



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

RECEIVED

APR 17 1991

**A.C.W.D.
ENGINEERING DEPT.**

Marketing Operations

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

April 12, 1991

91 APR 19 11:10:22

Mr. Scott Seery
Alameda County
Environmental Health
80 Swan Way, Room 200
Oakland, California 94621

Re: Former Chevron Station #9-2960
2416 Grove Way/Redwood Road
Castro Valley, CA

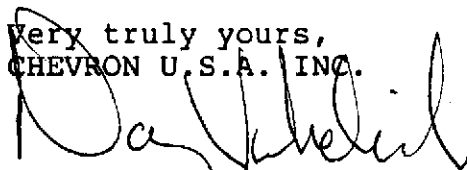
Dear Mr. Shahid:

Enclosed we are forwarding the Quarterly Groundwater Sampling Report dated April 8, 1991, conducted by our consultant GeoStrategies, Inc. for the above referenced site.

As indicated in the report, groundwater samples from wells C-2 through C-7 were analyzed for TPH-gasoline and BTEX. The levels of hydrocarbon constituents remain consistent with previous sampling results. Phase-separated hydrocarbons were observed in Well C-1 with a measured thickness of .70 feet. Approximately two (2) gallons of phase-separated hydrocarbons were removed during this quarter. Purging of the phase-separated hydrocarbons will continue until a dedicated recovery system can be designed and installed.

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. Lester Feldman, RWQCB-Bay Area
Ms. Bette Brummett-Owen
File (#9-2960Q4 Listing)

Jerri Garber
First Presbyterian Church
2490 Grove Way
Castro Valley, CA 95646

RECEIVED

APR 17 1991

**A.C.W.D.
ENGINEERING DEPT.**



GeoStrategies Inc.

SITE UPDATE

Former Chevron Service Station No. 2960
2416 Grove Way
Castro Valley, California

717001-9

April 8, 1991

RECEIVED

APR 09 1991



GeoStrategies Inc.

2140 WEST WINTON AVENUE
HAYWARD, CALIFORNIA 94545

GETTLER-RYAN INC.

GENERAL CONTRACTORS

(415) 352-4800

April 8, 1991

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

Attn: Mr. Jeff Monroe

Re: SITE UPDATE
Former Chevron Service Station #2960
2416 Grove Way
Castro Valley, California

Gentlemen:

This Site Update report was prepared by GeoStrategies Inc. (GSI) and presents the results of the first quarterly sampling for 1991 at the above referenced location (Plate 1). Ground-water samples were collected on January 22, 1991, by Gettler-Ryan Inc. (G-R) in accordance with the scope of work requested by Chevron U.S.A. Inc. In addition, this report includes ground-water sampling data collected on November 9, 1990, from Wells C-5, C-6, and C-7. This additional sampling was requested by the Alameda County Health Care Services Agency. Field work and laboratory analyses were performed to comply with current State of California Water Resources Control Board guidelines.

CURRENT QUARTER 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 elevations referenced to mean sea level (MSL) are presented in Table 1. Water-level data collected on January 22, 1991 were used to construct a potentiometric map (Plate 1). Shallow ground-water flow is to the southwest at a calculated hydraulic gradient of 0.009.

717001-9

GeoStrategies Inc.

Gettler-Ryan Inc.
April 8, 1991
Page 2

Separate-phase Hydrocarbon Measurements

Each well was monitored for the presence of separate-phase hydrocarbons using a portable oil-water interface probe. A clear acrylic bailer was used to confirm interface probe results. In January 1991, separate-phase hydrocarbons were observed in Well C-1 at 0.70 feet in measured thickness and were not detected in Wells C-2 through C-7.

Ground-water Analytical Data

Ground-water samples were collected on November 9, 1990 and January 22, 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 by Superior Analytical Laboratory (Superior), a State-certified environmental laboratory located in San Francisco, California.

A summary of the chemical analytical data is presented in Table 1. A summary of available historical chemical analytical data is presented in Table 2. 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 (QC) sample for each sampling was a trip blank. This sample was prepared in the laboratory using organic-free water to evaluate laboratory handling procedures of samples. The results of QC sample analyses are presented in Table 1.

INTERIM REMEDIATION

Separate-phase hydrocarbons were removed from Well C-1 twice this quarter by G-R. Bailing and pumping of separate-phase hydrocarbons were performed on February 21 and March 6, 1991. Approximately 2 gallons of separate-phase hydrocarbons were removed during this quarter.

GeoStrategies Inc.

Gettler-Ryan Inc.
April 8, 1991
Page 3

If you have any questions, please call.

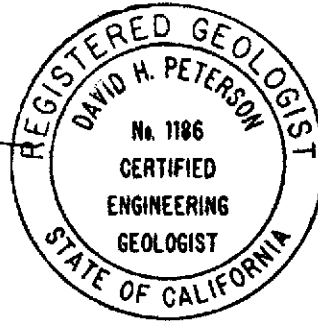
GeoStrategies Inc. by,

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 Reports

TABLE 1

GROUND-WATER ANALYSES DATA

WELL NO	SAMPLE DATE	ANALYZED DATE	TPH-G (PPB)	BENZENE (PPB)	TOLUENE (PPB)	ETHYLBENZENE (PPB)	XYLENES (PPB)	WELL ELEV (FT)	STATIC WATER ELEV (FT)	PRODUCT THICKNESS (FT)	DEPTH TO WATER (FT)
C-1	22-Jan-91	----	----	----	----	----	----	153.36	135.22	0.70	18.70
C-2	22-Jan-91	30-Jan-91	2600	680	88	29	130	151.84	135.15	----	16.69
C-3	22-Jan-91	30-Jan-91	430	260	2	2	5	154.13	134.95	----	19.18
C-4	22-Jan-91	30-Jan-91	<50	3	<0.5	<0.5	<0.5	156.00	135.50	----	20.50
C-5	09-Nov-90	14-Nov-90	<50	<0.5	<0.5	<0.5	<0.5	153.38	135.46	----	17.92
C-5	22-Jan-91	30-Jan-91	<50	<0.5	<0.5	<0.5	<0.5	153.38	135.58	----	17.80
C-6	09-Nov-90	14-Nov-90	<50	<0.5	<0.5	<0.5	<0.5	152.84	134.58	----	18.26
C-6	22-Jan-91	30-Jan-91	<50	<0.5	<0.5	<0.5	<0.5	152.84	134.69	----	18.15

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 CD = Duplicate Sample TB = Trip Blank

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

2. Static Water elevations referenced to mean sea level (MSL). Elevations are corrected for free product using a correction factor of 0.80.

3. DHS Action Levels and MCLs are subject to change pending State review.

TABLE 1

GROUND-WATER ANALYSES DATA

WELL NO	SAMPLE DATE	ANALYZED DATE	TPH-G (PPB)	BENZENE (PPB)	TOLUENE (PPB)	ETHYLBENZENE (PPB)	XYLENES (PPB)	WELL ELEV (FT)	STATIC WATER ELEV (FT)	PRODUCT THICKNESS (FT)	DEPTH TO WATER (FT)
C-7	09-Nov-90	14-Nov-90	<50	<0.5	<0.5	<0.5	<0.5	155.34	134.40	----	20.94
C-7	22-Jan-91	30-Jan-91	<50	4	<0.5	<0.5	<0.5	155.34	133.84	----	21.50
CD-3	22-Jan-91	30-Jan-91	400	250	2	2	5	----	----	----	----
TB	09-Nov-90	14-Nov-90	<50	<0.5	<0.5	<0.5	<0.5	----	----	----	----
TB	22-Jan-91	30-Jan-91	<50	<0.5	<0.5	<0.5	<0.5	----	----	----	----

TABLE 2

HISTORICAL GROUND-WATER QUALITY DATABASE

SAMPLE DATE	SAMPLE POINT	TPH-G (PPB)	BENZENE (PPB)	TOLUENE (PPB)	ETHYLBENZENE (PPB)	XYLENES (PPB)
23-Oct-86	C-1	37000.	6400.	3700.	----	4300.
23-Oct-86	C-2	30000.	2700.	1900.	----	1500.
16-Oct-89	C-2	600	260	34	1.7	41
04-Jan-90	C-2	2600	470	150	23	130
05-Apr-90	C-2	500	280	29	6.3	19
02-Jul-90	C-2	2400	670	110	17	76
25-Oct-90	C-2	1300	390	47	9	58
22-Jan-91	C-2	2600	680	88	29	130
23-Oct-86	C-3	3300.	49.	24.	----	20.
16-Oct-89	C-3	900	640	4.2	1.6	16
04-Jan-90	C-3	920	430	7	6	7
05-Apr-90	C-3	930	690	3.4	5.1	4.8
02-Jul-90	C-3	1700	590	11	4.8	9.4
25-Oct-90	C-3	750	510	2	6	5
22-Jan-91	C-3	430	260	2	2	5
23-Oct-86	C-4	570.	3.	4.	----	5.
16-Oct-89	C-4	<500	12	1.0	<0.5	0.8
04-Jan-90	C-4	<500	5	<0.5	<0.5	0.9
05-Apr-90	C-4	<50	6.6	<0.5	<0.5	0.7
02-Jul-90	C-4	71	4.1	<0.5	<0.5	<0.5
25-Oct-90	C-4	<50	2	<0.5	<0.5	<0.5
22-Jan-91	C-4	<50	3	<0.5	<0.5	<0.5
03-Oct-90	C-5	<50	<0.5	<0.5	<0.5	<0.5
25-Oct-90	C-5	<50	<0.5	<0.5	<0.5	<0.5
09-Nov-90	C-5	<50	<0.5	<0.5	<0.5	<0.5
22-Jan-91	C-5	<50	<0.5	<0.5	<0.5	<0.5

TABLE 2

HISTORICAL GROUND-WATER QUALITY DATABASE

SAMPLE DATE	SAMPLE POINT	TPH-G (PPB)	BENZENE (PPB)	TOLUENE (PPB)	ETHYLBENZENE (PPB)	XYLENES (PPB)
03-Oct-90	C-6	<50	<0.5	<0.5	<0.5	<0.5
25-Oct-90	C-6	<50	<0.5	1	<0.5	<0.5
09-Nov-90	C-6	<50	<0.5	<0.5	<0.5	<0.5
22-Jan-91	C-6	<50	<0.5	<0.5	<0.5	<0.5
03-Oct-90	C-7	<50	<0.5	<0.5	<0.5	<0.5
25-Oct-90	C-7	<50	<0.5	1	<0.5	<0.5
09-Nov-90	C-7	<50	<0.5	<0.5	<0.5	<0.5
22-Jan-91	C-7	<50	4	<0.5	<0.5	<0.5


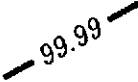
TPH-G = Total Petroleum Hydrocarbons calculated as Gasoline

PPB = Parts per Billion

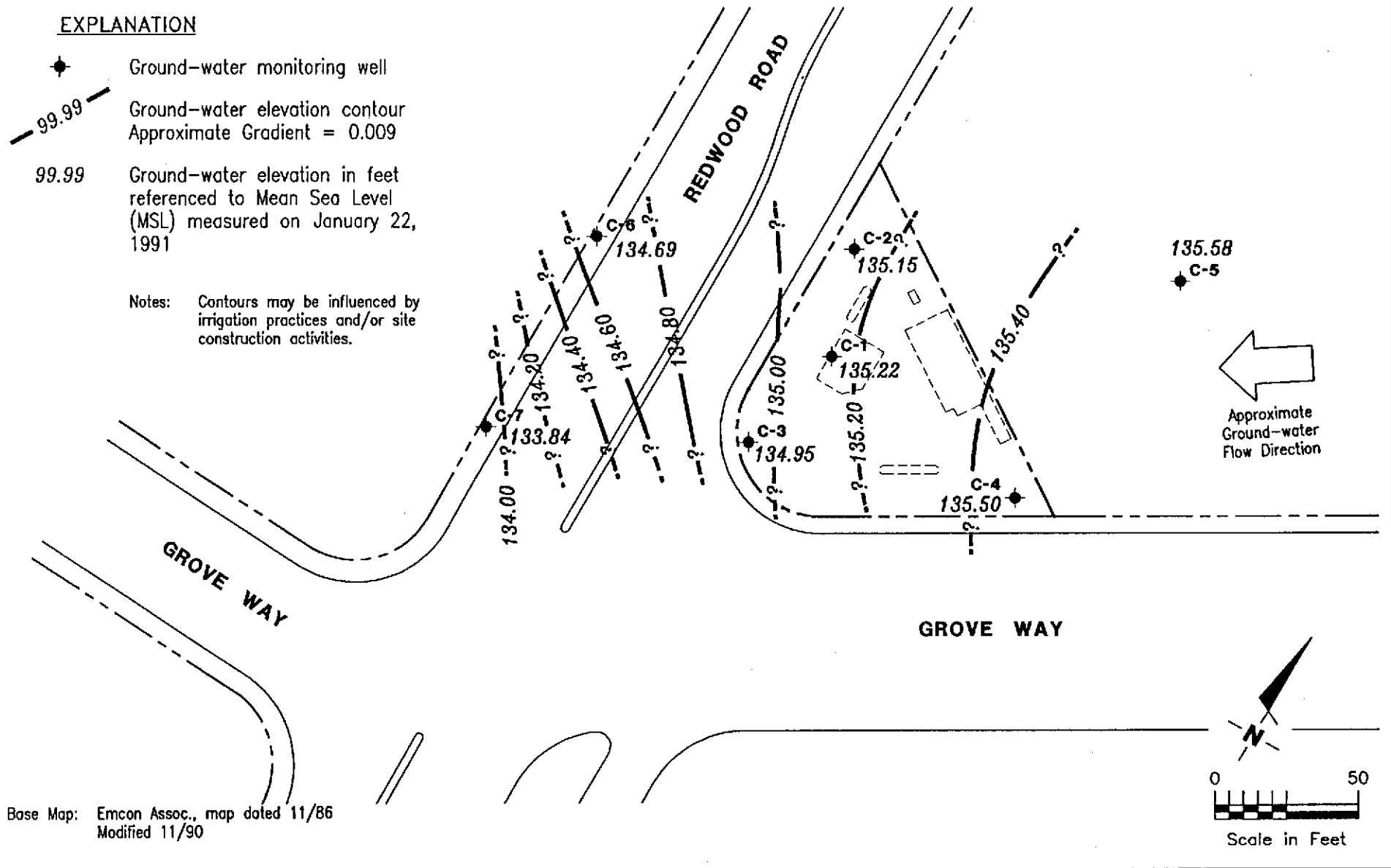
NOTES = 1. All data shown as <X are reported as ND (none detected)

2. Ethylbenzene and Xylenes were combined prior to October, 1989

EXPLANATION

-  Ground-water monitoring well
-  Ground-water elevation contour
Approximate Gradient = 0.009
- 99.99 Ground-water elevation in feet
referenced to Mean Sea Level
(MSL) measured on January 22,
1991

Notes: Contours may be influenced by irrigation practices and/or site construction activities.



Base Map: Emcon Assoc., map dated 11/86
Modified 11/90



GeoStrategies Inc.

POTENTIOMETRIC MAP
Former Chevron Service Station #2960
2416 Grove Way
Castro Valley, California

PLATE

1

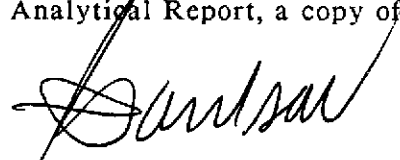
JOB NUMBER
717001-9

REVIEWED BY
DHP

DATE
4/91

REVISED DATE

The samples were analyzed by Superior Analytical Laboratory Inc., located at 1555 Burke, Unit 1, San Francisco, California. The laboratory is assigned a California DHS-HMTL Certification number of 220. The results are presented as a Certified Analytical Report, a copy of which is attached to this report.



Tom Paulson
Sampling Manager

attachments

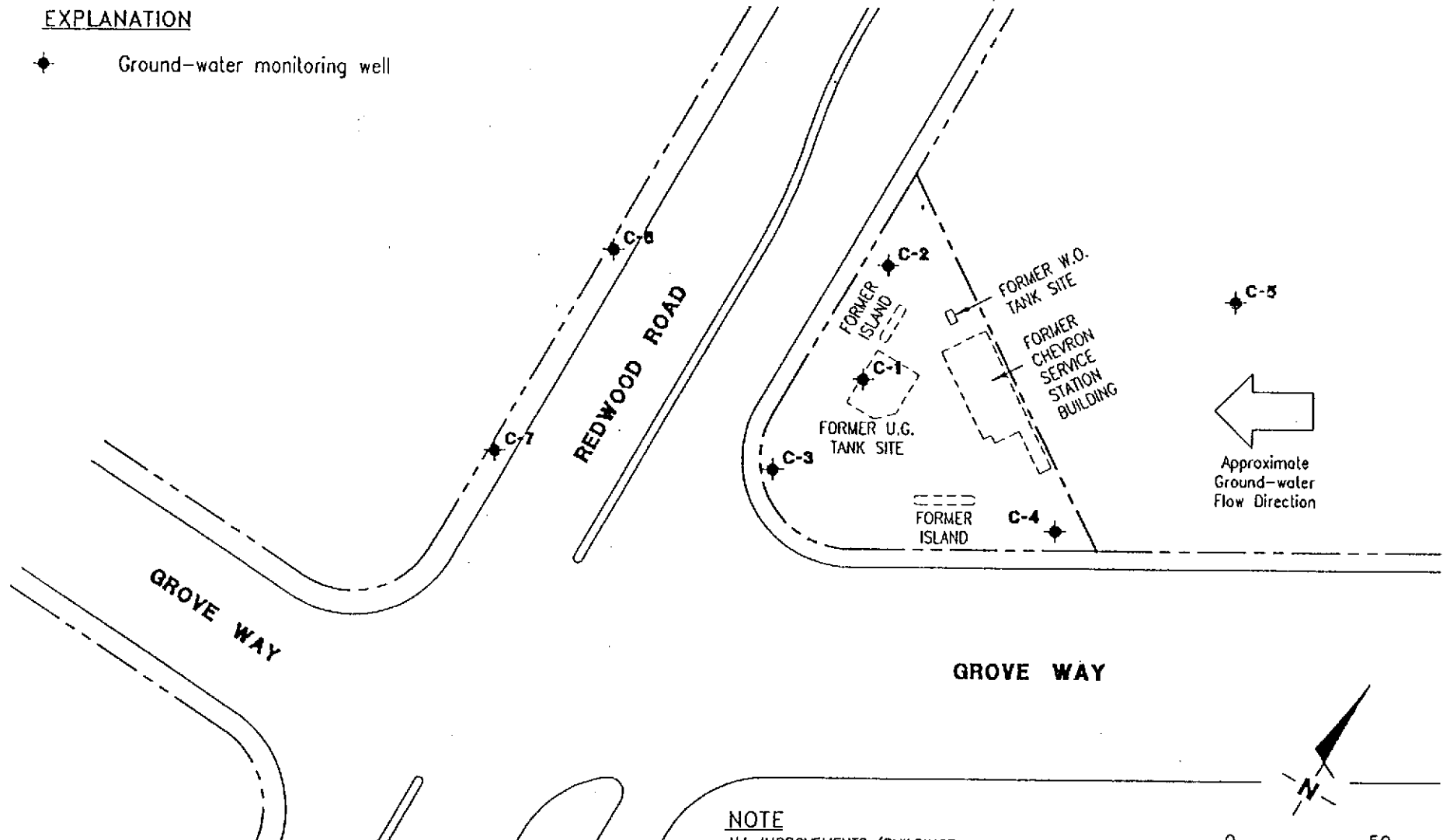
TABLE OF MONITORING DATA
GROUNDWATER WELL SAMPLING REPORT

<u>WELL I.D.</u>	C-5	C-6	C-7
Casing Diameter (inches)	2	2	2
Total Well Depth (feet)	29.6	28.6	32.8
Depth to Water (feet)	17.92	18.26	20.94
Free Hydrocarbons (feet)	none	none	none
Reason Not Sampled	----	----	----
Calculated 4 Case Vol.(gal.)	7.9	6.3	8.1
Did Well Dewater?	no	no	no
Volume Evacuated (gal.)	10.0	8.0	10.0
Purging Device	Bailer	Bailer	Bailer
Sampling Device	Bailer	Bailer	Bailer
Time	12:08	11:39	11:45
Temperature (F)*	70.6	69.8	68.4
pH*	6.82	7.11	7.12
Conductivity (umhos/cm)*	1803	1592	1563

* Indicates Stabilized Value

EXPLANATION

◆ Ground-water monitoring well



Base Map: Emcon Assoc., map dated 11/86
Modified 11/90

NOTE
ALL IMPROVEMENTS (BUILDINGS,
ISLANDS, TANKS, SLABS, ETC.)
ON THE FORMER CHEVRON SERVICE
STATION SITE HAVE BEEN REMOVED.



GeoStrategies Inc.

SITE PLAN
Former Chevron Service Station #2960
2416 Grove Way
Castro Valley, California

PLATE

2

JOB NUMBER
7170

REVIEWED BY RG/CEG

DATE
11/90

REVISED DATE

SUPERIOR ANALYTICAL LABORATORY, INC.

1555 BURKE, UNIT I • SAN FRANCISCO, CA 94124 • PHONE (415) 647-2081

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

LABORATORY NO.: 11190
CLIENT: Chevron USA
CLIENT JOB NO.: 3170

DATE RECEIVED: 11/12/90
DATE REPORTED: 11/15/90

Page 1 of 2

Lab Number	Customer Sample Identification	Date Sampled	Date Analyzed
11190- 1	C-5	11/09/90	11/14/90
11190- 2	C-6	11/09/90	11/14/90
11190- 3	C-7	11/09/90	11/14/90
11190- 4	TRIP BLANK	11/09/90	11/14/90

Laboratory Number:	11190	11190	11190	11190
	1	2	3	4

ANALYTE LIST	Amounts/Quantitation Limits (ug/l)			
OIL AND GREASE:	NA	NA	NA	NA
TPH/GASOLINE RANGE:	ND<50	ND<50	ND<50	ND<50
TPH/DIESEL RANGE:	NA	NA	NA	NA
BENZENE:	ND<0.5	ND<0.5	ND<0.5	ND<0.5
TOLUENE:	ND<0.5	ND<0.5	ND<0.5	ND<0.5
ETHYL BENZENE:	ND<0.5	ND<0.5	ND<0.5	ND<0.5
XYLENES:	ND<0.5	ND<0.5	ND<0.5	ND<0.5

OUTSTANDING QUALITY AND SERVICE

SUPERIOR ANALYTICAL LABORATORY, INC.

1555 BURKE, UNIT I • SAN FRANCISCO, CA 94124 • PHONE (415) 647-2081

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

ANALYSIS FOR TOTAL PETROLEUM HYDROCARBONS
Diesel by Modified EPA SW-846 Method 8015
Gasoline by Purge and Trap: EPA Method 8015/5030
ANALYSIS FOR BENZENE, TOLUENE, ETHYL BENZENE & XYLENES
by EPA SW-846 Methods 5030 and 8020

Page 2 of 2
QA/QC INFORMATION
SET: 11190

NA = ANALYSIS NOT REQUESTED
ND = ANALYSIS NOT DETECTED ABOVE QUANTITATION LIMIT

ug/L = part per billion (ppb)

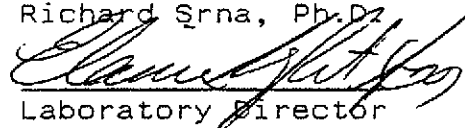
OIL AND GREASE ANALYSIS By Standard Methods Method 503E:
Duplicate RPD NA
Minimum Detection Limit in Water: 5000ug/L

Modified EPA Method 8015 for Extractable Hydrocarbons:
Minimum Quantitation Limit for Diesel in Water: 1000ug/L
Daily Standard run at 200mg/L; %Diff Diesel = NA
MS/MSD Average Recovery = NA: Duplicate RPD = NA

8015/5030 Total Purgable Petroleum Hydrocarbons:
Minimum Quantitation Limit for Gasoline in Water: 50ug/L
Daily Standard run at 2mg/L; %Diff Gasoline = <15%
MS/MSD Average Recovery = 88%: Duplicate RPD = 2%

8020/BTXE
Minimum Quantitation Limit in Water: 0.50ug/L
Daily Standard run at 20ug/L; %Diff = <15%
MS/MSD Average Recovery = 102%: Duplicate RPD = <1%

Richard Srna, Ph.D.



Laboratory Director

OUTSTANDING QUALITY AND SERVICE

Chain-of-Custody Record

11190

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

Chevron Facility Number 2960
 Consultant Release Number _____ Consultant Project Number 3170
 Consultant Name Gettler - Ryan Inc
 Address 2150 W. Winton, Hayward CA
 Fax Number 415 783-1089
 Project Contact (Name) Tom Paulsen
 (Phone) (415) 783-7500

Chevron Contact (Name) Nancy Vukelic
 (Phone) _____
 Laboratory Name Superior
 Contract Number 251240
 Samples Collected by (Name) John P. Zwierycki
 Collection Date 11-9-90
 Signature John P. Zwierycki

Sample Number	Lab Number	Number of Containers	Matrix S = Soil A = Air W = Water C = Charcoal	Type G = Grab C = Composite	Time	Sample Preservation	Iced	Analyses To Be Performed						Remarks	
								Modified EPA 8015 Total Petro. Hydrocarb. as Gasoline	Modified EPA 8015 Total Petro. Hydrocarb. as Gasoline + Diesel	503 Oil and Grease	Arom. Volatiles - BTXE Soil; 8020/Wtr.: 602	Arom. Volatiles - BTXE Soil; 8240/Wtr.: 624	Total Lead DHS-Lut		ED8 DHS-AB 1803
C-5		3	W		12:08	HCl	Yes	✓			✓				
C-6		3	↓		11:39	↓	↓	✓			✓				THCegas BTXE ↓

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

Pg 1 of 2

Relinquished By (Signature) <u>John P. Zwierycki</u>	Organization <u>Gettler-Ryan</u>	Date/Time <u>11-9-90/13:30</u>	Received By (Signature) <u>Stach</u>	Organization <u>Gettler Ryan</u>	Date/Time <u>11-9-90/13:40</u>	Turn Around Time (Circle Choice) 24 Hrs 48 Hrs 5 Days <u>10 Days</u>
Relinquished By (Signature) <u>Stach</u>	Organization <u>Gettler Ryan</u>	Date/Time <u>11-12-90/14:20</u>	Received By (Signature) _____	Organization _____	Date/Time _____	
Relinquished By (Signature) _____	Organization _____	Date/Time _____	Received For Laboratory By (Signature) <u>Cecilia A. Gozian</u>	Organization _____	Date/Time <u>11/12/90/14:50</u>	

11190

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

Chevron Facility Number 2960
 Consultant Release Number _____ Consultant Project Number 3170
 Consultant Name Gettler-Ryan Inc
 Address 2150 W. Winton, Hayward CA
 Fax Number 415 783-1089
 Project Contact (Name) Tom Paulson
 (Phone) (415) 783-7500

Chevron Contact (Name) Nancy Vukelich
 (Phone) _____
 Laboratory Name Superior
 Contract Number 251 2110
 Samples Collected by (Name) Randy Hedegard
 Collection Date 11-9-90
 Signature Randy Hedegard

Sample Number	Lab Number	Number of Containers	Matrix S = Soil A = Air W = Water C = Charcoal	Type G = Grab C = Composite	Time	Sample Preservation	Iced	Analyses To Be Performed						Remarks		
								Modified EPA 8015 Total Petro. Hydrocarb. as Gasoline	Modified EPA 8015 Total Petro. Hydrocarb. as Gasoline + Diesel	503 Oil and Grease	Arom. Volatiles - BTXE Soil: 8020/Wtr.: 802	Arom. Volatiles - BTXE Soil: 8240/Wtr.: 824	Total Lead DHS-Luh		EDB DHS-AB 1803	
C-7 TRIP		3	W		11:45	-		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>					TAC L Good BTXE L

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

Relinquished By (Signature) <u>Randy Hedegard</u>	Organization <u>Gettler-Ryan</u>	Date/Time <u>11-9-90 13:30</u>	Received By (Signature) <u>[Signature]</u>	Organization <u>Gettler-Ryan</u>	Date/Time <u>11-9-90 13:40</u>	Turn Around Time (Circle Choice) 24 Hrs 48 Hrs 5 Days <u>10 Days</u>
Relinquished By (Signature) <u>[Signature]</u>	Organization <u>Gettler-Ryan</u>	Date/Time <u>11-9-90 14:50</u>	Received By (Signature) <u>[Signature]</u>	Organization <u>Gettler-Ryan</u>	Date/Time <u>11/2/90 14:50</u>	
Relinquished By (Signature) _____	Organization _____	Date/Time _____	Received For Laboratory By (Signature) <u>Cecilia G. Gonzalez</u>	Organization _____	Date/Time _____	



February 8, 1991

GROUNDWATER SAMPLING REPORT

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

Referenced Site: Former Chevron Service Station #2960
2416 Grove Way/Redwood Road
Castro Valley, California

Sampling Date: January 22, 1991

This report presents the results of the groundwater sampling and analytical program conducted by Gettler-Ryan Inc. on January 22, 1991 at the referenced location. The site, located on the northeast corner of Grove Way and Redwood Road, is no longer an operating service station. The former station had underground storage tanks which contained petroleum products.

There are currently four groundwater monitoring wells on site and three wells off site at the locations shown on the attached site map. Prior to sampling, the wells were inspected for total well depth, water levels, and presence of separate phase hydrocarbons. A clean acrylic bailer was used to visually confirm the presence and thickness of separate phase hydrocarbons. Groundwater depths ranged from 16.69 to 21.50 feet below grade. Separate phase hydrocarbons were observed in monitoring well C-1.

Wells which did not contain separate phase product were then purged and sampled. The purge water was drummed for proper disposal. 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. 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 Teflon bailers, 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. A duplicate sample (CD-3), was submitted without well designation to assess laboratory performance. Analytical results for the trip blanks are included in the Certified Analytical Report (CAR's). Chain of custody records were established noting sample identification numbers, time, date, and custody signatures.

The samples were analyzed by Superior Analytical Laboratory Inc., 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. _____	C-1	C-2	C-3	C-4	C-5	C-6
Casing Diameter (inches)	3	3	3	3	2	2
Total Well Depth (feet)	----	28.6	30.4	29.1	28.8	28.3
Depth to Water (feet)	18.70 **	16.69	19.18	20.50	17.80	18.15
Free Hydrocarbons (feet)	0.70	none	none	none	none	none
Reason Not Sampled	free product	----	----	----	----	----
Calculated 4 Case Vol.(gal.)	----	18.1	17.1	13.1	7.5	6.9
Did Well Dewater?	----	no	yes	yes	no	no
Volume Evacuated (gal.)	----	22.6	7.5	11.5	10.0	9.0
Purging Device	----	Bailer	Bailer	Bailer	Bailer	Bailer
Sampling Device	----	Bailer	Bailer	Bailer	Bailer	Bailer
Time	----	10:30	11:20	11:30	12:10	13:35
Temperature (F)*	----	67.7	67.4	68.1	69.5	68.3
pH*	----	6.96	6.74	6.61	6.80	7.02
Conductivity (umhos/cm)*	----	2390	2370	1150	1867	1738

* Indicates Stabilized Value

** Not corrected for presence of free product

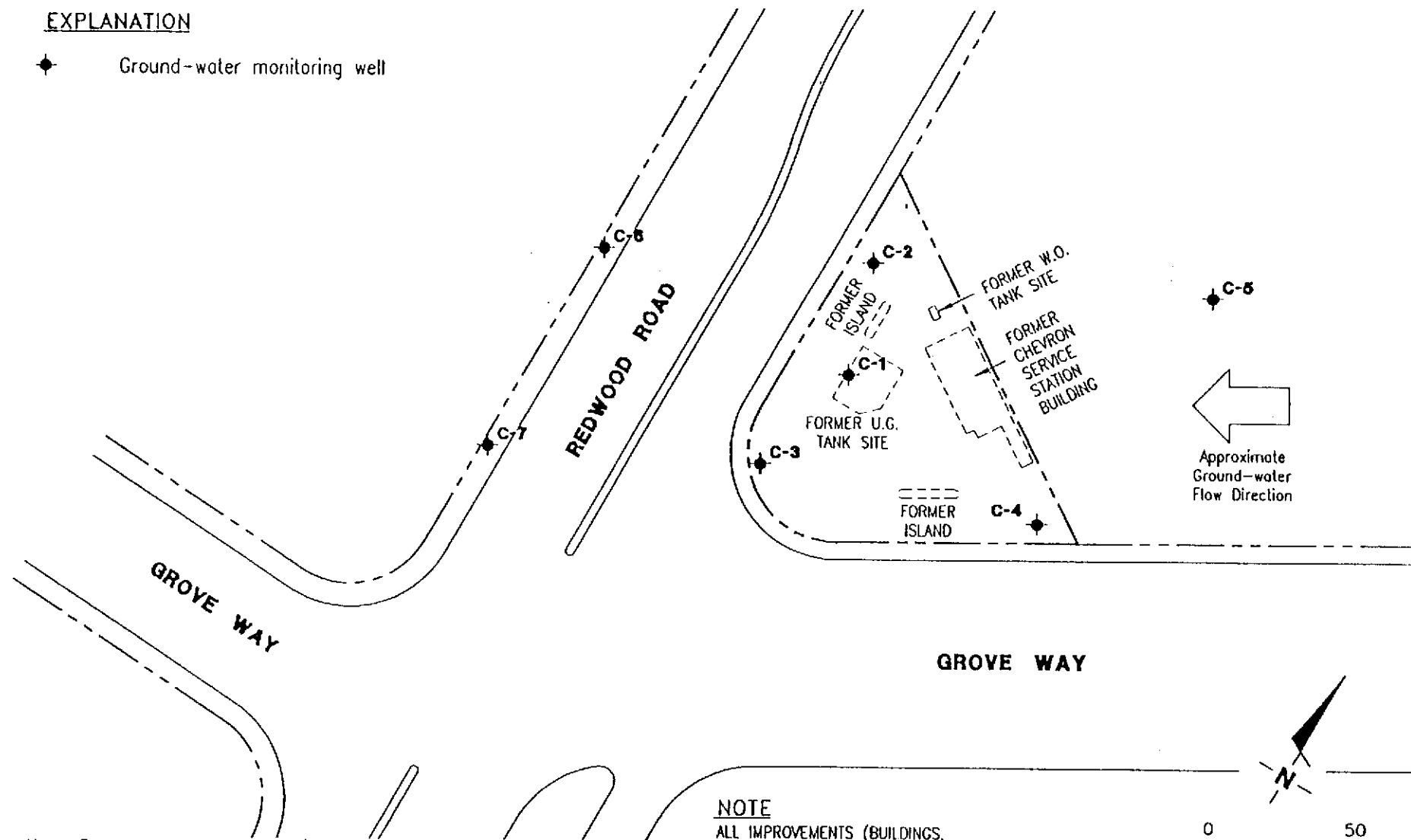
TABLE OF MONITORING DATA
GROUNDWATER WELL SAMPLING REPORT

<u>WELL I.D.</u>	C-7
Casing Diameter (inches)	2
Total Well Depth (feet)	32.6
Depth to Water (feet)	21.50
Free Hydrocarbons (feet)	none
Reason Not Sampled	----
Calculated 4 Case Vol.(gal.)	7.5
Did Well Dewater?	no
Volume Evacuated (gal.)	10.0
Purging Device	Bailer
Sampling Device	Bailer
Time	12:59
Temperature (F)*	68.6
pH*	7.09
Conductivity (umhos/cm)*	1697

* Indicates Stabilized Value

EXPLANATION

◆ Ground-water monitoring well



Base Map: Emcon Assoc., map dated 11/86
Modified 11/90

NOTE

ALL IMPROVEMENTS (BUILDINGS, ISLANDS, TANKS, SLABS, ETC.) ON THE FORMER CHEVRON SERVICE STATION SITE HAVE BEEN REMOVED.



GeoStrategies Inc.

SITE PLAN
Former Chevron Service Station #2960
2416 Grove Way
Castro Valley, California

PLATE

2

JOB NUMBER
7170

REVIEWED BY RC/CEG

DATE
11/90

REVISED DATE

RECEIVED

SUPERIOR ANALYTICAL LABORATORY, INC.

FEB 05 1991

1555 BURKE, UNIT I • SAN FRANCISCO, CA 94124 • PHONE (415) 647-9001

GETTLER-RYAN DOHS #1332

GENERAL CONTRACTORS

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

LABORATORY NO.: 11418
CLIENT: Chevron, USA
CLIENT JOB NO.: 3170

DATE RECEIVED: 01/23/91
DATE REPORTED: 01/30/91

Lab Number	Customer Sample Identification	Date Sampled	Date Analyzed
11418- 1	C-2	01/22/91	01/30/91
11418- 2	C-3	01/22/91	01/30/91
11418- 3	C-4	01/22/91	01/30/91
11418- 4	C-5	01/22/91	01/30/91
11418- 5	C-6	01/22/91	01/30/91
11418- 6	C-7	01/22/91	01/30/91
11418- 7	CD-3	01/22/91	01/30/91
11418- 8	TRIP BLANK	01/22/91	01/30/91

Laboratory Number:	11418 1	11418 2	11418 3	11418 4	11418 5
--------------------	------------	------------	------------	------------	------------

ANALYTE LIST	Amounts/Quantitation Limits (ug/L)				
OIL AND GREASE:	NA	NA	NA	NA	NA
TPH/GASOLINE RANGE:	2600	430	ND<50	ND<50	ND<50
TPH/DIESEL RANGE:	NA	NA	NA	NA	NA
BENZENE:	680	260	3	ND<0.5	ND<0.5
TOLUENE:	88	2	ND<0.5	ND<0.5	ND<0.5
ETHYL BENZENE:	29	2	ND<0.5	ND<0.5	ND<0.5
XYLENES:	130	5	ND<0.5	ND<0.5	ND<0.5

Laboratory Number:	11418 6	11418 7	11418 8
--------------------	------------	------------	------------

ANALYTE LIST	Amounts/Quantitation Limits (ug/L)		
OIL AND GREASE:	NA	NA	NA
TPH/GASOLINE RANGE:	ND<50	400	ND<50
TPH/DIESEL RANGE:	NA	NA	NA
BENZENE:	4	250	ND<0.5
TOLUENE:	ND<0.5	2	ND<0.5
ETHYL BENZENE:	ND<0.5	2	ND<0.5
XYLENES:	ND<0.5	5	ND<0.5

OUTSTANDING QUALITY AND SERVICE

SUPERIOR ANALYTICAL LABORATORY, INC.

1555 BURKE, UNIT I • SAN FRANCISCO, CA 94124 • PHONE (415) 647-2081

DOHS #1332

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

ANALYSIS FOR TOTAL PETROLEUM HYDROCARBONS

Page 2 of 2
QA/QC INFORMATION
SET: 11418

NA = ANALYSIS NOT REQUESTED
ND = ANALYSIS NOT DETECTED ABOVE QUANTITATION LIMIT
ug/l = part per billion (ppb)

OIL AND GREASE ANALYSIS By Standard Methods Method 503E:
Minimum Detection Limit in Water: 5000ug/L

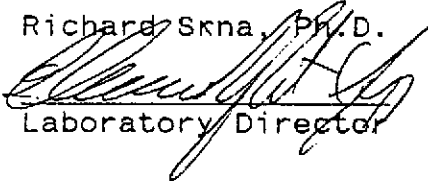
Modified EPA-SW846 Method 8015 for Extractable Hydrocarbons:
Minimum Quantitation Limit for Diesel in Water: 50ug/l
Standard Reference: NA

EPA-SW846 Method 8015/5030 Total Purgable Petroleum Hydrocarbons:
Minimum Quantitation Limit for Gasoline in Water: 50ug/l
Standard Reference: 08/24/90

SW-846 Method 8020/BTXE
Minimum Quantitation Limit in Water: 0.5ug/l
Standard Reference: 01/09/91

ANALYTE	REFERENCE	SPIKE LEVEL	MS/MSD RECOVERY	RPD	CONTROL LIMIT
Oil & Grease	NA	NA	NA	NA	NA
Diesel	NA	NA	NA	NA	NA
Gasoline	01/09/91	200ng	89/86	3.2	75-125
Benzene	01/09/91	200ng	99/94	4.7	75-130
Toluene	01/09/91	200ng	93/89	3.9	75-130
Ethyl Benzene	01/09/91	200ng	97/93	4.2	75-130
Total Xylene	01/09/91	600ng	96/92	4.3	75-130

Richard Skna, Ph.D.


Laboratory Director

OUTSTANDING QUALITY AND SERVICE

11410

Chain-of-Custody-Record

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

Chevron Facility Number 2960
Facility Address 2416 Grove Way
Consultant Project Number 3170
Consultant Name Gettler Ryan INC
Address 2150 W Winton
Project Contact (Name) Tom Paulson
(Phone) (415) 783 2500 (Fax Number)

Chevron Contact (Name) John Randall
(Phone) _____
Laboratory Name Superior
Laboratory Release Number 2512110
Samples Collected by (Name) Randall F. Hedegaard
Collection Date 1-22-91
Signature Randall F. Hedegaard

Sample Number	Number of Containers	Matrix S = Soil W = Water C = Charnool	Type G = Grab C = Composite D = Discrete	Time	Sample Preservation	Lead (Yes or No)	Analyses To Be Performed										Remarks	
							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)					
C-2	3	U		1030	HQ	Yes	✓											
C-3	↓	↓		1120	↓	↓	✓											
C-4	↓	↓		1130	↓	↓	✓											
C-5	↓	↓		1210	↓	↓	✓											
C-6	↓	↓		1335	↓	↓	✓											
C-7	↓	↓		1259	↓	↓	✓											
CO-3	↓	↓		-	↓	↓	✓											
Trp Blk	1	↓		-	↓	↓	✓											

Please Initial: PH

Samples Stored in ice: Y

Appropriate containers: Y

Samples preserved: Y

VOA's without headspace: Y

Comments: _____

Relinquished By (Signature) <u>Randall F. Hedegaard</u>	Organization <u>G/R</u>	Date/Time <u>1-22-91/1515</u>	Received By (Signature) <u>Refrig #1</u>	Organization <u>G/R</u>	Date/Time <u>1-22-91 1516</u>	Turn Around Time (Circle Choice) 24 Hrs. 48 Hrs. 5 Days 10 Days <u>Contracted</u>
Relinquished By (Signature) <u>Refrig #1</u>	Organization <u>G/R</u>	Date/Time <u>1-23-91 900</u>	Received By (Signature) <u>Bruce</u>	Organization <u>G/R</u>	Date/Time <u>1-23-91 901</u>	
Relinquished By (Signature) <u>Bruce</u>	Organization <u>G/R</u>	Date/Time <u>1-23-91 10:08</u>	Received For Laboratory By (Signature) <u>Karen Zelle</u>	Organization <u>G/R</u>	Date/Time <u>1/23/91 10:14A</u>	

200-1000-001-001-001-001