GETTLER-RYAN INC.

January 20, 1997

Job #6338.80

Mr. Robert Cochran
Chevron Products Company
P.O. Box 5004
San Ramon, CA 94583

Re: Fourth Quarter Groundwater Monitoring & Sampling Report
Chevron/RMC Lonestar Facility CPS #206142
333 - 23rd Avenue
Oakland, California

Dear Mr. Cochran:

This report documents the semi-annual groundwater sampling event performed by Gettler-Ryan Inc. (G-R). On December 8, 1996, field personnel were on-site to monitor and sample three wells (MW-1, MW-8, and MW-11) at RMC Lonestar Facility CPS #206142, located at 333 - 23rd Avenue, in Oakland, California. One well, MW-4, was not located.

Static groundwater levels were measured on December 8, 1996. All wells were checked for the presence of separate-phase hydrocarbons. Separate-phase hydrocarbons were not present in any of the site wells. Static water level data and groundwater elevations are presented in Table 1. A potentiometric map is included as Figure 1.

Groundwater samples were collected from the monitoring wells as specified by G-R Standard Operating Procedure - Groundwater Sampling (attached). The field data sheets for this event are also attached. The samples were analyzed by NEI/GTEL Environmental Laboratories, Inc. and Sequoia Analytical. Analytical results are presented in Tables 1 and 2. The chain of custody documents and laboratory analytical reports are enclosed.

Thank you for allowing Gettler-Ryan Inc. to provide environmental services to Chevron. Please call if you have any questions or comments regarding this report.

Sincerely,

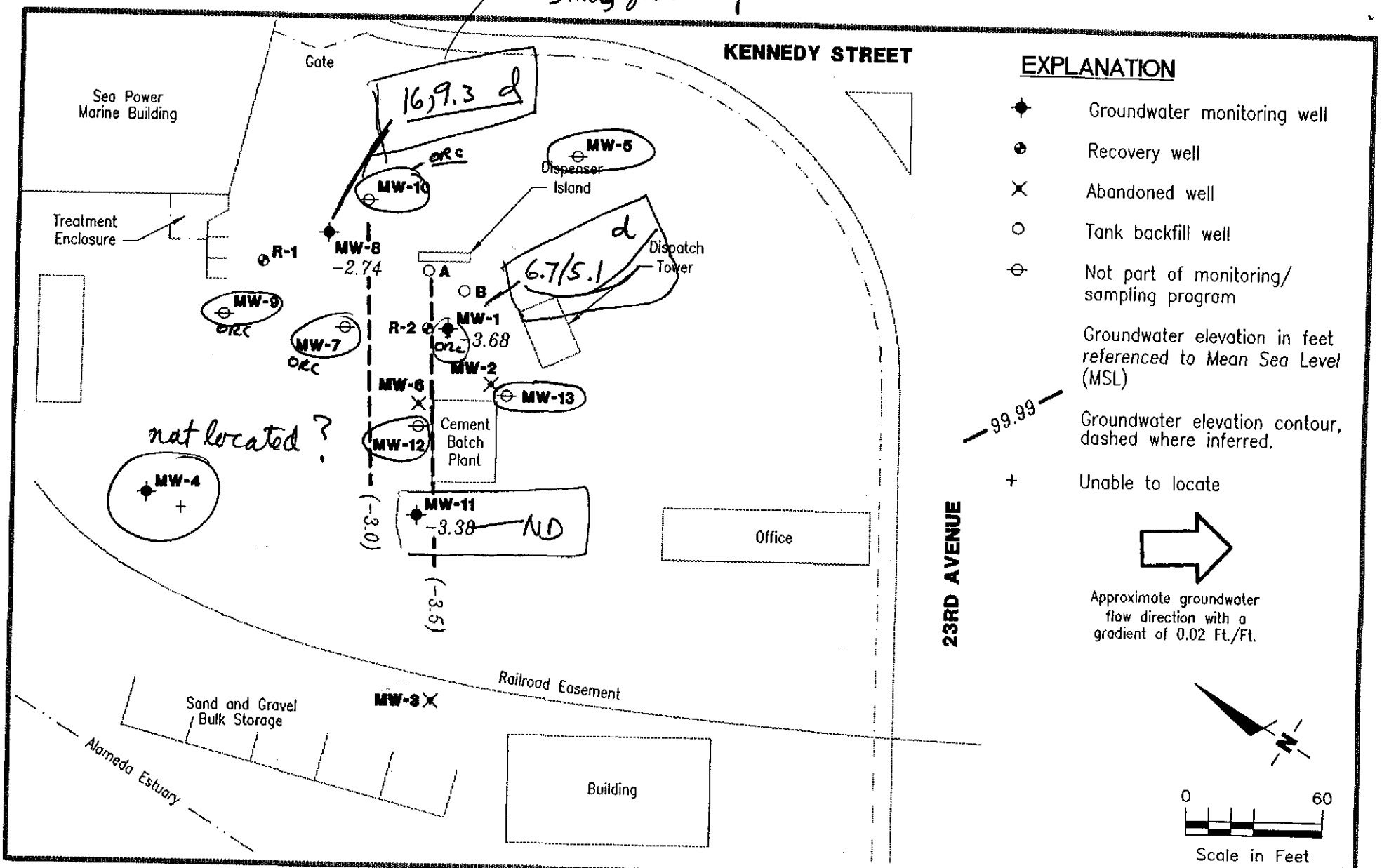
Deanna L. Harding
Project Coordinator

Penny L. Silzer
Senior Geologist, R.G. No. 5523

REGISTERED GEOLOGIST
Penny L. Silzer
No. 5523
STATE OF CALIFORNIA

DLH/PLS/dlh
6338.QML

Figure 1: Potentiometric Map
Table 1: Water Level Data and Groundwater Analytical Results
Table 2: Field Measurements & Analytical Results
Attachments: Standard Operating Procedure - Groundwater Sampling
Field Data Sheets
Chain of Custody Documents and Laboratory Analytical Reports



Gettler - Ryan Inc.

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POTENTIOMETRIC MAP
Chevron/RMC Lonestar Facility CPS #206142
333 23rd Avenue
Oakland, California

FIGURE
1

JOB NUMBER	REVIEWED BY	DATE	REVISED DATE
6338		December 8, 1996	

Table 1. Water Level Data & Groundwater Analytical Results -Chevron/RMC Lonestar Facility CPS #206142, 333 - 23rd Avenue, Oakland, California

Well ID/ TOC*	Date	Depth to Water (ft)	GWE **	Product Thickness (ft)	TPH Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes	TPH-Diesel♦	MTBE
					<			ppb			>
MW-1											
4.70	12/21/90	9.77	-3.41	2.07	—	—	—	—	—	—	—
	12/18/93	8.45	-3.73	0.03	—	—	—	—	—	—	—
	03/29/94	9.00	-3.94	0.45	—	—	—	—	—	—	—
	06/09/94	—	—	—	—	—	—	—	—	—	—
	10/04/94	8.71	-3.98	0.04	—	—	—	—	—	—	—
	12/20/94	8.38	-3.14	0.67	—	—	—	—	—	—	—
	03/28/95	7.79	-2.69	0.50	—	—	—	—	—	—	—
	06/30/95	—	—	—	—	—	—	—	—	—	—
	09/24/95	7.79	-2.69	0.50	—	—	—	—	—	—	—
	12/29/95	Well inaccessible		—	—	—	—	—	—	—	—
	03/24/96	7.68	-2.97	0.01	1400[6]	<0.5	<0.5	<0.5	<0.5	59,000	—
	06/16/96	7.86	-3.16	—	<500	<5.0	<5.0	<5.0	<5.0	99,000	—
	12/08/96	**8.38**	**-3.68**	**Sheen**	**280[10]**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	***6700/5100***	**<5.0**
MW-2											
—	06/15/89	—	—	—	<200	<0.5	<0.5	<0.5	<0.5	—	—
	12/92	Well abandoned		—	—	—	—	—	—	—	—
MW-4											
—	05/28/87	—	—	—	—	<0.5	<0.5	<0.5	<0.2	<5.0	—
	06/15/89	—	—	—	<100	<0.2	<2.0	<2.0	<2.0	<0.2	—
	12/21/90	7.31	—	—	<50	<0.5	<0.5	<0.5	<0.5	<50	—
	03/19/93	6.64	—	—	<50	<0.5	<0.5	<0.5	<1.5	<50	—
	06/16/93	8.01	—	—	210	32	27	2.8	19	<50	—
	12/18/93	7.35	—	—	79	0.5	1.2	0.5	1.1	100	—
	03/29/94	8.05	—	—	<50	<0.5	<0.5	<0.5	<0.5	<50	—
	06/09/94	8.14	—	—	<50	<0.5	<0.5	<0.5	<0.5	<50	—
	10/04/94	7.31	—	—	<50	<0.5	<0.5	<0.5	<0.5	<50	—
	12/20/94	7.03	—	—	<50	<0.5	<0.5	<0.5	<0.5	<50	—
	03/28/95	6.83	—	—	<50	<0.5	<0.5	<0.5	<0.5	<50	—
	06/30/95	7.84	—	—	<50	<0.5	<0.5	<0.5	<0.5	<50	—
	09/24/95	7.67	—	—	<50	<0.5	<0.5	<0.5	<0.5	<50	—
	12/29/95	Well not located		—	—	—	—	—	—	110	—
	03/24/96	7.41	—	—	<50	<0.5	<0.5	<0.5	<0.5	95	—

Table 1. Water Level Data & Groundwater Analytical Results - Chevron/RMC Lonestar Facility CPS# 206142, 333 - 23rd Avenue, Oakland, California (continued)

Well ID/ TOC*	Date	Depth to Water (ft)	GWE **	Product Thickness (ft)	TPH Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes	TPH-Diesel♦	MTBE
					<——— ppb ———>						
MW-4 (cont)	06/16/96	Well not located		—	—	—	—	—	—	—	—
	12/08/96	Well not located		—	—	—	—	—	—	—	—
MW-5											
5.43	05/28/87	—	—	—	—	<0.5	<0.5	<0.5	<2.0	<5.0	—
	06/15/89	—	—	—	<100	<0.2	<2.0	<2.0	<2.0	—	—
	12/21/90	9.11	-3.68	—	<50	<0.5	<0.5	<0.5	<0.5	<50	—
	06/16/93	9.12	-3.69	—	<50	<0.5	<0.5	<0.5	<0.5	<50	—
	12/18/93	8.72	-3.29	—	<50	<0.5	<0.5	<0.5	<0.5	690	—
	03/29/94	9.00	-3.57	—	—	—	—	—	—	—	—
	06/09/94	9.36	-3.93	—	<50	<0.5	<0.5	<0.5	<0.5	<50	—
	10/04/94	—	—	—	—	—	—	—	—	—	—
	12/20/94	8.10	-2.67	—	<50	<0.5	<0.5	<0.5	<0.5	<50	—
	03/28/95	8.21	-2.78	—	—	—	—	—	—	—	—
	06/30/95	8.78	-3.35	—	<50	<0.5	<0.5	<0.5	<0.5	900	—
	09/24/95	8.40	-2.97	—	—	—	—	—	—	—	—
	12/29/95	8.39	-2.96	—	<50	<0.5	<0.5	<0.5	<0.5	<50	—
	03/24/96	—	—	—	—	—	—	—	—	—	—
	06/16/96	8.58	-3.15	—	<50	<0.5	<0.5	<0.5	<50	—	—
	12/08/96	—	—	—	—	—	—	—	—	—	—
MW-7											
4.51	06/15/89	—	—	—	<100	<0.2	<2.0	<2.0	<2.0	—	—
	12/21/90	7.90	-3.38	0.01	—	—	—	—	—	—	—
	06/16/93	8.45	-3.94	—	<50	<0.5	0.9	<0.5	<0.5	<50	—
	12/18/93	8.01	-3.50	—	<50	<0.5	<0.5	<0.5	<0.5	240	—
	03/29/94	8.60	-4.09	—	<50	<0.5	<0.5	<0.5	<0.5	<50	—
	06/09/94	8.61	-4.10	—	<50	<0.5	<0.5	<0.5	<0.5	130[2]	—
	10/04/94	7.82	-3.31	—	<50	<0.5	<0.5	<0.5	<0.5	<50	—
	12/20/94	7.70	-3.19	—	<50	<0.5	<0.5	<0.5	<0.5	140	—
	03/28/95	7.67	-3.16	—	<50	<0.5	<0.5	<0.5	<0.5	<50	—
	06/30/95	8.33	-3.82	—	<50	<0.5	<0.5	<0.5	<0.5	<50	—
	09/24/95	8.16	-3.65	—	<50	<0.5	<0.5	<0.5	<0.5	<50	—

Table 1. Water Level Data & Groundwater Analytical Results - Chevron/RMC Lonestar Facility CPS# 206142, 333 - 23rd Avenue, Oakland, California (continued)

Well ID/ TOC*	Date	Depth to Water (ft)	GWE **	Product Thickness (ft)	TPH Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes	TPH-Diesel♦	MTBE
					<---------- ppb ---------->						
MW-7	12/29/95	7.51	-3.00	---	<50	<0.5	<0.5	<0.5	<0.5	230[4]	---
(cont)	03/24/96	7.69	-3.17	0.01	<50	<0.5	<0.5	<0.5	<0.5	81	---
	06/16/96	10.37	-5.86	---	<50	<0.5	<0.5	<0.5	<0.5	190	---
	12/08/96	---	---	---	---	---	---	---	---	---	---
MW-8											
4.93	12/21/90	8.53	-3.59	0.02	---	---	---	---	---	---	---
	12/18/93	---	---	---	---	---	---	---	---	---	---
	03/29/94	8.38	-3.46	---	---	---	---	---	---	---	---
	06/09/94	---	---	---	---	---	---	---	---	---	---
	12/20/94	7.58	-2.66	---	<2500	120	100	<25	100	50,000	---
	03/28/95	7.08	-2.16	---	---	---	---	---	---	---	---
	06/30/95	8.09	-3.17	---	<50	<0.5	<0.5	<0.5	<0.5	14,000	---
	09/24/95	8.45	-3.53	---	---	---	---	---	---	---	---
	12/29/95	7.47	-2.55	---	520	<2.0	<2.0	<2.0	<2.0	25,000	---
	03/24/96	---	---	---	---	---	---	---	---	---	---
	06/16/96	7.99	-3.07	---	59[9]	<0.5	<0.5	<0.5	<0.5	9,400	---
	12/08/96	**7.67**	**-2.74**	**Sheen**	**580[10]**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**16,000/*9300***	**<5.0**
MW-9											
4.42	05/28/87	---	---	---	---	<0.5	<0.5	<0.5	<2.0	<50	---
	06/15/89	---	---	---	<100	<0.2	<2.0	<2.0	<2.0	---	---
	12/21/90	7.86	---	Sheen	<50	<0.5	<0.5	<0.5	1.0	230	---
	06/16/93	8.34	-3.92	---	<50	<0.5	<0.5	<0.5	<1.5	<50	---
	12/18/93	7.91	-3.49	---	<50	<0.5	<0.5	<0.5	<0.5	<50	---
	03/29/94	7.85	-3.43	---	---	---	---	---	---	---	---
	06/09/94	8.69	-4.27	---	<50	<0.5	<0.5	<0.5	<0.5	<50	---
	10/04/94	---	---	---	---	---	---	---	---	---	---
	12/20/94	7.60	-3.18	---	<50	<0.5	<0.5	<0.5	<0.5	<50	---
	03/28/95	7.58	-3.16	---	---	---	---	---	---	---	---
	06/30/95	8.34	-3.92	---	<50	<0.5	<0.5	<0.5	<0.5	<50	---
	09/24/95	8.21	-3.79	---	---	---	---	---	---	---	---
	12/29/95	7.48	-3.06	---	<50	<0.5	<0.5	<0.5	<0.5	600	---

Table 1. Water Level Data & Groundwater Analytical Results - Chevron/RMC Lonestar Facility CPS# 206142, 333 - 23rd Avenue, Oakland, California (continued)

Well ID/ TOC*	Date	Depth to Water (ft)	GWE **	Product Thickness (ft)	TPH Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes	TPH-Diesel♦	MTBE
					<—ppb—>						
MW-9	03/24/96	—	—	—	—	—	—	—	—	—	—
(cont)	06/16/96	8.25	-3.83	—	<50	<0.5	<0.5	<0.5	<0.5	810	—
	12/08/96	—	—	—	—	—	—	—	—	—	—
MW-10											
5.24	06/15/89	—	—	—	<100	<0.2	<2.0	<2.0	<2.0	—	—
	12/21/90	8.92	-3.68	—	<50	<0.5	<0.5	<0.5	<0.5	80	—
	06/16/93	8.97	-3.73	—	<50	<0.5	<0.5	<0.5	<0.5	<50	—
	12/18/93	7.87	-2.63	—	51[1]	<0.5	<0.5	<0.5	<0.5	12,000	—
	03/29/94	9.20	-3.96	—	—	—	—	—	—	—	—
	06/09/94	9.31	-4.07	—	<50	<0.5	<0.5	<0.5	<0.5	<50	—
	10/04/94	—	—	—	—	—	—	—	—	—	—
	12/20/94	8.30	-3.06	—	<50	<0.5	<0.5	<0.5	<0.5	<50	—
	03/28/95	8.26	-3.02	—	—	—	—	—	—	—	—
	06/30/95	8.95	-3.71	—	<50	<0.5	<0.5	<0.5	<0.5	<50	—
	09/24/95	8.87	-3.63	—	—	—	—	—	—	—	—
	12/29/95	8.03	-2.79	—	<50	<0.5	<0.5	<0.5	<0.5	1800[5]	—
	03/24/96	—	—	—	—	—	—	—	—	—	—
	06/16/96	8.77	-3.53	—	<50	<0.5	<0.5	<0.5	<0.5	300	—
	12/08/96	—	—	—	—	—	—	—	—	—	—
MW-11											
4.37	08/21/87	—	—	—	—	<0.5	<0.5	<0.5	<2.0	<0.1	—
	06/21/89	—	—	—	<100	<0.2	<2.0	<2.0	<2.0	—	—
	12/21/90	8.59	—	Sheen	<50	<0.5	<0.5	<0.5	<0.5	<50	—
	03/19/93	7.57	-3.20	—	<50	<0.5	<0.5	<0.5	<1.5	<50	—
	06/16/93	8.84	-4.47	—	<50	<0.5	<0.5	<0.5	<1.5	<50	—
	12/18/93	8.26	-3.89	—	<50	<0.5	<0.5	<0.5	<0.5	<50	—
	03/29/94	9.07	-4.70	—	<50	<0.5	<0.5	<0.5	<0.5	<50	—
	06/09/94	9.14	-4.77	—	<50	<0.5	<0.5	<0.5	<0.5	150[2]	—
	10/04/94	7.94	-3.57	—	<50	<0.5	1.0	<0.5	<0.5	<50	—
	12/20/94	7.68	-3.31	—	<50	<0.5	<0.5	<0.5	<0.5	<50	—
	03/28/95	6.90	-2.53	—	<50	<0.5	<0.5	<0.5	<0.5	<50	—

Table 1. Water Level Data & Groundwater Analytical Results - Chevron/RMC Lonestar Facility CPS# 206142, 333 - 23rd Avenue, Oakland, California (continued)

Well ID/ TOC*	Date	Depth to Water (ft)	GWE **	Product Thickness (ft)	TPH Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes	TPH-Diesel♦	MTBE
					<----------ppb---------->						
MW-11	06/30/95	8.81	-4.44	---	<50	<0.5	<0.5	<0.5	<0.5	<50	---
(cont)	09/24/95	8.80	-4.43	---	<50	<0.5	<0.5	<0.5	<0.5	110	---
	12/29/95	8.22	-3.85	---	<50	<0.5	<0.5	<0.5	<0.5	<50	---
	03/24/96	8.46	-4.09	---	<50	<0.5	<0.5	<0.5	<0.5	80	---
	06/16/96	8.74	-4.37	---	<50	<0.5	<0.5	<0.5	<0.5	86[8]	---
?	12/08/96	7.75	-3.38	Sheen	<50	<0.5	<0.5	<0.5	<0.5	<50	<5.0
					How can this be?						
MW-12											
---	08/21/87	---	---	---	---	<0.5	<0.5	<0.5	<2.0	<0.1	---
	12/18/93	---	---	---	---	---	---	---	---	---	---
	03/29/94	---	---	---	---	---	---	---	---	---	---
	06/09/94[3]	Well inaccessible		---	---	---	---	---	---	---	---
MW-13											
4.73	08/21/87	---	---	---	---	<0.5	<0.5	<0.5	<2.0	<0.1	---
	06/15/89	---	---	---	<100	<0.2	<2.0	<2.0	<2.0	---	---
	03/19/93	7.62	-2.89	---	<50	<0.5	<0.5	<0.5	<1.5	<50	---
	06/16/93	8.56	-3.83	---	<50	<0.5	<0.5	<0.5	<1.5	<50	---
	12/18/93	8.11	-3.38	---	<50	<0.5	<0.5	<0.5	<0.5	<50	---
	03/29/94	8.65	-3.92	---	<50	<0.5	<0.5	<0.5	<0.5	<50	---
	06/09/94	8.60	-3.87	---	<50	<0.5	<0.5	<0.5	<0.5	<50	---
	10/04/94	8.31	-3.58	---	<50	<0.5	<0.5	<0.5	<0.5	<50	---
	12/20/94	7.92	-3.19	---	<50	<0.5	<0.5	<0.5	<0.5	<50	---
	03/28/95	7.78	-3.05	---	<50	<0.5	<0.5	<0.5	<0.5	<50	---
	06/30/95	---	---	---	---	---	---	---	---	---	---
	09/24/95	8.34	-3.61	---	<50	<0.5	<0.5	<0.5	<0.5	180	---
	12/29/95	Well not located		---	---	---	---	---	---	---	---
	03/24/96[7]	7.74	-3.01	---	<50	<0.5	<0.5	<0.5	<0.5	<50	---
	06/16/96	8.07	-3.34		<50	<0.5	<0.5	<0.5	<0.5	57	---
	12/08/96	---	---	---	---	---	---	---	---	---	---

Table 1. Water Level Data & Groundwater Analytical Results - Chevron/RMC Lonestar Facility CPS# 206142, 333 - 23rd Avenue, Oakland, California (continued)

Well ID/ TOC*	Date	Depth to Water (ft)	GWE **	Product Thickness (ft)	TPH Gasoline	Benzene	Toluene	Ethyl-benzene	Xylenes	TPH-Diesel♦	MTBE
					<----------ppb---------->						
TB	03/19/93	---	---	---	<50	<0.5	<0.5	<0.5	<1.5	---	---
	06/16/93	---	---	---	<50	<0.5	<0.5	<0.5	<1.5	---	---
	12/18/93	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	---	---
	03/29/94	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	---	---
FB	06/09/94	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	---	---
TB	12/20/94	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	---	---
	03/28/95	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	---	---
	06/30/95	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	---	---
	09/24/95	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	---	---
	12/29/95	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	---	---
	03/24/96	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	---	---
	06/16/96	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	---	---
TB-LB	**12/08/96**	**---**	**---**	**---**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**---**	**<5.0**

Table 1. Water Level Data & Groundwater Analytical Results - Chevron/RMC Lonestar Facility CPS# 206142, 333 - 23rd Avenue, Oakland, California (continued)

EXPLANATION:

TOC = Top of Casing
(ft) = Feet
GWE = Groundwater Elevation
TPH-Gasoline = Total Petroleum Hydrocarbons as Gasoline
TPH-Diesel = Total Extractable Petroleum Hydrocarbons as Diesel
MTBE = *Methyl-tertiary-butyl-ether*
ppb = Parts per billion
ND = Not detected at detection limit
— = Not Analyzed/Not Applicable/or (Data) Not Available

ANALYTICAL METHODS:

TPH-Gasoline by EPA Method 8015
BTEX & MTBE by EPA Method 8020
TPH-Diesel - Extraction by EPA Method 3510
TPH-Diesel silica-gel clean up by EPA (Modified) 3630

NOTES:

Water level elevation data and laboratory analytical results prior to December 8, 1996, were complied from Quarterly Groundwater Monitoring Reports prepared for Chevron by Geraghty & Miller, Inc.

* Elevations surveyed on 09/26/93 by Field Designs relative to City of Oakland Benchmark #3457 and corrected to Mean Sea Level (msl). (Benchmark datum is 2.998 feet off of msl.)

** Groundwater Elevation is corrected for the presence of separate-phase hydrocarbons and is calculated as follows: [(TOC-DTW) + (Product Thickness x 0.8)]. 0.8 is the assumed specific gravity of free-phase hydrocarbons.

♦ Analytical results are reported as follows: TPH as Diesel*TPH as Diesel w/silica-gel cleanup.*

NOTES(continued):

1 Laboratory reports that the chromatogram does not match typical gasoline pattern.
2 Laboratory reports that the chromatogram does not match typical diesel pattern; lighter hydrocarbons present.
3 MW-12 inaccessible due to the accumulation of silt, sand, and gravel in the well casing.
4 Laboratory reports that the chromatogram indicates the presence of unidentified hydrocarbons >C16.
5 Laboratory reports that the chromatogram indicates the presence of diesel and unidentified hydrocarbons >C16.
6 Laboratory reports that the chromatogram indicates the presence of unidentified hydrocarbons >C8.
7 MW-13 also analyzed for Total Dissolved Solids (TDS) by USEPA Method 160.1. Laboratory reported a concentration of 1,600 mg/L.
8 Laboratory reports that the chromatogram indicates the presence of unidentified hydrocarbons >C18.
9 Laboratory reports that the chromatogram indicates the presence of unidentified hydrocarbons >C9.
10 Laboratory report indicates the hydrocarbons in the gasoline range do not match the gasoline standard pattern.

Table 2. Field Parameters/Analytical Results - Chevron\RMC Lonestar Facility CPS#206142, 333 - 23rd Avenue, Oakland, California

Well ID	Date	Oxidation Reduction Potential (mV)	Dissolved Oxygen	Nitrate	Sulfate	Ferrous Iron	Phosphate	Ammonia
			< mg/L >					
MW-1	11/09/95	—	0.90	—	—	—	—	—
	06/17/96	—	1.34	>5.0	—	—	2.0	>10
	12/08/96*	**—**	**1.39**	**13**	**14**	**2.6**	**—**	**—**
MW-4	11/09/95	—	0.37	0.2	—	—	0	0.01
	06/16/96	Well not located	—	—	—	—	—	—
	12/08/96	**Well not located**	**—**	**—**	**—**	**—**	**—**	**—**
MW-5	11/09/95	—	0.85	0.1	—	—	1.5	0.1
	06/16/96	—	0.78	—	—	—	—	—
MW-7	11/09/95	—	0.42	—	—	—	—	—
	06/16/96[1]	—	OR	>5.0	—	—	4.0	>10
MW-8	11/09/95	—	0.95	—	—	—	—	—
	06/16/96	—	0.29	0	—	—	0.6	0.6
	12/08/96*	**-35**	**0.51**	**<0.10**	**3.0**	**6.1**	**—**	**—**
MW-9	11/09/95	—	0.58	—	—	—	—	—
	06/16/96[1]	—	14.66	>5.0	—	—	>10	1.0
MW-10	11/09/95	—	1.49	—	—	—	—	—
	06/16/96	—	3.30	1.0	—	—	6.0	>10
MW-11	11/09/95	—	0.52	0.2	—	—	5.0	0.1
	06/16/96	—	0.25	—	—	—	—	—
	12/08/96*	**165**	**0.31**	**340**	**99**	**<0.010**	**—**	**—**
MW-13	11/09/95	Well not located	—	—	—	—	—	—
	06/16/96*	—	0.52	0.1	—	—	0.4	0.2
R-2	11/09/95	—	0.44	0.6	—	—	0	0
A	11/09/95	—	0.42	1	—	—	0	4

Table 2. Field Parameters/Analytical Results - Chevron\RMC Lonestar Facility CPS#206142, 333 - 23rd Avenue, Oakland, California (continued)

EXPLANATIONS:

mV = Millivolts
mg/L = Miligrams per liter
--- = Not Measured/Not Analyzed
OR = Over-range of instrument

NOTES:

Data prior to December 8, 1996, was provided by Geraghty & Miller, Inc.

* Measurement after purging. See actual field sheets for complete readings/measurements.

1 ORC removed before field measurement recorded.

6338-2.fld

STANDARD OPERATING PROCEDURE - GROUNDWATER SAMPLING

Gettler-Ryan Inc. field personnel adhere to the following procedures for the collection and handling of groundwater samples prior to analysis by the analytical laboratory. Prior to sample collection, the type of analysis to be performed is determined. Loss prevention of volatile compounds is controlled and sample preservation for subsequent analysis is maintained.

Prior to sampling, the presence or absence of free-phase hydrocarbons is determined using a MMC flexi-dip interface probe. Product thickness, if present, is measured to the nearest 0.01 foot and is noted in the field notes. In addition, static water level measurements are collected with the interface probe and are also recorded in the field notes.

After water levels are collected and prior to sampling, each well is purged a minimum of three well casing volumes of water using pre-cleaned pumps (stack, suction, Grundfos), or polyvinyl chloride bailers. Temperature, pH and electrical conductivity are measured a minimum of three times during the purging. Purging continues until these parameters stabilize.

Groundwater samples are collected using Chevron-designated disposable bailers. The water samples are transferred from the bailer into appropriate containers. Pre-preserved containers, supplied by analytical laboratories, are used when possible. When pre-preserved containers are not available, the laboratory is instructed to preserve the sample as appropriate. Duplicate samples are collected for the laboratory to use in maintaining quality assurance/quality control standards. The samples are labeled to include the job number, sample identification, collection date and time, analysis, preservation (if any), and the sample collector's initials. The water samples are placed in a cooler, maintained at 4°C for transport to the laboratory. Once collected in the field, all samples are maintained under chain of custody until delivered to the laboratory.

The chain of custody document includes the job number, type of preservation, if any, analysis requested, sample identification, date and time collected, and the sample collector's name. The chain of custody is signed and dated (including time of transfer) by each person who receives or surrenders the samples, beginning with the field personnel and ending with the laboratory personnel.

A laboratory supplied trip blank accompanies each sampling set. For sampling sets greater than 20 samples, 5% trip blanks are included. The trip blank is analyzed for some or all of the same compounds as the groundwater samples.

As requested by Chevron Products Company, the purge water and decontamination water generated during sampling activities is transported by IWM to McKittrick Waste Management located in McKittrick, California.

WELL SAMPLING FIELD DATA SHEET

SAMPLER: Frank Cline
DATE: 12-8-96

ADDRESS: 333 23rd Ave
JOB #: 6338.85

CITY: Oakland CA
SS#: Conestoga 20642

Well ID: MW-1
Well Condition: okay

Well Location Description:

Well Diameter: 4" in
Hydrocarbon Thickness: 0

Total Depth: 18' ~~20'~~ ft
Depth to Liquid: 8.38 ft

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

# of casing Volume: ____ x ____ x(VF) ____ #Estimated purge Volume ____ gal.

Purge Equipment: None
Sampling Equipment: D. Bailer

Did well dewater: NC
If yes, Time ____ Volume ____

Starting Time: 1005
Sampling Time: 1020

Purging Flow Rate: ____ gpm.

Time	pH	Conductivity	Temperature	Volume
Grab	~~sample only~~			
10:20	6.66 1.39	691	17.1 30C	1 gal

Weather Conditions: Cloudy & Cool
Water Color: clear
Odor: Mild
Sediment Description: N/A

LABORATORY INFORMATION

Sample ID	Container	Refrig	Preservative Type	Lab	Analysis
MW-1	3x40ml VOA	Y	HCl	GTEL	BTEX MTBE
	2x liter	Y	None	GTEL	TPH Diesel
	1x liter poly	Y	None	SEQ	Nitrate Sulfate
	1x 500ml poly	Y	HNO3	SEQ	Ferrous Iron

Comments:

WELL SAMPLING FIELD DATA SHEET

SAMPLER: F. Chane
DATE: 12-8-96
ADDRESS: 333 23rd Av.
JOB #: 6338
CITY: Oakland CA
SS#: Conestave
Well ID: MW-4
Well Condition:
Well Location Description:
Well Diameter: 2" in
Hydrocarbon Thickness:
Total Depth: ft
Depth to Liquid: ft

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

# of casing Volume ______ x ______ x(VF) ______ #Estimated purge Volume ______ gal.

Purge Equipment:
Sampling Equipment:
Did well dewater:
If yes, Time ______ Volume ______
Starting Time:
Purging Flow Rate: gpm.
Sampling Time:

Time	pH	Conductivity	Temperature	Volume
Unable to locate. under concrete slab				

Weather Conditions:
Water Color:
Odor:
Sediment Description:

LABORATORY INFORMATION

Sample ID	Container	Refrig	Preservative Type	Lab	Analysis

Comments:

WELL SAMPLING FIELD DATA SHEET

SAMPLER: Frank Cline | DATE: 12-8-96

ADDRESS: 333 23rd Ave | JOB #: 6338.85

CITY: Oakland CA | SS#: Lonestar 200142

Well ID: MW-8 | Well Condition: okay

Well Location Description: No lock ORC installed by GIN

Well Diameter: 4" in | Hydrocarbon Thickness: 0 after sampling

Total Depth: 18.17 ft

Depth to Liquid: 7.67 ft

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

# of casing Volume: 3x 11.03 x 0.66 x(VF) 7.3 #Estimated purge Volume: 21 gal.

Purge Equipment: Stack | Sampling Equipment: Bailer

Did well dewater: No | If yes, Time: — | Volume: —

Starting Time: 1000 | Purging Flow Rate: 1.5 gpm.

Sampling Time: 1020

Time	pH	DO	Conductivity	Rocky	Temperature	NK	Volume
1005	6.51	0.28	850	OR	19.2		7.5
1010	6.49	0.30	850	OR	19.1		15.0
1015							
1020							
1100	6.56	6.51	794	-35	18.9		179.5

Weather Conditions: Cloudy (COC)

Water Color: Clear | Odor: None

Sediment Description: Non

LABORATORY INFORMATION

Sample ID	Container	Refrig	Preservative Type	Lab	Analysis
MW-8	3x40ml VOA	Y	HCl	GTEL	Gas BTXE MTBE
	2x 1 liter	Y	Methene	GTEL	TPH Diesel
	1x 1 liter Poly	Y	Non	SEG	Nitrate Sulfate -
	1x 500ml Poly	Y	HNO3	SEG	Ferrous Iron -

Comments:

WELL SAMPLING FIELD DATA SHEET

SAMPLER: F. Cline
DATE: 12-8-96

ADDRESS: Lonestar
JOB #: 6338.85

CITY: Oakland
SS#: Lonestare 206142

Well ID: MW-11
Well Condition: okay

Well Location Description: No lock

Well Diameter: 2" in
Hydrocarbon Thickness: 0

Total Depth: 20.4 ft

Depth to Liquid: 7.75 ft

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

# of casing Volume: 12.65 x 0.17 x(VF) 3 #Estimated purge Volume: 6.5 gal.

Purge Equipment: Stick
Sampling Equipment: D Bailer

Did well dewater: No
If yes, Time ___ Volume ___

Starting Time: 9:35
Purging Flow Rate: 1.5 gpm.

Sampling Time: ___

Time	pH	DO	Conductivity	Red	Temperature	Alk	Volume
9:37	6.99	1.00	843	170	16.8		2.2
9:39	6.97	0.32	905	170	17.4		4.4
9:41	6.95	0.30	898	170	17.5		6.6
9:50	6.96	0.31	880	162	17.5		7.6

Weather Conditions: Rainy cloudy cool

Water Color: Clear
Odor: None

Sediment Description: None

LABORATORY INFORMATION

Sample ID	Container	Refrig	Preservative Type	Lab	Analysis
MW-11	3x40ml VOA	Y	HCl	GTEL	Gas BTXE MTBE
	2x liter	Y	None	GTEL	TPH Diesel
	1x liter Poly	Y	None	SBG	Nitrates Sulfate
	1x 500ml Poly	Y	Nitric	SBG	Ferrous Iron

Comments: ___

Fax copy of Lab Report and COC to Chevron Contact: ☐ No

2-A-1

Chain-of-Custody-Record

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

CHEVRON
Chevron Facility Number ~~Lonestar Facility CPS #206142~~
Facility Address 333 - 23rd Avenue, Oakland, CA
Consultant Project Number 6338.85
Consultant Name Gettler-Ryan
Address 6747 Sierra Ct, Ste J, Dublin 94568
Project Contact (Name) Deanna Harding
(Phone) 551-7555 (Fax Number) 551-7888

Chevron Contact (Name) ~~Mr. Robert Gochran~~
(Phone) (510) 842-9655
Laboratory Name NEI/GTEL Service Code: ZZ02790
Laboratory Service Order #9024597
Samples Collected by (Name) Frank Cline
Collection Date 12/8/96
Signature [signature]

Sample Number	Lab 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)	TPH Gas+ BTEX w/MTBE (8015) (8020)	TPH Diesel (8015)	Oil and Grease (5520)	Purgeable Halocarbons (8010)	Purgeable Aromatics (8020)	Purgeable Organics (8240)	Extractable Organics (8270)	Metals Cd,Cr,Pb,Zn,Ni (ICAP or AA)					Remarks
TB-LB	1	2	W	TB		HCL	Y	✓												DO NOT BILL TB-LB ANALYSIS. Confirm highest hit of (8020)-MTBE by 8260.
MW-11	2	5	↓	G		None	Y	✓	✓											Silica Gel
MW-8	3	5	↓	↓		↓	Y	✓	✓											Cleanup on all Diesels.
MW-1	4	5	↓	↓		↓	Y	✓	✓											Pls call D. Harding if Silica-gel clean-up Results are higher than 100ppb. Thank you. DH

WG 120158

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
[signature]	G-R Inc.	12/9/96	D. Harding	G-R Inc.	12/9/96
D. Harding	GR	12/9/96 1330	John Wells	NEI/GTEL	12/9/96 1330
John Wells	NEI/GTEL	12/9/96 5:30	Received For Laboratory By (Signature): [signature] 503 542 5555		12/10/96 0825

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

No Seals 3°C

COC-3.DWG/03 91/HCH

NEI/GTEL
ENVIRONMENTAL LABORATORIES, INC.

Midwest Region
4211 May Avenue
Wichita, KS 67209
(316) 945-2624
(800) 633-7936
(316) 945-0506 (FAX)

January 8, 1997

Deanna Harding
GETTLER-RYAN
6747 Sierra Ct.
Suite J
Dublin, CA 94568

RE: GTEL Client ID: GTR01CHV08
Login Number: W6120158
Project ID (number): 6338.85
Project ID (name): CHEVRON/LONESTAR FACILITY CPS#206142/333 - 23RD AVENUE/OAKLAND/CA

Dear Deanna Harding:

Enclosed please find the analytical results for the samples received by GTEL Environmental Laboratories, Inc. on 12/10/96.

A formal Quality Assurance/Quality Control (QA/QC) program is maintained by GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project met QA/QC criteria unless otherwise stated in the footnotes. This report is to be reproduced only in full.

NEI/GTEL is certified by the California Department of Health Service under Certification Number 1845.

If you have any questions regarding this analysis, or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,
GTEL Environmental Laboratories, Inc.

Justin Ward, Project Coordinator for
Terry R. Loucks
Laboratory Director

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: GTR01CHV08
Login Number: W6120158
Project ID (number): 6338.85
Project ID (name): CHEVRON/LONESTAR FACILITY CPS#206142/333 - 23RD AVENUE/OAKLAND/CA

Method: EPA 8020A
Matrix: Aqueous

GTEL Sample Number		W6120158-01	W6120158-02	W6120158-03	W6120158-04
Client ID		TB-LB	MW-11	MW-8	MW-1
Date Sampled			12/08/96	12/08/96	12/08/96
Date Analyzed		12/17/96	12/17/96	12/17/96	12/17/96
Dilution Factor		1.00	1.00	1.00	1.00
Analyte	Reporting Limit / Units	Concentration:			
MTBE	5.0 ug/L	< 5.0	< 5.0	< 5.0	< 5.0
Benzene	0.5 ug/L	< 0.5	< 0.5	< 0.5	< 0.5
Toluene	0.5 ug/L	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	0.5 ug/L	< 0.5	< 0.5	< 0.5	< 0.5
Xylenes (total)	0.5 ug/L	< 0.5	< 0.5	< 0.5	< 0.5
BTEX (total)	-- ug/L	--	--	--	--
TPH as Gasoline	50 ug/L	< 50	< 50	580	280

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8020A:

Gasoline range hydrocarbons (TPH) quantitated by GC/FID with purge and trap and modified EPA Method 8015. Analyte list modified to include additional compounds. "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update II.

W6120158-03:

Hydrocarbons in the gasoline range do not match the gasoline standard pattern.

W6120158-04:

Hydrocarbons in the gasoline range do not match the gasoline standard pattern.

GTEL Client ID: GTR01CHV08
Login Number: W6120158
Project ID (number): 6338.85
Project ID (name): CHEVRON/LONESTAR FACILITY CPS#206142/333 - 23RD AVENUE/OAKLAND/CA

QUALITY CONTROL RESULTS

Volatile Organics
Method: EPA 8020A
Matrix: Aqueous

Conformance/Non-Conformance Summary

(X = Requirements Met * = See Comments -- = Not Required NA = Not Applicable)

Conformance Item	Volatile Organics	Semi-Volatile Organics	Inorganics (MT, WC)
GC/MS Tune	--	--	NA
Initial Calibration	--	--	--
Continuing Calibration	X	--	--
Surrogate Recovery	X	--	NA
Holding Time	X	--	--
Method Accuracy	X	--	--
Method Precision	X	--	--
Blank Contamination	X	--	--

Comments:

GTEL Client ID: GTR01CHV08
Login Number: W6120158
Project ID (number): 6338.85
Project ID (name): CHEVRON/LONESTAR FACILITY CPS#206142/333 - 23RD AVENUE/OAKLAND/CA

QUALITY CONTROL RESULTS

Volatile Organics
Method: EPA 8020A
Matrix: Aqueous

Surrogate Results

QC Batch No.	Reference	Sample ID	TFT
Method: EPA 8020A		Acceptability Limits:	43-136%
121796GC17-1	CV1217962017	Calibration Verifi	101.
121796GC17-3	BW12179617	Method Blank Water	87.3
121796GC17-5	LW12179617	Laboratory Control	101.
121796GC17-7	MS12015802	Matrix Spike	107.
--	12015801	TB-LB	101.
--	12015802	MW-11	102.
--	12015803	MW-8	105.
--	12015804	MW-1	104.

Notes:

*: Indicates values outside of acceptability limits. See Nonconformance Summary.

Project ID (Number): 6338.85
Project ID (Name): Chevron Lonestar Facility
CPS #206142
333 23rd Ave.
Oakland, CA
Work Order Number: W6-12-0158
Date Reported: 12-18-96

METHOD BLANK REPORT

Volatile Organics in Water
EPA Method 8020A

Date of Analysis: 17-Dec-96 QC Batch No: 121796GC17-3

Analyte	Concentration, ug/L
MTBE	<5.0
Benzene	<0.5
Toluene	<0.5
Ethylbenzene	<0.5
Xylene (total)	<0.5
TPH as Gasoline	<50

GTEL Client ID: GTR01CHV08
Login Number: W6120158
Project ID (number): 6338.85
Project ID (name): CHEVRON/LONESTAR FACILITY CPS#206142/333 - 23RD AVENUE/OAKLAND/CA

QUALITY CONTROL RESULTS

Volatile Organics
Method: EPA 8020A
Matrix: Aqueous

Calibration Verification Sample Summary

Analyte	Spike Amount	Check Sample Concentration	QC Percent Recovery	Acceptability Limits Recovery
EPA 8020A Units:ug/L	QC Batch:121796GC17-1			
Benzene	20.0	21.8	109.	77-123%
Toluene	20.0	21.1	106.	77.5-122.5%
Ethylbenzene	20.0	20.6	103.	63-137%
Xylenes (Total)	60.0	60.1	100.	85-115%
TPH as Gasoline	500	537.	107.	80-120%

Notes:

QC check source: Supelco #LA12389

GTEL Client ID: GTR01CHV08
Login Number: W6120158
Project ID (number): 6338.85
Project ID (name): CHEVRON/LONESTAR FACILITY CPS#206142/333 - 23RD AVENUE/OAKLAND/CA

QUALITY CONTROL RESULTS

Volatile Organics
Method: EPA 8020A
Matrix: Aqueous

Laboratory Control Sample Summary

Analyte		Spike Amount	Check Sample Concentration	QC Percent Recovery	Acceptability Limits Recovery
EPA 8020A	Units:ug/L	QC Batch:121796GC17-5			
Benzene		20.0	20.4	102	39-150%
Toluene		20.0	19.7	98.5	46-148%
Ethylbenzene		20.0	18.5	92.5	32-160%
Xylenes (Total)		60.0	55.5	92.5	51-145%

Notes:

GTEL Client ID: GTR01CHV08
Login Number: W6120158
Project ID (number): 6338.85
Project ID (name): CHEVRON/LONESTAR FACILITY CPS#206142/333 - 23RD AVENUE/OAKLAND/CA

QUALITY CONTROL RESULTS

Volatile Organics
Method: EPA 8020A
Matrix: Aqueous

Matrix Spike(MS) Results

GTEL Sample ID:W6120158-02
Analysis Date: 17-DEC-96

MS ID:MS12015802
17-DEC-96

Units: ug/L Analyte	Sample Conc.	Spike Added	MS Conc.	MS % Rec.	Acceptability Limits %Rec.
Benzene	< 0.5 (0.000)	20.0	20.7	104	67-110
Toluene	< 0.5 (0.000)	20.0	19.5	97.5	68-115
Ethylbenzene	< 0.5 (0.000)	20.0	19.3	96.5	65-120
Xylenes (Total)	< 0.5 (0.000)	60.0	55.7	92.8	62-119

Notes:

Values in parentheses in the sample concentration column are used for % recovery calculations.

ANALYTICAL RESULTS
Total Petroleum Hydrocarbons By GC

GTEL Client ID: GTR01CHV08
Login Number: W6120158
Project ID (number): 6338.85
Project ID (name): CHEVRON/LONESTAR FACILITY CPS#206142/333 - 23RD AVENUE/OAKLAND/CA

Method: GC
Matrix: Aqueous

GTEL Sample Number		W6120158-02	W6120158-03	W6120158-04	--
Client ID		MW-11	MW-8	MW-1	--
Date Sampled		12/08/96	12/08/96	12/08/96	--
Date Prepared		12/12/96	12/12/96	12/12/96	
Date Analyzed		12/18/96	12/18/96	12/18/96	--
Dilution Factor		1.00	3.00	3.00	--
Analyte	Reporting Limit / Units	Concentration:			
TPH as Diesel	50 ug/L	< 50	16000	6700	--

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

GC:

Extraction by EPA Method 3510 (liquid/liquid). ASTM Method 03328(modified) is used for qualitative identification of fuel patterns. The method has been modified to include quantitation by applying calibration and quality assurance guidelines outlined in "Test Methods for Evaluating Solid Waste. Physical/Chemical Methods", SW-846, Third Edition including promulgated Update 1. This method is equivalent to the California LUFT manual DHS method for diesel fuel.

GTEL Client ID: GTR01CHV08
Login Number: W6120158
Project ID (number): 6338.85
Project ID (name): CHEVRON/LONESTAR FACILITY CPS#206142/333 - 23RD AVENUE/OAKLAND/CA

QUALITY CONTROL RESULTS

Total Petroleum Hydrocarbons By GC
Method: GC
Matrix: Aqueous

Surrogate Results

QC Batch No.	Reference	Sample ID	OTP
Method: GC		Acceptability Limits:	50.2-115%
121296TPH2-1	BW121296TPH2	Method Blank Water	71.7
121296TPH2-2	LW121296TPH2	Laboratory Control	90.7
121296TPH2-3	LWD121296TPH2	LCS Water Duplicat	98.5
--	12015802	MW-11	86.2
--	12015803	MW-8	95.7
--	12015804	MW-1	90.7

Notes:

*: Indicates values outside of acceptability limits. See Nonconformance Summary.
Acceptability limits are derived from statistical analysis of laboratory samples.

GTEL Client ID: GTR01CHV08
Login Number: W6120158
Project ID (number): 6338.85
Project ID (name): CHEVRON/LONESTAR FACILITY CPS#206142/333 - 23RD AVENUE/OAKLAND/CA

QUALITY CONTROL RESULTS

Total Petroleum Hydrocarbons By GC
Method: GC
Matrix: Aqueous

Method Blank Results

QC Batch No: 121296TPH2-1
Date Analyzed: 13-DEC-96

Analyte	Method: GC	Concentration: ug/ml
Diesel Range Organics	< 50.0	

Notes:

GTEL Client ID: GTR01CHV08
Login Number: W6120158
Project ID (number): 6338.85
Project ID (name): CHEVRON/LONESTAR FACILITY CPS#206142/333 - 23RD AVENUE/OAKLAND/CA

QUALITY CONTROL RESULTS

Total Petroleum Hydrocarbons By GC
Method: GC
Matrix: Aqueous

Laboratory Control Sample (LCS) and Laboratory Control Duplicate Results

Analyte	Spike Amount	LCS Concentration	LCS Recovery, %	LCS Duplicate Concentration	LCS Duplicate Recovery, %	RPD, %	Acceptability Limits RPD, %	Acceptability Limits Recovery, %
GC Units: ug/ml	QC Batch:121296TPH2-3							
Diesel Range Organics	2000	1230	61.5	1220	61.0	0.816	68.2	17.5-97%

Notes:

Acceptability limits are derived from statistical analysis of laboratory samples.

GTEL Client ID: GTR01CHV08
Login Number: W6120158
Project ID (number): 6338.85
Project ID (name): CHEVRON/LONESTAR FACILITY CPS#206142/333 - 23RD AVENUE/OAKLAND/CA

QUALITY CONTROL RESULTS

Total Petroleum Hydrocarbons By GC
Method: GC
Matrix: Aqueous

Conformance/Non-Conformance Summary

(X = Requirements Met * = See Comments -- = Not Required NA = Not Applicable)

Conformance Item	Volatile Organics	Semi-Volatile Organics	Inorganics (MT, WC)
GC/MS Tune	--	--	NA
Initial Calibration	--	--	--
Continuing Calibration	--	--	--
Surrogate Recovery	--	X	NA
Holding Time	--	X	--
Method Accuracy	--	X	--
Method Precision	--	--	--
Blank Contamination	--	X	--

Comments:

Project ID (Number): 6338.85
Project ID (Name): Chevron
Lonestar Facility
CPS#206142
333 - 23rd Ave.
Oakland, CA
Work Order Number: W6-12-0158
Date Reported: 12-19-96

ANALYTICAL RESULTS

TPH as Diesel Fuel in Water
GC/FID[a]

GTEL Sample Number		05	06	07	
Client Identification		MW-11	MW-8	MW-1	
Date Sampled		12-08-96	12-08-96	12-08-96	
Date Extracted		12-12-96	12-12-96	12-12-96	
Date Analyzed		12-18-96	12-18-96	12-18-96	
Analyte	RL ug/L	Concentration, ug/L			
TPH as Diesel Fuel	50	<50	**9300**	**5100**	
RL[c] Multiplier		1	3	1	

a ASTM Method D3328 (modified) is used for qualitative identification of fuel patterns. The method has been modified to include quantitation by applying calibration and quality assurance guidelines outlined in EPA's publication, Test Methods for Evaluating Solid Waste, SW846, Third Edition, Revision 0, November 1986. Liquid-liquid extraction with methylene chloride. This method is equivalent to the California LUFT manual DHS method for diesel fuel.

b Extracts were silica gel cleaned per (modified) EPA 3630.

c Reporting Limit

Project ID (Number): 6338.85
Project ID (Name): Chevron
Lonestar Facility
CPS#206142
333 - 23rd Ave.
Oakland, CA
Work Order Number: W6-12-0158
Date Reported: 12-19-96

QA NONCONFORMANCE SUMMARY

TPH as Diesel Fuel in Water
GC/FID

1.0 Sample Handling

1.1 Sample handling and holding time criteria were not met for **0** samples.

2.0 Surrogate Compound Recoveries

2.1 The recovery limits were exceeded for **0** surrogate compound as shown in Table 2.

3.0 Matrix Spike (MS) Accuracy

3.1 The recovery limits were exceeded in the matrix spike for **0** compounds as shown in Table 3.

4.0 Sample Duplicate Precision

4.1 The maximum percent difference (RPD) was exceeded for **0** compounds in the duplicate samples as shown in Table 3.

5.0 Method Blanks

5.1 **Zero** target compounds were found in the method blank as shown in Table 4.

Project ID (Number): 6338.85
Project ID (Name): Chevron
Lonestar Facility
CPS#206142
333 - 23rd Ave.
Oakland, CA
Work Order Number: W6-12-0158
Date Reported: 12-19-96

Table 2

SURROGATE COMPOUND RECOVERY
ortho-Terphenyl

TPH as Diesel Fuel in Water
GC/FID

Acceptability Limits[a]: 50.2-115%

GTEL No.	Surrogate Recovery %
Method Blank 12-12-96 SG	90.8
LCSS 12-12-96 SG	85.9
LCSSD 12-12-96 SG	79.0
W6120158-02 SG	84.4
W6120158-03 SG	84.2
W6120158-04 SG	94.8

* Indicates surrogate recovery outside of acceptability limits.

MS: Matrix Spike
MSD: Matrix Spike Duplicate
LCSS: Laboratory Control Sample Spike
LCSSD: Laboratory Control Sample Spike Duplicate

a Acceptability limits are derived from statistical analysis of laboratory samples.

Project ID (Number): 6338.85
Project ID (Name): Chevron
Lonestar Facility
CPS#206142
333 - 23rd Ave.
Oakland, CA
Work Order Number: W6-12-0158
Date Reported: 12-19-96

Table 3

LABORATORY CONTROL SAMPLE SPIKE AND SPIKE DUPLICATE SUMMARY

TPH as Diesel Fuel in Water
GC/FID

Sample Spiked: Regent H_2O 12-12-96

Analyte	Spike Added, ug/L	Sample Concentration, ug/L	MS Concentration, ug/L	MS Percent Recovery	Acceptability Limits, %[a]
Diesel Fuel	2000	<50	1030	51.5	17.5-97.0

Analyte	Spike Added, ug/L	MSD Concentration, ug/L	MSD Percent Recovery	RPD %	Acceptability Limits, %[a]	
					RPD	% Recovery
Diesel Fuel	2000	960	48.0	7.0	68.2	17.5-97.0

* Indicates values outside of acceptability limits.
a Acceptability limits are derived from statistical analysis of laboratory samples.

RPD: 0 out of 1 outside limits.
Spike Recovery: 0 out of 2 outside limits.
Note: all quality control samples were silica gel cleaned by modified EPA3630

Project ID (Number): 6338.85
Project ID (Name): Chevron
Lonestar Facility
CPS#206142
333 - 23rd Ave.
Oakland, CA
Work Order Number: W6-12-0158
Date Reported: 12-19-96

Table 4

METHOD BLANK RESULTS

TPH as Diesel Fuel in Water
GC/FID

Date Extracted 12-12-96

Analyte	Concentration, ug/L
TPH as Diesel Fuel	<50

Sample: W61Z0158-0X
Acquired: 18-DEC-96 17:4X

Channel: GC13B-81C B
Method: J:\GCDATA\GC13\TPHACQ0X

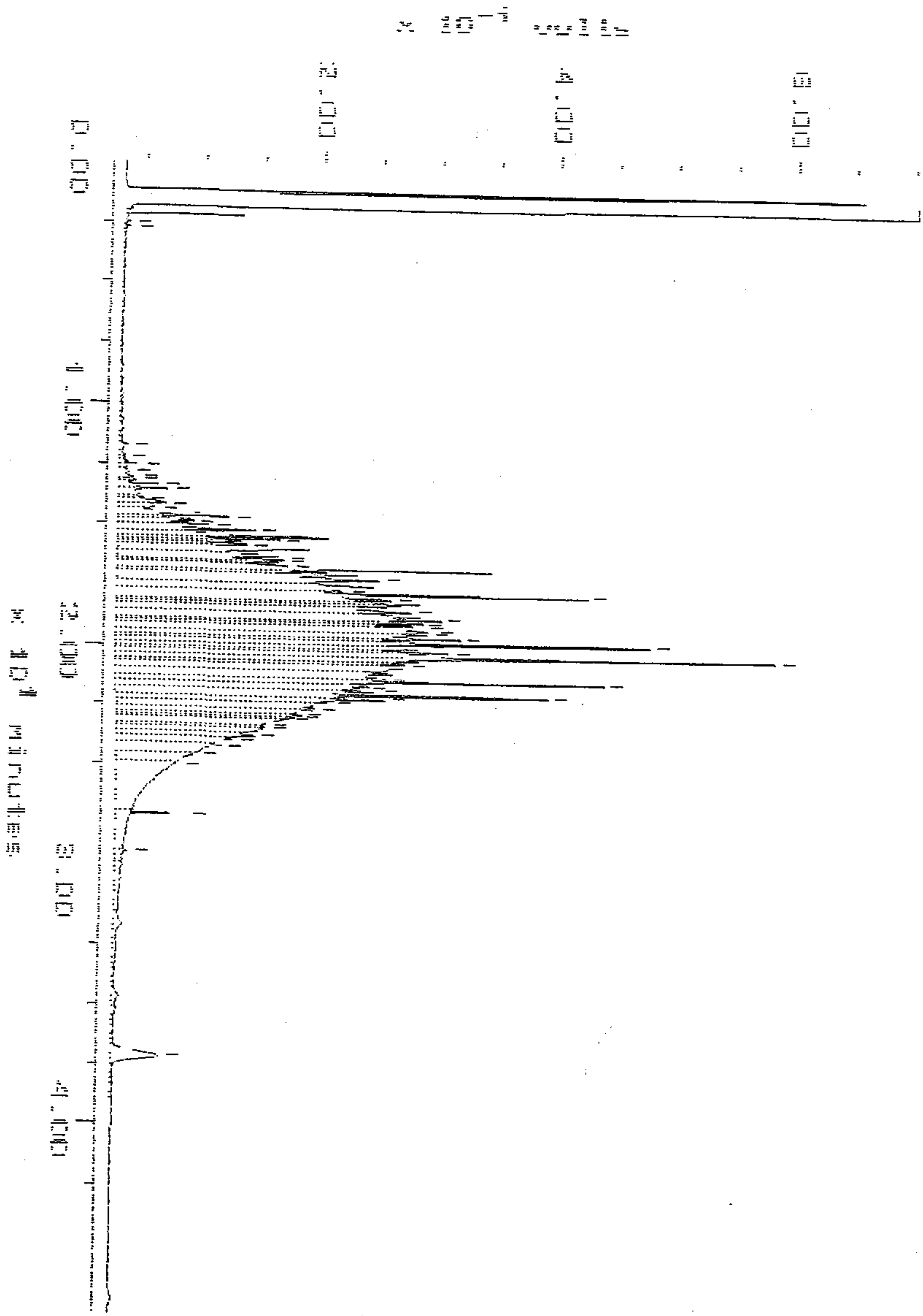
Filename: 13B18040
Operator: NAC

Sample: W612015B-03 X3 Channel: GC13B-SIG B

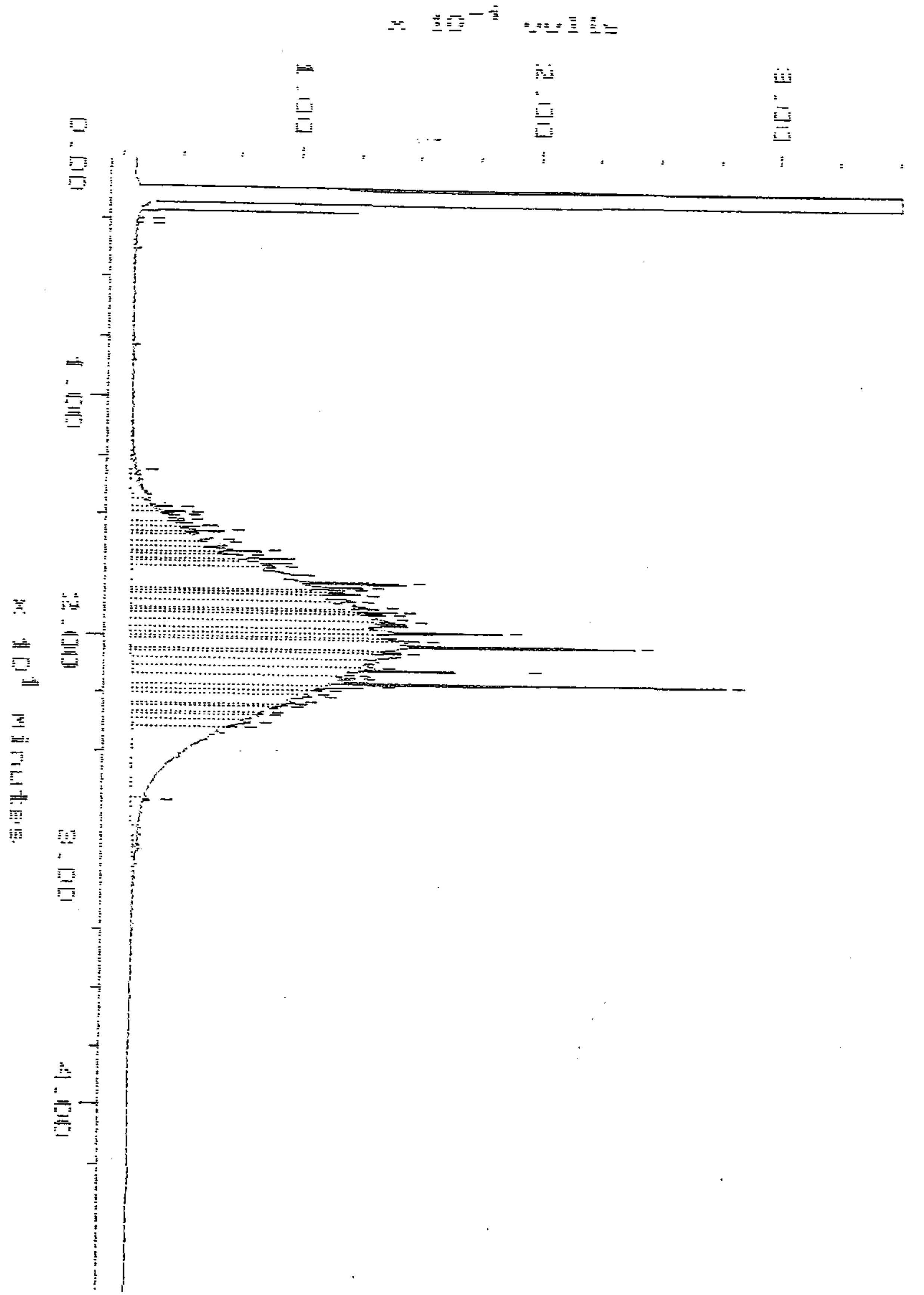
Acquired: 18-DEC-96 18:41 Method: J:\GCDATA\GC13\TPHACQ02

Filename: 13B18841

Operator: NAC



Sample: W6120158-04 X3 Channel: GC13B-SIG B Filename: 13B18042
Acquired: 18-DEC-96 19:39 Method: J:\GCDATA\GC13\TPHACQ02 Operator: NAC

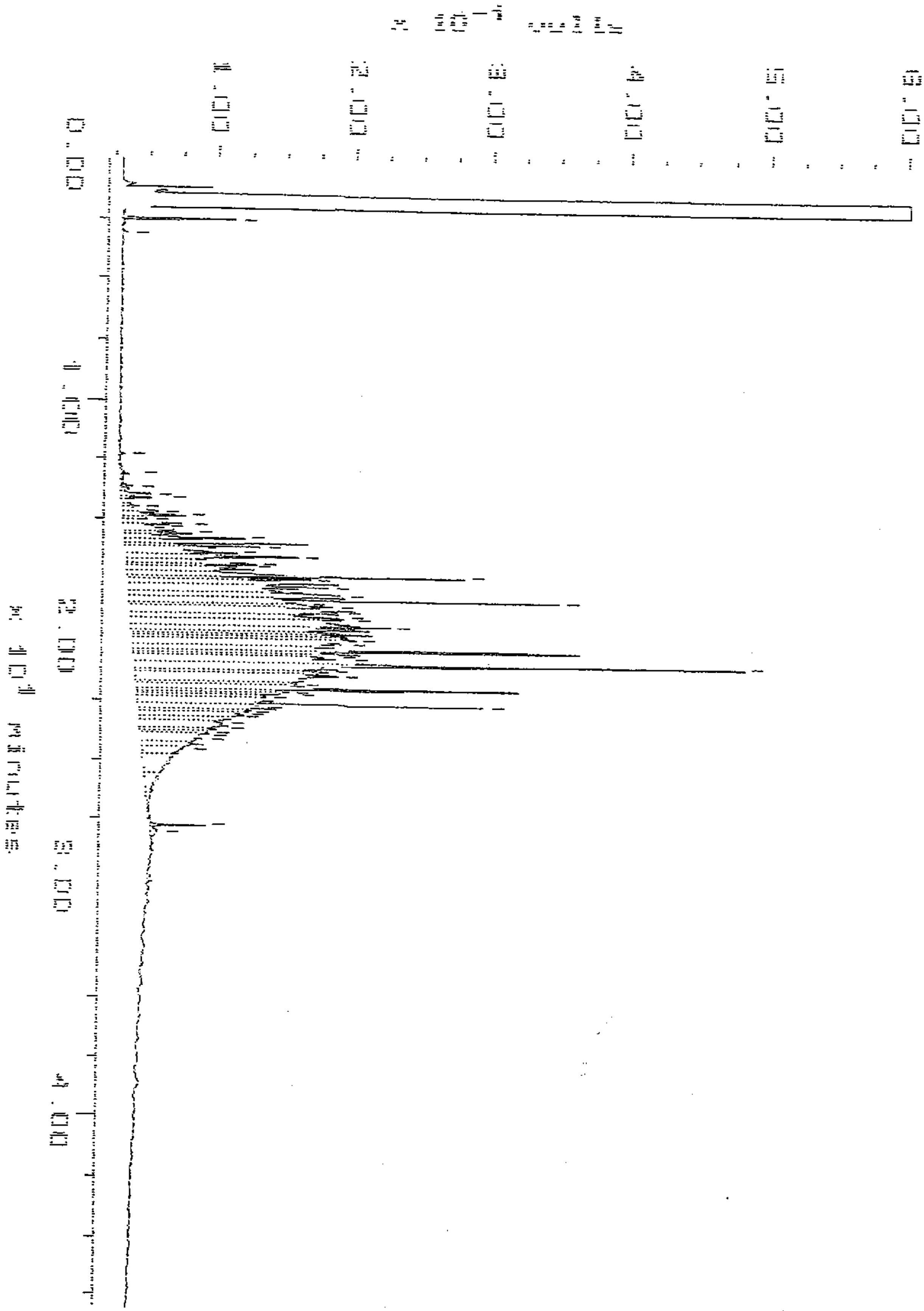


Sample: W61Z0138-02 SC
Acquired: 18-DEC-96 23:40

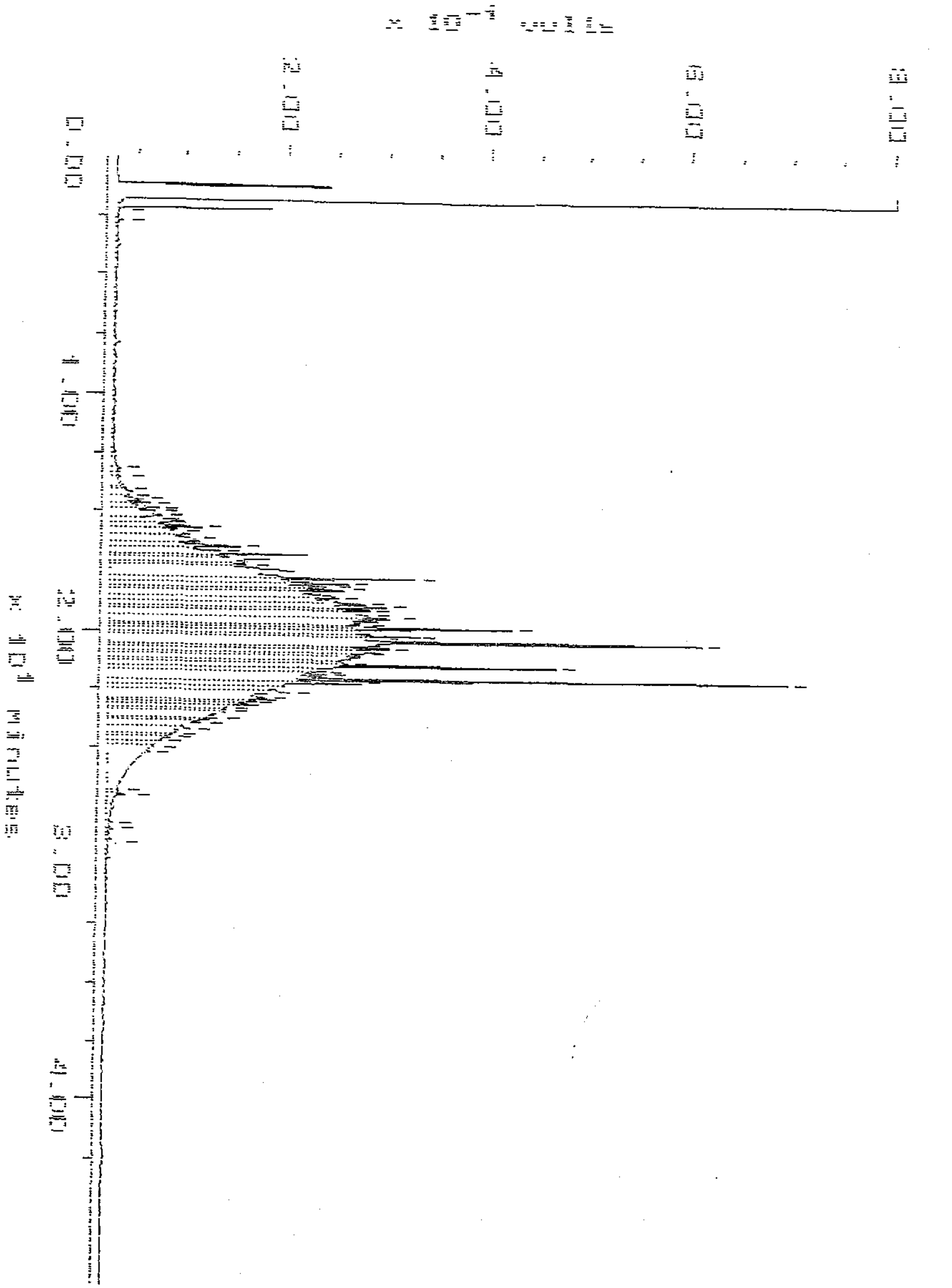
Channel: GC13B-81C B
Method: J:\GCDATA\GC13\TPHACQ02

Filename: 13B18046
Operator: NAC

Sample: W6120158-03SGX3   Channel: GC13A-SIG A   Filename: AD018857
Acquired: 19-DEC-96 11:37   Method: J:\GCDATA\GC13\TPHACQU   Operator: NAC



Sample: W6120158-04 SG   Channel: GC13B-SIG B   Filename: 13B188__
Acquired: 19-DEC-96   1:41   Method: J:\GCDATA\GC13\TPHACQU2   Operator: NAC



Fax copy of Lab Report and COC to Chevron Contact: ☐ No

Chain-of-Custody-Record

CHEVRON

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

Chevron Facility Number: Lonestar Facility CPS #206142
Facility Address: 333 - 23rd Avenue, Oakland, CA
Consultant Project Number: 6338.85
Consultant Name: Gettler-Ryan
Address: 6747 Sierra Ct, Ste J, Dublin 94568
Project Contact (Name): Deanna Harding
(Phone) 551-7555 (Fax Number) 551-7888

Chevron Contact (Name): Mr. Robert Cochran
(Phone) (510) 842-9655
Laboratory Name: Sequoia
Laboratory Service Order #9024596 Service Code: ZZ02790
Samples Collected by (Name): Frank Cline
Collection Date: 12/8/96
Signature:

Sample Number	Lab 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)	TPH Gas + BTEX w/MTBE (8015) (8020)	TPH Diesel (8015)	Oil and Grease (5520)	Purgeable Halocarbons (8010)	Purgeable Aromatics (8020)	Purgeable Organics (8240)	Extractable Organics (8270)	Metals Cd,Cr,Pb,Zn,Ni (ICAP or AA)	Nitrate & Sulfate	Ferrous Iron			
~~TB-LB~~																				
MW-11	01	2		G		HCl, None	Y									X	X			
MW-8	02	2		G												X	X			
MW-1	03	2		G												X	X			
																X	X			

Analyses To Be Performed

DO NOT BILL TB-LB ANALYSIS

961257

Remarks

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
	G-R Inc.	12/9/96	D. Harding	G-R Inc.	12/9/96
D. Harding	G-R	12/9/96	Steve Te	SEQ	12/9/96 4:15
Relinquished By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature)		Date/Time
					12-09-96 1746

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

DEC 9 5 46

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Gettler Ryan/Geostrategies
6747 Sierra Court Suite G
Dublin, CA 94568

Attention: Deanna Harding

Client Proj. ID: Chevron #206142, Oakland

Lab Proj. ID: 9612457

Sampled: 12/08/96
Received: 12/09/96
Analyzed: see below

Reported: 12/20/96

LABORATORY ANALYSIS

Analyte	Units	Date Analyzed	Detection Limit	Sample Results
Lab No: 9612457-01				
Sample Desc : **LIQUID,MW-11**				
Ferrous Iron	mg/L	12/11/96	0.010	N.D.
Nitrate as Nitrate	**mg/L**	**12/17/96**	**1.0**	**340**
Sulfate	**mg/L**	**12/17/96**	**1.0**	**99**
Lab No: 9612457-02				
Sample Desc : **LIQUID,MW-8**				
Ferrous Iron	**mg/L**	**12/11/96**	**0.010**	**6.1**
Nitrate as Nitrate	mg/L	12/11/96	0.10	N.D.
Sulfate	**mg/L**	**12/11/96**	**0.10**	**3.0**
Lab No: 9612457-03				
Sample Desc : **LIQUID,MW-1**				
Ferrous Iron	**mg/L**	**12/11/96**	**0.010**	**2.6**
Nitrate as Nitrate	**mg/L**	**12/11/96**	**0.10**	**13**
Sulfate	**mg/L**	**12/11/96**	**0.10**	**14**

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Mike Gregory
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
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Gettler Ryan/Geostrategies
6747 Sierra Court, Ste J
Dublin, CA 94568
Attention: Deanna Harding

Client Project ID: Chevron #206142, Oakland
Matrix: Liquid
Work Order #: 9612457 01-03
Reported: Dec 20, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Beryllium	Cadmium	Chromium	Nickel
QC Batch#:	ME1211966010M2A	ME1211966010M2A	ME1211966010M2A	ME1211966010M2A
Analy. Method:	EPA 6010	EPA 6010	EPA 6010	EPA 6010
Prep. Method:	EPA 3010	EPA 3010	EPA 3010	EPA 3010
Analyst:	C. Medefesser	C. Medefesser	C. Medefesser	C. Medefesser
MS/MSD #:	961245703	961245703	961245703	961245703
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	12/11/96	12/11/96	12/11/96	12/11/96
Analyzed Date:	12/11/96	12/11/96	12/11/96	12/11/96
Instrument I.D.#:	MTJA2	MTJA2	MTJA2	MTJA2
Conc. Spiked:	1.0 mg/L	1.0 mg/L	1.0 mg/L	1.0 mg/L
Result:	1.0	1.0	1.0	1.0
MS % Recovery:	100	100	100	100
Dup. Result:	1.1	1.1	1.1	1.1
MSD % Recov.:	110	110	110	110
RPD:	9.5	9.5	9.5	9.5
RPD Limit:	0-20	0-20	0-20	0-20
LCS #:	MI120996CCV	MI120996CCV	MI120996CCV	MI120996CCV
Prepared Date:	12/9/96	12/9/96	12/9/96	12/9/96
Analyzed Date:	12/11/96	12/11/96	12/11/96	12/11/96
Instrument I.D.#:	MTJA2	MTJA2	MTJA2	MTJA2
Conc. Spiked:	5.0 mg/L	5.0 mg/L	5.0 mg/L	5.0 mg/L
LCS Result:	5.0	5.1	5.0	5.1
LCS % Recov.:	100	102	100	102
MS/MSD LCS Control Limits	80-120	80-120	80-120	80-120

SEQUOIA ANALYTICAL

Mike Gregory
Project Manager

Please Note:
The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

** MS=Matrix Spike, MSD=MS Duplicate, RPD=Relative % Difference

Sequoia Analytical

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Gettler Ryan/Geostrategies
6747 Sierra Court, Ste J
Dublin, CA 94568
Attention: Deanna Harding

Client Project ID: Chevron #206142, Oakland
Matrix: Liquid
Work Order #: 9612457 01
Reported: Dec 20, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Nitrate	Sulfate
QC Batch#:	IN1216963000ACA	IN1216963000ACA
Analy. Method:	EPA 300.0	EPA 300.0
Prep. Method:	N.A.	N.A.
Analyst:	S. Fong	S. Fong
MS/MSD #:	961287404	961287404
Sample Conc.:	2200	420
Prepared Date:	12/16/96	12/16/96
Analyzed Date:	12/17/96	12/17/96
Instrument I.D.#:	INIC2	INIC2
Conc. Spiked:	100 mg/L	100 mg/L
Result:	2400	530
MS % Recovery:	200	110
Dup. Result:	2300	520
MSD % Recov.:	100	100
RPD:	4.3	1.9
RPD Limit:	0-20	0-20
LCS #:	LCS121696	LCS121696
Prepared Date:	12/16/96	12/16/96
Analyzed Date:	12/17/96	12/17/96
Instrument I.D.#:	INIC2	INIC2
Conc. Spiked:	10 mg/L	10 mg/L
LCS Result:	9.7	9.7
LCS % Recov.:	97	97
MS/MSD Control Limits	75-125	75-125
LCS Control Limits	80-120	80-120

SEQUOIA ANALYTICAL

Mike Gregory
Project Manager

Please Note:
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Gettler Ryan/Geostrategies
6747 Sierra Court, Ste J
Dublin, CA 94568
Attention: Deanna Harding

Client Project ID: Chevron #206142, Oakland
Matrix: Liquid
Work Order #: 9612457 02, 03

Reported: Dec 20, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Nitrate	Sulfate
QC Batch#:	IN1211963000ACB	IN1211963000ACB
Analy. Method:	EPA 300.0	EPA 300.0
Prep. Method:	N.A.	N.A.
Analyst:	D. McLean	D. McLean
MS/MSD #:	961228907	961228907
Sample Conc.:	9.1	16
Prepared Date:	12/11/96	12/11/96
Analyzed Date:	12/11/96	12/11/96
Instrument I.D.#:	INIC2	INIC2
Conc. Spiked:	1.0 mg/L	1.0 mg/L
Result:	10	17
MS % Recovery:	90	100
Dup. Result:	10	17
MSD % Recov.:	90	100
RPD:	0.0	0.0
RPD Limit:	0-20	0-20

LCS #:	LCS121196	LCS121196
Prepared Date:	12/11/96	12/11/96
Analyzed Date:	12/11/96	12/11/96
Instrument I.D.#:	INIC2	INIC2
Conc. Spiked:	1.0 mg/L	10 mg/L
LCS Result:	9.6	9.5
LCS % Recov.:	96	95

MS/MSD	75-125	75-125
LCS	80-120	80-120
Control Limits		

SEQUOIA ANALYTICAL

Mike Gregory
Project Manager

Please Note:
The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

** MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

Gettler-Ryan, Inc.

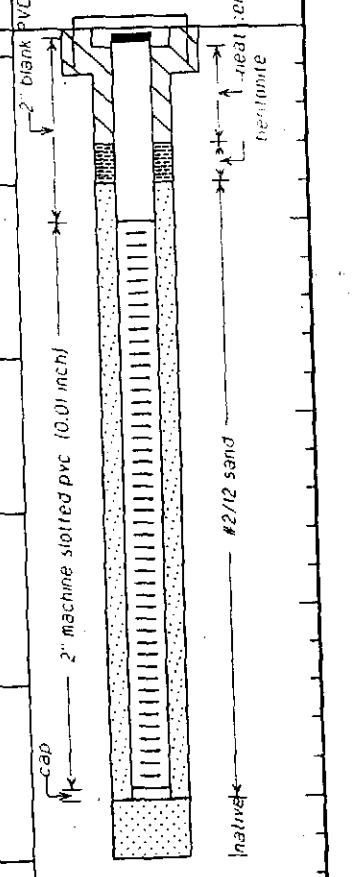
Log of Boring MW-14

PROJECT: Chevron/RMC Lonestar Facility CPS #206142
PROJECT NO.: 6338.01
DATE STARTED: 06/20/97
DATE FINISHED: 06/20/97
DRILLING METHOD: 8 in. Hollow Stem Auger
DRILLING COMPANY: Bay Area Exploration, Inc.

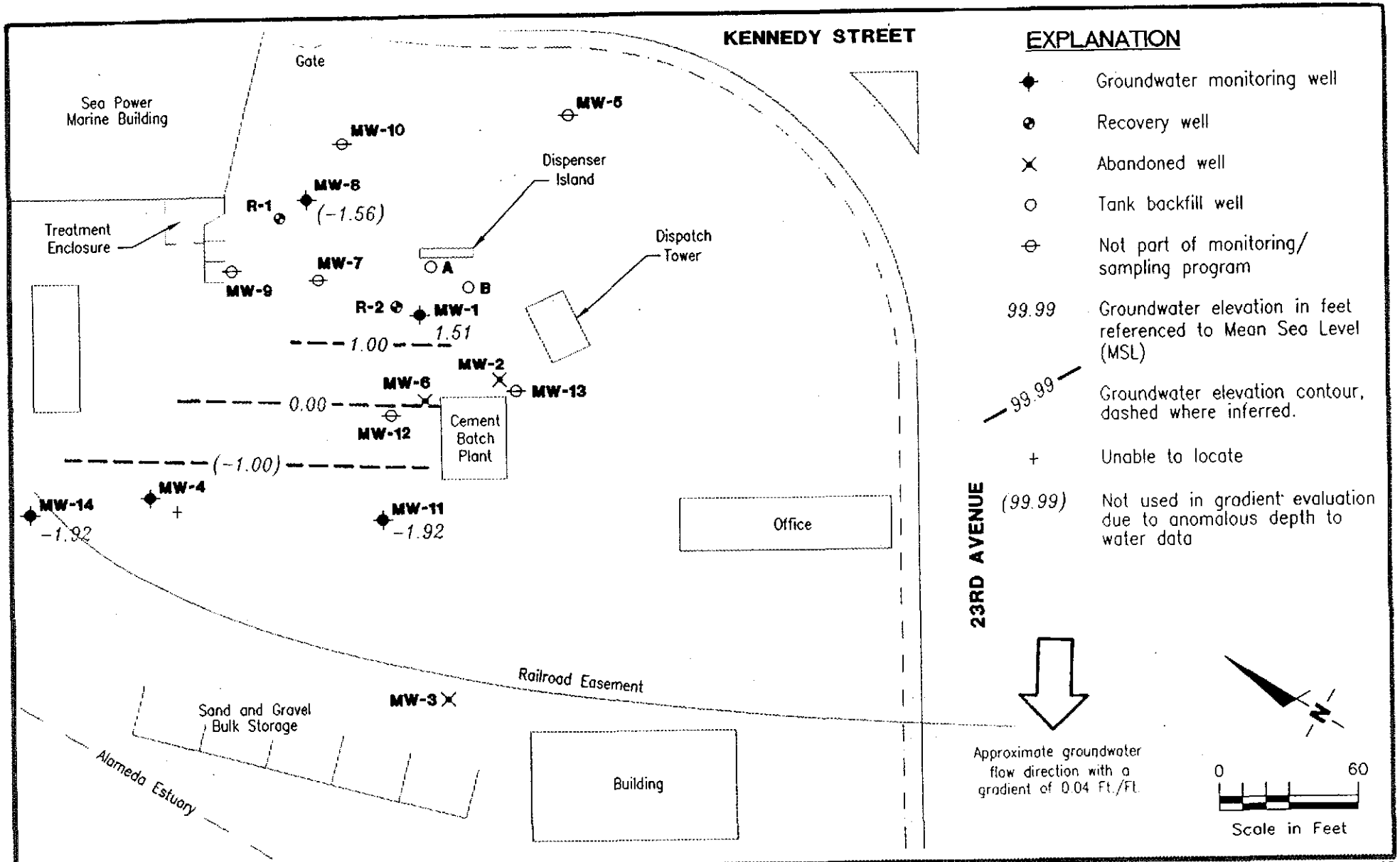
LOCATION: 333 23rd Avenue, Oakland, CA
SURFACE ELEVATION: 5.56 feet MSL
WL (ft. bgs): 8.0 DATE: 06/20/97 TIME: 15:00
WL (ft. bgs): 8.0 DATE: 06/20/97 TIME: 16:20
TOTAL DEPTH: 21.5 Feet
GEOLOGIST: Barbara Sieminski

Depth in feet	PID (ppm)	BLOWS/FT. *	SAMPLE NUMBER	SAMPLE INT.	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION
							PAVEMENT - concrete.
						GC	CLAYEY GRAVEL WITH SAND (GC) - very dark gray (5Y 3/1), moist, dense; 40% fine to coarse gravel, 30% clay, 30% fine to coarse sand.
	28		MW14-3				
5						CH	CLAY (CH) - black (5Y 2.5/1), moist, stiff, high plasticity; 100% clay ; Bay Mud.
	41	11	MW14-6				Color changes to gray (2.5Y 3/0), up to 5% fine to coarse sand at 6 feet.
							▼
						CL	CLAY (CL) - pale brown (10YR 6/3), saturated, medium stiff, medium plasticity; 100% clay.
10	43	8	MW14-11				
						CL	SANDY CLAY (CL) - light yellowish brown (2.5Y 6/4), saturated, medium stiff, low plasticity; 60% clay, 40% fine to coarse sand.
15	35	9	MW14-16				
						SP	SAND (SP) - light yellowish brown (2.5Y 6/4), saturated, dense; 100% fine to medium sand.
20	57	32	MW14-21				
							(* = converted to equivalent standard penetration blows/ft.)
25							
30							
35							

WELL DIAGRAM



JOB NUMBER: 6338.01



FIGURE

2

Gettler - Ryan Inc.

6747 Sierra Ct., Suite J
Dublin, CA 94568
(510) 551-7555

POTENTIOMETRIC MAP
Chevron/RMC Lonestar Facility CPS #206142
333 23rd Avenue
Oakland, California

JOB NUMBER
6338.01

REVIEWED BY

DATE
July, 1997

REVISED DATE