Chevron U.S.A. Inc.
2410 Camino Ramon, San Ramon, California • Phone (415) 842-9500
Mail Address: P.O. Box 5004, San Ramon, CA 94583-0804

Marketing Operations

R. B. Bellinger
Manager, Operations
S. L. Patterson
Area, Manager, Operations
C. G. Trimbach
Manager, Engineering

April 22, 1991

91 APR 26 AM 10:25

Mr. Lawrence Seto
Alameda County
Environmental Health
80 Swan Way, Room 200
Oakland, California 94621

Re: Chevron Service Station #9-0329
340 Highland Avenue
Piedmont, CA 94611

Dear Mr. Shahid:

Enclosed we are forwarding the Site Update Report presenting the results of the quarterly groundwater sampling event dated April 15, 1991, conducted by our consultant GeoStrategies, Inc. for the above referenced site. As indicated in the report, groundwater samples collected were analyzed for total petroleum hydrocarbons as gasoline (TPH-G), BTEX, and oil & grease (Well C-2 only). The results of these samples indicated Benzene concentrations ranging from ND to 1,100 ppb. We are currently evaluating the possible abandonment of Well C-1 as it continues to be dry.

Chevron is still in the process of securing encroachment permits to install additional wells off-site to obtain plume delineation. This has been a lengthy process due to the City of Piedmont's permit requirements. However, we anticipate resolving this soon and scheduling the well installations within June, 1991. A formal report of findings will be forwarded to your office. Upon completion of this phase of the assessment, we will evaluate all the data to determine the appropriate remedial approach.

If you have any questions or comments please do not hesitate to contact me at (415) 842-9581.

Very truly yours,
CHEVRON U.S.A. INC.

Nancy Vukelich
Environmental Engineer

Enclosure

cc: Mr. Rich Hiett, RWQCB-Bay Area
Mr. S.A. Willar
File (9-0329Q1 Listing)

GeoStrategies Inc.

SITE UPDATE

Chevron Service Station No. 0329
340 Highland Avenue
Piedmont, California

726101-4

April 15, 1991

GeoStrategies Inc.
2140 WEST WINTON AVENUE
HAYWARD, CALIFORNIA 94545

GENERAL CONTRACTORS
(415) 352-4800

April 15, 1991

Gettler-Ryan Inc.
2150 West Winton Avenue
Hayward, California 94545

Attn: Mr. Jeff Monroe

Re: SITE UPDATE
Chevron Service Station No. 0329
340 Highland Avenue
Piedmont, California

Gentlemen:

This Site Update has been prepared by GeoStrategies Inc. (GSI) and presents the results of the first quarter ground-water sampling for 1991 at the above referenced site (Plate 1). Ground-water sampling was performed by Gettler-Ryan Inc. (G-R) on February 1, 1991. The scope of work presented in this document was performed at the request of Chevron U.S.A. Inc. Field work and laboratory analyses were performed to comply with current State of California Water Resources Control Board guidelines.

CURRENT QUARTERLY SAMPLING RESULTS

Potentiometric Data

Prior to ground-water sampling, depth to ground-water levels were measured in each well using an electronic oil-water interface probe. Static ground-water levels were measured from the surveyed top of the well box and recorded to the nearest ± 0.01 foot. Corresponding ground-water elevations referenced to project datum are presented in Table 1. Water-level data have been plotted and contoured and are presented as a potentiometric map (Plate 1). Shallow ground-water flow is to the southeast at a calculated hydraulic gradient of 0.011.

Separate-phase Hydrocarbon Measurements

Each well was monitored for the presence of separate-phase hydrocarbons using an electronic oil-water interface probe. A clear acrylic bailer was used to confirm probe results. Separate-phase hydrocarbons were not detected during this sampling.

Chemical Analytical Data

Ground-water samples were collected from site monitoring wells on February 1, 1991 by G-R. The samples were analyzed for Total Petroleum Hydrocarbons calculated as Gasoline (TPH-Gasoline) according to EPA Method 8015 (Modified) and Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX) according to EPA Method 8020. Samples were analyzed by Superior Analytical Laboratory (Superior), a State-certified environmental laboratory located in San Francisco and Martinez, California.

A summary of chemical analytical data is presented in Table 1. Available historical chemical analytical data are presented in Table 2. A copy of the G-R ground-water sampling report, Superior analytical data, and Chain-of-Custody Forms are presented in Appendix A.

Quality Control

The quality control sample for this quarter's sampling was a trip blank. This sample was prepared in the laboratory using organic-free water to evaluate laboratory and field handling procedures of samples. The results of QC sample analyses are presented in Table 1.

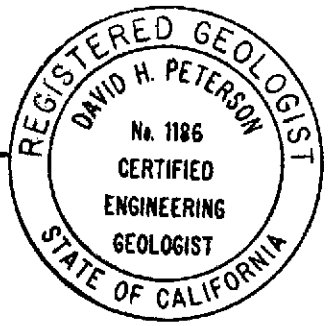
If you have any questions, please call.

GeoStrategies Inc. by,

Robert C. Mallory

Robert C. Mallory
Geologist

David H. Peterson



David H. Peterson
Senior Geologist
C.E.G. 1186

RCM/DHP/mlg

Plate 1. Potentiometric Map

Appendix A: Gettler-Ryan Inc. Groundwater Sampling Report

QC Review: fpl

TABLE 1

GROUND-WATER ANALYSES DATA

WELL NO	SAMPLE DATE	ANALYZED DATE	TPH-G (PPB)	BENZENE (PPB)	TOLUENE (PPB)	ETHYLBENZENE (PPB)	XYLENES (PPB)	OIL & GREASE (PPM)	WELL ELEV (FT)	STATIC WATER ELEV (FT)	PRODUCT THICKNESS (FT)	DEPTH TO WATER (FT)
C-1	01-Feb-91	----	----	----	----	----	----	----	----	----	----	Dry
C-2	01-Feb-91	07-Feb-91	6800	490	21	310	86	f	94.16	90.41	----	5.75
C-3	01-Feb-91	07-Feb-91	<50	<0.5	<0.5	<0.5	<0.5	N/A	97.65	91.27	----	6.38
C-4	01-Feb-91	07-Feb-91	72	<0.5	9	<0.5	<0.5	N/A	95.60	90.82	----	4.78
A	01-Feb-91	07-Feb-91	36000	1100	750	130	6100	N/A	----	----	----	3.05
B	01-Feb-91	----	----	----	----	----	----	----	----	----	----	5.03
TB	01-Feb-91	06-Feb-91	<50	<0.5	<0.5	<0.5	<0.5	N/A	----	----	----	----

CURRENT REGIONAL WATER QUALITY CONTROL BOARD MAXIMUM CONTAMINANT LEVELS
Benzene 1.0 ppb Xylenes 1,750 ppb Ethylbenzene 680 ppb

CURRENT DHS ACTION LEVELS
Toluene 100 ppb

TPH-G = Total Petroleum Hydrocarbons calculated as Gasoline
PPB = Parts Per Billion TB = Trip Blank
PPM = Parts Per Million

Notes: 1. All data shown as <x are reported as ND (none detected).
2. Static Water elevations referenced to project datum.
3. DHS Action Levels and MCLs are subject to change pending State review.
4. Tank hole monitoring well B was monitored only on 01-Feb-91.

TABLE 2

HISTORICAL GROUND-WATER QUALITY DATABASE

SAMPLE DATE	SAMPLE POINT	TPH-G (PPB)	BENZENE (PPB)	TOLUENE (PPB)	ETHYLBENZENE (PPB)	XYLENES (PPB)	O & G (PPB)
07-Aug-89	C-2	34000.	580.	60.	170.	270.	12000.
15-Nov-89	C-2	8100	500	36	420	180	<5000
01-Feb-91	C-2	6800	490	21	310	86	7000
07-Aug-89	C-3	<50.	<0.5	<1.	<1.	<3.	N/A
15-Nov-89	C-3	<500	<0.5	2.8	<0.5	1.1	<5000
01-Feb-91	C-3	<50	<0.5	<0.5	<0.5	<0.5	N/A
15-Nov-89	C-4	1300	2.9	310	0.5	2.9	<5000
01-Feb-91	C-4	72	<0.5	9	<0.5	<0.5	N/A
07-Aug-89	A	1000.	50.	6.	5.	22.	N/A
15-Nov-89	A	3700	98	2.1	4.3	55	<5000
01-Feb-91	A	36000	1100	750	130	6100	N/A

W-5W
35 ——→

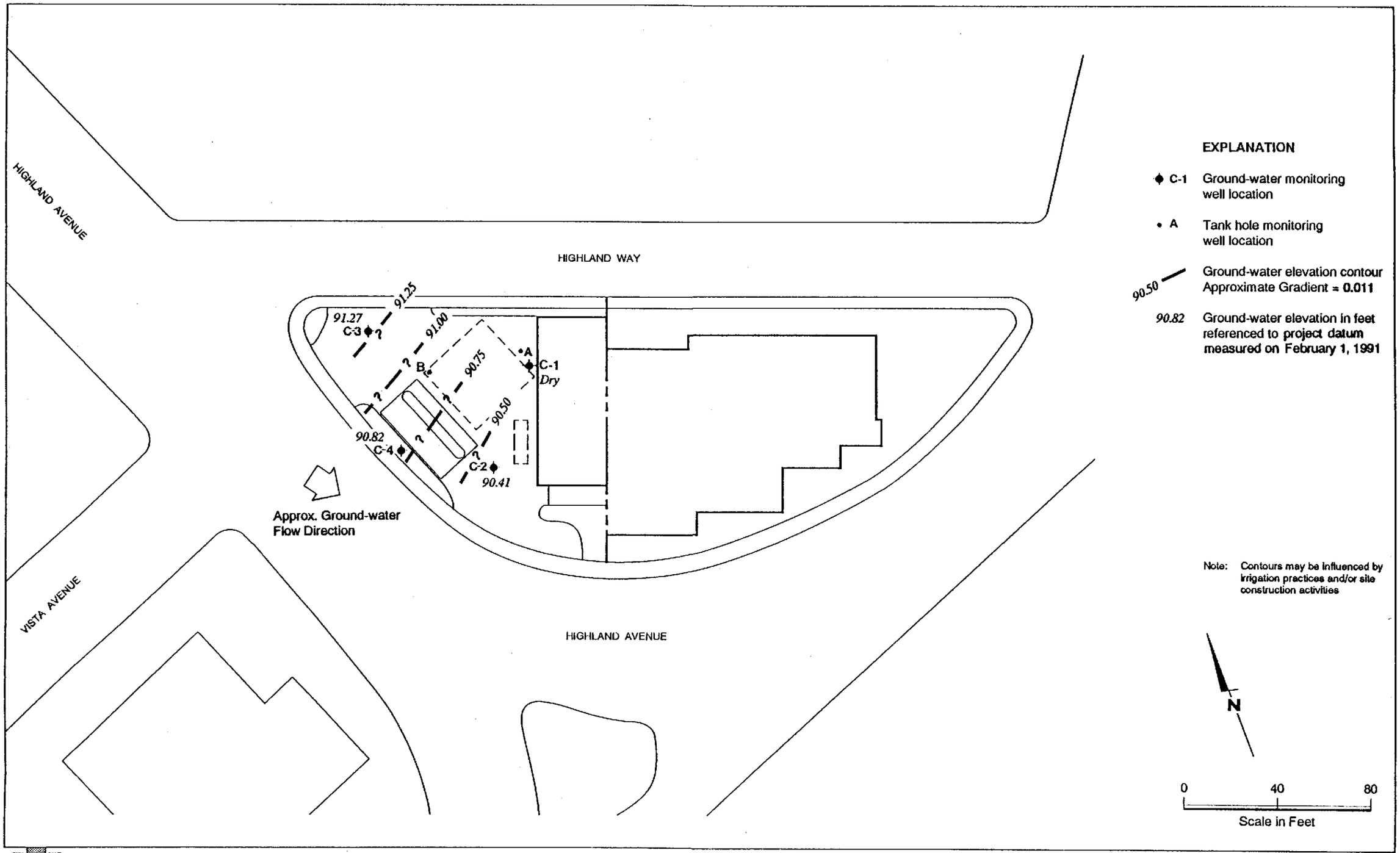
TABLE 2

HISTORICAL GROUND-WATER QUALITY DATABASE

Current Regional Water Quality Control Board Maximum Contaminant Levels
Benzene 1. ppb Xylenes 1750. ppb Ethylbenzene 680. ppb

Current DHS Action Levels Toluene 100.0 ppb

TPH-G = Total Petroleum Hydrocarbons calculated as Gasoline
PPB = Parts Per Billion TB = Trip Blank
O&G = Oil and Grease
NOTE: 1. DHS Action levels and MCL's are subject to change pending State of California review.
2. Oil and Grease chemical analytical data for sample point C-2 collected on 2/1/91, was originally reported in milligrams per liter (mg/L).
3. All data shown as <X are reported as ND (none detected).



GeoStrategies Inc.

Potentiometric Map
Chevron Service Station #0329
340 Highland Avenue
Piedmont, California

PLATE
1

JOB NUMBER	REVIEWED BY	DATE	REVISED DATE	REVISED DATE
726101-4	DHP	4/91		

APPENDIX A

GETTLER-RYAN INC.

GROUNDWATER SAMPLING REPORT

gettler — ryan inc.

February 15, 1991

GROUNDWATER SAMPLING REPORT

Chevron U.S.A. Inc.
Post Office Box 5004
San Ramon, California 94583-0804

Referenced Site: Chevron Service Station #0329
340 Highland Avenue
Piedmont, California

Sampling Date: February 1, 1991

This report presents the results of the quarterly groundwater sampling and analytical program conducted by Gettler-Ryan Inc. on February 1, 1991 at the referenced location. The site is occupied by an operating service station located on the north corner of Highland Avenue and Vista. The service station has underground storage tanks containing regular leaded, unleaded and super unleaded gasoline products, and waste oil.

There are currently six groundwater monitoring wells on site at the locations shown on the attached site map. Prior to sampling, all monitoring wells were inspected for total well depth, water levels, and presence of separate phase hydrocarbons using an electronic interface probe. A clean acrylic bailer was used to visually confirm the presence or absence of separate phase hydrocarbons. Groundwater depths ranged from 3.05 to 6.38 feet below grade. Well #1 was dry. Well #B was monitored only.

The wells were then purged and sampled. Standard sampling procedure calls for a minimum of four case volumes to be purged from each well. Each well was purged while pH, temperature, and conductivity measurements were monitored for stability. The purge water was drummed for proper disposal. Details of the final well purging results are presented on the attached Table of Monitoring Data. In cases where a well dewatered or less than four case volumes were purged, groundwater samples were obtained after the physical parameters had stabilized. Under such circumstances the sample may not represent actual formation water, due to low flow conditions.

Samples were collected, using a Teflon bailer, in properly cleaned and laboratory prepared containers. All sampling equipment was thoroughly cleaned after each well was sampled and steam cleaned upon completion of work at the site. The samples were labeled, stored on blue ice, and transported to the laboratory for analysis. A trip blank, supplied by the laboratory, was included and analyzed to assess quality control. Analytical results for the trip blank are included in the Certified Analytical Report (CAR's). Chain of custody records were established noting sample identification numbers, time, date, and custody signatures.

2150 west winton avenue • hayward, california 94545-1210 • (415) 783-7500

The samples were analyzed at Superior Analytical Laboratory, located at 1555 Burke, Unit 1, San Francisco, California. The laboratory is assigned a California DHS-HMTL Certification number of 1332. The results are presented as a Certified Analytical Report, a copy of which is attached to this report.

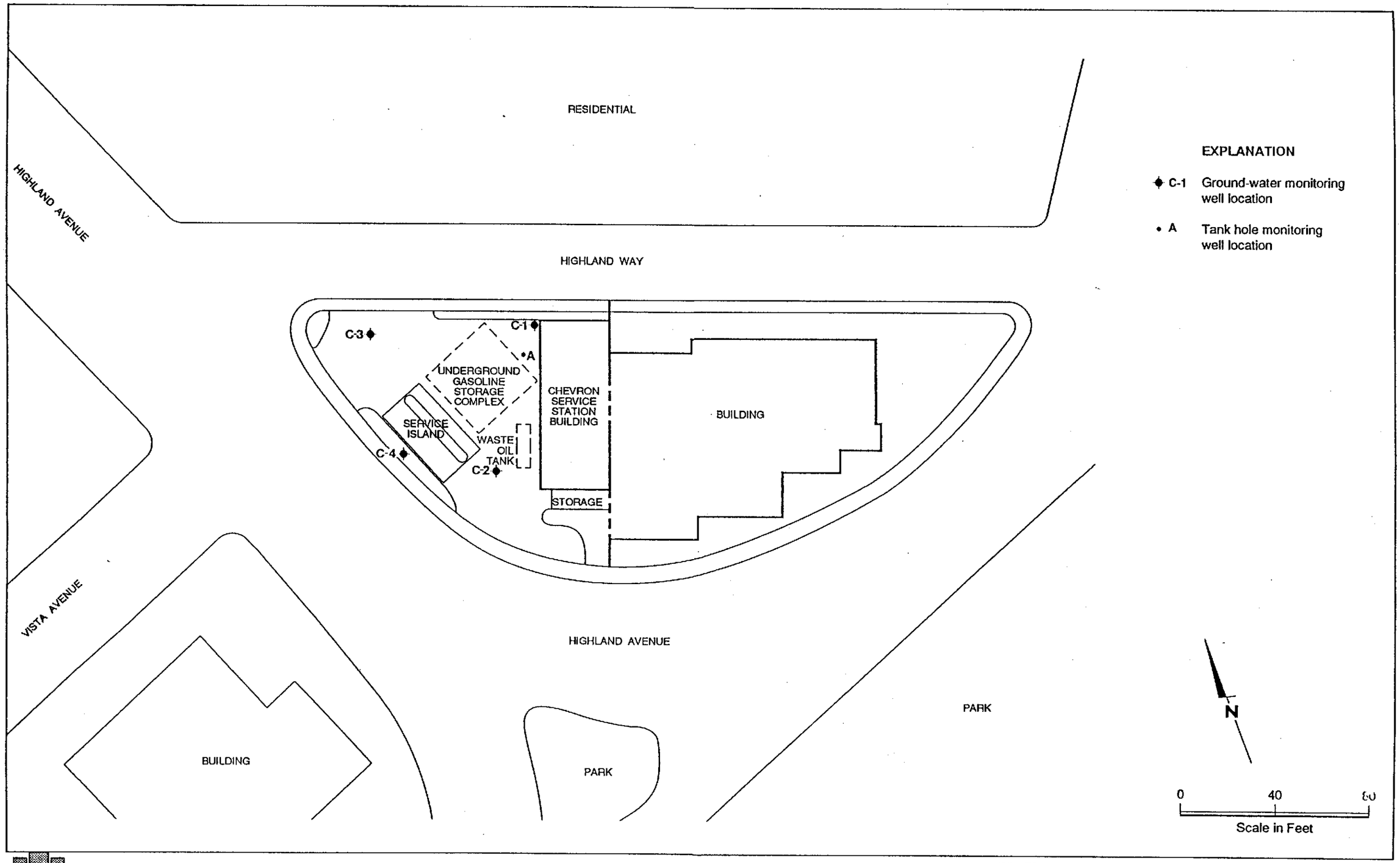
Tom Paulson
Sampling Manager

attachments

TABLE OF MONITORING DATA
GROUNDWATER WELL SAMPLING REPORT

WELL I.D.	1	2	3	4	A	B
Casing Diameter (inches)	2	2	2	2	6	6
Total Well Depth (feet)	1.34	17.1	17.2	10.8	7.6	----
Depth to Water (feet)	----	3.75	6.38	4.78	3.05	5.03
Free Hydrocarbons (feet)	none	none	none	none	none	none
Reason Not Sampled	dry	----	----	----	---	monitored
Calculated 4 Case Vol.(gal.)	----	9.2	7.2	4.0	27.2	----
Did Well Dewater?	----	yes	yes	yes	no	----
Volume Evacuated (gal.)	----	3.5	7.0	2.5	34.0	----
Purging Device	----	Bailer	Bailer	Bailer	Bailer	----
Sampling Device	----	Bailer	Bailer	Bailer	Bailer	----
Time	----	12:00	11:16	11:36	10:29	----
Temperature (F)*	----	64.1	66.2	62.0	60.8	----
pH*	----	6.76	7.25	6.81	6.85	----
Conductivity (umhos/cm)*	----	938	161	456	808	----

* Indicates Stabilized Value



GeoStrategies Inc.

Site Plan
Chevron Service Station #0329
340 Highland Avenue
Piedmont, California

PLATE

JOB NUMBER 261

REVIEWED BY RG/CEG

DATE REVISED DATE REVISED DATE

SUPERIOR ANALYTICAL LABORATORY, INC.
1555 BURKE, UNIT I • SAN FRANCISCO, CA 94124 • PHONE (415) 647-2081

CERTIFICATE OF ANALYSIS

LABORATORY NO.: 11445
CLIENT: Chevron USA
CLIENT JOB NO.: 3261.01

DATE RECEIVED: 02/01/91
DATE REPORTED: 02/08/91

Lab Number	Customer Sample Identification	Date Sampled	Date Analyzed
11445- 1	2	02/01/91	02/07/91
11445- 2	3	02/01/91	02/07/91
11445- 3	4	02/01/91	02/07/91
11445- 4	A	02/01/91	02/07/91
11445- 5	TRIP	02/01/91	02/06/91

Laboratory Number:	11445 1	11445 2	11445 3	11445 4	11445 5
ANALYTE LIST	Amounts/Quantitation Limits (ug/l)				
OIL AND GREASE:	NA	NA	NA	NA	NA
TPH/GASOLINE RANGE:	6800	ND<50	72	36000	ND<50
TPH/DIESEL RANGE:	NA	NA	NA	NA	NA
BENZENE:	490	ND<0.5	ND<0.5	1100	ND<0.5
TOLUENE:	21	ND<0.5	9	750	ND<0.5
ETHYL BENZENE:	310	ND<0.5	ND<0.5	130	ND<0.5
XYLENES:	86	ND<0.5	ND<0.5	6100	ND<0.5

SUPERIOR ANALYTICAL LABORATORIES, INC.

825 ARNOLD, STE. 114 • MARTINEZ, CALIFORNIA 94553 • (415) 229-1512

DOHS #319
DOHS #220

C E R T I F I C A T E O F A N A L Y S I S

LABORATORY NO.: 82407
CLIENT: Gettler Ryan Co.
CLIENT JOB NO.: 11445

DATE RECEIVED: 02/01/91
DATE REPORTED: 02/11/91

1991

GETTLER-RYAN INC.

ANALYSIS FOR PETROLEUM HYDROCARBONS
by Method 9071/418.1

LAB #	Sample Identification	Concentration (mg/L) Petroleum Hydrocarbons
1	2	7

mg/L - parts per million (ppm)

Method Detection Limit for Petroleum Hydrocarbons in Water: 5 mg/L

QAQC Summary:

Duplicate RPD = 4

Richard Srna, Ph.D.

Laboratory Manager

OUTSTANDING QUALITY AND SERVICE

11445 4

Chain-of-Custody-Record

Chevron U.S.A. Inc.
P.O. BOX 5004
San Ramon, CA 94583
FAX (415)842-9591

Chevron Facility Number 0329
Facility Address 340 Highland Ave / Piedmont, CA
Consultant Project Number 3261.01
Consultant Name Gettler-Ryan Inc.
Address 2150 W. Winton Ave. Hayward
Project Contact (Name) Tom Paulson
(Phone) 783-7560 (Fax Number)

Chevron Contact (Name) John Randall
(Phone)
Laboratory Name Superior
Laboratory Release Number 247970
Samples Collected by (Name) Guadalupe Sanchez
Collection Date 2-1-91
Signature Guadalupe Sanchez

Sample Number	Number of Containers	Matrix S = Soil A = Air W = Water C = Charcoal	Type G = Grab C = Composite D = Discrete	Time	Sample Preservation	Iced (Yes or No)	Analyses To Be Performed: BTEX + TPH GAS (8020 + 8015)	TPH Diesel (8015)	Oil and Grease (5520)	Chlorinated HC (8010)	Non Chlorinated HC (8020)	Total Lead (AA)	Metals Cd,Cr,Pb,Zn,Ni (ICAP or AA)	TPH as Waste Oil	Remarks
2	4	W		12:00	HCl - none	Yes	✓							✓	
3	2	↓		11:16	HCl	↓	✓								
4	↓	↓		11:36	↓	↓	✓								
A	↓	↓		10:29	↓	↓	✓								
trip	1	↓		—	↓	↓	✓								

Please initial:
Samples stored in ice. GR
Appropriate containers. GR
Samples preserved. GR
VOA's without headspace. GR
Comments:

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
Guadalupe Sanchez	Gettler-Ryan	2-1-91 1355			
Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
Relinquished By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature)		Date/Time
			Cecilia G. Joaquin		2/1/91 13:35

Turn Around Time (Circle Choice)
24 Hrs.
48 Hrs.
5 Days
10 Days
As Contracted

COC-1.DWG/11 90 mCH