EPA Method 8020 following sample purge & trap by EPA Method 5030.

Lab Control Limits for surrogate compound p-Bromofluorobenzene are 61-139%.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

Reggie Dawson 7/17/95
Analyst Date

Cheryl Baeza 7/17/95
Supervisor Date

Issued on 7/17/95 @ 3:44 pm

Organic Analysis Data Sheet
Total Petroleum Hydrocarbons as Gasoline with BTEX
ITS - Anametrix Laboratories - (408)432-8192

Lab Workorder : 9507030 | Client Project ID : GERMAN AUTOCRAF

Matrix : WATER | Units : ug/L

Compound Name	Method Reporting Limit*	Client ID	Client ID	Client ID	Client ID	Client ID
		TBLANK				
		Lab ID	Lab ID	Lab ID	Lab ID	Lab ID
		9507030-06	METHOD BLANK	METHOD BLANK	METHOD BLANK	METHOD BLANK
Benzene	0.50	ND	ND	ND	ND	ND
Toluene	0.50	ND	ND	ND	ND	ND
Ethylbenzene	0.50	ND	ND	ND	ND	ND
Total Xylenes	0.50	ND	ND	ND	ND	ND
TPH as Gasoline	50	ND	ND	ND	ND	ND
Surrogate Recovery		103%	103%	103%	99%	92%
Instrument ID		HP4	HP4	HP4	HP4	HP4
Date Sampled		07/06/95	N/A	N/A	N/A	N/A
Date Analyzed		07/11/95	07/11/95	07/11/95	07/12/95	07/13/95
RLMF		1	1	1	1	1
Filename Reference		FPL03006.D	BL1101E1.D	BL1104E1.D	BL1201E1.D	BL1301E1.D

* The Method Reporting Limit must be multiplied by the Reporting Limit Multiplication Factor (RLMF) to achieve the compound's reporting limit in the analysis.

ND : Not detected at or above the reporting limit for the analysis as performed.
TPHg : Determined by GC/FID following sample purge & trap by EPA Method 5030.
BTEX : Determined by modified EPA Method 8020 following sample purge & trap by EPA Method 5030.

Lab Control Limits for surrogate compound p-Bromofluorobenzene are 61-139%.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

Reggie Davison 7/17/95
Analyst Date

Cheryl Bauman 7/17/95
Supervisor Date

Issued on 7/17/95 @ 3:33 pm

Organic Analysis Data Sheet
Total Petroleum Hydrocarbons as Gasoline with BTEX
ITS - Anametrix Laboratories - (408)432-8192

Lab Workorder : 9507030 | Client Project ID : GERMAN AUTOCRAF

Matrix : SOIL | Units : mg/Kg

Compound Name	Method Reporting Limit*	Client ID CUTTINGS Lab ID 9507030-08	Client ID Lab ID METHOD BLANK	Client ID Lab ID	Client ID Lab ID	Client ID Lab ID
Benzene	0.0050	6.2	ND			
Toluene	0.0050	3.1	ND			
Ethylbenzene	0.0050	6.8	ND			
Total Xylenes	0.0050	19	ND			
TPH as Gasoline	0.50	540	ND			
Surrogate Recovery		110%	103%			
Instrument ID		HP4	HP4			
Date Sampled		07/06/95	N/A			
Date Analyzed		07/11/95	07/11/95			
RLMF		250	1			
Filename Reference		FPL03008.D	BL1101E1.D			

* The Method Reporting Limit must be multiplied by the Reporting Limit Multiplication Factor (RLMF) to achieve the compound's reporting limit in the analysis.

ND : Not detected at or above the reporting limit for the analysis as performed.
TPHg : Determined by GC/FID following sample purge & trap by EPA Method 5030.
BTEX : Determined by modified EPA Method 8020 following sample purge & trap by EPA Method 5030.

Lab Control Limits for surrogate compound p-Bromofluorobenzene are 53-147%.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

Reggie Davison 7/17/95
Analyst Date

Cheryl Brewer 7/17/95
Supervisor Date

Issued on 7/17/95 @ 2:30 pm

Matrix Spike Report
Total Petroleum Hydrocarbons as Gasoline
ITS - Anametrix Laboratories - (408)432-8192

Project ID : GERMAN AUTOCRAFT
Sample ID : MW-3
Matrix : WATER
Date Sampled : 07/06/95

Laboratory ID : 9507030-04
Analyst : RS
Supervisor : CD
Instrument ID : HP4
Units : ug/L

COMPOUND NAME	SPIKE AMOUNT	SAMPLE RESULTS	MS RECOVERY	MSD RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS
Gasoline	250000	86000	106%	118%	50-139	-11%	30
Surrogate Recovery		123%	131%	127%			
Date Analyzed		07/12/95	07/12/95	07/12/95			
Multiplier		500	500	500			
Filename Reference		FRL03004.D	FML03004.D	FDL03004.D			

* Limits established by Inchcape Testing Services, Anametrix Laboratories.

Matrix Spike Report
Total Petroleum Hydrocarbons as Gasoline
ITS - Anametrix Laboratories - (408)432-8192

Project ID : GERMAN AUTOCRAFT
Sample ID : RINSATE1
Matrix : WATER
Date Sampled : 07/06/95

Laboratory ID : 9507030-05
Analyst : RD
Supervisor : [illegible]
Instrument ID : HP4
Units : ug/L

COMPOUND NAME	SPIKE AMOUNT	SAMPLE RESULTS	MS RECOVERY	MSD RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS
Gasoline	500	92	94%	94%	50-139	0%	30
Surrogate Recovery		105%	119%	120%			
Date Analyzed		07/13/95	07/13/95	07/13/95			
Multiplier		1	1	1			
Filename Reference		FML03005.D	FRL03005.D	FDL03005.D			

* Limits established by Inchcape Testing Services, Anametrix Laboratories.

Matrix Spike Report
Total Petroleum Hydrocarbons as Gasoline
ITS - Anametrix Laboratories - (408)432-8192

Project ID : GERMAN AUTOCRAFT
Sample ID : RINSATE1
Matrix : WATER
Date Sampled : 07/06/95

Laboratory ID : 9507030-05
Analyst : RD
Supervisor : ~
Instrument ID : HP4
Units : ug/L

COMPOUND NAME	SPIKE AMOUNT	SAMPLE RESULTS	MS RECOVERY	MSD RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS
Gasoline	500	92	96%	112%	50-139	-15%	30
Surrogate Recovery		105%	116%	113%			
Date Analyzed		07/13/95	07/11/95	07/11/95			
Multiplier		1	1	1			
Filename Reference		FRL03005.D	FML03005.D	FDL03005.D			

* Limits established by Inchcape Testing Services, Anametrix Laboratories.

Laboratory Control Spike Report
Total Petroleum Hydrocarbons as Gasoline
ITS - Anametrix Laboratories - (408)432-8192

Instrument ID : HP4
Matrix : LIQUID

Analyst : RO
Supervisor : [illegible]
Units : ug/L

COMPOUND NAME	SPIKE AMOUNT	LCS RECOVERY	RECOVERY LIMITS
Gasoline	500	126%	56-141
Surrogate Recovery		116%	61-139
Date Analyzed		07/12/95	
Multiplier		1	
Filename Reference		ML1201E1.D	

* Limits established by Inchcape Testing Services, Anametrix Laboratories.

Laboratory Control Spike Report
Total Petroleum Hydrocarbons as Gasoline
ITS - Anametrix Laboratories - (408)432-8192

Instrument ID : HP4
Matrix : LIQUID

Analyst : RD
Supervisor : [illegible]
Units : ug/L

COMPOUND NAME	SPIKE AMOUNT	LCS RECOVERY	RECOVERY LIMITS
Gasoline	500	112%	56-141
Surrogate Recovery		119%	61-139
Date Analyzed		07/13/95	
Multiplier		1	
Filename Reference		ML1301E1.D	

* Limits established by Inchcape Testing Services, Anametrix Laboratories.

Laboratory Control Spike Report
Total Petroleum Hydrocarbons as Gasoline
ITS - Anametrix Laboratories - (408)432-8192

Instrument ID : HP4
Matrix : SOLID

Analyst : RD
Supervisor : [illegible]
Units : mg/Kg

COMPOUND NAME	SPIKE AMOUNT	LCS RECOVERY	RECOVERY LIMITS
Gasoline	0.50	104%	56-141
Surrogate Recovery		119%	53-147
Date Analyzed		07/11/95	
Multiplier		1	
Filename Reference		ML1101E1.D	

* Limits established by Inchcape Testing Services, Anametrix Laboratories.

Laboratory Control Spike Report
Total Petroleum Hydrocarbons as Gasoline
ITS - Anametrix Laboratories - (408)432-8192

Instrument ID : HP4
Matrix : LIQUID

Analyst : RD
Supervisor : [illegible]
Units : ug/L

COMPOUND NAME	SPIKE AMOUNT	LCS RECOVERY	RECOVERY LIMITS
Gasoline	500	100%	56-141
Surrogate Recovery		121%	61-139
Date Analyzed		07/11/95	
Multiplier		1	
Filename Reference		ML1102E1.D	

* Limits established by Inchcape Testing Services, Anametrix Laboratories.

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MR. TOM PRICE
CHEMIST ENTERPRISES
333-B CAMINO VERDE
BOULDER CREEK, CA 95006

Workorder # : 9507030
Date Received : 07/06/95
Project ID : GERMAN AUTOCRAFT
Purchase Order: N/A
Department : GC
Sub-Department: TPH

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9507030- 1	MW-9	WATER	07/06/95	TPHgBTEX
9507030- 2	MW-1	WATER	07/06/95	TPHgBTEX
9507030- 3	MW-2	WATER	07/06/95	TPHgBTEX
9507030- 4	MW-3	WATER	07/06/95	TPHgBTEX
9507030- 5	RINSATE1	WATER	07/06/95	TPHgBTEX
9507030- 6	TBLANK	WATER	07/06/95	TPHgBTEX
9507030- 8	CUTTINGS	SOIL	07/06/95	TPHgBTEX

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MR. TOM PRICE
CHEMIST ENTERPRISES
333-B CAMINO VERDE
BOULDER CREEK, CA 95006

Workorder # : 9507030
Date Received : 07/06/95
Project ID : GERMAN AUTOCRAFT
Purchase Order: N/A
Department : GC
Sub-Department: TPH

QA/QC SUMMARY :

- All holding times have been met for the analyses reported in this workorder.

Cheryl Balmer 7/20/95
Department Supervisor Date

Reggie Dawson 7/20/95
Chemist Date

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MR. TOM PRICE
CHEMIST ENTERPRISES
333-B CAMINO VERDE
BOULDER CREEK, CA 95006

Workorder # : 9507030
Date Received : 07/06/95
Project ID : GERMAN AUTOCRAFT
Purchase Order: N/A
Department : METALS
Sub-Department: METALS

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9507030- 8	CUTTINGS	SOIL	07/06/95	9045
9507030- 8	CUTTINGS	SOIL	07/06/95	CWET-INORG
9507030- 8	CUTTINGS	SOIL	07/06/95	CWETMETALS
9507030- 5	RINSATE1	WATER	07/06/95	RCRA
9507030- 7	MW-123	WATER	07/06/95	RCRA

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MR. TOM PRICE
CHEMIST ENTERPRISES
333-B CAMINO VERDE
BOULDER CREEK, CA 95006

Workorder # : 9507030
Date Received : 07/06/95
Project ID : GERMAN AUTOCRAFT
Purchase Order: N/A
Department : METALS
Sub-Department: METALS

QA/QC SUMMARY :

- All holding times have been met for the analyses reported in this section.

Department Supervisor 7/17/95 Date

Chemist 7/17/95 Date

INCHCAPE TESTING SERVICES
ANAMETRIX LABORATORIES
(408) 432-8192
DATA REPORT

Anametrix Sample ID: 9507030-05
Client Sample ID: RINSATE1
Client Project Number: GERMAN AUTOCRAFT
Matrix: WATER

Date Sampled: 07/06/95
Analyst: AJ
Supervisor: MB

Analyte	Prep. Method	Analytical Method	Instr. ID	Date Prepared	Date Analyzed	Dil. Factor	Units	Reporting Limit	Results	Q
Arsenic	3010A	6010A	ICP2	07/10/95	07/11/95	1	ug/L	10.0	ND	
Barium	3010A	6010A	ICP2	07/10/95	07/11/95	1	ug/L	100	ND	
Cadmium	3010A	6010A	ICP2	07/10/95	07/11/95	1	ug/L	5.0	ND	
Chromium	3010A	6010A	ICP2	07/10/95	07/11/95	1	ug/L	10.0	ND	
Lead	3010A	6010A	ICP2	07/10/95	07/11/95	1	ug/L	40.0	ND	
Mercury	7470	7470	HGA1	07/10/95	07/11/95	1	ug/L	0.20	ND	
Selenium	3010A	6010A	ICP2	07/10/95	07/11/95	1	ug/L	5.0	ND	
Silver	3010A	6010A	ICP2	07/10/95	07/12/95	1	ug/L	10.0	ND	

COMMENTS:

INCHCAPE TESTING SERVICES
ANAMETRIX LABORATORIES
(408) 432-8192

DATA REPORT

Anametrix Sample ID: **9507030-07**
Client Sample ID: **MW-123**
Client Project Number: **GERMAN AUTOCRAFT**
Matrix: **WATER**

Date Sampled: **07/06/95**
Analyst: s c
Supervisor: mvk

Analyte	Prep. Method	Analytical Method	Instr. ID	Date Prepared	Date Analyzed	Dil. Factor	Units	Reporting Limit	Results	Q
Arsenic	3010A	6010A	ICP2	07/10/95	07/11/95	1	ug/L	10.0	**48.5**	
Barium	3010A	6010A	ICP2	07/10/95	07/11/95	1	ug/L	100	**1400**	
Cadmium	3010A	6010A	ICP2	07/10/95	07/11/95	1	ug/L	5.0	**16.3**	
Chromium	3010A	6010A	ICP2	07/10/95	07/11/95	1	ug/L	10.0	**250**	
Lead	3010A	6010A	ICP2	07/10/95	07/11/95	1	ug/L	40.0	**80.6**	
Mercury	7470	7470	HGA1	07/10/95	07/11/95	1	ug/L	0.20	**1.1**	
Selenium	3010A	6010A	ICP2	07/10/95	07/15/95	5	ug/L	25.0	**ND**	I
Silver	3010A	6010A	ICP2	07/10/95	07/12/95	1	ug/L	10.0	**ND**	

COMMENTS:

INCHCAPE TESTING SERVICES
ANAMETRIX LABORATORIES
(408) 432-8192
DATA REPORT

Analyte-Method: Lead-STLC-6010A
Client Project Number: GERMAN AUTOCRAFT
Matrix - Units: SOIL - mg/L

Analyst: LS
Supervisor: MM

Anametrix Sample ID	Client Sample ID	Prep. Method	Instr. ID	Date Sampled	Date Prepared	Date Analyzed	D.F.	Reporting Limit	Results	Q
9507030-08	CUTTINGS	CWET	ICP1	07/06/95	07/10/95	07/11/95	10	0.40	ND	
BU105EA	METHOD BLANK	CWET	N/A	07/06/95	07/10/95	07/11/95	10	0.40	ND	

COMMENTS:

INCHCAPE TESTING SERVICES
ANAMETRIX LABORATORIES
(408) 432-8192
DATA REPORT

Analyte-Method: pH-9045
Client Project Number: GERMAN AUTOCRAFT
Matrix - Units: SOIL - pH units

Analyst: AS
Supervisor: [illegible]

Anametrix Sample ID	Client Sample ID	Prep. Method	Instr. ID	Date Sampled	Date Prepared	Date Analyzed	D.F.	Reporting Limit	Results	Q
9507030-08	CUTTINGS	9045	MET3	07/06/95	07/07/95	07/07/95	10	+/-0.1	8.0	

COMMENTS:

INCHCAPE TESTING SERVICES
ANAMETRIX LABORATORIES
(408) 432-8192

METHOD BLANK REPORT

Anametrix Sample ID: BL105WA, BL105WB
Anametrix WO #: 9507030
Client Project Number: GERMAN AUTOCRAFT
Matrix: WATER

Analyst: CR
Supervisor: [illegible]

Analyte	Prep. Method	Analytical Method	Instr. ID	Date Prepared	Date Analyzed	Dil. Factor	Units	Reporting Limit	Results	Q
Arsenic	3010A	6010A	ICP2	07/10/95	07/11/95	1	ug/L	10.0	ND	
Barium	3010A	6010A	ICP2	07/10/95	07/11/95	1	ug/L	100	ND	
Cadmium	3010A	6010A	ICP2	07/10/95	07/11/95	1	ug/L	5.0	ND	
Chromium	3010A	6010A	ICP2	07/10/95	07/11/95	1	ug/L	10.0	ND	
Lead	3010A	6010A	ICP2	07/10/95	07/11/95	1	ug/L	40.0	ND	
Mercury	7470	7470	HGA1	07/10/95	07/11/95	1	ug/L	0.20	ND	
Selenium	3010A	6010A	ICP2	07/10/95	07/11/95	1	ug/L	5.0	ND	
Silver	3010A	6010A	ICP2	07/10/95	07/11/95	1	ug/L	10.0	ND	

COMMENTS:

INCHCAPE TESTING SERVICES
ANAMETRIX LABORATORIES
(408) 432-8192

SAMPLE DUPLICATE REPORT

Anametrix Sample ID: 9507030-08D
Client Sample ID: CUTTINGS
Client Project Number: GERMAN AUTOCRAFT
Matrix: SOIL

Analyst: NP
Supervisor: [illegible]

Analyte	Prep. Method	Analyt. Method	Instr. ID	Date Prepared	Date Analyzed	Dil. Factor	Units	Sample Conc.	Sample Duplicate Conc.	RPD	Q
Lead-STLC	CWET	6010A	ICP1	07/10/95	07/11/95	10	mg/L	ND	ND	N/A	
pH	9045	9045	MET3	07/07/95	07/07/95	1	pH	8.0	8.1	1.2	

COMMENTS:

INCHCAPE TESTING SERVICES
ANAMETRIX LABORATORIES
(408) 432-8192
MATRIX SPIKE REPORT

Anametrix. Sample ID: 9507030-08MS
Client Sample ID: CUTTINGS
Client Proj. Number: GERMAN AUTOCRAFT
Matrix: SOIL

Analyst:
Supervisor:

Analyte	Analyt. Method	Instr. I.D.	Date Prepared	Date Analyzed	Units	Spike Amount	Sample Conc.	Matrix Spike Conc.	% Rec.				Q
Lead-STLC	6010A	ICP1	07/10/95	07/11/95	mg/L	5.0	0.0	4.4	88.0				U

COMMENTS:

INCHCAPE TESTING SERVICES
ANAMETRIX LABORATORIES
(408) 432-8192

LABORATORY CONTROL SAMPLE REPORT

Lab. Control Sample ID: LL105WA, LL105WB
Anametrix WO #: 9507030
Client Project Number: GERMAN AUTOCRAFT
Matrix: WATER

Analyst: NP
Supervisor: mm

Analyte	Prep. Method	Analytical Method	Instr. ID	Date Prepared	Date Analyzed	Dil. Factor	Units	Spike Amount	LCS Results	% Recovery	Q
Arsenic	3010A	6010A	ICP2	07/10/95	07/11/95	1	ug/L	100	89.4	89.4	
Barium	3010A	6010A	ICP2	07/10/95	07/11/95	1	ug/L	2000	1920	96.0	
Cadmium	3010A	6010A	ICP2	07/10/95	07/11/95	1	ug/L	50.0	48.2	96.4	
Chromium	3010A	6010A	ICP2	07/10/95	07/11/95	1	ug/L	200	198	99.0	
Lead	3010A	6010A	ICP2	07/10/95	07/11/95	1	ug/L	500	481	96.2	
Mercury	7470	7470	HGA1	07/10/95	07/11/95	1	ug/L	1.0	1.0	100	
Selenium	3010A	6010A	ICP2	07/10/95	07/11/95	1	ug/L	50.0	45.3	90.6	
Silver	3010A	6010A	ICP2	07/10/95	07/11/95	1	ug/L	50.0	51.0	102	

COMMENTS:

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MR. TOM PRICE
CHEMIST ENTERPRISES
333-B CAMINO VERDE
BOULDER CREEK, CA 95006

Workorder # : 9507030
Date Received : 07/06/95
Project ID : GERMAN AUTOCRAFT
Purchase Order: N/A
Department : PREP
Sub-Department: PREP

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9507030- 8	CUTTINGS	SOIL	07/06/95	1010

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MR. TOM PRICE
CHEMIST ENTERPRISES
333-B CAMINO VERDE
BOULDER CREEK, CA 95006

Workorder # : 9507030
Date Received : 07/06/95
Project ID : GERMAN AUTOCRAFT
Purchase Order: N/A
Department : PREP
Sub-Department: PREP

QA/QC SUMMARY :

- All holding times have been met for the analyses reported in this section.

Department Supervisor 7/14/95 Date

Chemist 7/12/95 Date

ANALYSIS DATA SHEET - FLASHPOINT - EPA METHOD 1010

ITS - ANAMETRIX LABORATORIES (408) 432-8192

PROJECT #	:	GERMAN AUTOCRAFT	ANAMETRIX I.D.	:	9507030
DATE SAMPLED	:	07/06/95	ANALYST	:	as
DATE ANALYZED	:	07/12/95	SUPERVISOR	:	CMW
BATCH #	:	HDL12WO1	DATE RELEASED	:	07/12/95

WORKORDER #	SAMPLE I.D.	MATRIX	CENTIGRADE
9507030-08	CUTTINGS	SOIL	>100
9507030-08	CUTTINGS	SOIL	>100

1010 : Pensky-Martens Closed-Cup Methods for Determining Ignitability.

SW-846, 3rd Edition.

Inchcape Testing Services
Anametrix Laboratories

1961 Concourse Drive
Suite E
San Jose, CA 95131
Tel: 408-432-8192
Fax: 408-432-8198

July 18, 1995

Mr. Tom Price
CHEMIST ENTERPRISES
333-B Camino Verde
Boulder Creek, CA 95006

Dear Mr. Price,

Enclosed are the analytical results for your project ID: GERMAN AUTOCRAFT, we received on July 6, 1995. The enclosed work was performed by Inchcape Testing Services - NDRC Laboratories, a state certified laboratory.

I.T.S. Anametrix ID:	Client ID:
9507030-8	CUTTINGS

If you have any questions regarding this workorder, please give me a call at (408)432-8192.

Sincerely,

INCHCAPE TESTING SERVICES
ANAMETRIX LABORATORIES

Cristina V. Rayburn

Cristina Velasquez Rayburn
Project Manager

Inchcape Testing Services
Environmental Laboratories

1089 E. Collins Blvd.
Richardson, TX 75081
Tel. 214-238-5591
Fax. 214-238-5592

DATE RECEIVED : 8-JUL-1995

REPORT NUMBER : D95-6248
REPORT DATE : 10-JUL-1995

SAMPLE SUBMITTED BY : ITS/San Jose
ADDRESS : 1961 Concourse Drive, Ste. E
: San Jose, CA 95131
ATTENTION : Ms. Cristina Rayburn
PROJECT : German Autocraft

Included in this data package are the analytical results for the sample group which you have submitted to Inchcape Testing Services for analysis.

The information contained herein has undergone extensive review and is deemed accurate and complete. Sample analysis and quality control were performed in accordance with all applicable protocols. Any deviations from these protocols or observations of interest are detailed in an accompanying Case Narrative.

If you have any questions regarding this report and its associated materials please call your Project Manager at (214) 238-5591.

We appreciate the opportunity to serve you and look forward to providing continued service in the future.

Martin Jeffus
General Manager

Inchcape Testing Services
Environmental Laboratories

1089 E. Collins Blvd.
Richardson, TX 75081
Tel. 214-238-5591
Fax. 214-238-5592

DATE RECEIVED: 8-JUL-1995

REPORT NUMBER: D95-6248
REPORT DATE: 10-JUL-1995

SAMPLE SUBMITTED BY : ITS/San Jose
ADDRESS : 1961 Concourse Drive, Ste. E
San Jose, CA 95131
ATTENTION : Ms. Christina Rayburn

Project : German Autocraft

DATE SAMPLED : 6-JUL-1995

CASE NARRATIVE COMMENTS:

No problems were encountered during the sample analysis for this task.

Please refer to the attached Case Narrative Summary for sample identifications and analytical requests.

If you have any questions, please feel free to contact Mr. John Todd at (214) 238-5591.

Alan Humason
QA Coordinator

Inchcape Testing Services
Environmental Laboratories

1089 E. Collins Blvd.
Richardson, TX 75081
Tel. 214-238-5591
Fax. 214-238-5592

JOB ID : D95-6248
CUSTOMER : ITS/San Jose
PROJECT : German Autocraft

SAMPLE ID : D95-6248-1 DATE SAMPLED : 6-JUL-1995
ID MARKS : Cuttings

ANALYSIS	PRP	PRP DATE	ANL	ANL DATE	QC BATCH NUMBER
CN_REACT_S /1			GGD	10-JUL-1995	200091A/471008A(R)
REACTIVITY /1			GGD	10-JUL-1995	200091A/471008A
SULFID_R_S /1			GGD	10-JUL-1995	200091A/471008A(R)

ANALYSIS	DESCRIPTION
CN_REACT_S	Cyanide, Reactive, Solid Matrix
REACTIVITY	Reactivity(Sulfide and Cyanide), RCRA
SULFID_R_S	Sulfide, Reactive, Solid Matrix

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Environmental Laboratories

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Richardson, TX 75081
Tel. 214-238-5591
Fax. 214-238-5592

DATE RECEIVED : 8-JUL-1995

REPORT NUMBER : D95-6248-1
REPORT DATE : 10-JUL-1995

SAMPLE SUBMITTED BY : ITS/San Jose
ADDRESS : 1961 Concourse Drive, Ste. E
: San Jose, CA 95131
ATTENTION : Ms. Cristina Rayburn

SAMPLE MATRIX : Soil
ID MARKS : Cuttings
PROJECT : German Autocraft
DATE SAMPLED : 6-JUL-1995

MISCELLANEOUS ANALYSES			
TEST REQUESTED		DETECTION LIMIT	RESULTS
Cyanide, Reactive	/1	0.10 mg/Kg	< 0.10 mg/Kg
Analyzed using EPA 9010 on 10-JUL-1995 by GGD QC Batch No : 200091A/471008A(R)			
Reactivity	/1		Non-reactive
Analyzed using EPA 9010/9030 on 10-JUL-1995 by GGD QC Batch No : 200091A/471008A			
Sulfide, Reactive	/1	10.0 mg/Kg	< 10.0 mg/Kg
Dilution Factor : 1 Analyzed using EPA 9030 on 10-JUL-1995 by GGD QC Batch No : 200091A/471008A(R)			

Inchcape Testing Services
Environmental Laboratories

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Tel. 214-238-5591
Fax. 214-238-5592

REPORT DATE : 10-JUL-1995 REPORT NUMBER : D95-6248

SAMPLE SUBMITTED BY : ITS/San Jose
ATTENTION : Ms. Cristina Rayburn
PROJECT : German Autocraft

LABORATORY QUALITY CONTROL REPORT

ANALYTE	Cyanide, Reactive	Sulfide, Reactive
BATCH NO.	200091A/471008A	200091A/471008A
LCS LOT NO.	AB-106-46-A	AB-002-92-A
PREP METHOD	---	---
PREPARED BY	---	---
ANALYSIS METHOD	EPA 9010/9030	EPA 9010/9030
ANALYZED BY	GGD	GGD
UNITS	mg/Kg	mg/Kg
METHOD BLANK	< 0.10	< 10.0
SPIKE LEVEL	1000	1000
MS RESULT	NA	NA
MS RECOVERY %	NA	NA
MSD RESULT	NA	NA
MSD RECOVERY %	NA	NA
MS/MSD RPD %	NA	NA
BS RESULT	NA	NA
BS RECOVERY %	NA	NA
BSD RESULT	NA	NA
BSD RECOVERY %	NA	NA
BS/BSD RPD %	NA	NA
DUPLICATE RPD %	NA	NA
LCS LEVEL	0.200	800
LCS RESULT	0.0408	40.0
LCS RECOVERY %	20.4	5.0
SPIKE SAMPLE ID	---	---
DUP SAMPLE ID	---	---

NA Not applicable

Inchcape Testing Services
Anametrix Laboratories

1961 Concourse Drive, Suite E
San Jose, CA 95131
(408) 432-8192 • Fax (408) 432-8198

CHAIN-OF-CUSTODY RECORD

PROJECT NUMBER: German Antiaircraft | PROJECT NAME:

Send Report Attention of: CRISTINA RAYBURN | Report Due: 07,18,95 | Verbal Due: / /

Sample Number	Date	Time	Comp	Matrix	Station Location	Number of Cntnrs	Type of Containers	Type of Analysis: Reactivity	Condition of Samples	Initial
Cuttings	7-6-95	1440	X	Soil	-8	1	1x120ml (jar)	X	6248-1	

ORIGINAL

w.o.# 9507030

SCREENED FOR RADIOACTIVITY

COOLER TEMPERATURE WHEN RECEIVED: 6 °C

Relinquished by:(Signature)	Date/Time	Received by: (Signature)	Date/Time
	07-07-95 16:30	Kim Hamer	7-8-95/11:00
Relinquished by:(Signature)	Date/Time	Received by: (Signature)	Date/Time
Relinquished by:(Signature)	Date/Time	Received by Lab:	Date/Time

Remarks: PLEASE SEND ORIGINAL CHAIN OF CUSTODY ALONG WITH THE REPORT. Please contact Christina Rayburn if any questions. Subbed to ITS-Dallas

COMPANY: INCHCAPE TESTING SERVICES, ANAMETRIX LABS
ADDRESS: 1961 CONCOURSE DRIVE, SUITE E
SAN JOSE, CA 95131
PHONE : (408)432-8192 FAX : (408)432-8198

Inchcape Testing Services
Anametrix Laboratories

SAMPLE RECEIVING CHECKLIST

WORKORDER NUMBER: 9507030 CLIENT PROJECT ID: German Autocraft

COOLER

Shipping slip (airbill, etc.) present?	YES	NO	(N/A)
If YES, enter carrier name and airbill # : _____			
Custody Seal on the outside of cooler?	YES	NO	(N/A)
Condition: INTACT ____ BROKEN ____			
Temperature of sample (s) within range?	(YES)	NO	N/A
List temperature of cooler (s): 4°C			

SAMPLES

Chain of custody seal present for each container?	YES	NO	(N/A)
Condition: INTACT ____ BROKEN ____			
Samples arrived within holding time?	(YES)	NO	N/A
Samples in proper containers for methods requested?	(YES)	NO	
Condition of containers: INTACT ____ BROKEN ____			
If NO, were samples transferred to proper container? ____			
[illegible]e VOA containers received with zero headspace?	YES	(NO)	N/A
If NO, was it noted on the chain of custody? Yes			
Were container labels complete? (ID, date, time preservative, etc.)	(YES)	NO	
Were samples preserved with the proper preservative?	YES	(NO)	N/A
If NO, was the proper preservative added at time of receipt? Yes			
pH check of samples required at time of receipt?	(YES)	NO	
If YES, pH checked and recorded by: [illegible]			
Sufficient amount of sample received for methods requested?	(YES)	NO	
If NO, has the client or lab project manager been notified? ____			
Field blanks received with sample batch? # of Sets: ____	YES	NO	(N/A)
Trip blanks received with sample batch? # of Sets: 1	(YES)	NO	N/A

CHAIN OF CUSTODY

Chain of custody received with samples?	(YES)	NO
Has it been filled out completely and in ink?	(YES)	NO
Sample ID's on chain of custody agree with container labels?	(YES)	NO
Number of containers indicated on chain of custody agree with number received?	(YES)	NO
Analysis methods clearly specified?	(YES)	NO
Sampling date and time indicated?	(YES)	NO
[illegible]per signatures of sampler, courier, sample custodian in appropriate place? with time and date?	(YES)	NO
Turnaround time? REGULAR RUSH ____		

Any NO response and/or any "BROKEN" that was checked must be detailed in the Corrective Action Form.

Sample Custodian: [illegible] Date: 07-06-95 Project Manager: [illegible] Date: 7/7/95

X045

Inchcape Testing Services
Anametrix Laboratories

1961 Concourse Drive, Suite E
San Jose, CA 95131
(408) 432-8192 • Fax (408) 432-8198

9507030 (26) (10/42) (18)

CHAIN-OF-CUSTODY RECORD

PROJECT NUMBER | PROJECT NAME: German Autocraft

Send Report Attention of: Tom Price | Report Due: / / | Verbal Due: / /

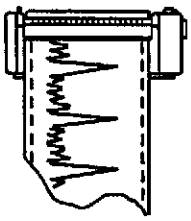
	Sample Number	Date	Time	Comp	Matrix	Station Location	Number of Cntnrs	Type of Containers	Type of Analysis: TPH-g/BTEX / ReRA 8 Metals / RCI / STLC/Lead	Condition of Samples	Initial
1	MW-9	7/6/95	10:00		W	VOA ⊙ bubble	3	VOAs	✓		
2	MW-1	"	11:30		W	VOA ⊙ bubble	3	"	✓		
3	MW-2	"	12 30		W	VOA ⊙ bubble	3	"	✓		
4	MW-3	"	13 30		W	VOA ⊙ bubble	3	"	✓		
5	Rinsate #1	"	1405		W	VOA ⊙ bubble	4 3 40	VOAs / Poly	✓ ✓		
6	Trip Blank	"	—		W		3	VOAs	✓		
7	MW-1,2,3	"	13 30	✓	W		1	Poly	✓		
8	Cuttings	"	1440		S		3	Brass Sleeves	✓ ✓ ✓	*composite these three	

Sampled by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
Tom Price	7/6/95 17:50		
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
Relinquished by: (Signature)	Date/Time	Received by Lab:	Date/Time
			7-06-95 17:50

Remarks: Chemist Enterprises
* special pricing this project *
* Normal turn around time *

COMPANY: Chemist Enterprises
ADDRESS: 333-B Camino Verde
Boulder Creek CA 95006
PHONE (408) 338-0198 FAX: (408) 338-0198

APPENDIX C: FIELD DATA SHEETS/GROUNDWATER SAMPLING



Chemist Enterprises
333-B Camino Verde
Boulder Creek, California 95006
ph. (408) 338-0198

Date: 7/6/95 Project Name: German Autocraft Technician: Tom Price

Project No.: _____ Boring/Well No./Description: MW-1

Depth of Boring/Well: 18.17

Depth From Surface Ft. to Ft.	Description Describe material, grain size, color, etc.

Depth to Water: 12.98 1 Well Volume: 4.0 4 Well Volumes: 16

Boring/Casing Diameter: ✓2" __4" Specify:____ Actual Volume Purged: 16

Calculations:
2" - * 0.1632 gal./ft.
2-3/4" _*0.307 gal./ft.
4" - * 0.653 gal./ft. 25.19 x 0.16 = 4 gal

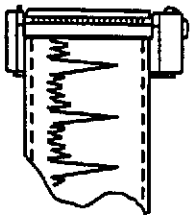
Purge/Sampling Method: __Bailer Specify: purge w/pump, sample w/bailer

Sheen: ✓No __Yes, Describe _____ Odor: __No ✓Yes, Describe Aged Hydrocarbon

Field Measurements:

Time	Volume	pH	Temp.	E.C.	Color
11:00	5	7.38	INOP	1.36E3	Tan
11:15	10	7.34	INOP	1.1E3	Clear
11:20	16	7.30	INOP	1.1E3	Clear

*duplicate sample collected and labelled MW-9.



Chemist Enterprises
333-B Camino Verde
Boulder Creek, California 95006
ph. (408) 338-0198

Date: 7/6/95 Project Name: German Autocraft Technician: Tom Price

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

Depth of Boring/Well: 34.20

Depth From Surface Ft. to Ft.	Description Describe material, grain size, color, etc.

Depth to Water: 23.67' 1 Well Volume: 1.7 4 Well Volumes: 6.8

Boring/Casing Diameter: ✓2" __4" Specify:____ Actual Volume Purged: 7.5

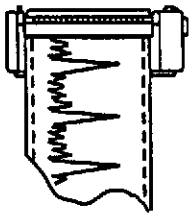
Calculations:
2" - * 0.1632 gal./ft.
2-3/4" _*0.307 gal./ft.
4" - * 0.653 gal./ft.

Purge/Sampling Method: ___Bailer Specify: submersible pump

Sheen:___ No ✓Yes, Describe Very slight Odor:___ No ✓Yes, Describe Strong, aged hydrocarbon

Field Measurements:

Time	Volume	pH	Temp.	E.C.	Color
12:20	5	7.80	INOP	1.24E3	Lt. gray
12:26	7	6.76	INOP	1.33E3	"



Chemist Enterprises
333-B Camino Verde
Boulder Creek, California 95006
ph. (408) 338-0198

Date: 7/6/95 Project Name: German Auto Technician: Tom Price

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

Depth of Boring/Well: 35.54

Depth From Surface Ft. to Ft.	Description Describe material, grain size, color, etc.

Depth to Water: 22.94 1 Well Volume: _____ 4 Well Volumes: _____

Boring/Casing Diameter: ✓ 2" _ 4" Specify:_____ Actual Volume Purged: 7.5

Calculations:
2" - * 0.1632 gal./ft.
2-3/4" _*0.307 gal./ft.
4" - * 0.653 gal./ft. _____

Purge/Sampling Method: ✓ Bailer Specify:_____

Sheen:___ No ✓ Yes, Describe very small gravelant Odor:___ No ✓ Yes, Describe strong aged hydrocarbon

Field Measurements:

Time	Volume	pH	Temp.	E.C.	Color
13:05	2.5	6.85	INOP	0.9E3	gray
13:10	5	6.95	INOP	1.1E3	gray
13:20	7.5	6.98	INOP	1.1E3	gray

APPENDIX D: QUALITY ASSURANCE/QUALITY CONTROL PROGRAM

The quality assurance/quality control measures used for groundwater sampling conducted on July 6, 1995 included the following:

- Groundwater samples were collected in triplicate.
- One trip blank was submitted for TPHg and BTEX analyses along with the groundwater samples.
- One duplicate groundwater sample was collected from MW-1. This sample was labeled "MW-9" and submitted for TPHg and BTEX analysis with the other samples.
- One trip blank was submitted for TPHg and BTEX analysis along with the groundwater samples.

ZONE 7 WATER AGENCY

5997 PARKSIDE DRIVE PLEASANTON, CALIFORNIA 94588 VOICE (510) 484-2600
FAX (510) 462-3914

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT German Autocraft
301 E. 14 ST
San Leandro, CA 94577

CLIENT
Name German Autocraft / Seung Lee
Address 301 E 14 ST Voice
City San Leandro CA Zip 94577

APPLICANT
Name Chemist Enterprises / Tom Price
Project Mgr. Fax (408) 338-0198
Address 333-B Camino Verde Voice (408) 338-0198
City Boulder Creek CA Zip 95006

TYPE OF PROJECT

Well Construction		Geotechnical Investigation	
Cathodic Protection	___	General	___
Water Supply	___	Contamination	✓
Monitoring	✓	Well Destruction	___

PROPOSED WATER SUPPLY WELL USE

Domestic	___	Industrial	___	Other	Fuel Leak Investigation / Immediate Source Removal
Municipal	___	Irrigation	___		

DRILLING METHOD:
Mud Rotary ___ Air Rotary ___ Auger ✓
Cable ___ Other ___

DRILLER'S LICENSE NO. 604987

WELL PROJECTS
Drill Hole Diameter 8.25 in. Maximum
Casing Diameter 2 in. Depth ~35 ft.
Surface Seal Depth ~20 ft. Number 1

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

ESTIMATED STARTING DATE 7/25/95
ESTIMATED COMPLETION DATE 7/25/95

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

APPLICANT'S SIGNATURE Tom Price Date 7/6/95
Project Mgr.

FOR OFFICE USE

PERMIT NUMBER 95444
LOCATION NUMBER ___

PERMIT CONDITIONS

Circled Permit Requirements Apply

(A.) GENERAL
1. A permit application should be submitted so as to arrive at the Zone 7 office five days prior to proposed starting date.
2. Submit to Zone 7 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 WELLS, INCLUDING PIEZOMETERS
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. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

C. 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.

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

(E.) WELL DESTRUCTION. See attached.

Approved Wyman Hong Date 18 Jul 90
Wyman Hong

91992

APPENDIX F: INSTALLATION OF MW-4 AND PASSIVE SKIMMER

On August 31, 1995, soil samples were collected from a soil boring drilled into the former tank pit location for lithologic identification, physical characteristics testing of soil samples collected and emplacement of MW-4. The location of MW-4 shown in **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 the soil boring. Downhole equipment was decontaminated prior to drilling and after the borehole was completed by steam cleaning. Soil boring MW-4 was sampled at 5 foot intervals (5 feet, 10 feet, etc.) for lithologic description and physical charactaristics testing. The boring was drilled to 36.5 feet below the ground surface (bgs) and completed as a monitoring well. 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 of obviously impacted with hydrocarbons were placed in labeled, DOT-rated 55-gallon drums and stored on site to await proper disposal. Liquid wastes derived from decontamination procedures were stored in labeled, DOT-rated 55-gallon drums and stored on site to await proper disposal.

Soil samples were collected for lithologic description under the direct supervision of a California licensed Registered Geologist. Boring logs are included in this report as **Appendix G.**

ETM delivered the samples to the Earth Systems Consultants of Fremont, California, at the end of day for physical characteristics testing. This data will be presented in a later report.

The boring was located in the center of the former tank area and an approximately 7 foot thick section of fill was encountered. The fill material consisted of very dark grayish brown to very dark brown sandy clay and fat clay. Underlying the fill material was native soil consisting of grayish brown to yellowish brown sandy to fat clay with occasional lenses of silty and clayey sand and

well-graded sand with gravel. Groundwater was first encountered at approximately 28 feet. The boring was terminated after drilling through the aquifer material and encountering the underlying aquitard material consisting of dark yellowish brown fat clay.

The boring was completed as a well constructed with 2-inch diameter, Schedule 40 PVC riser and 10-foot, 0.01-inch machine slotted screen and bottom end cap. MW-4 was screened between 24 and 34 feet below grade. A filter pack of No. 2/12 sand was emplaced from the bottom of the hole to approximately 1 foot above the top of the screen section. A one-foot hydrated bentonite seal was emplaced on top of the sand pack and the remaining annular space was filled with Portland cement/bentonite grout. The top of the blank well casing was fitted with a water-tight expansion locking cap. The tops of the wells were covered with a raised mounted, 8-inch diameter water-tight traffic-rated well box set in concrete. A well construction diagram is included in **Figure 6.**

After a minimum of 48-hours following well construction, the newly installed monitoring well was developed by swabbing and over-pumping to remove fine-grained sediments entrained in the sand pack and near the well bore due to the drilling operations. Approximately 55 gallons of groundwater was removed from the newly installed monitoring well during development.

A Petrotrap™ passive skimmer system was installed in MW-4, the immediate source removal/groundwater monitoring well location. A description of the Petrotrap™ system is included in **Appendix G.**

BORING LOG Environmental Testing & Management 2916 Magliocco Drive, #2 San Jose, CA 95128	**GERMAN AUTOCRAFT** 301 EAST 14th STREET SAN LEANDO ALAMEDA COUNTY, CA	Boring No. MW-4 Sheet 1 of 3 Date Drilled: 8/31/95
Drilling Co.: HEW Drilling Co. Driller: Perfecto Rodriquez Geologist: Thomas A. Sparrowe, R.G.	Boring Location: Former UST Area Ground Surface Elevation: TOC Elevation:	Drill Rig Type: CME 75 Method: Hollow-stem Auger Boring Diameter: 8 -1/4 inches Total Depth: 36.5 feet
Outer Casing Type: Diameter: Length:	Well Casing/Screen/Filter Pack Diameter/Type: 2" Sch 40 PVC Screen Length (ft): 10 Slot Size: 0.010 in. Sand Pack: #2/12	Sampler Method: Calif. Modified Split-Spoon Length (ft): 1.5 Hammer Weight (lbs)/Fall (in): 140/30

Sample Depth	Blows/6-in	Inches	PID (ppm)	Water Level Time & Date	Time	Sample Number	DEPTH IN FEET	GRAPHIC LOG	DESCRIPTION
							1		Very dark grayish brown LEAN CLAY with gravel (CL) 2.5Y3/2, stiff, slightly moist, 60% clay, 30% fine to coarse grained sand, 10% fine gravel. (FILL).
							2		
							3		
							4		
							5		
	3	6							Olive brown POORLY-GRADED SAND (SP) with occaisional balls of very dark grayish brown FAT CLAY (CH), medium density, slightly moist, 80% fine to medium grained sand, 20% clay. (FILL)
5-5.5	4	6					6		
5.5-6	4	6			10:20				
							7		
							8		Dark yellowish brown FAT CLAY (CH) 10YR4/3, very stiff, moist, 90% clay, 10% silt, rare medium-grained angular chert derived sand, strong petroleum odor. (NATIVE).
							9		
	6	6					10		

Project: German Autocraft	Boring No. MW-4	Sheet 2 of 3

Sample Depth	Blows	Drive	PID (ppm)	Water Level Time & Date	Time	Sample Number	DEPTH	GRAPHIC LOG	DESCRIPTION
10.5-11	11	6					11		Dark yellowish brown FAT CLAY (CH) 10YR4/3, very stiff, moist, 90% clay, 10% silt, rare medium-grained angular chert derived sand, strong petroleum odor.
11-11.5	17	6			10:35		12		
							13		
							14		
	5 6	6 6					15		Dark grayish brown mottled reddish brown FAT CLAY (CH) 10R4/2 and 5YR3/4, stiff, moist, 80% clay, 10% silt, 10% fine grained sand, strong petroleum odor (not submitted).
	7	6			10:50		16		
							17		
							18		
							19		
	3 4	6 6					20		Grades to: Dark grayish brown FAT CLAY (CH) 2.5Y4/2 stiff, very moist, 90% clay, 10% silt, very strong odor, trace free product (no samples submitted for physical testing).
	4	6			11:10		21		
							22		
							23		
							24		Olive brown LEAN CLAY with sand (CL) stiff, very moist, 70% clay, 20% fine-grained poorly graded sand, 10% silt, very strong petroleum odor.
							25		

Sample Depth	Blows	Drive	PID (ppm)	Water Level Time & Date	Time	Sample Number	DEPTH	GRAPHIC LOG	Project: German Autocraft	Boring No. MW-3	Sheet 3 of 3
									DESCRIPTION		
	3 4	6 6					25		Olive brown LEAN CLAY with sand (CL) stiff, very moist, 70% clay, 20% fine-grained poorly graded sand, 10% silt, very strong petroleum odor.		
	5	6			11:20		26				
							27				
				11:25 8/31/95			28				
							29				
	15	6					30				
30.5-31	15	6							Dark greenish gray WELL GRADED SAND with gravel (SW) 5GY4/1, dense, wet, 75% fine to coarse grained sand, 15% fine grained gravel, 10% clay.		
31-31.5	15	6					31		Samples submitted for physical analysis.		
							32				
							33				
							34				
	3	6					35		Dark yellowish brown LEAN CLAY with sand (CL) 10YR4/4, firm, moist, 65% clay, 30% fine-grained sand, 5% silt, faint petroleum odor.		
35.5-36	5	6							Dark yellowish brown FAT CLAY (CH), 10YR4/4, stiff, moist, 85% clay, 15% silt, no detectable odor.		
36-36.5	7	6			11:40		36				
							37		BORING TERMINATED AT 36.5 FEET BOREHOLE CONVERTED TO MONITORING WELL MW-4		
							38				
							39				

SPECIFICATIONS

4" PetroTrap

Dimensions .....3.50" Dia./63.25" Lth.
Canister Volume.....2 Liters/.53 Gallons
Weight Empty .....18 Lbs.
Weight Full .....20.5 Lbs.
Materials .....PVC
.....Stainless Steel
.....Brass
.....Polyethylene

2" PetroTrap

Dimensions.....1.75" Dia./76.88 Lth.
Canister Volume....0.7 Liters/.20 Gallons
Weight Empty .....6.25 Lbs.
Weight Full .....6.75 Lbs.
Materials .....PVC
.....Stainless Steel
.....Brass
.....Polyethylene

ENVIRO PRODUCTS
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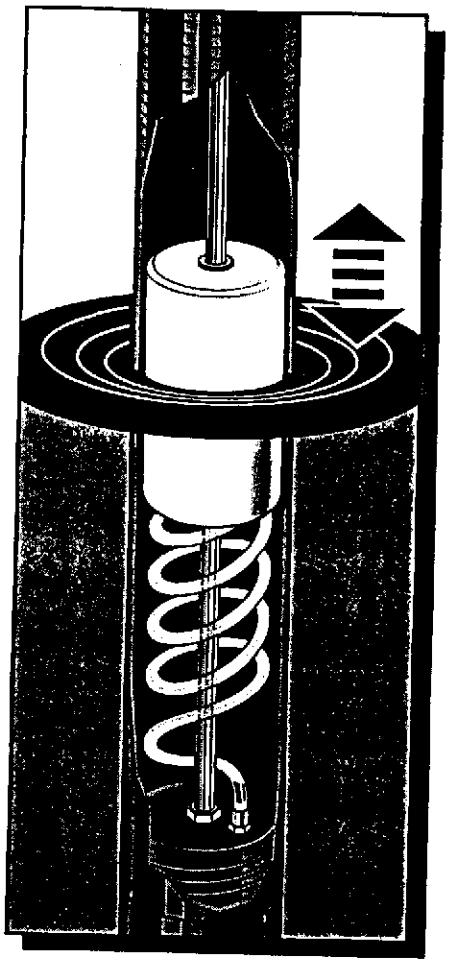
PetroTrap™



ASSEMBLY INSTRUCTIONS

1) Remove the slotted housing from the collection canister by rotating it counter-clockwise.*

2) Insert one end of the lanyard/vent tube through the hole at the top of the slotted housing.*

3) Attach the end of the lanyard/vent tube to the brass hose barb and secure it by crimping the stainless steel clamp over the tube. (*See figure 1*)

4) Re-attach the slotted housing to the collection canister.*

5) Insert the opposite end of the lanyard/vent tube through the bottom of the fitting on the well cap.

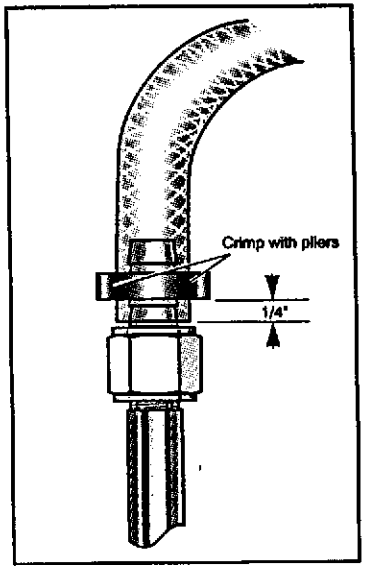


Figure 1

** applies only to the 4" PetroTrap™*

INSTALLATION INSTRUCTIONS

1) Using a common well bailer, remove as much free product from the well as possible.

2) Allow adequate time for the liquid level to return to static.

3) Measure the distance from the top of the well to the oil/water interface.

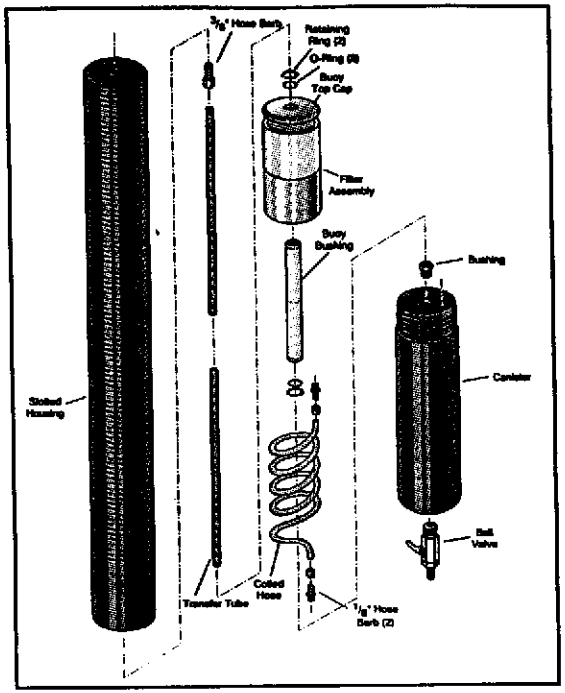
4) Subtract 18.0" from the measurement obtained during step 3.

5) Using the measurement calculated during step 4, position the well cap that distance from the top of the **PetroTrap™**.

6) Tighten the compression fitting on the well cap to secure the lanyard/vent tube.

7) Lower the **PetroTrap™** in the well until the well cap rests on the top of the well casing.

8) Secure the well cap to the well casing using the three set screws located on the side of the inner ring.



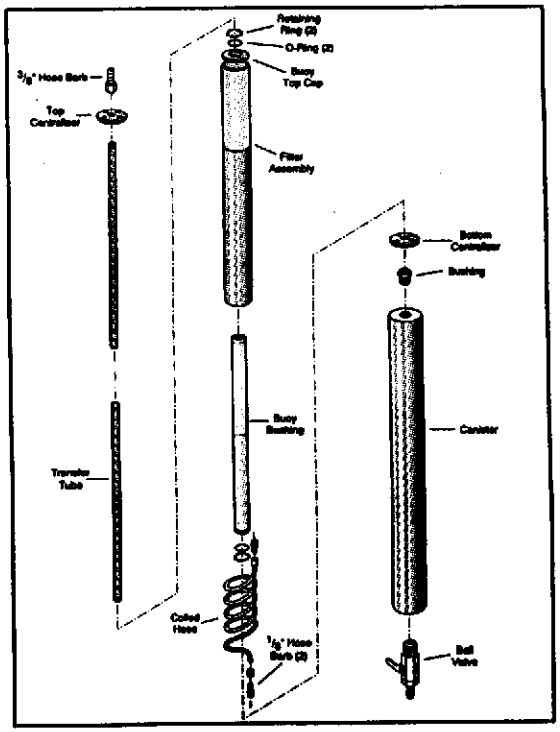
4" PetroTrap™

Filter Replacement–4"

1) Remove slotted screen by rotating it counterclockwise.
2) Remove lanyard/vent tube from top of unit.
3) Remove 3/8"x1/8" NPT-F brass hose barb.
4) Remove coiled hose from bottom of filter assembly.
5) Remove filter buoy from transfer tube.
6) Remove retaining ring from bottom of filter assembly.
7) Remove 1/8"x1/8" NPT-M brass hose barb from bottom of filter assembly. Dispose of old filter assembly.
8) Lubricate O-ring on new filter assembly with water and replace buoy top cap with a twisting motion.
9) Press buoy bushing through top cap.
10) Replace bottom retaining ring.
11) Replace filter assembly on transfer tube.
12) Replace hose barb on filter buoy. Re-attach coiled hose.
13) Replace slotted screen. Re-attach lanyard/vent tube.

Filter Replacement–2"

1) Remove lanyard/vent tube from top of **PetroTrap™**.
2) Remove 3/8"x1/8" NPT-F brass hose barb.
3) Remove top centralizer.
4) Remove coiled hose from bottom of filter assembly.
5) Remove filter buoy from transfer tube.
6) Remove retaining ring from bottom of filter assembly.
7) Remove 1/8"x1/8" NPT-M brass hose barb from bottom of filter assembly. Dispose of old filter assembly.
8) Lubricate O-ring on new filter assembly with water and replace buoy top cap with a twisting motion.
9) Press buoy bushing through top cap.
10) Replace bottom retaining ring.
11) Replace filter assembly on transfer tube.
12) Replace hose barb on filter buoy. Re-attach coiled hose.
13) Re-attach lanyard/vent tube.



2" PetroTrap™