

TRANSMITTAL

TO: Ms. Eva Chu
Alameda County Health Care Services Agency
80 Swan Way,, Room 200
Oakland, California 94621

DATE: April 12, 1994
PROJECT #: 6130.01
SUBJECT: Quarterly
Groundwater Monitoring Report,
First Quarter 1994, for Shamrock
Ford, 7499 Dublin Boulevard,
Dublin, California.

FROM:

Barbara Sieminski
Project Geologist
GeoStrategies, Inc.
6747 Sierra Court, Suite G
Dublin, California 94568

WE ARE SENDING YOU:

COPIES	DATED	DESCRIPTION
1	04/12/94	Quarterly Groundwater Monitoring Report - First Quarter 1994 for Shamrock Ford, 7499 Dublin Boulevard, Dublin, California

THESE ARE TRANSMITTED as checked below:

- For review and comment Approved as submitted Resubmit __ copies for approval
 As requested Approved as noted Submit __ copies for distribution
 For approval Return for corrections Return __ corrected prints
 For your files

cc: Mr. Craig Caldwell, Shamrock Ford
Job File, GSI

94 APR 15 PM 2:16
ALCO
HAZMAT



LETTER REPORT
QUARTERLY GROUNDWATER MONITORING
FIRST QUARTER 1994

at
Shamrock Ford
7499 Dublin Boulevard
Dublin, California

613001-4

Prepared for

Shamrock Ford
7499 Dublin Boulevard
Dublin, California 94568

Prepared by

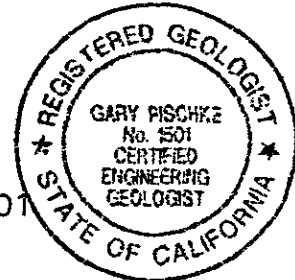
GeoStrategies Inc.
6747 Sierra Court
Dublin, California 94568

A handwritten signature in cursive script, reading 'Barbara Sieminski', is written over a horizontal line.

Barbara Sieminski
Project Geologist

A handwritten signature in cursive script, reading 'Gary Pischke', is written over a horizontal line.

Gary Pischke
Senior Geologist C.E.G. #1501



April 12, 1994



April 12, 1994

Mr. Craig Caldwell
Shamrock Ford
7499 Dublin Boulevard
Dublin, California 94568

Subject: Quarterly Groundwater Monitoring Report - First Quarter 1994
for Shamrock Ford Site, 7499 Dublin Boulevard, Dublin,
California.

Mr. Caldwell:

As requested by Shamrock Ford, GeoStrategies Inc. (GSI) has prepared this letter report summarizing the results of the first quarter 1994 groundwater monitoring at the above-referenced site. The objectives of this quarterly groundwater monitoring are to evaluate changes in the groundwater levels, and changes in concentrations of petroleum hydrocarbons in groundwater associated with the former gasoline and waste-oil storage tanks at the site.

SITE BACKGROUND

The subject site is located at the intersections of Dublin Boulevard and Amador Plaza Road in Dublin, California, as shown on the Vicinity Map, Figure 1. In June 1993 Gettler-Ryan Inc. (G-R) removed one 1000-gallon waste-oil underground storage tank (UST), and one 2000-gallon gasoline UST from the site. The location of the former USTs are shown on the Site Plan, Figure 2. The laboratory analytical results of soil samples collected from the tank pits indicated that the soils in the vicinity of the tank pits have not been impacted by waste-oil related hydrocarbons, and have been slightly impacted by gasoline-related hydrocarbons (2.4 parts per million [ppm] of total petroleum hydrocarbons as gasoline [TPH-G] in the sample collected from the southern wall of the gasoline tank pit).

Laboratory analytical results for the groundwater sample collected from the former waste-oil tank pit indicated 150 parts per billion (ppb) TPH-G; up to 11 ppb of gasoline constituents benzene, toluene, ethylbenzene and xylenes (BTEX); 8,600 ppb total petroleum hydrocarbons as motor oil (TPH-

April 12, 1994

MO); and 2,200 ppb of oil and grease (O&G). Metals including Cd, Cr, Pb, Ni and Zn were detected at concentrations of 17 ppb, 460 ppb, 850 ppb, 1200 ppb, and 530 ppb, respectively. Total petroleum hydrocarbons calculated as diesel (TPH-D) concentration was reported as nondetectable, however, the reporting limit was increased to 100 ppb due to oil interference. Volatile organic compounds (VOC) concentrations (35 compounds tested) were nondetectable (less than 2 ppb) except benzene (2.6 ppb), toluene (6.1 ppb), P,M-xylene (5.6 ppb), O-xylene (3.2 ppb), methylene chloride (4.4 ppb), and acetone (34 ppb). Laboratory analytical results for the groundwater sample collected from the former gasoline tank pit indicated 3600 ppb TPH-G; up to 540 ppb BTEX; and 16 ppb of lead.

In December 1993, three groundwater monitoring wells (A-1 through A-3) were installed at the site by GSI to evaluate the extent of petroleum hydrocarbons in soil and groundwater in the vicinity of the former USTs, and to evaluate the gradient of the shallow groundwater beneath the site. The locations of the groundwater monitoring wells are shown on Figure 2. Laboratory analytical results of the soil and groundwater samples collected during this investigation indicated that the soils and groundwater in the western, southern and southeastern vicinity of the former USTs have not been impacted by waste-oil and gasoline hydrocarbons. Concentrations of metals in soil and groundwater beneath the site appeared to be within the natural background levels. The groundwater gradient of the first encountered water bearing zone beneath the site was interpreted to be approximately 0.004 with the flow direction to the northeast.

CURRENT QUARTER MONITORING RESULTS

Groundwater Level Measurements and Gradient Evaluation

Depth to water-level measurements were obtained in groundwater monitoring wells A-1 through A-3 on February 25 and March 23, 1994. Static groundwater levels were measured from the surveyed top of each well casing and recorded to the nearest ± 0.01 foot. Water-level data were referenced to Mean Sea Level (MSL) datum and used to construct potentiometric maps (Figures 3 and 4). The shallow groundwater hydraulic gradient was interpreted to be approximately 0.01 with a flow direction toward the northeast.

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Each well was inspected for the presence of floating product. Floating product was not observed in any well during this quarter. Current and previous depth-to-groundwater and floating product measurements are summarized in Table 1, Groundwater Monitoring Data.

Chemical Analyses of Groundwater Samples

Groundwater samples were collected from groundwater monitoring wells A-1 through A-3 by G-R personnel on March 23, 1994. Samples were analyzed by Western Environmental Science and Technology of Davis, California (WEST), a State-certified laboratory (Hazardous Waste Testing Laboratory Certification #1346). The groundwater samples were analyzed for TPH-G using Modified EPA Method 8015/Purge-and-Trap; BTEX using EPA method 602/Purge-and-Trap; TPH-D and TPH-MO using Modified EPA Method 8015/Extraction; O&G using Standard Methods 5520 B,F; VOCs using EPA Method 624; and metals Cd, Cr, Pb, Ni and Zn using EPA Method 7000/6010/200.7.

The groundwater sampling report is presented in Appendix A, and Laboratory Analytical Report and Chain-of-Custody record are presented in Appendix B. Laboratory analytical results for groundwater samples collected from wells A-1 through A-3 indicated nondetectable concentrations of TPH-G, BTEX, TPH-D, TPH-MO, O&G and VOC (see method detection limits in the laboratory report). Concentrations of metals cadmium, chromium, lead, nickel and zinc were up to 8.3 ppb, 78 ppb, 18 ppb, 46 ppb, and 71 ppb, respectively. Current and previous analytical data for wells A-1 through A-3 are summarized in Table 2, Groundwater Quality Database. A chemical concentration map for TPH-G and benzene is presented on Figure 4.

DISCUSSION AND RECOMMENDATIONS

Groundwater elevations increased an average of about ½ of a foot between December 1993 and March 1994. The groundwater gradient and flow direction for this quarter is generally consistent with the previously interpreted gradient and flow direction.

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Concentrations of TPH-G, BTEX, TPH-D, TPH-MO, O&G and VOC have remained nondetectable in samples from groundwater monitoring wells A-1 through A-3 since the fourth quarter 1993. Concentrations of metals in samples from groundwater beneath the site have not changed significantly since the fourth quarter 1993, and appear to be within the natural background levels.

Because concentrations of VOC were nondetectable (except low concentrations of BTX, methylene chloride, and acetone) in the groundwater sample collected from the former waste-oil tank pit and were nondetectable in wells A-1 through A-3 in December and March 1994, GSI recommends to discontinue sampling of wells A-1 through A-3 for VOC.

If you have any questions please call us at (510) 551-8777.

Attachments:

Table 1. Groundwater Monitoring Data
Table 2. Laboratory Analyses of Groundwater Samples

Figure 1. Vicinity Map
Figure 2. Site Plan
Figure 3. Potentiometric Map (February 25, 1994)
Figure 4. Potentiometric Map (March 23, 1994)
Figure 5. TPH-G/Benzene Concentration Map

Appendix A: G-R Groundwater Sampling Report
Appendix B: Laboratory Analytical Report and Chain-of-Custody Form

TABLES

TABLE 1
GROUNDWATER MONITORING DATA
Shamrock Ford
Dublin, California

Monitoring Date	Well Number	Depth to Water (ft)	Well Elevation (ft)	Static Water Elevation (ft)	Floating Product Thickness (ft)
23-Dec-93	A-1	6.27	332.88	326.61	0.00
25-Feb-93	A-1	6.13	332.88	326.75	0.00
23-Mar-94	A-1	6.07	332.88	326.81	0.00
23-Dec-93	A-2	7.43	334.16	326.73	0.00
25-Feb-94	A-2	7.05	334.16	327.11	0.00
23-Mar-94	A-2	6.93	334.16	327.23	0.00
23-Dec-93	A-3	7.50	334.18	326.68	0.00
25-Feb-93	A-3	7.19	334.18	326.99	0.00
23-Mar-94	A-3	7.01	334.18	327.17	0.00

Notes:

1. Static water elevations referenced to Mean Sea Level (MSL).
2. Well elevations and depth-to-water measured to top of casing.

TABLE 2
LABORATORY ANALYSES OF GROUNDWATER SAMPLES
Shamrock Ford
Dublin, California

SAMPLE DATE	SAMPLE POINT	TPH-G (PPB)	BENZENE (PPB)	TOLUENE (PPB)	ETHYLBENZE -NE (PPB)	XYLENES (PPB)	TPH-D (PPB)	TPH-MO (PPB)	O&G (PPB)	VOCs (PPB)	METALS (PPB)				
											Cd	Cr	Pb	Zn	Ni
23-Dec-93	A-1	<50	<0.30	<0.30	<0.30	<0.50	<50	<100	<1000	ND*	5.2	54	4.0	42	41
23-Mar-94	A-1	<50	<0.30	<0.30	<0.30	<0.50	<50	<100	<1000	ND*	5.8	33	18	22	12
23-Dec-93	A-2	<50	<0.30	<0.30	<0.30	<0.50	<50	<100	<1000	ND*	13	190	15	210	150
23-Mar-93	A-2	<50	<0.30	<0.30	<0.30	<0.50	<50	<100	<1000	ND*	8.3	73	5.3	46	56
23-Dec-93	A-3	<50	<0.30	<0.30	<0.30	<0.50	<50	<100	<1000	ND*	5.5	51	3.5	39	32
23-Dec-93	A-3	<50	<0.30	<0.30	<0.30	<0.50	<50	<100	<1000	ND*	7.6	78	6.5	45	71

Current Regional Water Quality Control Board Maximum Contaminant Levels:

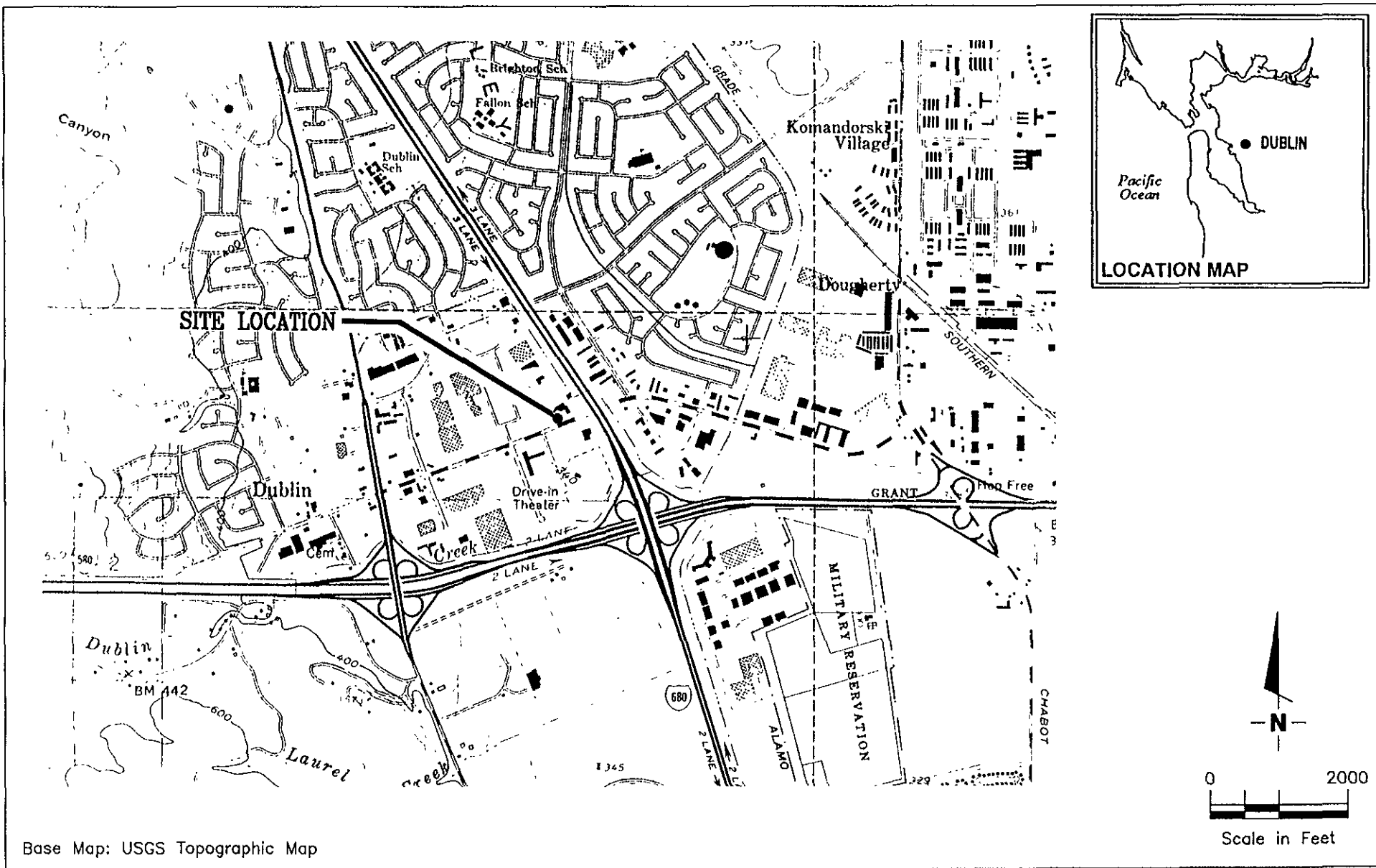
Benzene 1.0 ppb, Xylenes 1750 ppb, Ethylbenzene 680 ppb, Cadmium 10 ppb, Chromium 50 ppb, Lead 50 ppb, Nickel 100 ppb, Zinc 5,000 ppb.

Current Cal EPA Action Levels: Toluene 100 ppb

TPH-G = Total Petroleum Hydrocarbons calculated as Gasoline.
 TPH-D = Total Petroleum Hydrocarbons calculated as Diesel.
 TPH-MO = Total Petroleum Hydrocarbons calculated as Motor Oil.
 O&G = Oil and Grease
 VOCs = Volatile Organic Compounds.
 PPB = Parts per Billion
 Cd = Cadmium
 Cr = Chromium
 Pb = Lead
 Zn = Zinc
 Ni = Nickel
 ND = Not detected
 * = 38 compounds tested

Notes: 1. All data shown as <x are reported as ND (none detected).

ILLUSTRATIONS



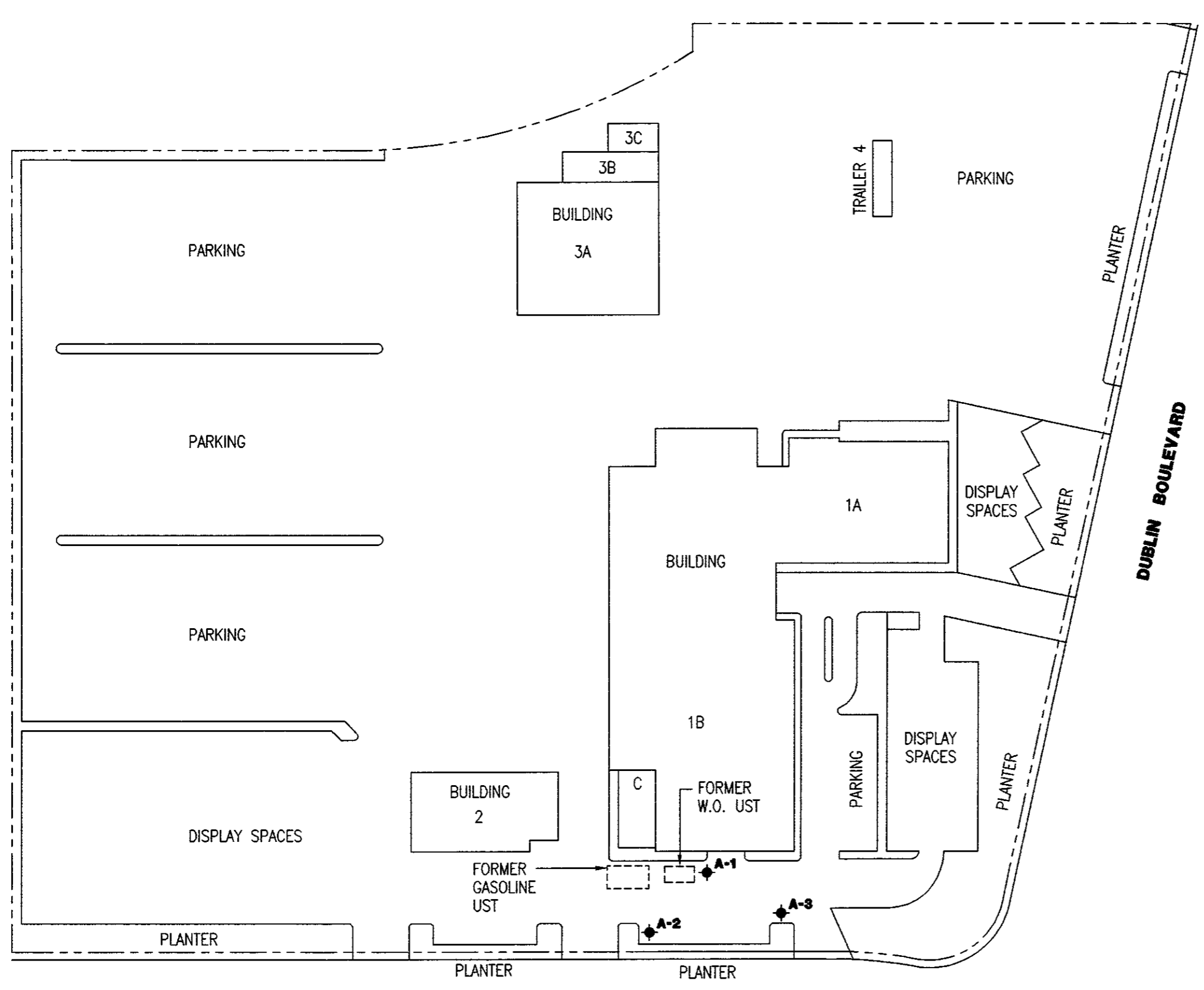
Base Map: USGS Topographic Map

GSI GeoStrategies Inc.

VICINITY MAP
 SHAMROCK FORD
 7499 Dublin Boulevard
 Dublin, California

FIGURE
1

JOB NUMBER 6130	REVIEWED BY <i>[Signature]</i>	DATE 8/93	REVISED DATE
--------------------	-----------------------------------	--------------	--------------

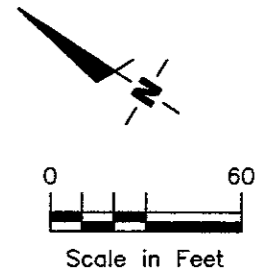


EXPLANATION

◆ Groundwater monitoring well

Base Map: Modified from plan supplied by Shamrock Ford

AMADOR PLAZA ROAD



GeoStrategies Inc.

SITE PLAN
 SHAMROCK FORD
 7499 Dublin Boulevard
 Dublin, California

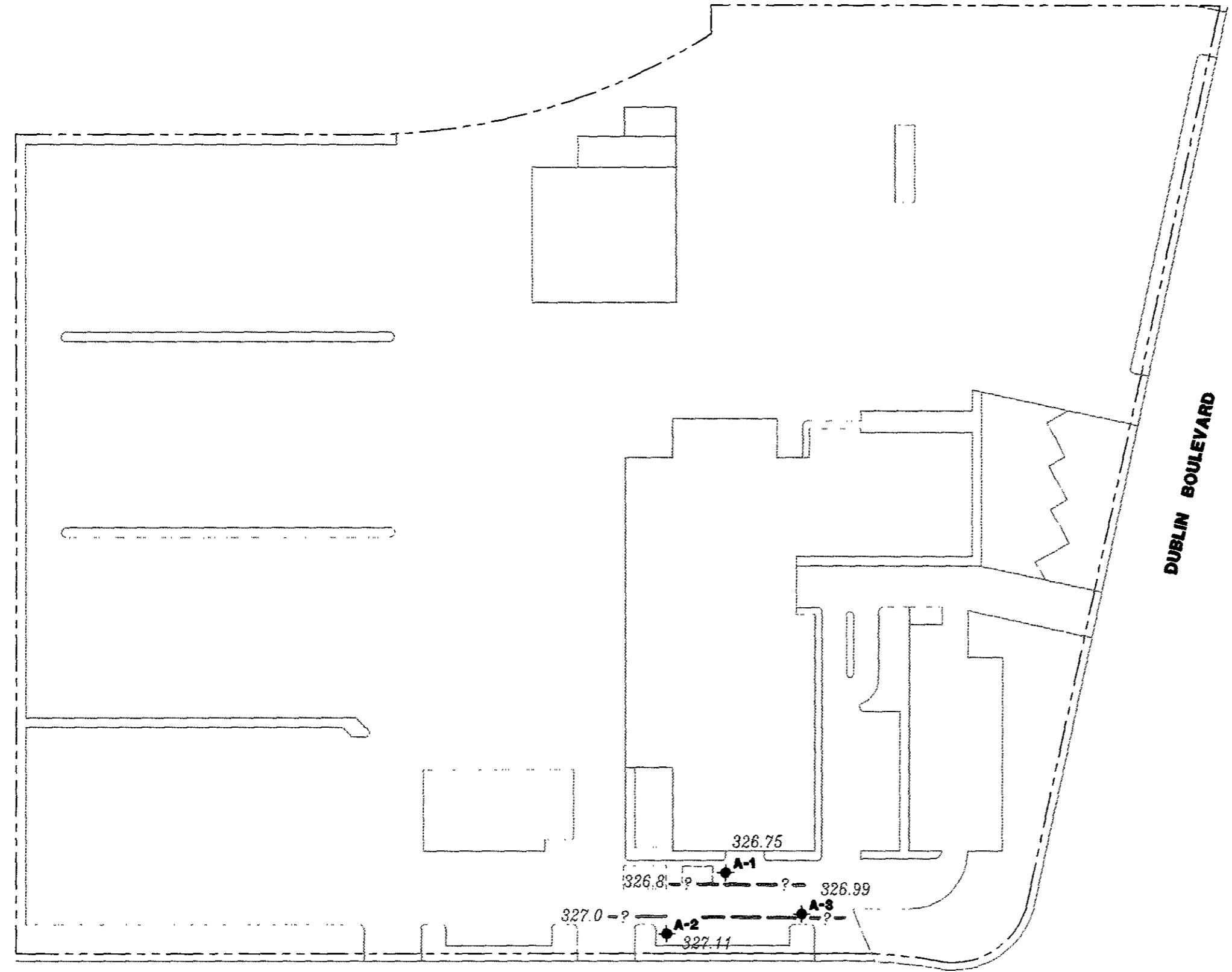
REVIEWED BY *[Signature]*
 JOB NUMBER 6130

DATE 4/94

REVISED DATE

EXPLANATION

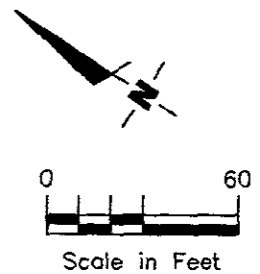
- ◆ Groundwater monitoring well
- 99.99 Groundwater elevation in feet referenced to Mean Sea Level (MSL) measured on February 25, 1994
- 99.99- Groundwater elevation contour. Approximate Gradient = 0.01



Base Map: Modified from plan supplied by Shamrock Ford

AMADOR PLAZA ROAD

DUBLIN BOULEVARD



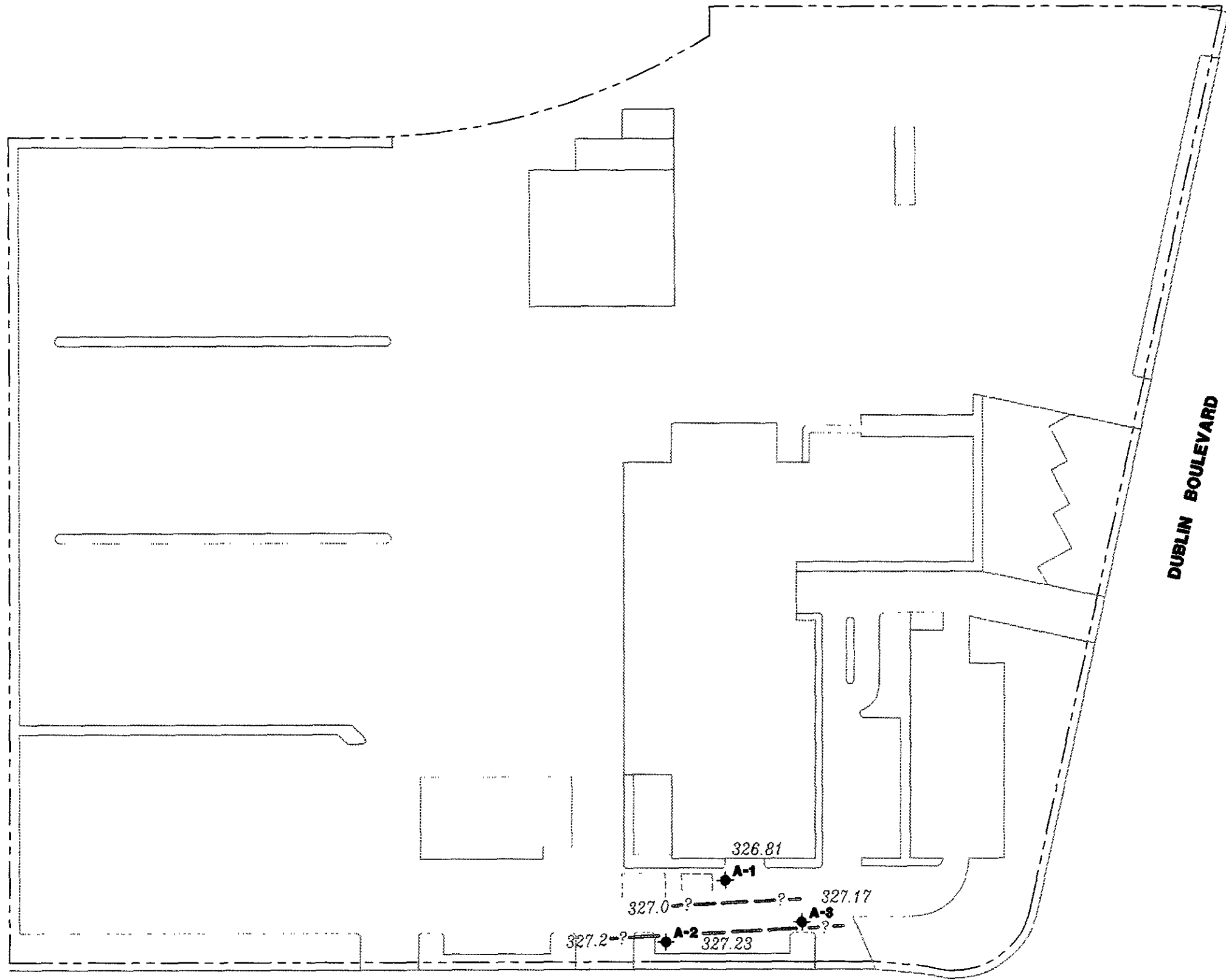
POTENTIOMETRIC MAP (February 25, 1994)

SHAMROCK FORD
7499 Dublin Boulevard
Dublin, California

GeoStrategies Inc.



REVISIONS BY: *BS*
 DATE: 4/94
 JOB NUMBER: 613001-4
 REVISED DATE:

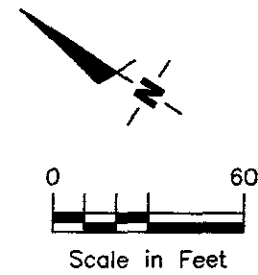


- EXPLANATION**
- ◆ Groundwater monitoring well
 - 99.99 Groundwater elevation in feet referenced to Mean Sea Level (MSL) measured on March 23, 1994
 - 99.99 - Groundwater elevation contour. Approximate Gradient = 0.01

Base Map: Modified from plan supplied by Shamrock Ford

AMADOR PLAZA ROAD

DUBLIN BOULEVARD



POTENTIOMETRIC MAP (March 23, 1994)

SHAMROCK FORD
7499 Dublin Boulevard
Dublin, California

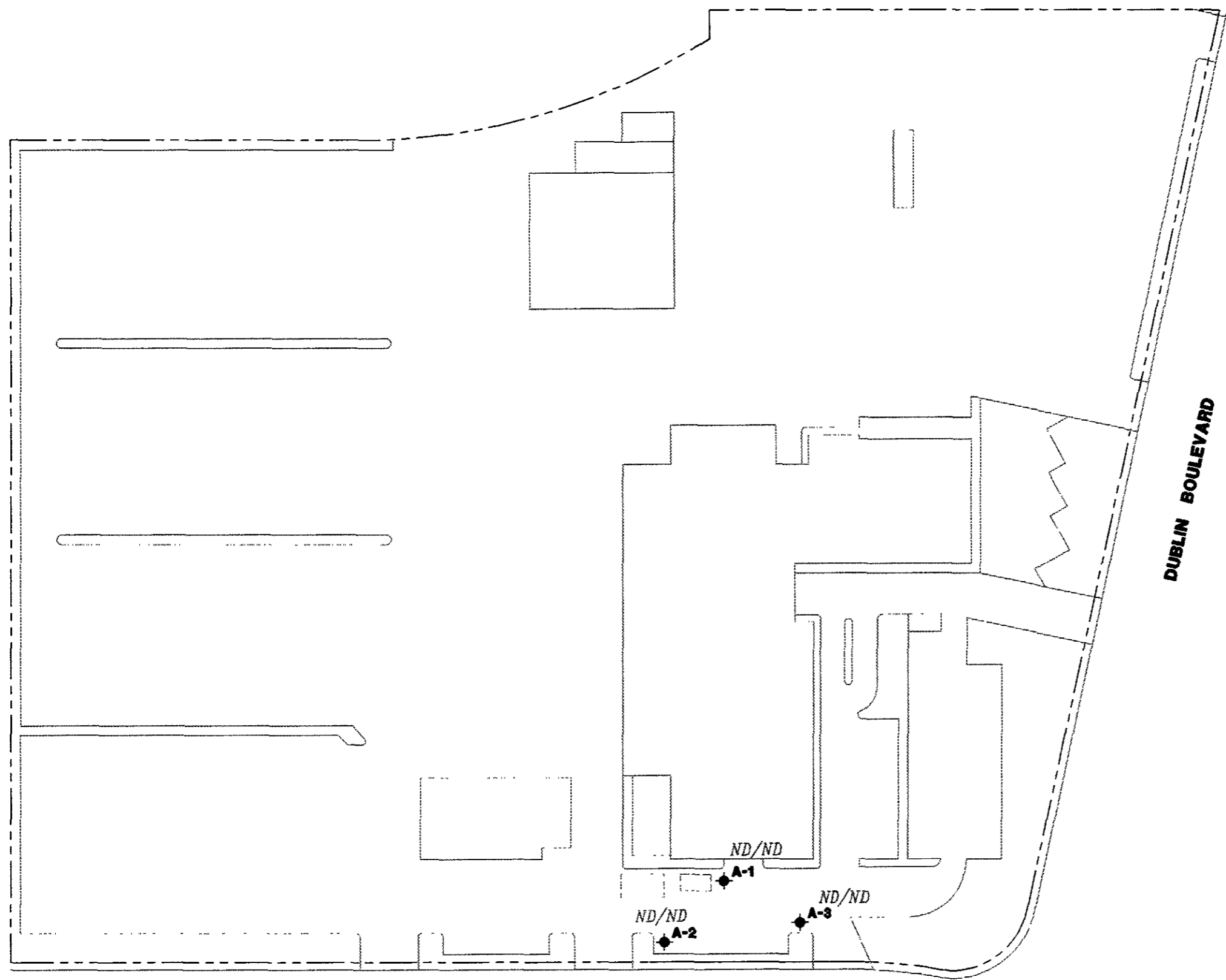
GeoStrategies Inc.



JOB NUMBER 613001 - 4
REVIEWED BY *BS*
DATE 4/94
REVISED DATE

EXPLANATION

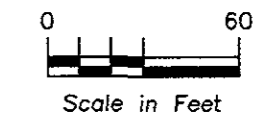
- ◆ Groundwater monitoring well
- 99/9.9 TPH-G (Total Petroleum Hydrocarbons calculated as Gasoline)/Benzene concentrations in ppb sampled on March 23, 1994
- ND Not Detected (See laboratory reports for detection limits)
- NS Not Sampled



Base Map: Modified from plan supplied by Shamrock Ford

AMADOR PLAZA ROAD

DUBLIN BOULEVARD



TPH-G/BENZENE CONCENTRATION MAP

SHAMROCK FORD
7499 Dublin Boulevard
Dublin, California

GeoStrategies Inc.



APPENDIX A

G-R GROUNDWATER SAMPLING REPORT

GETTLER-RYAN INC.

General and Environmental Contractors

MONITORING WELL

OBSERVATION SUMMARY SHEET

COMPANY Spannuck Ford

JOB NO. E130.01

LOCATION 7499 Dublin Blvd

DATE 2-25-94

CITY Dublin

TIME _____

WELL ID	TOTAL WELL DEPTH	DEPTH TO LIQUID	HYDROCARBON THICKNESS	MEASUREMENT POINT TOB or TOC	COMMENTS
<u>A-1</u>	<u>15'</u>	<u>6.13</u>	<u>0</u>	<u>TOC</u>	
<u>A-2</u>	<u>15'</u>	<u>7.05</u>	<u>0</u>	<u>TOC</u>	
<u>A-3</u>	<u>15'</u>	<u>7.19</u>	<u>0</u>	<u>TOC</u>	

Comments: _____

Sampler: B. Sieminski

Assistant: _____

GETTLER-RYAN INC.

General and Environmental Contractors

MONITORING WELL

OBSERVATION SUMMARY SHEET

COMPANY Arc Shamrock Ford JOB NO. 8130.01
 LOCATION 7499 Dublin Blvd DATE 3-23-94
 CITY Dublin CA TIME _____

WELL ID	TOTAL WELL DEPTH	DEPTH TO LIQUID	HYDROCARBON THICKNESS	MEASUREMENT POINT TOB or TOC	COMMENTS
A-1	15'	6.67	-	TOC	
A-2	15'	6.93	-	↓	
A-3	15'	7.01	-		

Comments: _____

Sampler: Ficline Assistant: _____

GETTLER-RYAN INC.

General and Environmental Contractors

WELL SAMPLING FIELD DATA SHEET

COMPANY Shamrock Ford JOB # 8130.01
 LOCATION 2494 Division Blvd DATE 3-23-74
 CITY Division CA TIME _____

Well ID. A-1 Well Condition dry
 Well Diameter 2" in. Hydrocarbon Thickness _____ ft.

Total Depth 15' ft.

Volume Factor (VF)	2" = 0.17	6" = 1.50	12" = 5.80
	3" = 0.38	8" = 2.60	
	4" = 0.66	10" = 4.10	

Depth to Liquid- 6.07 ft.
 (# of casing volumes) 5 x 8.93 x (VF) 0.17 = (Estimated Purge Volume) (1.5) 7.5 gal.

Purging Equipment Bailer
 Sampling Equipment Bailer

Starting Time 6:11am Purging Flow Rate _____ gpm.
 (Estimated Purge Volume) _____ gal. / (Purging Flow Rate) _____ gpm. = (Anticipated Purging Time) _____ min.

Time	pH	Conductivity	Temperature	Volume
<u>6:18</u>	<u>7.24</u>	<u>1465</u>	<u>58.9</u>	<u>1.5</u>
<u>6:20</u>	<u>7.29</u>	<u>1482</u>	<u>59.5</u>	<u>2.0</u>
<u>6:22</u>	<u>7.30</u>	<u>1466</u>	<u>63.6</u>	<u>4.5</u>
<u>6:25</u>	<u>7.40</u>	<u>1480</u>	<u>63.1</u>	<u>6.0</u>
<u>6:27</u>	<u>7.29</u>	<u>1479</u>	<u>63.0</u>	<u>7.0</u>

Did well dewater? No If yes, time _____ Volume _____

Sampling Time 6:35 Weather Conditions _____

Analysis _____ Bottles Used _____

Chain of Custody Number _____

COMMENTS well drew down to 14' allow to recover 10 minutes prior to sampling

FOREMAN P. Ch ASSISTANT _____

GETTLER-RYAN INC.

General and Environmental Contractors

WELL SAMPLING FIELD DATA SHEET

COMPANY Shamrock Food JOB # 8130.01
 LOCATION 7499 Division Blvd DATE 3-23-94
 CITY Division CA TIME _____

Well ID. A-2 Well Condition dry
 Well Diameter 2" in. Hydrocarbon Thickness _____ ft.

Total Depth 15' ft.

Volume Factor (VF)	2" = 0.17	6" = 1.50	12" = 5.80
	3" = 0.38	8" = 2.60	
	4" = 0.66	10" = 4.10	

Depth to Liquid- 6.93 ft.
 (# of casing volumes) 5 x 8.07 x(VF) 0.17 = (Estimated Purge Volume) 1.37 6.85 gal.

Purging Equipment Baird
 Sampling Equipment Baird

Starting Time 9:07 Purging Flow Rate _____ gpm.
 (Estimated Purge Volume) _____ gal. / (Purging Flow Rate) _____ gpm. = (Anticipated Purging Time) _____ min.

Time	pH	Conductivity	Temperature	Volume
<u>9:09</u>	<u>7.50</u>	<u>1241</u>	<u>61.7</u>	<u>1.4</u>
<u>9:11</u>	<u>7.48</u>	<u>1272</u>	<u>61.4</u>	<u>2.8</u>
<u>9:13</u>	<u>7.42</u>	<u>1298</u>	<u>63.2</u>	<u>4.2</u>
<u>9:15</u>	<u>7.44</u>	<u>1290</u>	<u>62.9</u>	<u>5.6</u>
<u>9:17</u>	<u>7.43</u>	<u>1295</u>	<u>62.9</u>	<u>7.0</u>

Did well dewater? Me If yes, time _____ Volume _____

Sampling Time 9:30 Weather Conditions _____

Analysis See change Bottles Used 13

Chain of Custody Number _____

COMMENTS _____

FOREMAN F. Chi ASSISTANT _____

GETTLER-RYAN INC.

General and Environmental Contractors

WELL SAMPLING FIELD DATA SHEET

COMPANY Shumrock Ford JOB # E130.01
 LOCATION 7499 Pavilion Blvd DATE 3-23-94
 CITY Dashon CA TIME _____

Well ID. A-3 Well Condition dry
 Well Diameter 2" in. Hydrocarbon Thickness _____ ft.
 Total Depth 15' ft.
 Depth to Liquid- 7.01 ft.

Volume Factor (VF)	2" = 0.17	6" = 1.50	12" = 5.80
	3" = 0.38	8" = 2.60	
	4" = 0.66	10" = 4.10	

 (# of casing volumes) 5 x 7.99 x (VF) 0.17 = (Estimated Purge Volume) 1.3 G.8 gal.

Purging Equipment Barber
 Sampling Equipment Barber

Starting Time 7:03 Purging Flow Rate _____ gpm.
 (Estimated Purge Volume) _____ gal. / (Purging Flow Rate) _____ gpm. = (Anticipated Purging Time) _____ min.

Time	pH	Conductivity	Temperature	Volume
<u>7:05</u>	<u>7.47</u>	<u>1286</u>	<u>60.6</u>	<u>1.3</u>
<u>7:07</u>	<u>7.42</u>	<u>1323</u>	<u>61.2</u>	<u>2.6</u>
<u>7:09</u>	<u>7.39</u>	<u>1273</u>	<u>62.5</u>	<u>3.9</u>
<u>7:11</u>	<u>7.36</u>	<u>1286</u>	<u>62.6</u>	<u>5.2</u>
<u>7:13</u>	<u>7.37</u>	<u>1279</u>	<u>62.6</u>	<u>6.8</u>

Did well dewater? No If yes, time _____ Volume _____
 Sampling Time 7:15 Weather Conditions _____
 Analysis see chain Bottles Used _____
 Chain of Custody Number _____

COMMENTS _____
 FOREMAN FCL ASSISTANT _____

COMPANY Shamrock Ford JOB NO. _____
 JOB LOCATION 7499 Dublin Blvd
 CITY Dublin CA PHONE NO. 3/23/94 01 TP
 AUTHORIZED Tom Paulsen DATE 3-23-94 P.O. NO. 8130.75

SAMPLE ID	NO. OF CONTAINERS	SAMPLE MATRIX	DATE/TIME SAMPLED	ANALYSIS REQUIRED	SAMPLE CONDITION LAB ID
A-1	13	Liquid	3-23-94/4:35	(THC(GC) EPA 8015 BTX12 (EPA 8020) TPH Dist & Microbiol (EPA 805 / Extraction) O&G (SM5520B+1) VCL EPA 624 Metals Cd Cr Pb Ni Zn	
A-2	13	↓	↓ 19:30		
A-3	13	↓	↓ 17:15		
Trip Blank	2	Liquid	3-23-94	THC-GC, BTX, EPA 624	

RELINQUISHED BY: [Signature] 3-23-94
 RELINQUISHED BY: _____
 RELINQUISHED BY: _____

RECEIVED BY: [Signature] 3-23-94 14:00
 RECEIVED BY: _____
 RECEIVED BY LAB: _____

DESIGNATED LABORATORY: Western Environmental DHS # _____
 REMARKS: Sciences Tech of Davis
Normal report turn Around

DATE COMPLETED 3-23-94 FOREMAN _____

APPENDIX B

**LABORATORY ANALYTICAL REPORT
AND CHAIN-OF-CUSTODY FORM**



March 30, 1994
Sample Log 8965

Tom Paulson
Gettler-Ryan Inc.
6747 Sierra Court, Suite J
Dublin, CA 94568

Subject: Analytical Results for 4 Water Samples
Identified as: Shamrock Ford
Received: 03/23/94
Purchase Order: 8130.01

Dear Mr. Paulson:

Analysis of the sample(s) referenced above has been completed. This report is written to confirm results communicated on March 30, 1994 and describes procedures used to analyze the samples.

The sample(s) were received in:

1-L polyethylene bottles with polyethylene caps
1-L glass bottles sealed with TFE-lined caps
40-ml glass vials sealed with TFE-lined septae

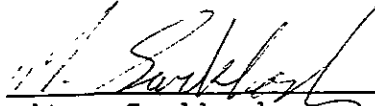
Each sample was transported and received under documented chain of custody, assigned a consecutive log number and stored at 4 degrees Celsius until analysis commenced.

Sample(s) were analyzed using the following method(s):

"BTEX" (EPA Method 602/Purge-and-Trap)
"TPH as Gasoline" (Modified EPA Method 8015/Purge-and-Trap)
"TPH as Diesel, Motor Oil, Jet/Kerosene" (Mod. 8015/Extraction)
"Oil and Grease" (Standard Methods 5520 B,F)
"Volatile Organic Priority Pollutants" (EPA Method 624)

Please refer to the following table(s) for summarized analytical results and contact us at 916-753-9500 if you have questions regarding procedures or results. The chain-of-custody document is enclosed.

Approved by:


Mitra Sarkhosh
Senior Chemist



March 30, 1994
 Sample Log 8965

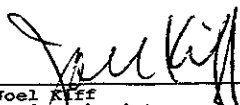
Sample: A-1

From : Shamrock Ford
 Sampled : 03/23/94
 Matrix : Water

Received : 03/23/94
 Analyzed : 03/25/94

624 - Volatile Organic Priority Pollutants

Parameter	(MRL) ug/L	Measured Value ug/L	Flag
Chloromethane	(2.0)	< 2.0	
Bromomethane	(2.0)	< 2.0	
cis-1,2-Dichloroethene	(1.0)	< 1.0	
trans-1,2-Dichloroethene	(1.0)	< 1.0	
Vinyl Chloride	(2.0)	< 2.0	
Chloroethane	(2.0)	< 2.0	
Methylene Chloride	(1.0)	< 1.0	
Acetone	(50)	< 50	
Carbon Disulfide	(1.0)	< 1.0	
1,1-Dichloroethene	(1.0)	< 1.0	
1,1-Dichloroethane	(1.0)	< 1.0	
Chloroform	(1.0)	< 1.0	
1,2-Dichloroethane	(1.0)	< 1.0	
2-Butanone	(20)	< 20	
1,1,1-Trichloroethane	(1.0)	< 1.0	
Carbon Tetrachloride	(1.0)	< 1.0	
Bromodichloromethane	(1.0)	< 1.0	
1,2-Dichloropropane	(1.0)	< 1.0	
cis-1,3-Dichloropropene	(1.0)	< 1.0	
Trichloroethene	(1.0)	< 1.0	
Dibromochloromethane	(1.0)	< 1.0	
1,1,2-Trichloroethane	(1.0)	< 1.0	
Benzene	(1.0)	< 1.0	
trans-1,3-Dichloropropene	(1.0)	< 1.0	
Bromoform	(1.0)	< 1.0	
4-Methyl-2-Pentanone	(10)	< 10	
1,3-Dichlorobenzene	(1.0)	< 1.0	
1,2-Dichlorobenzene	(1.0)	< 1.0	
1,4-Dichlorobenzene	(1.0)	< 1.0	
2-Hexanone	(10)	< 10	
Tetrachloroethene	(1.0)	< 1.0	
1,1,2,2-Tetrachloroethane	(1.0)	< 1.0	
Toluene	(1.0)	< 1.0	
Chlorobenzene	(1.0)	< 1.0	
Ethylbenzene	(1.0)	< 1.0	
Styrene	(1.0)	< 1.0	
P,M-Xylene	(1.0)	< 1.0	
O-Xylene	(1.0)	< 1.0	


 Joel Kiff
 Senior Chemist



March 30, 1994
Sample Log 8965

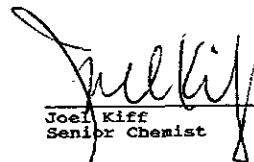
Sample: A-2

From : Shamrock Ford
Sampled : 03/23/94
Matrix : Water

Received : 03/23/94
Analyzed : 03/25/94

624 - Volatile Organic Priority Pollutants

Parameter	(MRL) ug/L	Measured Value ug/L	Flag
Chloromethane	(2.0)	< 2.0	
Bromomethane	(2.0)	< 2.0	
cis-1,2-Dichloroethene	(1.0)	< 1.0	
trans-1,2-Dichloroethene	(1.0)	< 1.0	
Vinyl Chloride	(2.0)	< 2.0	
Chloroethane	(2.0)	< 2.0	
Methylene Chloride	(1.0)	< 1.0	
Acetone	(50)	< 50	
Carbon Disulfide	(1.0)	< 1.0	
1,1-Dichloroethene	(1.0)	< 1.0	
1,1-Dichloroethane	(1.0)	< 1.0	
Chloroform	(1.0)	< 1.0	
1,2-Dichloroethane	(1.0)	< 1.0	
2-Butanone	(20)	< 20	
1,1,1-Trichloroethane	(1.0)	< 1.0	
Carbon Tetrachloride	(1.0)	< 1.0	
Bromodichloromethane	(1.0)	< 1.0	
1,2-Dichloropropane	(1.0)	< 1.0	
cis-1,3-Dichloropropene	(1.0)	< 1.0	
Trichloroethene	(1.0)	< 1.0	
Dibromochloromethane	(1.0)	< 1.0	
1,1,2-Trichloroethane	(1.0)	< 1.0	
Benzene	(1.0)	< 1.0	
trans-1,3-Dichloropropene	(1.0)	< 1.0	
Bromoform	(1.0)	< 1.0	
4-Methyl-2-Pentanone	(10)	< 10	
1,3-Dichlorobenzene	(1.0)	< 1.0	
1,2-Dichlorobenzene	(1.0)	< 1.0	
1,4-Dichlorobenzene	(1.0)	< 1.0	
2-Hexanone	(10)	< 10	
Tetrachloroethene	(1.0)	< 1.0	
1,1,2,2-Tetrachloroethane	(1.0)	< 1.0	
Toluene	(1.0)	< 1.0	
Chlorobenzene	(1.0)	< 1.0	
Ethylbenzene	(1.0)	< 1.0	
Styrene	(1.0)	< 1.0	
P,M-Xylene	(1.0)	< 1.0	
O-Xylene	(1.0)	< 1.0	


Joel Kiff
Senior Chemist



March 30, 1994
Sample Log 8965

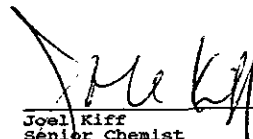
Sample: A-3

From : Shamrock Ford
Sampled : 03/23/94
Matrix : Water

Received : 03/23/94
Analyzed : 03/25/94

624 - Volatile Organic Priority Pollutants

Parameter	(MRL) ug/L	Measured Value ug/L	Flag
Chloromethane	(2.0)	< 2.0	
Bromomethane	(2.0)	< 2.0	
cis-1,2-Dichloroethene	(1.0)	< 1.0	
trans-1,2-Dichloroethene	(1.0)	< 1.0	
Vinyl Chloride	(2.0)	< 2.0	
Chloroethane	(2.0)	< 2.0	
Methylene Chloride	(1.0)	< 1.0	
Acetone	(50)	< 50	
Carbon Disulfide	(1.0)	< 1.0	
1,1-Dichloroethene	(1.0)	< 1.0	
1,1-Dichloroethane	(1.0)	< 1.0	
Chloroform	(1.0)	< 1.0	
1,2-Dichloroethane	(1.0)	< 1.0	
2-Butanone	(20)	< 20	
1,1,1-Trichloroethane	(1.0)	< 1.0	
Carbon Tetrachloride	(1.0)	< 1.0	
Bromodichloromethane	(1.0)	< 1.0	
1,2-Dichloropropane	(1.0)	< 1.0	
cis-1,3-Dichloropropene	(1.0)	< 1.0	
Trichloroethene	(1.0)	< 1.0	
Dibromochloromethane	(1.0)	< 1.0	
1,1,2-Trichloroethane	(1.0)	< 1.0	
Benzene	(1.0)	< 1.0	
trans-1,3-Dichloropropene	(1.0)	< 1.0	
Bromoform	(1.0)	< 1.0	
4-Methyl-2-Pentanone	(10)	< 10	
1,3-Dichlorobenzene	(1.0)	< 1.0	
1,2-Dichlorobenzene	(1.0)	< 1.0	
1,4-Dichlorobenzene	(1.0)	< 1.0	
2-Hexanone	(10)	< 10	
Tetrachloroethene	(1.0)	< 1.0	
1,1,2,2-Tetrachloroethane	(1.0)	< 1.0	
Toluene	(1.0)	< 1.0	
Chlorobenzene	(1.0)	< 1.0	
Ethylbenzene	(1.0)	< 1.0	
Styrene	(1.0)	< 1.0	
P,M-Xylene	(1.0)	< 1.0	
O-Xylene	(1.0)	< 1.0	


Joel Kiff
Senior Chemist



March 30, 1994
Sample Log 8965

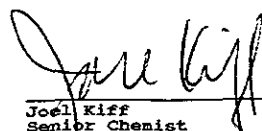
Sample: TRIP-BLANK

From : Shamrock Ford
Sampled : 03/23/94
Matrix : Water

Received : 03/23/94
Analyzed : 03/25/94

624 - Volatile Organic Priority Pollutants

Parameter	(MRL) ug/L	Measured Value ug/L	Flag
Chloromethane	(2.0)	< 2.0	
Bromomethane	(2.0)	< 2.0	
cis-1,2-Dichloroethene	(1.0)	< 1.0	
trans-1,2-Dichloroethene	(1.0)	< 1.0	
Vinyl Chloride	(2.0)	< 2.0	
Chloroethane	(2.0)	< 2.0	
Methylene Chloride	(1.0)	< 1.0	
Acetone	(50)	< 50	
Carbon Disulfide	(1.0)	< 1.0	
1,1-Dichloroethene	(1.0)	< 1.0	
1,1-Dichloroethane	(1.0)	< 1.0	
Chloroform	(1.0)	< 1.0	
1,2-Dichloroethane	(1.0)	< 1.0	
2-Butanone	(20)	< 20	
1,1,1-Trichloroethane	(1.0)	< 1.0	
Carbon Tetrachloride	(1.0)	< 1.0	
Bromodichloromethane	(1.0)	< 1.0	
1,2-Dichloropropane	(1.0)	< 1.0	
cis-1,3-Dichloropropene	(1.0)	< 1.0	
Trichloroethene	(1.0)	< 1.0	
Dibromochloromethane	(1.0)	< 1.0	
1,1,2-Trichloroethane	(1.0)	< 1.0	
Benzene	(1.0)	< 1.0	
trans-1,3-Dichloropropene	(1.0)	< 1.0	
Bromoform	(1.0)	< 1.0	
4-Methyl-2-Pentanone	(10)	< 10	
1,3-Dichlorobenzene	(1.0)	< 1.0	
1,2-Dichlorobenzene	(1.0)	< 1.0	
1,4-Dichlorobenzene	(1.0)	< 1.0	
2-Hexanone	(10)	< 10	
Tetrachloroethene	(1.0)	< 1.0	
1,1,2,2-Tetrachloroethane	(1.0)	< 1.0	
Toluene	(1.0)	< 1.0	
Chlorobenzene	(1.0)	< 1.0	
Ethylbenzene	(1.0)	< 1.0	
Styrene	(1.0)	< 1.0	
P,M-Xylene	(1.0)	< 1.0	
O-Xylene	(1.0)	< 1.0	


Joel Kiff
Senior Chemist



March 30, 1994
Sample Log 8965

EPA 624 System Monitoring Compound Recovery

Sample	SMC1 (TOL)#	SMC2 (BFB)#	SMC3 (DCE)#	OTHER	TOT OUT
A-1	110	101	106		0
A-2	108	101	105		0
A-3	108	102	106		0
TRIP-BLANK	109	103	108		0

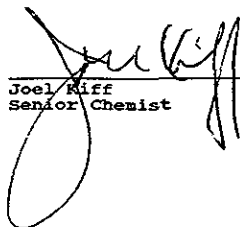
QC Limits

SMC1 (TOL) = Toluene-d8 (88-120)
SMC2 (BFB) = Bromofluorobenzene (86-120)
SMC3 (DCE) = 1,2-Dichloroethane-d4 (76-114)

Column to be used to flag recovery values

* Values outside of QC limits

D System Monitoring Compound diluted out


Joel Riff
Senior Chemist



April 6, 1994
Sample Log 8965

QC Report for EPA 602 & Modified EPA 8015

From : Shamrock Ford
Received : 03/23/94
Analyzed : 03/26/94
Matrix : Water

Parameter	Matrix Spike % Recovery	Matrix Spike Duplicate % Recovery	RPD
Benzene	108	107	1
Ethylbenzene	112	117	4
TPH as Gasoline	92	117	23*

* Although RPD is above the laboratory advisory limit, matrix spike, matrix spike duplicate, and LCS recoveries are all within the acceptance limit.


Parameter	LCS % Recovery
Benzene	112
Toluene	116
Ethylbenzene	113
Total Xylenes	119
TPH as Gasoline	104

EPA 602 Method Blank Water

Analyzed : 03/26/94

Parameter	MRL	Measured Value(ug/L)
Benzene	0.30	<0.30
Toluene	0.30	<0.30
Ethylbenzene	0.30	<0.30
Total Xylenes	0.50	<0.50
TPH as Gasoline	50	<50

a,a,a-Trifluorotoluene (Surrogate) 104 % Recovery


Mitra Sarkhosh
Senior Chemist



Sample Log 8965

8965-1

Sample: A-1

From : Shamrock Ford

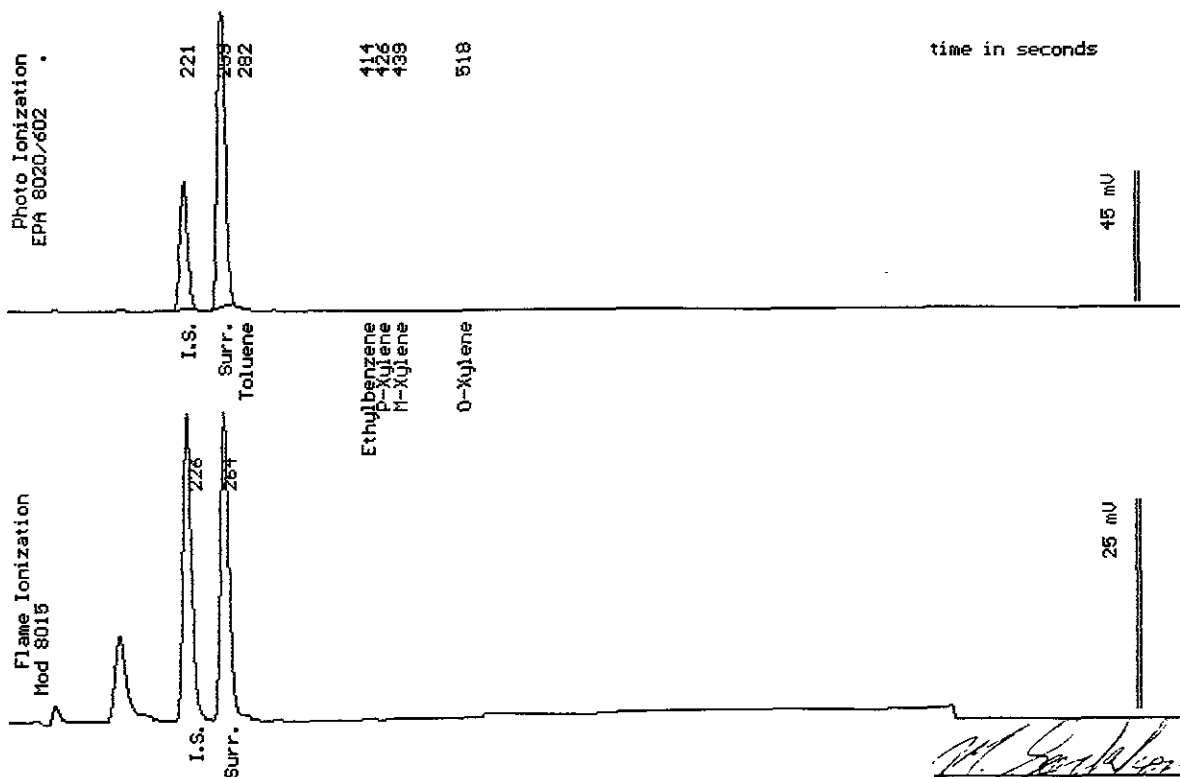
Sampled : 03/23/94

Dilution : 1:1

Matrix : Water

QC Batch : 2064d

Parameter	(MRL) ug/L	Measured Value ug/L
Benzene	(.30)	<.30
Toluene	(.30)	<.30
Ethylbenzene	(.30)	<.30
Total Xylenes	(.50)	<.50
TPH as Gasoline	(50)	<50
Surrogate Recovery		101 %



Date Analyzed: 03-26-94
Column : 0.53mm ID X 30m DBWAX (J&W Scientific)

Mitra Sarkhosh
Senior Chemist



Sample Log 8965

8965-2

Sample: A-2

From : Shamrock Ford

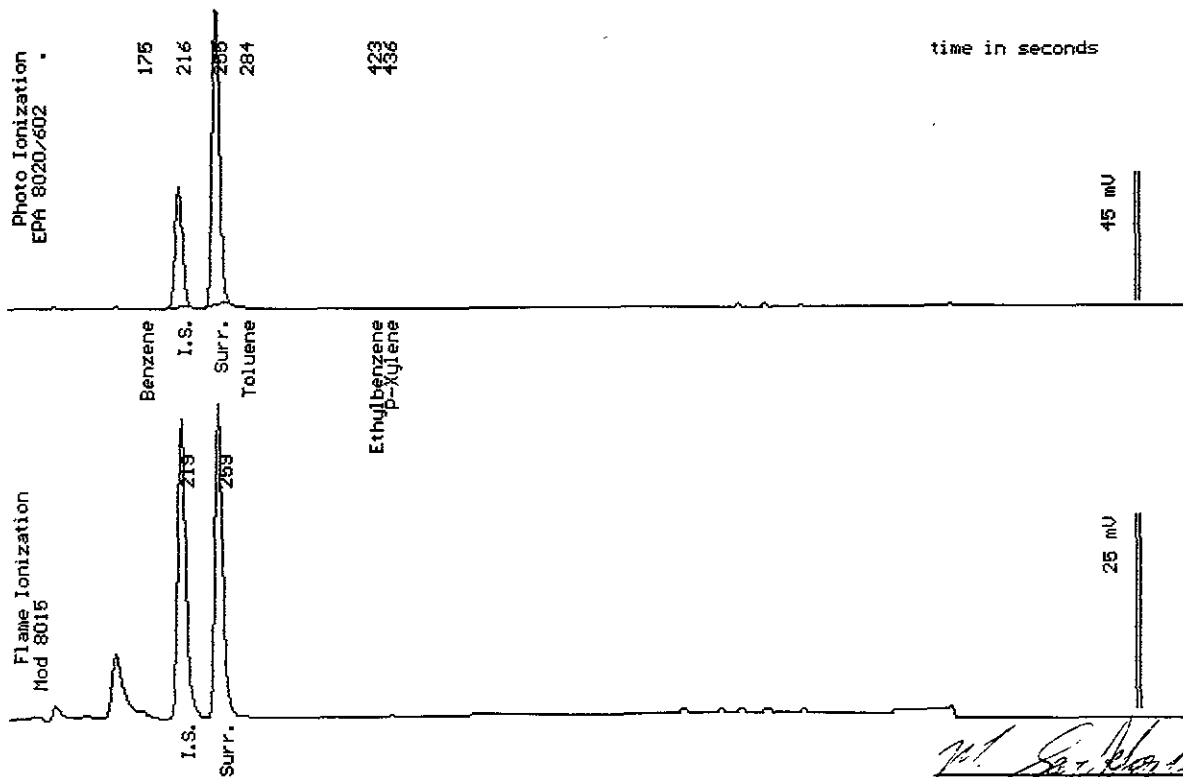
Sampled : 03/23/94

Dilution : 1:1

Matrix : Water

QC Batch : 2064d

Parameter	(MRL) ug/L	Measured Value ug/L
Benzene	(.30)	<.30
Toluene	(.30)	<.30
Ethylbenzene	(.30)	<.30
Total Xylenes	(.50)	<.50
TPH as Gasoline	(50)	<50
Surrogate Recovery		100 %



Date Analyzed: 03-26-94
Column : 0.53mm ID X 30m DBWAX (J&W Scientific)

Mitra Sarkhosh
Senior Chemist



Sample Log 8965

8965-3

Sample: A-3

From : Shamrock Ford

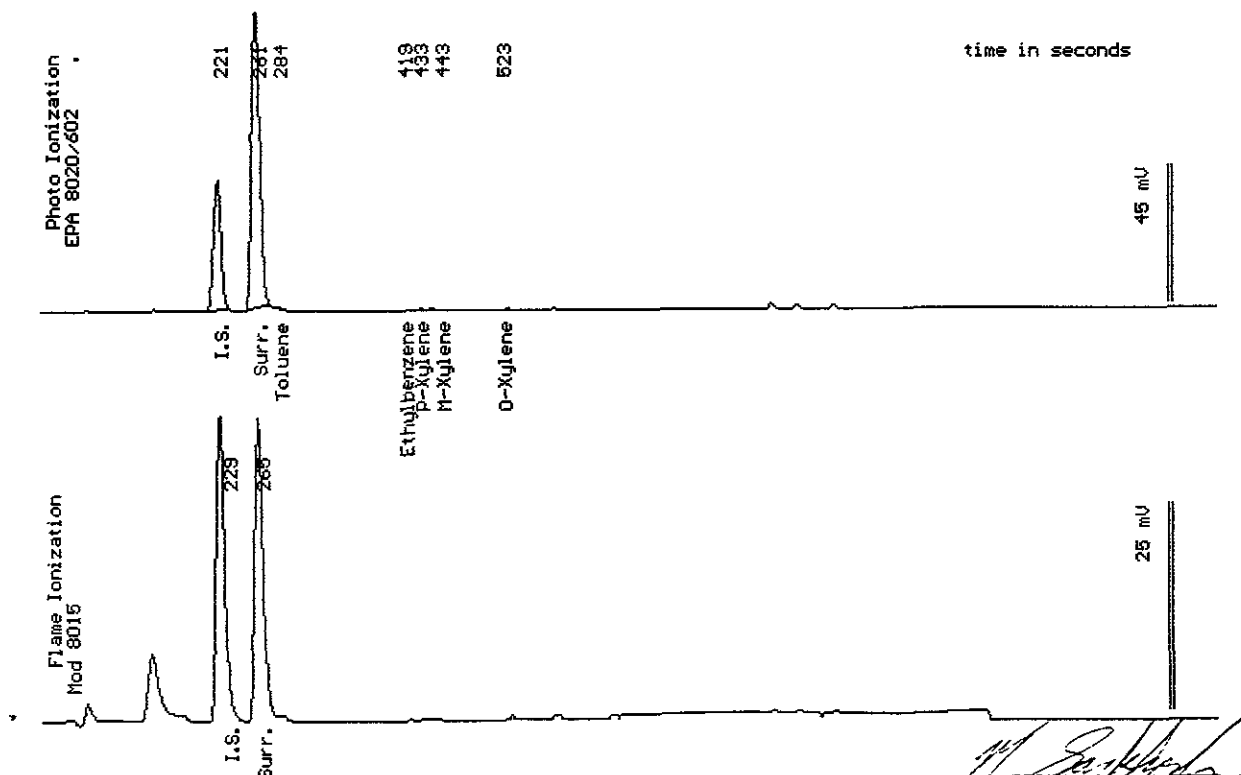
Sampled : 03/23/94

Dilution : 1:1

Matrix : Water

QC Batch : 2064d

Parameter	(MRL) ug/L	Measured Value ug/L
Benzene	(.30)	<.30
Toluene	(.30)	<.30
Ethylbenzene	(.30)	<.30
Total Xylenes	(.50)	<.50
TPH as Gasoline	(50)	<50
Surrogate Recovery		102 %



Date Analyzed: 03-26-94
Column : 0.53mm ID X 30m DBWAX (J&W Scientific)

Mitra Sarkhosh
Senior Chemist



Sample Log 8965

8965-4

Sample: TRIP-BLANK

From : Shamrock Ford

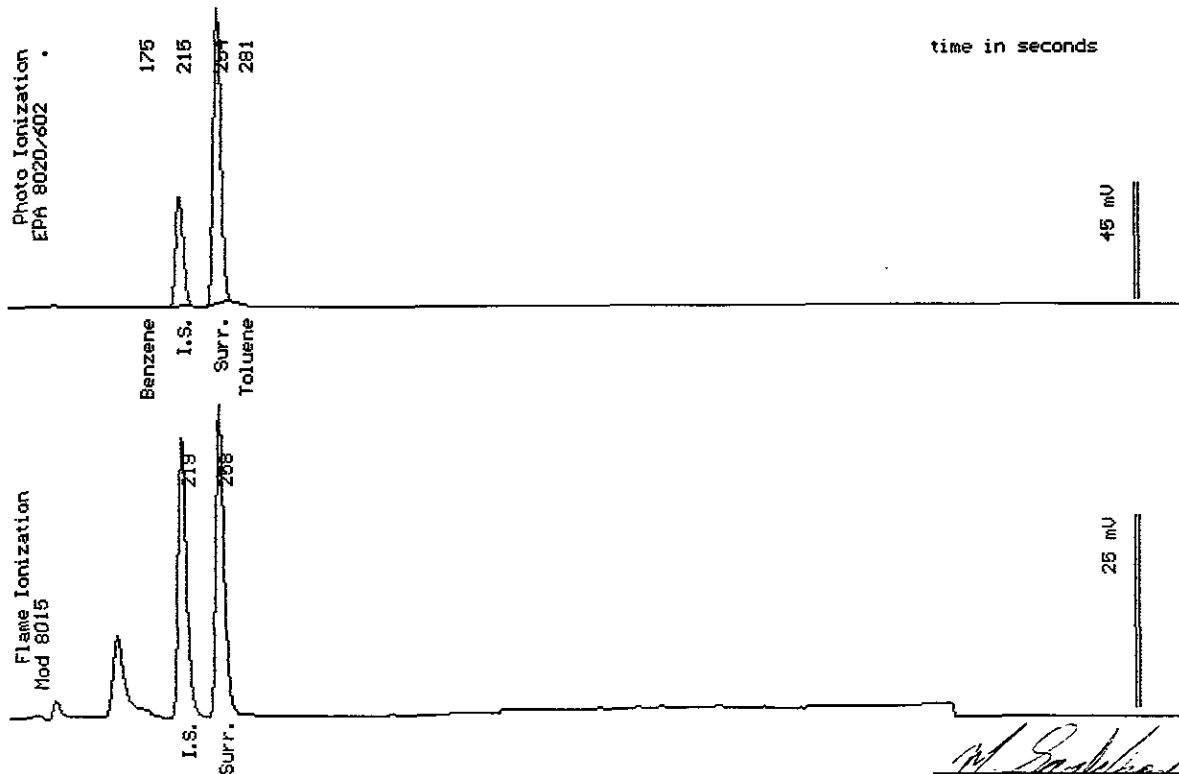
Sampled : 03/23/94

Dilution : 1:1

Matrix : Water

QC Batch : 2064d

Parameter	(MRL) ug/L	Measured Value ug/L
Benzene	(.30)	<.30
Toluene	(.30)	<.30
Ethylbenzene	(.30)	<.30
Total Xylenes	(.50)	<.50
TPH as Gasoline	(50)	<50
Surrogate Recovery		99 %



Date Analyzed: 03-26-94
Column : 0.53mm ID X 30m DBWAX (J&W Scientific)

M. Sarkhosh
Mitra Sarkhosh
Senior Chemist



March 31, 1994

Metals QC Report for Sample Log 8965

Shamrock Ford

Matrix: Water

Units: (mg/L)

Analyte	Method Blank Result	MRL	EPA Method	Date Digested	Date Analyzed
Cadium (Cd)	<0.004	0.004	6010	03/25/94	03/28/94
Chromium (Cr)	<0.007	0.007	6010	03/25/94	03/28/94
Lead (Pb)	<0.003	0.003	7421	03/25/94	03/28/94
Nickel (Ni)	<0.015	0.015	6010	03/25/94	03/28/94
Zinc (Zn)	<0.010	0.010	6010	03/25/94	03/28/94

MRL = Method Reporting Limit

Analyte	MS %Recov	MSD %Recov	RPD	EPA Method	Date Digested	Date Analyzed
Cadium (Cd)	115	114	1	6010	03/25/94	03/28/94
Chromium (Cr)	93	95	2	6010	03/25/94	03/28/94
Lead (Pb)	104	109	5	7421	03/25/94	03/28/94
Nickel (Ni)	99	102	3	6010	03/25/94	03/28/94
Zinc (Zn)	100	103	3	6010	03/25/94	03/28/94

MS = Matrix Spike MSD = Matrix Spike Duplicate
RPD = Relative Percent Difference


Michelle L. Anderson
Inorganics Supervisor



March 28, 1994
Sample Log 8965-1

Sample : A-1
From : Shamrock Ford
Sampled : 03/23/94
Matrix : Water
Units : mg/L

Received : 03/23/94

5 LUFT "Waste Oil" Metals

<u>Parameter</u>	<u>EPA Method</u>	<u>Date Digested</u>	<u>Date Analyzed</u>	<u>MRL*</u>	<u>Result</u>
Cadmium	6010	03/25/94	03/28/94	(0.004)	0.0058
Chromium	6010	03/25/94	03/28/94	(0.007)	0.033
Lead	7421	03/25/94	03/28/94	(0.003)	0.018
Nickel	6010	03/25/94	03/28/94	(0.015)	0.022
Zinc	6010	03/25/94	03/28/94	(0.010)	0.012

* MRL = Method Reporting Limit

Michelle L. Anderson
Metals Supervisor



March 28, 1994
Sample Log 8965-2

Sample : A-2
From : Shamrock Ford
Sampled : 03/23/94
Matrix : Water
Units : mg/L

Received : 03/23/94

5 LUFT "Waste Oil" Metals

<u>Parameter</u>	<u>EPA Method</u>	<u>Date Digested</u>	<u>Date Analyzed</u>	<u>MRL*</u>	<u>Result</u>
Cadmium	6010	03/25/94	03/28/94	(0.004)	0.0083
Chromium	6010	03/25/94	03/28/94	(0.007)	0.073
Lead	7421	03/25/94	03/28/94	(0.003)	0.0053
Nickel	6010	03/25/94	03/28/94	(0.015)	0.046
Zinc	6010	03/25/94	03/28/94	(0.010)	0.056

* MRL = Method Reporting Limit

Michelle L. Anderson
Metals Supervisor



March 28, 1994
Sample Log 8965-3


Sample : A-3
From : Shamrock Ford
Sampled : 03/23/94
Matrix : Water
Units : mg/L

Received : 03/23/94

5 LUFT "Waste Oil" Metals

<u>Parameter</u>	<u>EPA Method</u>	<u>Date Digested</u>	<u>Date Analyzed</u>	<u>MRL*</u>	<u>Result</u>
Cadmium	6010	03/25/94	03/28/94	(0.004)	0.0076
Chromium	6010	03/25/94	03/28/94	(0.007)	0.078
Lead	7421	03/25/94	03/28/94	(0.003)	0.0065
Nickel	6010	03/25/94	03/28/94	(0.015)	0.045
Zinc	6010	03/25/94	03/28/94	(0.010)	0.071

* MRL = Method Reporting Limit


Michelle L. Anderson
Metals Supervisor



April 6, 1994
Sample Log 8965

QC Report
From : Shamrock Ford

Spike and Spike Duplicate Results **Matrix: Water**

Parameter	Matrix Spike (%Rec)	Matrix Spike Dup. (%Rec)	RPD %
QC Batch KW940303 O&G Gravimetric	91	92	1

Laboratory Control Spike **Matrix: Water**

Parameter	Laboratory Control Spike (%Rec)
QC Batch KW940303 O&G Gravimetric	92

Method Blank **Matrix: Water**

Parameter	MDL(ug/L)	Measured Value(ug/L)
QC Batch KW940303 O&G Gravimetric	(1000)	<1000



Stewart Podolsky
Senior Chemist



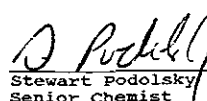
March 30, 1994
Sample Log 8965

Total Oil and Grease (Standard Methods 5520 B,F)
From : Shamrock Ford
Received : 03/23/94
Matrix : Water

--all concentrations are units of ug/l--

Sample	Date Sampled	Date Analyzed	RDL	(5520 B,F) Oil and Grease
A-1	03/23/94	03/28/94	(1000)	<1000
A-2	03/23/94	03/28/94	(1000)	<1000
A-3	03/23/94	03/28/94	(1000)	<1000

QC Batch: KW940303


Stewart Podolsky
Senior Chemist



April 6, 1994
Sample Log 8965

QC Report
From : Shamrock Ford

Spike and Spike Duplicate Results **Matrix: Water**

Parameter	Matrix Spike (%Rec)	Matrix Spike Dup. (%Rec)	RPD %
QC Batch DW940314 TPH as Diesel	No sample available for spikes. See duplicate LCS Data.		

Laboratory Control Spike **Matrix: Water**

Parameter	Laboratory Control Spike (%Rec)	Laboratory Control Spike Dup. (%Rec)	RPD %
QC Batch DW940314 TPH as Diesel	95	87	9

Method Blank **Matrix: Water**

Parameter	MDL(ug/L)	Measured Value(ug/L)
QC Batch DW940314 TPH as Diesel	(50)	<50
TPH as Motor Oil	(100)	<100

Stewart Podolsky
Senior Chemist



Sample Log 8965

8965-1

Sample: A-1

From : Shamrock Ford

Sampled : 03/23/94

Extracted: 03/29/94

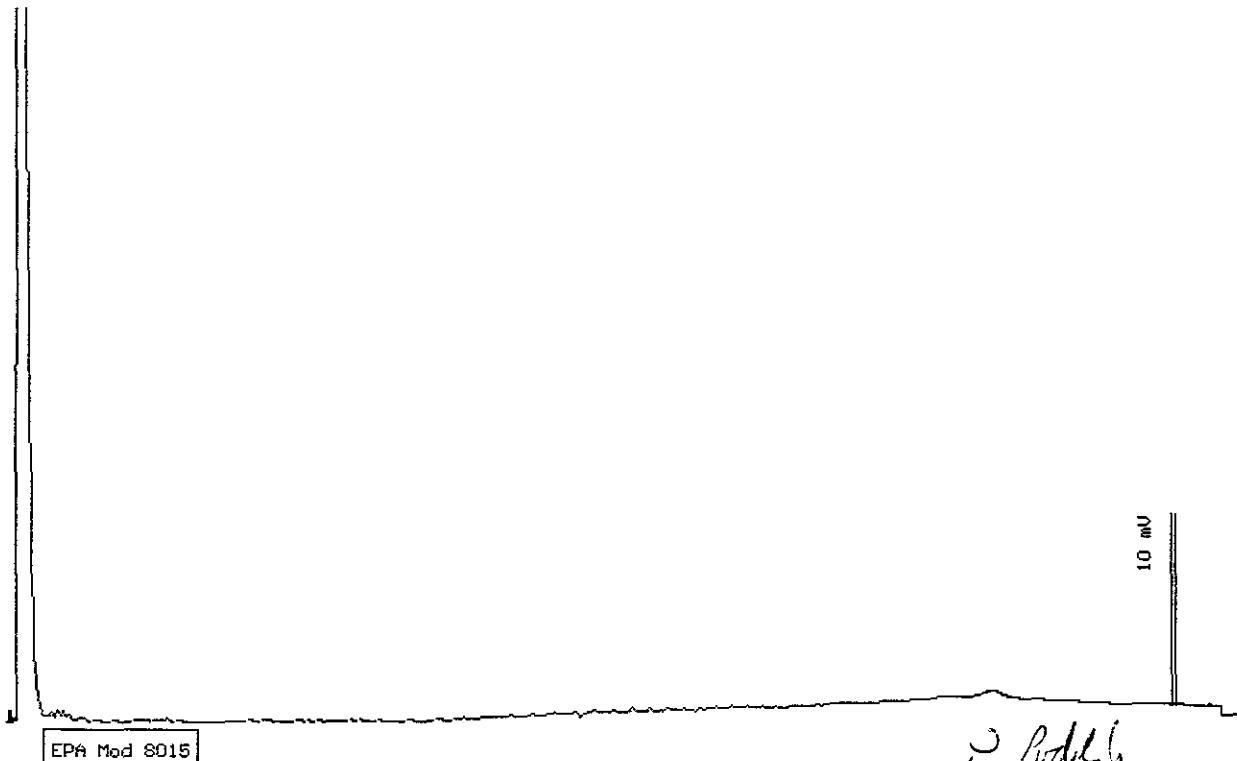
Dilution : 1:1

Matrix : Water

QC Batch : DW940314

Run Log : 7187A

Parameter	(MDL) ug/L	Measured Value ug/L
TPH as Diesel	(50)	<50
TPH as Motor Oil	(100)	<100



Date: 03-29-94 Time: 15:45:22
Column : 0.53mm ID X 15m DB1 (J&W Scientific)

Stewart Podolsky
Stewart Podolsky
Senior Chemist



Sample Log 8965

8965-2

Sample: A-2

From : Shamrock Ford

Sampled : 03/23/94

Extracted: 03/29/94

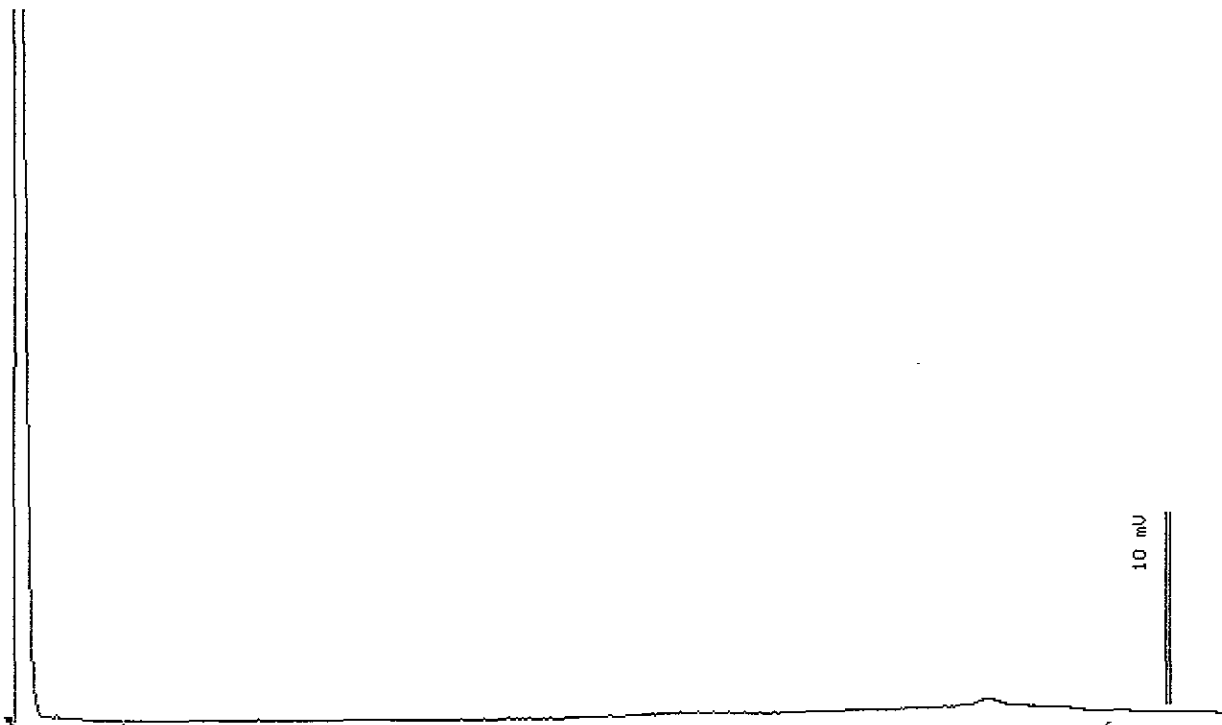
Dilution : 1:1

Matrix : Water

QC Batch : DW940314

Run Log : 7187A

Parameter	(MDL) ug/L	Measured Value ug/L
TPH as Diesel	(50)	<50
TPH as Motor Oil	(100)	<100



EPA Mod 8015

Date: 03-29-94 Time: 16:21:06
Column : 0.53mm ID X 15m DB1 (J&W Scientific)

Stewart Podolsky
Stewart Podolsky
Senior Chemist



Sample Log 8965

8965-3

Sample: A-3

From : Shamrock Ford

Sampled : 03/23/94

Extracted: 03/29/94

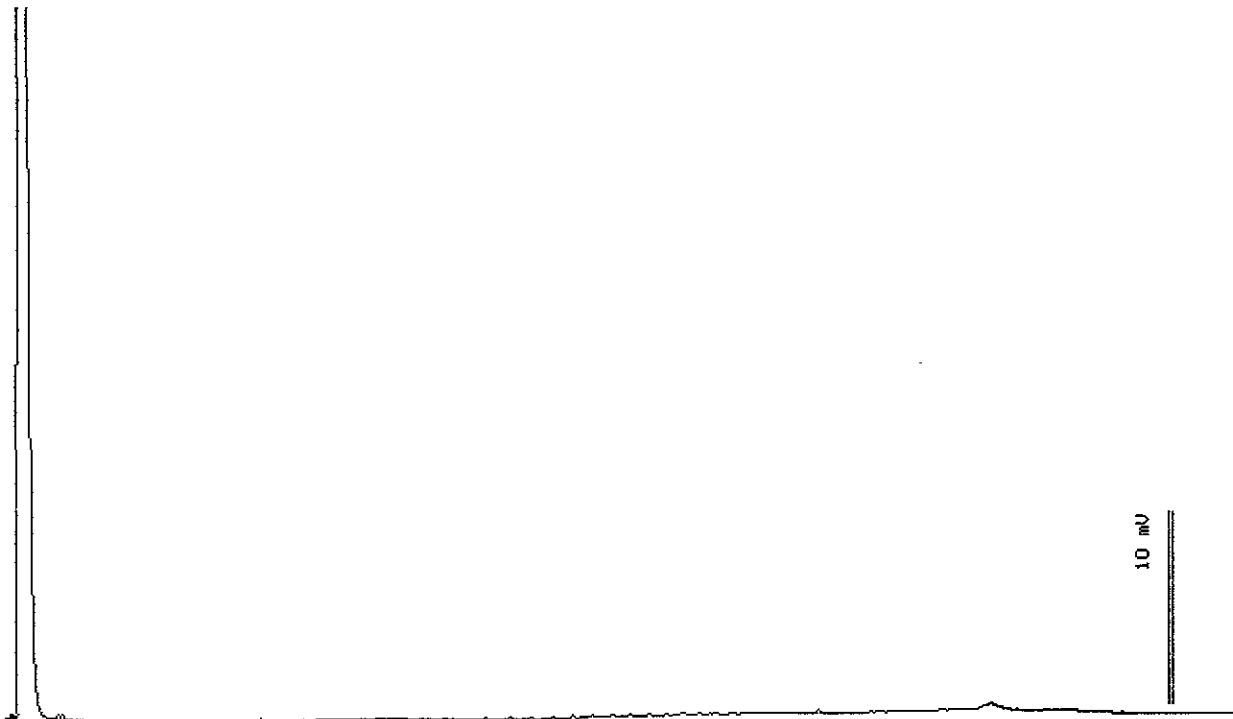
Dilution : 1:1

Matrix : Water

QC Batch : DW940314

Run Log : 7187A

Parameter	(MDL) ug/L	Measured Value ug/L
TPH as Diesel	(50)	<50
TPH as Motor Oil	(100)	<100



EPA Mod 8015

Date: 03-29-94 Time: 16:55:48
Column : 0.53mm ID X 15m DB1 (J&W Scientific)

Stewart Podolsky
Stewart Podolsky
Senior Chemist

COMPANY Shamrock Ford JOB NO. _____
 JOB LOCATION 7499 Dublin Blvd
 CITY Dublin CA PHONE NO. 3/23/94 01 TF
 AUTHORIZED Tom Paulson DATE 3-23-94 P.O. NO. 8130.75

SAMPLE ID	NO. OF CONTAINERS	SAMPLE MATRIX	DATE/TIME SAMPLED	ANALYSIS REQUIRED	SAMPLE CONDITION LAB ID
A-1	13	Liquid	3-23-94/6:35	} (THC (Gas) EPA 8015 } BTX (EPA 8020) } TPH Diesel & Microb. I } (EPA 8015 / Extraction) } O&G (SM5520B & 1 ²) } VCC EPA 624 } Metals Cd Cr Pb Ni Zn	
A-2	13	↓	↓ 19:30		
A-3	13	↓	↓ 17:15		
Trip Blank	2	Liquid	3-23-94	THC Gas BTX, EPA 624	

RELINQUISHED BY: [Signature] 3-23-94

RECEIVED BY: [Signature] 3-23-94 14:00

RELINQUISHED BY: _____

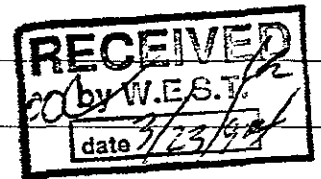
RECEIVED BY: _____

RELINQUISHED BY: [Signature] 3/23/94 15:45

RECEIVED BY LAB: [Signature] WEST 3/23/94 1545

DESIGNATED LABORATORY: Western Environmental DHS # _____

REMARKS: Scientist Tech of Davis
Normal report turn Around



DATE COMPLETED 3-23-94

FOREMAN _____