

# GOOD CHEVROLET

1630 Park Street • Phone 510/522-9221  
ALAMEDA, CA 94501

92 NOV 12 PM 5:40

November 11, 1992

Ms. Juliet Shin  
Alameda County Health Care Services  
Department of Environmental Health  
80 Swan Way, Room 200  
Oakland, CA 94621

Mr. Greg Zentner  
Regional Water Quality Control Board  
San Francisco Bay Region  
2101 Webster Street, Room 500  
Oakland, CA 94612

Re: 1630 Park Street, Alameda, CA

Dear Ms. Shin & Mr. Zentner:

Enclosed is October 1992 Quarterly Monitoring Report on the above premises.

We are in the process of preparing a work plan for the premises, and will forward it to you shortly.

Thank you,

JoAnn Stewart

JKS:js

Enclosures



October 23, 1992  
Project C92020

Good Chevrolet  
1630 Park Avenue  
Alameda, California 94501  
Attn: Ms. JoAnn Stewart, General Manager

Subject: October, 1992 Quarterly Ground Water Report for Good Chevrolet,  
1630 Park Avenue, Alameda, CA.

Dear Ms. Stewart:

As requested and authorized, the attached October, 1992 Quarterly Ground Water Monitoring Report has been prepared to document the monitoring well sampling efforts performed at the subject site. The report presents the recorded monthly ground water elevations for August through October, the ground water sampling protocols, and the results of the analytical testing performed on ground water samples collected on October 7, 1992.

In summary, the water samples obtained from Monitoring Wells MW-1, MW-2, and MW-3 contained detectable concentrations of Total Petroleum Hydrocarbons as gasoline ranging from 3,000-11,000 ppb and Volatile Aromatic Compounds (Benzene, Toluene, Ethyl Benzene, and Xylenes). It is noted that the concentrations of Total Petroleum Hydrocarbons as gasoline are lower than reported in the previous quarter.

It has been a pleasure to be of service to you on this project. The next scheduled sampling event will occur in January, 1993.

Questions or comments regarding the attached report should be addressed to the undersigned.

Copies of this report should be forwarded to:

Ms. Juliet Shin  
Alameda County Health Care Services  
Department of Environmental Health  
80 Swan Way, Room 200  
Oakland, CA 94621

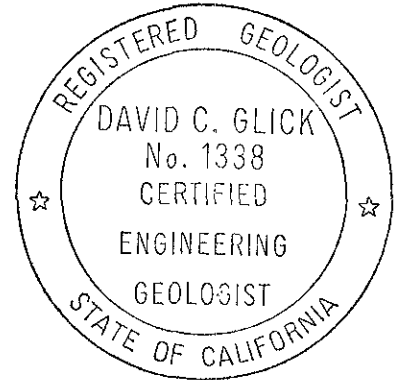
Mr. Greg Zentner  
Regional Water Quality Control Board  
San Francisco Bay Region  
2101 Webster Street, Room 500  
Oakland, CA 94612

Respectfully submitted,

Geo Plexus, Incorporated



David C. Glick, CEG 1338  
Director, Geological and  
Environmental Services



Enclosure: October, 1992 Quarterly Ground Water Monitoring Report

**Geo Plexus, Incorporated**

1900 Wyatt Drive, Suite 1, Santa Clara, California 95054 Phone 408/987-0210 Fax 408/988-0815

OCTOBER, 1992 QUARTERLY  
GROUND WATER MONITORING REPORT  
for  
GOOD CHEVROLET  
1630 PARK AVENUE  
ALAMEDA, CALIFORNIA

October 23, 1992

Project C92020

OCTOBER, 1992 QUARTERLY  
GROUND WATER MONITORING REPORT  
for  
GOOD CHEVROLET  
1630 PARK AVENUE  
ALAMEDA, CALIFORNIA

INTRODUCTION

The project site is located at 1630 Park Avenue in the City of Alameda, in Alameda County, California as indicated on Figure 1. The site is the location of an automobile dealership and service center.

A 300 gallon waste oil storage tank and a 500 gallon underground gasoline storage tank were reportedly removed from the property by Petroleum Engineering, Inc. in October, 1986. A subsurface investigation including installation of three ground water monitoring wells (see Figure 2) was performed by Groundwater Technology, Inc. in January, 1987 (Groundwater Technology, Inc. Report Dated April 29, 1987).

The ground water monitoring wells were reportedly sampled by Groundwater Technology, Inc. in January, 1989 (Groundwater Technology, Inc. letter report dated March 29, 1989) and again in July, 1989 (Groundwater Technology, Inc. letter report dated August 22, 1989). The wells were also reportedly sampled by Environmental Science Engineering, Inc. in April, 1991 (Environmental Science Engineering, Inc. report dated May 8, 1991).

This report presents the ground water elevations recorded monthly in August, September, and October, 1992, the ground water sampling protocol, and the results of the analytical testing performed on ground water samples collected on October 7, 1992.

GRADIENT SURVEY

The elevation of the top of the casing of the monitoring wells at the site were established during previous investigations (Environmental Science & Engineering, Inc.) with reported vertical control of 0.01 foot.

Ground water elevations were measured in each well to the nearest 0.01 foot with an electronic water level meter on a monthly basis (August through October, 1992) to monitor the variations in the direction and gradient of ground water flow beneath the site.

**Geo Plexus, Incorporated**

1900 Wyatt Drive, Suite 1, Santa Clara, California 95054 Phone 408/987-0210 Fax 408/988-0815

Prior to purging the monitoring wells for sampling, the depth to ground water in each well was measured to the nearest 0.01 foot with an electronic water level meter.

Ground water elevations recorded suggest that the ground water flow across the site has varied from northwest (July, 1992) to north-northeast as indicated on Figures 3, 4, and 5. Gradient has also varied from 0.0028 to 0.0038 ft/ft with Monitoring Wells MW-2 and MW-3 located in the "down-gradient" direction from the former tanks.

### MONITORING WELL SAMPLING

Free product measurements were obtained for each monitoring well at the time of each sample acquisition utilizing a teflon bailer lowered into the well to obtain a water sample. The bailer was used to collect a water sample to observe the presence of hydrocarbon odors, visible sheen, or free product. Free product or visible sheens were not observed in the initial bailer water samples or following purging of the wells; however, the water samples obtained from the three wells exhibited gasoline odors.

Prior to sampling the monitoring wells, four to six well volumes were purged from each well through the use of a teflon bailer. Electrical conductivity, temperature, and pH of the ground water were recorded throughout the purging process. The purging activities continued until the electrical conductivity, temperature, and pH of the discharged water stabilized and the water appeared free of suspended solids.

Water samples for analytical testing were obtained through the use of a teflon bailer and were collected in sterilized glass vials with Teflon lined screw caps. The samples were immediately sealed in the vials and properly labeled including: the date, time, sample location, project number, and indication of any preservatives (HCl) added to the sample. A travel blank (identified as MW-A) was obtained from the analytical testing laboratory, transported to the field with the sample vials, and was submitted along with other samples for analysis. The samples were placed on ice immediately for transport to the laboratory under chain-of-custody documentation.

The water obtained from the monitoring wells during the purging and sampling activities was contained on-site in 55-gallon drums pending receipt of the laboratory test results.

### ANALYTICAL TESTING

The ground water samples were submitted to and tested by Anamatrix Laboratories located in San Jose, California, a State of California certified laboratory. Analytical testing was scheduled and performed in accordance with the State of California, Regional Water Quality Control Board and Alameda County Department of Environmental Health Guidelines

The samples were tested for Total Petroleum Hydrocarbons as gasoline by Method GCFID 5030/8015 and Volatile Aromatics by EPA Method 8020/5030. The travel blank was submitted for analysis for Volatile Aromatics by EPA Method 8020. The analytical test data, along with the Chain-of-Custody Form are presented in Appendix A.

### SUMMARY OF FINDINGS

Ground water elevations recorded during the sampling suggest that ground water is at a depth of 9-10 feet below the ground surface and flows across the site at variable directions from northwest to north-northeast at gradients of 0.0028 - 0.0038 ft/ft. The flow directions place Monitoring Wells MW-2 and MW-3 in the "down-gradient" direction from the location of the former underground storage tanks.

The analytical test results for the ground water samples obtained for this sampling event detected reportable quantities of Total Petroleum Hydrocarbons as gasoline and Volatile Aromatics (BTXE) for the samples from Monitoring Wells MW-1, MW-2, and MW-3. Total Petroleum Hydrocarbons as gasoline concentrations ranged from 3,600 to 11,000 ppb (reduced from the previous quarter concentrations). Benzene concentrations ranged from 1,600 to 5,200 ppb.

Table 1 summarizes the current analytical test results along with the results of the previous analytical testing.

TABLE 1

SUMMARY OF GROUND WATER ANALYTICAL TEST DATA

<u>Date Sampled</u>	<u>Total Petroleum Hydrocarbons</u>	<u>Benzene</u>	<u>Toluene</u>	<u>Ethyl-Benzene</u>	<u>Total Xylenes</u>
<u>Monitoring Well MW-1</u>					
1-21-87 (1)	21,020	1,148	8,627	1,792	6,012
1-11-89 (1)	1,400	74	10	13	5
7-12-89 (1)	1,200	470	49	45	33
4-09-91 (2)	850	260	10	15	12
7-14-92 (3)	13,000	2,300	1,200	1,200	1,200
10-7-92 (3)	3,600	1,600	80	120	120
<u>Monitoring Well MW-2</u>					
1-21-87 (1)	5,018	386	1,981	285	1,432
1-11-89 (1)	10,000	3,000	410	240	190
7-12-89 (1)	7,600	2,700	540	250	320
4-09-91 (2)	4,900	910	210	130	200
7-14-92 (3)	13,000	4,400	1,500	610	1,100
10-7-92 (3)	11,000	5,200	1,500	500	1,200
<u>Monitoring Well MW-3</u>					
1-21-87 (1)	10,287	1,428	3,281	610	2,761
1-11-89 (1)	5,300	1,800	340	150	160
7-12-89 (1)	7,800	3,100	900	300	480
4-09-91 (2)	9,400	1,400	730	200	510
7-14-92 (3)	17,000	3,500	390	390	260
10-7-92 (3)	9,200	4,300	470	390	610

Note: (1) Concentrations reported by Groundwater Technology, Inc.  
 (2) Concentrations reported by Environmental Science & Engineering, Inc.  
 (3) Geo Plexus, Inc.



### RECOMMENDATIONS

The ground water monitoring wells located at the project site are scheduled to be sampled again in January, 1993 in accordance with the direction for quarterly monitoring from the Alameda County Health Care Services, Department of Environmental Health.

### LIMITATIONS

We have only observed a small portion of the pertinent subsurface and ground water conditions present at the site. The conclusions and recommendations made herein are based on the assumption that subsurface and ground water conditions do not deviate appreciably from those described in the reports and observed during the field investigation.

Geo Plexus, Incorporated provides consulting services in the fields of Geology and Engineering Geology performed in accordance with presently accepted professional practices. Professional judgments presented herein are based partly on information obtained from review of published documents, partly on evaluations of the technical information gathered, and partly on general experience in the fields of geology and engineering geology.

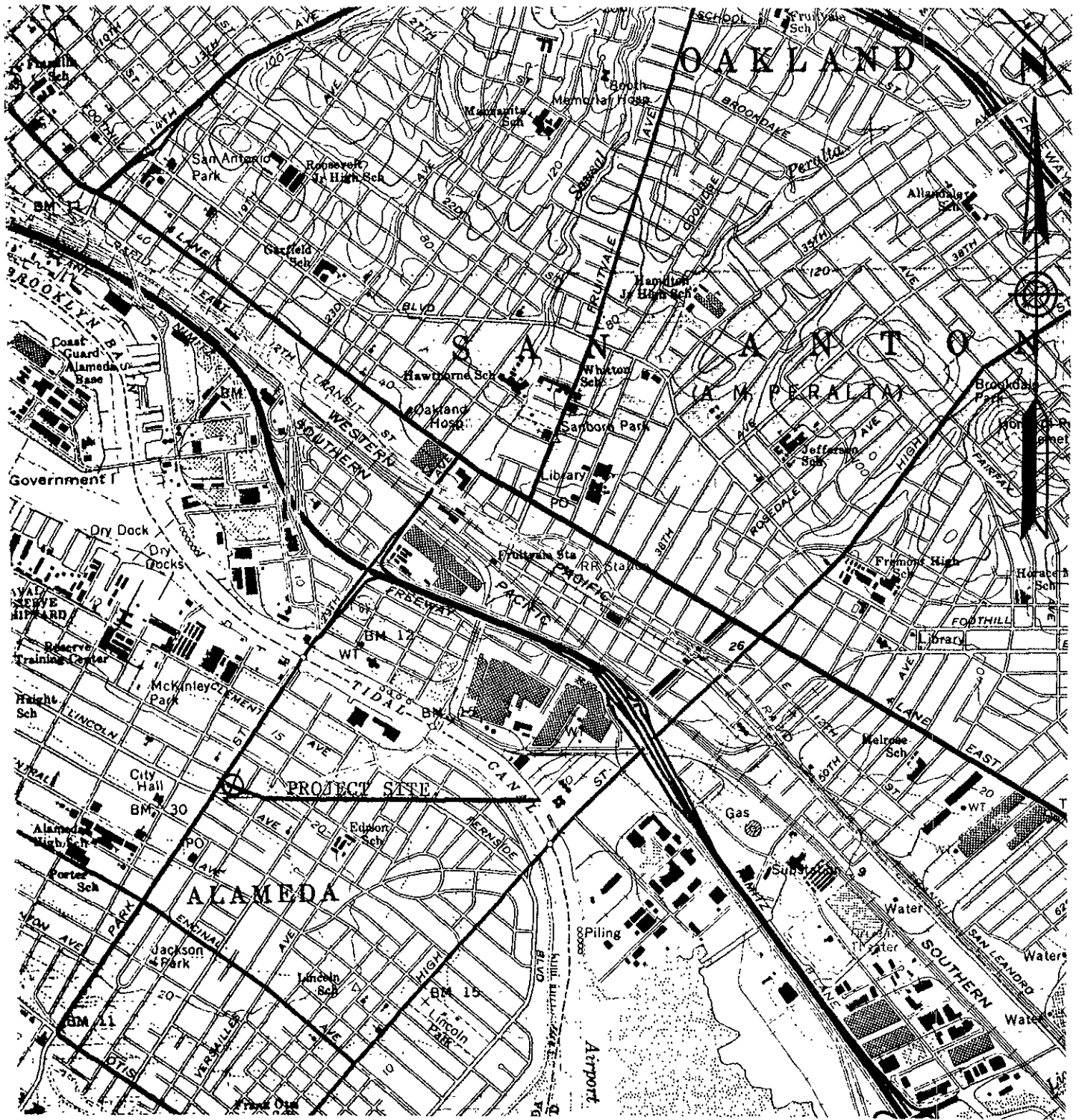
No attempt was made to verify the accuracy of the published information prepared by others used in preparation of this assessment report.

If you have questions regarding the findings, conclusions, or recommendations contained in this report, please contact us. We appreciate the opportunity to serve you.

Geo Plexus, Incorporated

**Geo Plexus, Incorporated**

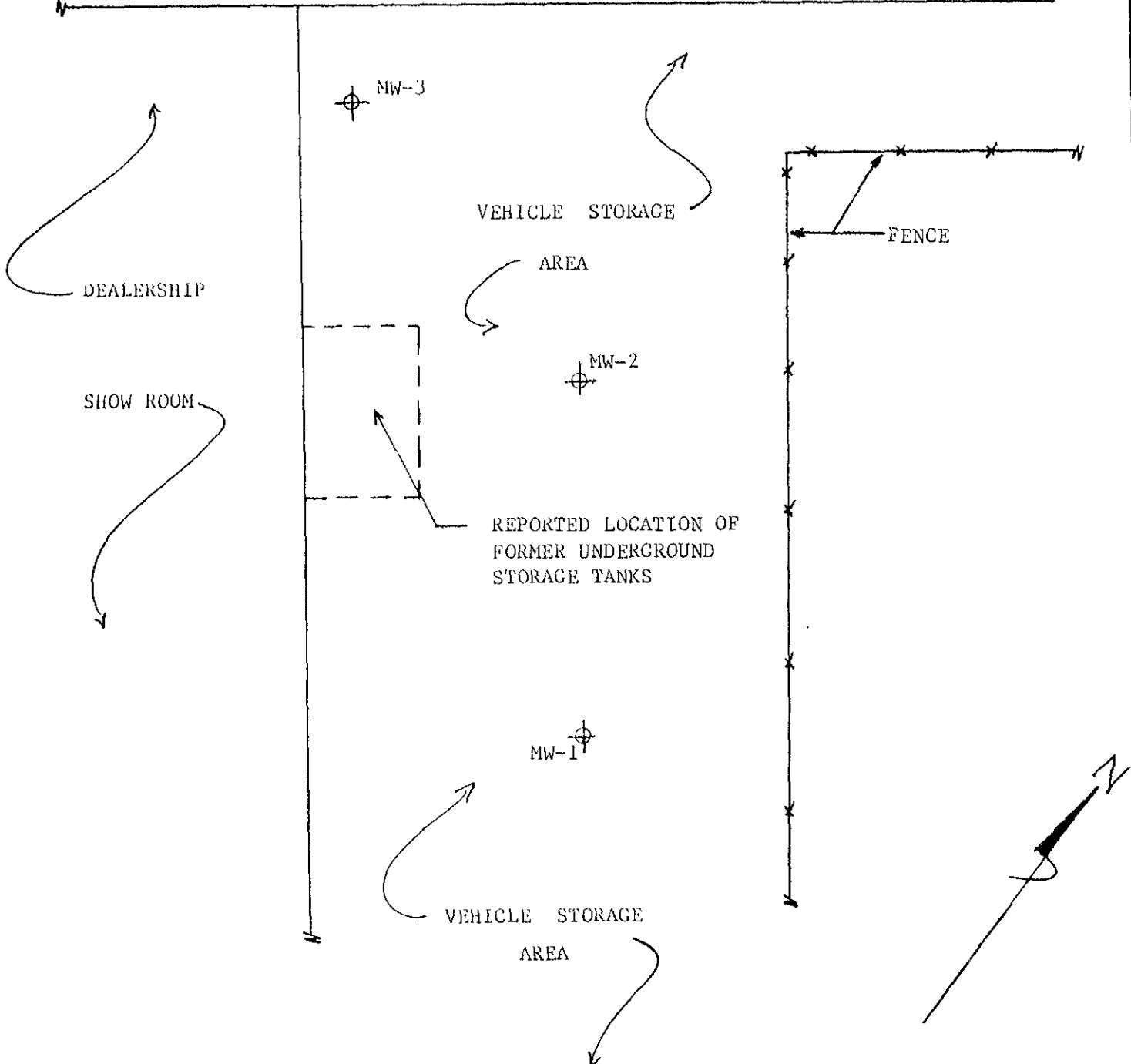
1900 Wyatt Drive, Suite 1, Santa Clara, California 95054 Phone 408/987-0210 Fax 408/988-0815



GOOD CHEVROLET		
DATE	SCALE	DRAWN BY
10-9-92	1"=2000'	deg
LOCATION MAP		
		Figure 1

PARK AVENUE

SIDEWALK



- NOTE: (1) SITE PLAN FROM ENVIRONMENTAL SCIENCE & ENGINEERING, Inc. REPORT, dated 5/8/91
- (2) WLLL CASING ELEVATIONS BASED ON ENVIRONMENTAL SCIENCE & ENGINEERING, Inc. REPORT, dated 5/8/91

GOOD CHEVROLET		
DATE	SCALE 1"=24'	DRAWN BY deg
GRADIENT PLAN		
		Figure 2

PARK AVENUE

SIDEWALK

MW-3

GOOD CHEVROLET  
SHOW ROOM

0.0033 ft/ft  
DIRECTION OF FLOW

FENCE

APPROXIMATE LOCATION OF  
FORMER STORAGE TANKS

MW-2

VEHICLE STORAGE

95.4

95.5

MW-1

95.6

95.7

NOTE: (1) Site Plan from Environmental Science & Engineering, Inc. Report dated 5/8/91  
(2) Well Casing Elevations: based on Environmental Science & Engineering, Inc. Report dated 5/8/91 (referenced to temporary bench mark)

GOOD CHEVROLET

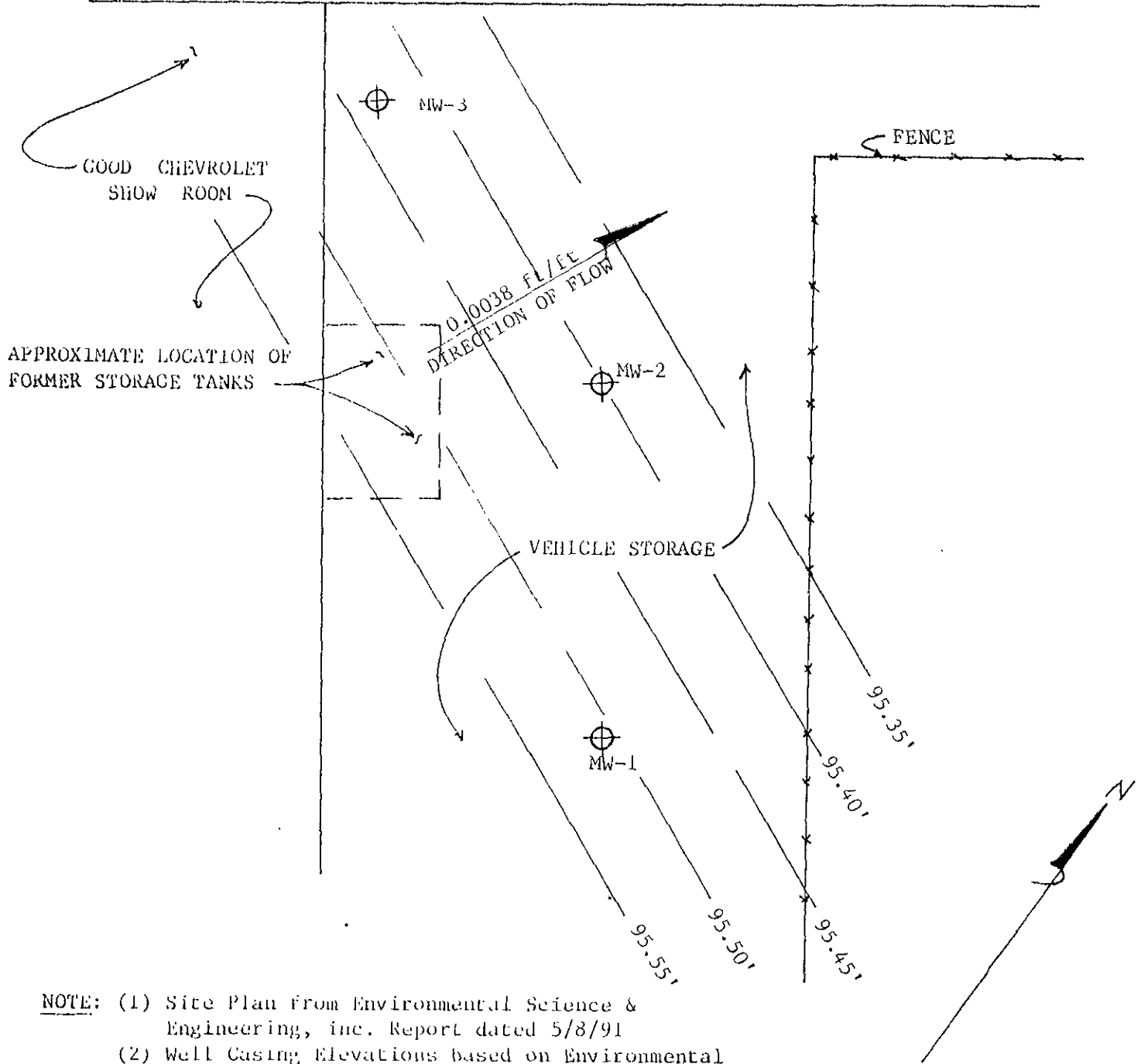
DATE	SCALE	DRAWN BY
8-31-92	1"=24'	dcg

GRADIENT PLAN

Figure 3

PARK AVENUE

SIDEWALK



- NOTE: (1) Site Plan from Environmental Science & Engineering, inc. Report dated 5/8/91  
(2) Well Casing Elevations based on Environmental Science & Engineering, inc. Report dated 5/8/91 (referenced to temporary bench mark)

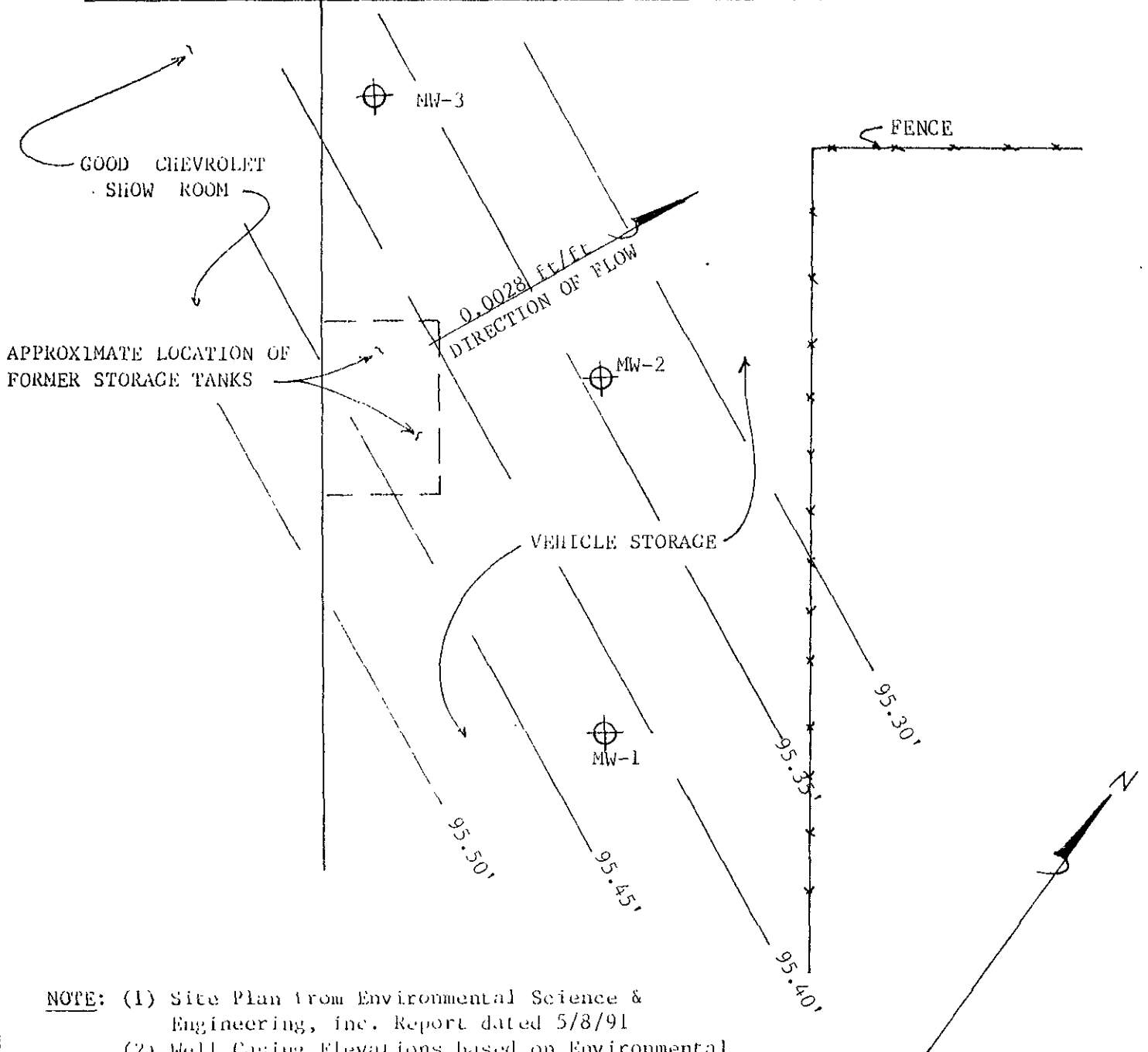
GOOD CHEVROLET

DATE	SCALE	DRAWN BY
9-28-92	1"=24'	dcg

GRADIENT PLAN

PARK AVENUE

SIDEWALK



APPROXIMATE LOCATION OF FORMER STORAGE TANKS

GOOD CHEVROLET SHOW ROOM

0.0028 Ft/Ft  
DIRECTION OF FLOW

VEHICLE STORAGE

FENCE

- NOTE:** (1) Site Plan from Environmental Science & Engineering, Inc. Report dated 5/8/91  
(2) Well Casing Elevations based on Environmental Science & Engineering, Inc. Report dated 5/8/91 (referenced to temporary bench mark)

GOOD CHEVROLET		
DATE 10/7/92	SCALE 1"=24'	DRAWN BY deg
GRADIENT PLAN		
		Figure 5

Quarterly Ground Water Sampling Report  
Good Chevrolet  
Alameda, California

October 23, 1992

APPENDIX A  
CHAIN-OF-CUSTODY FORM  
AND  
ANALYTICAL TEST DATA

Geo Plexus, Incorporated

1900 Wyatt Drive, Suite 1, Santa Clara, California 95054 Phone 408/987-0210 Fax 408/988-0815

PROJECT NUMBER		PROJECT NAME				Number of Cntrs	Type of Containers	Type of Analysis				Condition of Samples	Initial			
C92020		Good Chevrolet						TPHG	TPHD	BTEX	Oil & Grease					
Send Report Attention of:			Report Due	Verbal Due		Date	Time	Comp	Grab	Station Location	TPHG	TPHD	BTEX	Oil & Grease	Condition of Samples	Initial
MR. DAVID GLICK			10/22/92	1 1												
①	MWA WSI ABC	10/7/92	0900		1	Mon Well A	3 <sup>EA</sup>			ACIDIFIED HOML VOA	✓	✓			1 VOA received w/ bubble	
②	MW1 WSI ABC	10/7/92	1523		1	Mon Well 1					✓	✓				
③	MW2 WSI ABC	10/7/92	1435		1	Mon Well 2					✓	✓				
④	MW3 WSI ABC	10/7/92	1350		1	Mon Well 3					✓	✓				
Relinquished by: (Signature)		Date/Time		Received by: (Signature)		Date/Time		Remarks:								
<i>[Signature]</i>		10/8/92 10:35		<i>[Signature]</i>		10-8-92 10:35		Purchase Order No.: 92-30052								
Relinquished by: (Signature)		Date/Time		Received by: (Signature)		Date/Time		STANDARD Turn Around								
<i>[Signature]</i>				<i>[Signature]</i>				COMPANY: Geo Plexus, Inc.								
Relinquished by: (Signature)		Date/Time		Received by: (Signature)		Date/Time		ADDRESS: 1900 Wyatt Drive, Suite 1 Santa Clara, CA 95054								
<i>[Signature]</i>				<i>[Signature]</i>				PHONE: (408) 987-0210								
								FAX: (408) 988-0815								
								2066								



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

MR. DAVID C. GLICK  
GEOPLEXUS, INC.  
1900 WYATT DRIVE, SUITE #1  
SANTA CLARA, CA 95054

Workorder # : 9210104  
Date Received : 10/08/92  
Project ID : C92020  
Purchase Order: 92-30052  
Department : GC  
Sub-Department: TPH

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9210104- 1	MWA	WATER	10/07/92	TPHg/BTEX
9210104- 2	MW1	WATER	10/07/92	TPHg/BTEX
9210104- 3	MW2	WATER	10/07/92	TPHg/BTEX
9210104- 4	MW3	WATER	10/07/92	TPHg/BTEX

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

MR. DAVID C. GLICK  
GEOPLEXUS, INC.  
1900 WYATT DRIVE, SUITE #1  
SANTA CLARA, CA 95054

Workorder # : 9210104  
Date Received : 10/08/92  
Project ID : C92020  
Purchase Order: 92-30052  
Department : GC  
Sub-Department: TPH

QA/QC SUMMARY :

- No QA/QC problems encountered for these samples.

David C. Glick  
Department Supervisor Date

Debra Star 10/21/92  
Chemist Date

ANALYSIS DATA SHEET - TOTAL PETROLEUM HYDROCARBONS  
(GASOLINE WITH BTEX)  
ANAMETRIX, INC. - (408) 432-8192

Anamatrix W.O.: 9210104  
Matrix : WATER  
Date Sampled : 10/07/92

Project Number : C92020  
Date Released : 10/21/92

Reporting Limit	Sample I.D.# MWA	Sample I.D.# MW1	Sample I.D.# MW2	Sample I.D.# MW3	Sample I.D.# BO1301E3
COMPOUNDS (ug/L)	-01	-02	-03	-04	BLANK
Benzene	0.5 ND	1600	5200	4300	ND
Toluene	0.5 ND	80	1500	470	ND
Ethylbenzene	0.5 ND	120	500	390	ND
Total Xylenes	0.5 ND	120	1200	610	ND
TPH as Gasoline	50 ND	3600	11000	9200	ND
% Surrogate Recovery	113%	96%	101%	108%	117%
Instrument I.D.	HP4	HP4	HP4	HP4	HP4
Date Analyzed	10/13/92	10/14/92	10/13/92	10/13/92	10/13/92
RLMF	1	50	100	100	1

- ND - Not detected at or above the practical quantitation limit for the method.
- TPHg - Total Petroleum Hydrocarbons as gasoline is determined by GCFID using modified EPA Method 8015 following sample purge and trap by EPA Method 5030.
- BTEX - Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA Method 8020 following sample purge and trap by EPA Method 5030.
- RLMF - Reporting Limit Multiplication Factor.

Anamatrix control limits for surrogate p-Bromofluorobenzene recovery are 53-147%.

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

Debra Shaw 10/21/92  
Analyst Date

Cheryl Beckman 10/21/92  
Supervisor Date

ANALYSIS DATA SHEET - TOTAL PETROLEUM HYDROCARBONS  
(GASOLINE WITH BTEX)  
ANAMETRIX, INC. - (408) 432-8192

Anamatrix W.O.: 9210104  
Matrix : WATER  
Date Sampled : N/A

Project Number : C92020  
Date Released : 10/21/92

COMPOUNDS	Reporting Limit (ug/L)	Sample I.D.# BO1401E3 BLANK
Benzene	0.5	ND
Toluene	0.5	ND
Ethylbenzene	0.5	ND
Total Xylenes	0.5	ND
TPH as Gasoline	50	ND
% Surrogate Recovery		110%
Instrument I.D.		HP4
Date Analyzed		10/14/92
RLMF		1

- ND - Not detected at or above the practical quantitation limit for the method.
- TPHg - Total Petroleum Hydrocarbons as gasoline is determined by GCFID using modified EPA Method 8015 following sample purge and trap by EPA Method 5030.
- BTEX - Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA Method 8020 following sample purge and trap by EPA Method 5030.
- RLMF - Reporting Limit Multiplication Factor.

Anamatrix control limits for surrogate p-Bromofluorobenzene recovery are 53-147%.

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

Debra L. ... 10/14/92  
Analyst Date

Cheryl ... 10/21/92  
Supervisor Date

TOTAL VOLATILE HYDROCARBON LABORATORY CONTROL SAMPLE REPORT  
 EPA METHOD 5030 WITH GC/FID  
 ANAMETRIX, INC. (408) 432-8192

Sample I.D. : LAB CONTROL SAMPLE  
 Matrix : SOIL  
 Date Sampled : N/A  
 Date Analyzed : 10/13/92

Anamatrix I.D. : LCSW1013  
 Analyst : JS  
 Supervisor : /  
 Date Released : 10/21/92  
 Instrument I.D.: HP4

COMPOUND	SPIKE AMT. (mg/Kg)	REC LCS (mg/Kg)	%REC LCS	% REC LIMITS
GASOLINE	0.50	0.58	116%	48-145
SURROGATE		120%		53-147

\* Quality control established by Anamatrix, Inc.