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REPORTS

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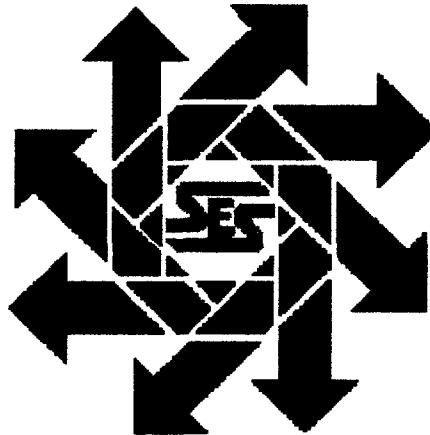
***Chevron USA
Dynegy – Monument Site
Monitor Well Report
Lea County, New Mexico***

June 22, 2001

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**ENVIRONMENTAL BUREAU
OIL CONSERVATION DIVISION**



Prepared for:

***Chevron USA
P.O. Box 1949
Eunice, New Mexico 88231***

By:

***Safety & Environmental Solutions, Inc.
703 E. Clinton, Suite 102
Hobbs, New Mexico 88240
(505) 397-0510***

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I. Background

The subject property is located in Lea County approximately 5 miles southwest of Monument, New Mexico (See Vicinity Map). Mr. James Cooper currently owns the surface rights of the property and the mineral rights are under lease to Chevron. The property has been the site of condensate/liquid product leaks from a pipeline previously operated by Warren Petroleum as well as an abandoned burn pit.

Safety & Environmental Solutions, Inc. (SESI) performed sampling and data collection on the six (6) ground water monitor wells at the site. Well #4 is shallow compared to other wells and was not sampled during some visits due to a lack of sufficient groundwater. The casing size in all wells is 4".

II. Work Performed

A field technician with SESI arrived at the site on June 22, 2001. Ground water samples were taken from each well after a hand bailer was used to develop the wells. Three to five casing volumes of water were removed from each well until pH and temperature of the water were stabilized. The development water was stored in a 400-gallon drum under the custody of Safety & Environmental Solutions, Inc. for disposal upon completion of analytical testing. The samples were obtained and placed in appropriate containers, preserved and transported under chain of custody to Cardinal Laboratories of Hobbs, New Mexico for analysis. (See Analytical Data)

In addition to the sampling, SESI also measured the depth to the top of the water table and the total depth of each well. The depth to the top of ground water was measured using a Solinst water level indicator. These measurements were used to construct a potentiometric map that shows groundwater flow direction. The total depth of each well was measured in order to compute the proper casing volumes. A data summary follows:

Well ID	Date	Top of Casing Elevation (ft.)	Depth to Water (ft.)	Groundwater Potentiometric Elevation (ft.)	Total Well Depth (ft.)	Free Product Thickness (ft.)
MW – 1	06/22/01	3565.24	37.69	3527.55	49.00	0.00
MW – 2	06/22/01	3564.21	36.70	3527.51	45.75	0.00
MW – 3	06/22/01	3564.06	36.65	3527.41	46.93	0.00
MW – 4	06/22/01	3564.62	37.18	3527.44	37.63	0.00
MW – 5	06/22/01	3564.58	36.99	3527.59	44.90	0.00
MW – 6	06/22/01	3564.58	37.19	3527.39	43.25	0.00

III. Analytical Results

The analysis of the groundwater samples performed by Cardinal Laboratories is summarized in the tables below. Cumulative well water quality data are presented in Appendix A.

Contaminant	WQCC Standard (mg/L)	MW #1 (mg/L)	MW #2 (mg/L)	MW #3 (mg/L)	MW #4 (mg/L)	MW #5 (mg/L)	MW #6 (mg/L)
Chloride	250	1,777	970	557	1,278	137	759
Fluoride	1.6	1.55	1.42	1.56	1.40	1.64	1.61
Lead	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Manganese	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Silver	0.05	<0.05	<0.05	<0.05	<0.05	0.100	0.086
Sulfate	600	2,144	24.16	99.11	508	167	178
TDS	1,000	6,540	2,894	2,484	4,406	6,200	2,388
pH	> 6 & <9	7.14	7.33	7.14	7.42	6.95	7.34
TPH	N/A	<1.00	<1.00	<1.00	1.38m	<1.00	<1.00
Benzene	0.005	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Toluene	0.750	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Ethyl Benzene	0.750	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Total Xylenes	0.620	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006

*Red exceeds WQCC Standards

SAMPLE ID	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)	CO ₃ (mg/L)	HCO ₃ (mg/L)	Conductivity (uS/cm)
MW - 1	1,330	307	226	11.81	0	383	8,406
MW - 2	844	58	106	3.55	0	1,208	4,757
MW - 3	515	86	142	5.76	0	1,068	3,747
MW - 4	472	157	190	20.16	0	1,132	6,494
MW - 5	865	226	197	20.59	0	852	8,373
MW - 6	655	128	100	5.37	0	426	3,779

IV. Figures and Appendices

Figures:

Figure 1. Vicinity Map

Figure 2. Potentiometric Map

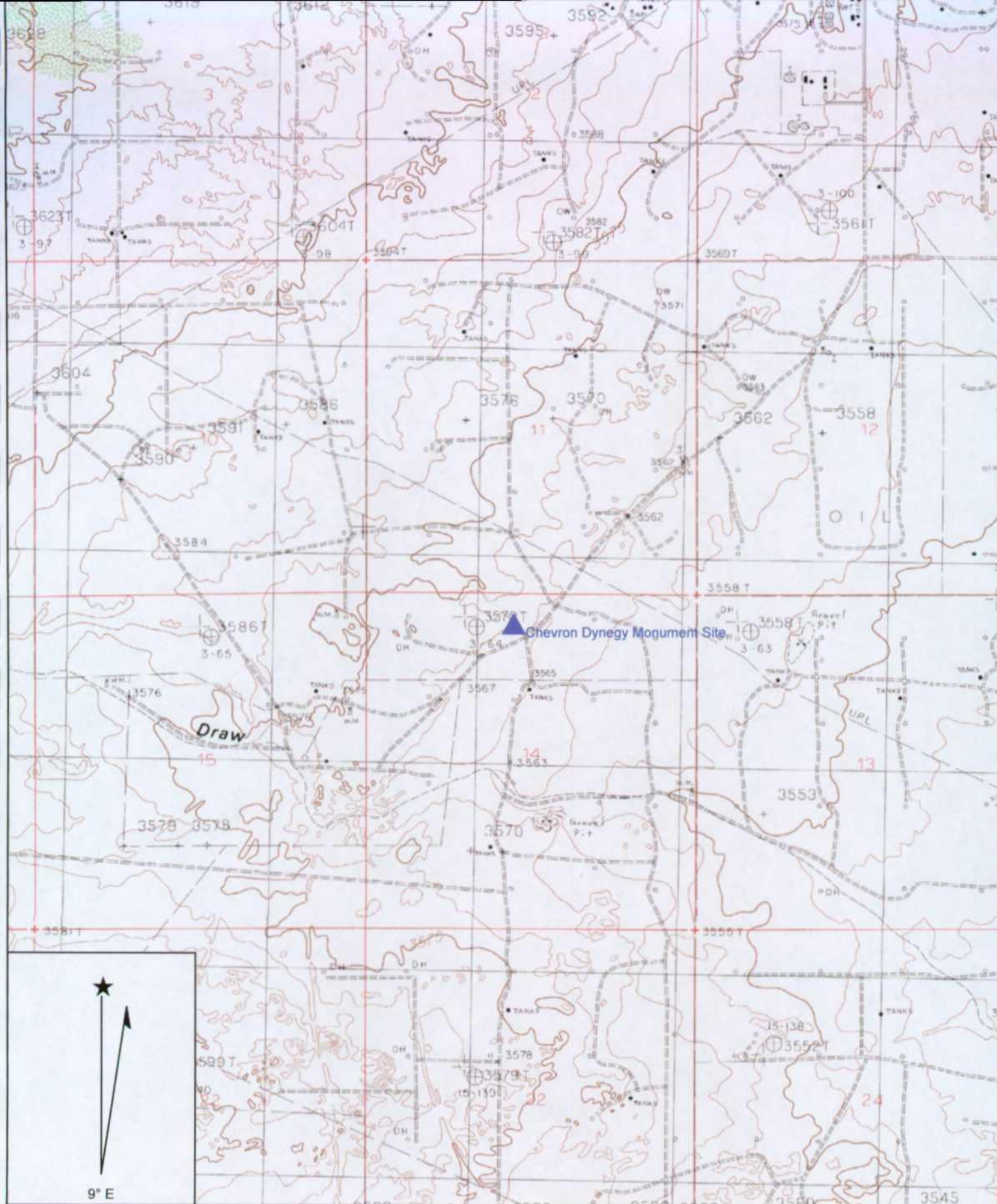
Appendices:

Appendix A. Cumulative Well Water Quality Data

Appendix B. Analytical Results

Appendix C. Water Analysis Validation

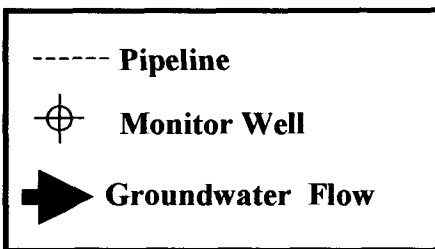
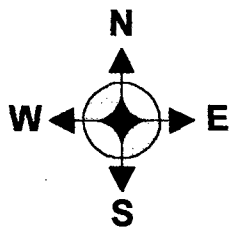
Figure 1
Vicinity Map



Name: MONUMENT SOUTH
 Date: 10/19/2001
 Scale: 1 inch equals 2000 feet

Location: 032° 34' 48.0" N 103° 19' 33.5" W
 Caption: Chevron USA
 Dynegy Monitor Wells
 Figure 1. Vicinity Map

Figure 2
Potentiometric Map



MW #1
3,527.55'

Pit Excavated
by Landowner

SW-1

MW #5
3,527.59'

3,527.50'

MW #4
3,527.44'

MW #2
3,527.51'

Warren Pipeline

3,527.45'

MW #3
3,527.41'

MW #6
3,527.39'

3,527.40'

Scale 1"=50'
Contour Interval 0.05 ft.

Chevron USA

**Potentiometric Map
Dynegy Monument Site
June 22, 2001**

**Safety & Environmental
Solutions, Inc.**



Appendix A
Cumulative Well Water Quality Data

Chevron Dynegy -Monument Cumulative Well Data

Monitor Well #1

CONTAMINANT	WQCC STANDARD (mg/l)	Initial Test 4/08/99 (mg/L)	Test Date 9/23/99 (mg/L)	Test Date 12/09/99 (mg/L)
Arsenic	0.1	<0.1	N/A	N/A
Barium	1.0	<1.0	N/A	N/A
Cadmium	0.01	<0.01	N/A	N/A
Chloride	250	2,291	1,839	3,130
Chromium	0.05	<0.05	N/A	N/A
Copper	1.0	<1.0	N/A	N/A
Cyanide	0.2	<0.02	N/A	N/A
Fluoride	1.6	2.04	1.76	4.01
Iron	1.0	<1.0	N/A	N/A
Lead	0.05	.261	0.34	<0.05
Manganese	0.2	<0.20	0.24	<0.20
Mercury	0.002	<0.002	N/A	N/A
Nitrate	10.0	0.22	N/A	N/A
Phenols	0.005	<0.005	N/A	N/A
Selenium	0.05	<0.05	N/A	N/A
Silver	0.05	0.067	<0.05	<0.05
Sulfate	600	1,837	2,628	390
Zinc	10.0	<1.0	N/A	N/A
TDS	1,000	6,910	7,740	8,130
pH	> 6 & <9	7.74	7.36	7.25
PAH	0.03	<0.005	N/A	N/A
PCBs	0.001	<0.001	N/A	N/A
Benzene	0.010	<0.002	<0.002	<0.002
Toluene	0.750	<0.002	<0.002	<0.002
Ethyl Benzene	0.750	<0.002	<0.002	<0.002
Total Xylenes	0.620	<0.006	<0.006	<0.006
TPH	N/A	N/A	<1.0	1.58
Sodium	N/A	N/A	1,767	1,558
Calcium	N/A	N/A	440	316
Magnesium	N/A	N/A	284	199
Potassium	N/A	N/A	17.01	30
Conductivity	N/A	N/A	1,929	11,580
T-Alkalinity	N/A	N/A	224	N/A
CO ₃	N/A	N/A	0	0
HCO ₃	N/A	N/A	273	288

N/A – For WQCC Standards: Not Applicable; for other columns: Not Analyzed

Monitor Well #1 (Continued)

CONTAMINANT	WQCC STANDARD (mg/l)	Test Date 3/25/00 (mg/L)	Test Date 6/14/00 (mg/L)	Test Date 9/28/00 (mg/L)	Test Date 12/29/00 (mg/L)
Arsenic	0.1	N/A	N/A	N/A	N/A
Barium	1.0	N/A	N/A	N/A	N/A
Cadmium	0.01	N/A	N/A	N/A	N/A
Chloride	250	2,433	2,405	2,765	2,691
Chromium	0.05	N/A	N/A	N/A	N/A
Copper	1.0	N/A	N/A	N/A	N/A
Cyanide	0.2	N/A	N/A	N/A	N/A
Fluoride	1.6	1.90	1.97	2.15	1.04
Iron	1.0	N/A	N/A	N/A	N/A
Lead	0.05	0.597	<0.05	0.509	<0.05
Manganese	0.2	<0.2	<0.2	<0.2	0.204
Mercury	0.002	N/A	N/A	N/A	N/A
Nitrate	10.0	N/A	N/A	N/A	N/A
Phenols	0.005	N/A	N/A	N/A	N/A
Selenium	0.05	N/A	N/A	N/A	N/A
Silver	0.05	0.051	0.302	0.05	0.092
Sulfate	600	2,899	2,773	3,437	3293
Zinc	10.0	N/A	N/A	N/A	N/A
TDS	1,000	9,212	8,876	8,854	7,350
pH	> 6 & <9	7.26	7.55	7.33	7.44
PAH	0.03	N/A	N/A	N/A	N/A
PCBs	0.001	N/A	N/A	N/A	N/A
Benzene	0.010	<0.002	<0.002	<0.002	<0.002
Toluene	0.750	<0.002	<0.002	<0.002	<0.002
Ethyl Benzene	0.750	<0.002	<0.002	<0.002	<0.002
Total Xylenes	0.620	<0.006	<0.006	<0.006	<0.006
TPH	N/A	<1.0	1.39	<1.0	<1.0
Sodium	N/A	2,065	1,643	2,750	2,390
Calcium	N/A	445	525	332	429
Magnesium	N/A	417	334	248	302
Potassium	N/A	11.6	8.01	4.95	12.86
Conductivity	N/A	11,460	11,170	10,809	10,507
T-Alkalinity	N/A	232	244	295	308
CO ₃	N/A	0	0	0	0
HCO ₃	N/A	282	298	360	375

N/A – For WQCC Standards: Not Applicable; for other columns: Not Analyzed

Monitor Well #1 (Continued)

CONTAMINANT	WQCC STANDARD (mg/l)	Test Date 3/9/01 (mg/l)	Test Date 6/22/01 (mg/l)
Arsenic	0.1	N/A	N/A
Barium	1.0	N/A	N/A
Cadmium	0.01	N/A	N/A
Chloride	250	2,199	1,777
Chromium	0.05	N/A	N/A
Copper	1.0	N/A	N/A
Cyanide	0.2	N/A	N/A
Fluoride	1.6	1.70	1.55
Iron	1.0	N/A	N/A
Lead	0.05	<0.05	<0.05
Manganese	0.2	<0.2	<0.2
Mercury	0.002	N/A	N/A
Nitrate	10.0	N/A	N/A
Phenols	0.005	N/A	N/A
Selenium	0.05	N/A	N/A
Silver	0.05	<0.05	<0.05
Sulfate	600	4,250	2,144
Zinc	10.0	N/A	N/A
TDS	1,000	8,470	6,540
pH	> 6 & <9	7.22	7.14
PAH	0.03	N/A	N/A
PCBs	0.001	N/A	N/A
Benzene	0.010	<0.002	<0.002
Toluene	0.750	<0.002	<0.002
Ethyl Benzene	0.750	<0.002	<0.002
Total Xylenes	0.620	<0.006	<0.006
TPH	N/A	4.44	<1.00
Sodium	N/A	1,921	1,330
Calcium	N/A	575	307
Magnesium	N/A	270	226
Potassium	N/A	15	11.81
Conductivity	N/A	11,059	8,406
T-Alkalinity	N/A	280	314
CO ₃	N/A	0	0
HCO ₃	N/A	341	383

N/A – For WQCC Standards: Not Applicable; for other columns: Not Analyzed

Monitor Well #2

CONTAMINANT	WQCC STANDARD (mg/l)	Initial Test 4/08/99 (mg/L)	Test Date 9/23/99 (mg/L)	Test Date 12/09/99 (mg/L)
Arsenic	0.1	<0.1	N/A	N/A
Barium	1.0	<1.0	N/A	N/A
Cadmium	0.01	<0.01	N/A	N/A
Chloride	250	1,395	934	1,520
Chromium	0.05	<0.05	N/A	N/A
Copper	1.0	<1.0	N/A	N/A
Cyanide	0.2	<0.02	N/A	N/A
Fluoride	1.6	2.01	1.85	4.04
Iron	1.0	<1.0	N/A	N/A
Lead	0.05	.195	0.21	<0.05
Manganese	0.2	0.225	0.48	0.310
Mercury	0.002	<0.002	N/A	N/A
Nitrate	10.0	0.20	N/A	N/A
Phenols	0.005	<0.005	N/A	N/A
Selenium	0.05	<0.05	N/A	N/A
Silver	0.05	0.060	<0.05	<0.05
Sulfate	600	508	874	157
Zinc	10.0	<1.0	N/a	N/a
TDS	1,000	4,060	7,740	3,540
pH	> 6 & <9	7.60	7.38	7.23
PAH	0.03	<0.005	N/A	N/A
PCBs	0.001	<0.001	N/A	N/A
Benzene	0.010	<0.002	<0.002	<0.002
Toluene	0.750	<0.002	<0.002	<0.002
Ethyl Benzene	0.750	<0.002	<0.002	<0.002
Total Xylenes	0.620	<0.006	<0.006	<0.006
TPH	N/A	N/A	10.3	5.17
Sodium	N/A	N/A	934	927
Calcium	N/A	N/A	200	154
Magnesium	N/A	N/A	160	92
Potassium	N/A	N/A	10.99	20
Conductivity	N/A	N/A	1,881	6,170
T-Alkalinity	N/A	N/A	508	N/A
CO ₃	N/A	N/A	0	0
HCO ₃	N/A	N/A	620	610

N/A – For WQCC Standards: Not Applicable; for other columns: Not Analyzed

Monitor Well #2 (Continued)

CONTAMINANT	WQCC STANDARD (mg/l)	Test Date 3/25/00 (mg/L)	Test Date 6/14/00 (mg/L)	Test Date 9/28/00 (mg/L)	Test Date 12/29/00 (mg/L)
Arsenic	0.1	N/A	N/A	N/A	N/A
Barium	1.0	N/A	N/A	N/A	N/A
Cadmium	0.01	N/A	N/A	N/A	N/A
Chloride	250	1,216	1,296	1,240	1,346
Chromium	0.05	N/A	N/A	N/A	N/A
Copper	1.0	N/A	N/A	N/A	N/A
Cyanide	0.2	N/A	N/A	N/A	N/A
Fluoride	1.6	1.87	1.93	2.24	1.12
Iron	1.0	N/A	N/A	N/A	N/A
Lead	0.05	0.580	<0.05	0.305	<0.05
Manganese	0.2	0.324	0.320	0.284	0.315
Mercury	0.002	N/A	N/A	N/A	N/A
Nitrate	10.0	N/A	N/A	N/A	N/A
Phenols	0.005	N/A	N/A	N/A	N/A
Selenium	0.05	N/A	N/A	N/A	N/A
Silver	0.05	<0.05	0.198	0.05	0.107
Sulfate	600	1,180	948	788	902
Zinc	10.0	N/A	N/A	N/A	N/A
TDS	1,000	3,898	3,988	3,822	3,968
pH	> 6 & <9	7.18	7.41	7.33	7.35
PAH	0.03	N/A	N/A	N/A	N/A
PCBs	0.001	N/A	N/A	N/A	N/A
Benzene	0.010	<0.002	<0.002	<0.002	<0.002
Toluene	0.750	<0.002	<0.002	<0.002	<0.002
Ethyl Benzene	0.750	<0.002	<0.002	<0.002	<0.002
Total Xylenes	0.620	<0.006	<0.006	<0.006	<0.006
TPH	N/A	2.36	<1.0	1.72	<1.0
Sodium	N/A	N/A	N/A	1000	1046
Calcium	N/A	186	208	294	197
Magnesium	N/A	152	157	107	164
Potassium	N/A	6.8	2.46	5.05	6.85
Conductivity	N/A	5770	5757	5447	6283
T-Alkalinity	N/A	552	588	726	615
CO ₃	N/A	0	0	0	0
HCO ₃	N/A	673	717	885	750

N/A – For WQCC Standards: Not Applicable; for other columns: Not Analyzed

Monitor Well #2 (Continued)

CONTAMINANT	WQCC STANDARD (mg/l)	Test Date 3/9/01 (mg/l)	Test Date 6/22/01 (mg/l)
Arsenic	0.1	N/A	N/A
Barium	1.0	N/A	N/A
Cadmium	0.01	N/A	N/A
Chloride	250	1,060	970
Chromium	0.05	N/A	N/A
Copper	1.0	N/A	N/A
Cyanide	0.2	N/A	N/A
Fluoride	1.6	1.87	1.42
Iron	1.0	N/A	N/A
Lead	0.05	<0.05	<0.05
Manganese	0.2	0.339	<0.2
Mercury	0.002	N/A	N/A
Nitrate	10.0	N/A	N/A
Phenols	0.005	N/A	N/A
Selenium	0.05	N/A	N/A
Silver	0.05	<0.05	<0.05
Sulfate	600	645	24.16
Zinc	10.0	N/A	N/A
TDS	1,000	3,756	2,894
pH	> 6 & <9	7.29	7.33
PAH	0.03	N/A	N/A
PCBs	0.001	N/A	N/A
Benzene	0.010	<0.002	<0.002
Toluene	0.750	<0.002	<0.002
Ethyl Benzene	0.750	<0.002	<0.002
Total Xylenes	0.620	<0.006	<0.006
TPH	N/A	<1.0	<1.00
Sodium	N/A	N/A	844ppm
Calcium	N/A	154	58
Magnesium	N/A	182	106
Potassium	N/A	7.2	3.55
Conductivity	N/A	6,015	4,757
T-Alkalinity	N/A	694	990
CO ₃	N/A	0	0
HCO ₃	N/A	847	1,208

N/A – For WQCC Standards: Not Applicable; for other columns: Not Analyzed

Monitor Well #3

CONTAMINANT	WQCC STANDARD (mg/l)	Initial Test 4/08/99 (mg/L)	Test Date 9/23/99 (mg/L)	Test Date 12/09/99 (mg/L)
Arsenic	0.1	<0.1	N/A	N/A
Barium	1.0	<1.0	N/A	N/A
Cadmium	0.01	<0.01	N/A	N/A
Chloride	250	948	1,095	1,414
Chromium	0.05	<0.05	N/A	N/A
Copper	1.0	<1.0	N/A	N/A
Cyanide	0.2	<0.02	N/A	N/A
Fluoride	1.6	2.12	1.74	4.03
Iron	1.0	<1.0	N/A	N/A
Lead	0.05	.242	0.18	<0.05
Manganese	0.2	<0.20	0.24	<0.20
Mercury	0.002	<0.002	N/A	N/A
Nitrate	10.0	0.20	N/A	N/A
Phenols	0.005	<0.005	N/A	N/A
Selenium	0.05	<0.05	N/A	N/A
Silver	0.05	0.053	<0.05	<0.05
Sulfate	600	505	971	186
Zinc	10.0	<1.0	N/A	N/A
TDS	1,000	3,700	3,930	3,610
PH	> 6 & <9	7.32	7.23	7.22
PAH	0.03	<0.005	N/A	N/A
PCBs	0.001	<0.001	N/A	N/A
Benzene	0.010	<0.002	<0.002	<0.002
Toluene	0.750	<0.002	<0.002	<0.002
Ethyl Benzene	0.750	<0.002	<0.002	<0.002
Total Xylenes	0.620	<0.006	<0.006	<0.006
TPH	N/A	N/A	2.52	<1.0
Sodium	N/A	N/A	827	881
Calcium	N/A	N/A	96	95
Magnesium	N/A	N/A	272	149
Potassium	N/A	N/A	11.85	24
Conductivity	N/A	N/A	1,850	1,850
T-Alkalinity	N/A	N/A	620	N/A
CO ₃	N/A	N/A	0	0
HCO ₃	N/A	N/A	756	747

N/A – For WQCC Standards: Not Applicable; for other columns: Not Analyzed

Monitor Well #3 (Continued)

CONTAMINANT	WQCC STANDARD (mg/l)	Test Date 3/25/00 (mg/L)	Test Date 6/14/00 (mg/L)	Test Date 9/28/00 (mg/L)	Test Date 12/29/00 (mg/L)
Arsenic	0.1	N/A	N/A	N/A	N/A
Barium	1.0	N/A	N/A	N/A	N/A
Cadmium	0.01	N/A	N/A	N/A	N/A
Chloride	250	1,086	1,033	1,114	1,346
Chromium	0.05	N/A	N/A	N/A	N/A
Copper	1.0	N/A	N/A	N/A	N/A
Cyanide	0.2	N/A	N/A	N/A	N/A
Fluoride	1.6	1.92	2.02	2.25	1.05
Iron	1.0	N/A	N/A	N/A	N/A
Lead	0.05	0.611	<0.05	0.379	<0.05
Manganese	0.2	<0.2	<0.2	<0.2	0.168
Mercury	0.002	N/A	N/A	N/A	N/A
Nitrate	10.0	N/A	N/A	N/A	N/A
Phenols	0.005	N/A	N/A	N/A	N/A
Selenium	0.05	N/A	N/A	N/A	N/A
Silver	0.05	<0.05	0.200	<0.05	0.114
Sulfate	600	1230	971	800	866
Zinc	10.0	N/A	N/A	N/A	N/A
TDS	1,000	4,058	3,848	3,764	4,078
pH	> 6 & <9	7.08	7.26	7.12	7.14
PAH	0.03	N/A	N/A	N/A	N/A
PCBs	0.001	N/A	N/A	N/A	N/A
Benzene	0.010	<0.002	<0.002	<0.002	<0.002
Toluene	0.750	<0.002	<0.002	<0.002	<0.002
Ethyl Benzene	0.750	<0.002	<0.002	<0.002	<0.002
Total Xylenes	0.620	<0.006	<0.006	<0.006	<0.006
TPH	N/A	1.47	<1.0	<1.0	<1.0
Sodium	N/A	N/A	N/A	1,085	1,033
Calcium	N/A	158	142	100	146
Magnesium	N/A	236	238	148	226
Potassium	N/A	8.5	4.35	6.90	16.25
Conductivity	N/A	5,550	5,372	5,117	5,932
T-Alkalinity	N/A	624	664	800	764
CO ₃	N/A	0	0	0	0
HCO ₃	N/A	761	810	975	932

N/A – For WQCC Standards: Not Applicable; for other columns: Not Analyzed

Monitor Well #3 (Continued)

CONTAMINANT	WQCC STANDARD (mg/l)	Test Date 3/9/01 (mg/l)	Test Date 6/22/01 (mg/l)
Arsenic	0.1	N/A	N/A
Barium	1.0	N/A	N/A
Cadmium	0.01	N/A	N/A
Chloride	250	840	557
Chromium	0.05	N/A	N/A
Copper	1.0	N/A	N/A
Cyanide	0.2	N/A	N/A
Fluoride	1.6	1.72	1.56
Iron	1.0	N/A	N/A
Lead	0.05	<0.05	<0.05
Manganese	0.2	<0.2	<0.2
Mercury	0.002	N/A	N/A
Nitrate	10.0	N/A	N/A
Phenols	0.005	N/A	N/A
Selenium	0.05	N/A	N/A
Silver	0.05	<0.05	<0.05
Sulfate	600	752	99.11
Zinc	10.0	N/A	N/A
TDS	1,000	3,620	2,484
pH	> 6 & <9	7.18	7.14
PAH	0.03	N/A	N/A
PCBs	0.001	N/A	N/A
Benzene	0.010	<0.002	<0.002
Toluene	0.750	<0.002	<0.002
Ethyl Benzene	0.750	<0.002	<0.002
Total Xylenes	0.620	<0.006	<0.006
TPH	N/A	<1.0	<1.00
Sodium	N/A	N/A	515
Calcium	N/A	120	86
Magnesium	N/A	213	142
Potassium	N/A	9.5	5.76
Conductivity	N/A	5,423	3,747
T-Alkalinity	N/A	783	875
CO ₃	N/A	0	0
HCO ₃	N/A	955	1,068

N/A – For WQCC Standards: Not Applicable; for other columns: Not Analyzed

Monitor Well #4

CONTAMINANT	WQCC STANDARD (mg/l)	Initial Test 4/08/99 (mg/L)	Test Date 9/23/99 (mg/L)	Test Date 12/09/99 (mg/L)
Arsenic	0.1	<0.1ppm	N/A	N/A
Barium	1.0	<1.0ppm	N/A	N/A
Cadmium	0.01	<0.01ppm	N/A	N/A
Chloride	250	1,893	1,612	2,220
Chromium	0.05	<0.05	N/A	N/A
Copper	1.0	<1.0	N/A	N/A
Cyanide	0.2	<0.02	N/A	N/A
Fluoride	1.6	2.12	1.68	4.04
Iron	1.0	<1.0	N/A	N/A
Lead	0.05	.239	0.20	<0.05
Manganese	0.2	0.475	0.71	.417
Mercury	0.002	<0.002	N/A	N/A
Nitrate	10.0	0.22	N/A	N/A
Phenols	0.005	<0.005	N/A	N/A
Selenium	0.05	<0.05	N/A	N/A
Silver	0.05	0.059	<0.05	<0.05
Sulfate	600	651	1,088	187
Zinc	10.0	<1.0	N/A	N/A
TDS	1,000	6,200	5,190	4,770
PH	> 6 & <9	7.51	7.30	7.30
PAH	0.03	<0.005	N/A	N/A
PCBs	0.001	<0.001	N/A	N/A
Benzene	0.010	<0.002	<0.002	<0.002
Toluene	0.750	<0.002	<0.002	<0.002
Ethyl Benzene	0.750	<0.002	<0.002	<0.002
Total Xylenes	0.620	<0.006	<0.006	<0.006
TPH	N/A	N/A	2.76	<1.0
Sodium	N/A	N/A	1,167	1,393
Calcium	N/A	N/A	176	136
Magnesium	N/A	N/A	272	159
Potassium	N/A	N/A	20.83	32
Conductivity	N/A	N/A	1,812	1,812
T-Alkalinity	N/A	N/A	720	N/A
CO ₃	N/A	N/A	0	0
HCO ₃	N/A	N/A	878	891

N/A – For WQCC Standards: Not Applicable; for other columns: Not Analyzed

Monitor Well #4 (Continued)

CONTAMINANT	WQCC STANDARD (mg/l)	Test Date 3/25/00 (mg/L)	Test Date 6/14/00 (mg/L)	Test Date 9/28/00 (mg/L)	Test Date 12/29/00 (mg/L)
Arsenic	0.1	N/A	N/A	N/A	N/A
Barium	1.0	N/A	N/A	N/A	N/A
Cadmium	0.01	N/A	N/A	N/A	N/A
Chloride	250	1,554	1,691	1,716	1,760
Chromium	0.05	N/A	N/A	N/A	N/A
Copper	1.0	N/A	N/A	N/A	N/A
Cyanide	0.2	N/A	N/A	N/A	N/A
Fluoride	1.6	1.83	1.98	2.29	1.10
Iron	1.0	N/A	N/A	N/A	N/A
Lead	0.05	0.603	<0.05	0.444	<0.05
Manganese	0.2	0.403	0.435	0.462	0.416
Mercury	0.002	N/A	N/A	N/A	N/A
Nitrate	10.0	N/A	N/A	N/A	N/A
Phenols	0.005	N/A	N/A	N/A	N/A
Selenium	0.05	N/A	N/A	N/A	N/A
Silver	0.05	<0.05	0.249	<0.05	0.130
Sulfate	600	1,040	804	850	760
Zinc	10.0	N/A	N/A	N/A	N/A
TDS	1,000	4,730	5,144	4,818	4,758
pH	> 6 & <9	7.52	7.39	7.35	7.32
PAH	0.03	N/A	N/A	N/A	N/A
PCBs	0.001	N/A	N/A	N/A	N/A
Benzene	0.010	<0.002	<0.002	<0.002	<0.002
Toluene	0.750	<0.002	<0.002	<0.002	<0.002
Ethyl Benzene	0.750	<0.002	<0.002	<0.002	<0.002
Total Xylenes	0.620	<0.006	<0.006	<0.006	<0.006
TPH	N/A	1.11	<1.0	3.31	<1.0
Sodium	N/A	1,224	822	1,485	1,319
Calcium	N/A	178	242	132	197
Magnesium	N/A	228	217	153	192
Potassium	N/A	12.1	12.39	13.71	30.88
Conductivity	N/A	6,950	7,380	6,737	7,102
T-Alkalinity	N/A	800	840	943	918
CO ₃	N/A	0	0	0	0
HCO ₃	N/A	673	1,025	1,150	1,120

N/A – For WQCC Standards: Not Applicable; for other columns: Not Analyzed

Monitor Well #4 (Continued)

CONTAMINANT	WQCC STANDARD (mg/l)	Test Date 3/9/01 (mg/l)	Test Date 6/22/01 (mg/l)
Arsenic	0.1	N/A	N/A
Barium	1.0	N/A	N/A
Cadmium	0.01	N/A	N/A
Chloride	250	N/A	1,278
Chromium	0.05	N/A	N/A
Copper	1.0	N/A	N/A
Cyanide	0.2	N/A	N/A
Fluoride	1.6	N/A	1.40
Iron	1.0	N/A	N/A
Lead	0.05	N/A	<0.05
Manganese	0.2	N/A	<0.2
Mercury	0.002	N/A	N/A
Nitrate	10.0	N/A	N/A
Phenols	0.005	N/A	N/A
Selenium	0.05	N/A	N/A
Silver	0.05	N/A	<0.05
Sulfate	600	N/A	508
Zinc	10.0	N/A	N/A
TDS	1,000	N/A	4,406
pH	> 6 & <9	N/A	7.42
PAH	0.03	N/A	N/A
PCBs	0.001	N/A	N/A
Benzene	0.010	N/A	<0.002
Toluene	0.750	N/A	<0.002
Ethyl Benzene	0.750	N/A	<0.002
Total Xylenes	0.620	N/A	<0.006
TPH	N/A	N/A	1.38
Sodium	N/A	N/A	472
Calcium	N/A	N/A	157
Magnesium	N/A	N/A	190
Potassium	N/A	N/A	20.16
Conductivity	N/A	N/A	6,494
T-Alkalinity	N/A	N/A	928
CO ₃	N/A	N/A	0
HCO ₃	N/A	N/A	1,132

N/A – For WQCC Standards: Not Applicable; for other columns: Not Analyzed

Monitor Well #5

CONTAMINANT	WQCC STANDARD (mg/l)	Initial Test 4/08/99 (mg/L)	Test Date 9/23/99 (mg/L)	Test Date 12/09/99 (mg/L)
Arsenic	0.1	<0.1	N/A	N/A
Barium	1.0	<1.0	N/A	N/A
Cadmium	0.01	<0.01	N/A	N/A
Chloride	250	2,092	2,139	2,320
Chromium	0.05	<0.05	N/A	N/A
Copper	1.0	<1.0	N/A	N/A
Cyanide	0.2	<0.02	N/A	N/A
Fluoride	1.6	2.32	1.88	4.04
Iron	1.0	<1.0	N/A	N/A
Lead	0.05	.264	0.27	<0.05
Manganese	0.2	0.476	0.57	.404
Mercury	0.002	<0.002	N/A	N/A
Nitrate	10.0	1.92	N/A	N/A
Phenols	0.005	<0.005	N/A	N/A
Selenium	0.05	<0.05	N/A	N/A
Silver	0.05	0.061	<0.05	<0.05
Sulfate	600	2,278	2,259	387
Zinc	10.0	<1.0	N/A	N/A
TDS	1,000	7,260	8,230	7,000
PH	> 6 & <9	7.23	7.10	7.44
PAH	0.03	<0.005	N/A	N/A
PCBs	0.001	<0.001	N/A	N/A
Benzene	0.010	<0.002	<0.002	<0.002
Toluene	0.750	<0.002	<0.002	<0.002
Ethyl Benzene	0.750	<0.002	<0.002	<0.002
Total Xylenes	0.620	<0.006	<0.006	<0.006
TPH	N/A	N/A	2.90	<1.0
Sodium	N/A	N/A	1,600	1,285
Calcium	N/A	N/A	336	206
Magnesium	N/A	N/A	360	210
Potassium	N/A	N/A	44.35	40
Conductivity	N/A	N/A	1,760	10,650
T-Alkalinity	N/A	N/A	490	N/A
CO ₃	N/A	N/A	0	0
HCO ₃	N/A	N/A	598	671

N/A – For WQCC Standards: Not Applicable; for other columns: Not Analyzed

Monitor Well #5 (Continued)

CONTAMINANT	WQCC STANDARD (mg/l)	Test Date 3/25/00 (mg/L)	Test Date 6/14/00 (mg/L)	Test Date 9/28/00 (mg/L)	Test Date 12/29/00 (mg/L)
Arsenic	0.1	N/A	N/A	N/A	N/A
Barium	1.0	N/A	N/A	N/A	N/A
Cadmium	0.01	N/A	N/A	N/A	N/A
Chloride	250	2,059	2,104	2,193	2,691
Chromium	0.05	N/A	N/A	N/A	N/A
Copper	1.0	N/A	N/A	N/A	N/A
Cyanide	0.2	N/A	N/A	N/A	N/A
Fluoride	1.6	1.98	2.10	2.44	1.05
Iron	1.0	N/A	N/A	N/A	N/A
Lead	0.05	0.747	<0.005	0.483	<0.05
Manganese	0.2	0.380	0.402	0.397	0.515
Mercury	0.002	N/A	N/A	N/A	N/A
Nitrate	10.0	N/A	N/A	N/A	N/A
Phenols	0.005	N/A	N/A	N/A	N/A
Selenium	0.05	N/A	N/A	N/A	N/A
Silver	0.05	0.103	0.327	<0.05	0.144
Sulfate	600	2,254	2,247	2,598	4,034
Zinc	10.0	N/A	N/A	N/A	N/A
TDS	1,000	8,054	7,744	7,926	7,628
pH	> 6 & <9	7.14	7.38	7.15	7.21
PAH	0.03	N/A	N/A	N/A	N/A
PCBs	0.001	N/A	N/A	N/A	N/A
Benzene	0.010	<0.002	<0.002	<0.002	<0.002
Toluene	0.750	<0.002	<0.002	<0.002	<0.002
Ethyl Benzene	0.750	<0.002	<0.002	<0.002	<0.002
Total Xylenes	0.620	<0.006	<0.006	<0.006	<0.006
TPH	N/A	2.38	<1.0	1.17	<1.0
Sodium	N/A	N/A	N/A	2,300	2,963
Calcium	N/A	283	333	256	296
Magnesium	N/A	441	349	210	343
Potassium	N/A	14.5	13.38	1.75	21.95
Conductivity	N/A	10,370	10,210	9,956	10,600
T-Alkalinity	N/A	532	560	636	629
CO ₃	N/A	0	0	0	0
HCO ₃	N/A	649	683	775	768

N/A – For WQCC Standards: Not Applicable; for other columns: Not Analyzed

Monitor Well #5 (Continued)

CONTAMINANT	WQCC STANDARD (mg/l)	Test Date 3/9/01 (mg/l)	Test Date 6/22/01 (mg/l)
Arsenic	0.1	N/A	N/A
Barium	1.0	N/A	N/A
Cadmium	0.01	N/A	N/A
Chloride	250	1,919	1,537
Chromium	0.05	N/A	N/A
Copper	1.0	N/A	N/A
Cyanide	0.2	N/A	N/A
Fluoride	1.6	1.90	1.64
Iron	1.0	N/A	N/A
Lead	0.05	<0.05	<0.05
Manganese	0.2	0.417	<0.2
Mercury	0.002	N/A	N/A
Nitrate	10.0	N/A	N/A
Phenols	0.005	N/A	N/A
Selenium	0.05	N/A	N/A
Silver	0.05	<0.05	0.100
Sulfate	600	3,997	167
Zinc	10.0	N/A	N/A
TDS	1,000	8,462	6,200
pH	> 6 & <9	7.23	6.95
PAH	0.03	N/A	N/A
PCBs	0.001	N/A	N/A
Benzene	0.010	<0.002	<0.002
Toluene	0.750	<0.002	<0.002
Ethyl Benzene	0.750	<0.002	<0.002
Total Xylenes	0.620	<0.006	<0.006
TPH	N/A	<1.0	<1.0
Sodium	N/A	N/A	865
Calcium	N/A	403	226
Magnesium	N/A	395	197
Potassium	N/A	20	20.59
Conductivity	N/A	11,378	8,373
T-Alkalinity	N/A	494	698
CO ₃	N/A	0	0
HCO ₃	N/A	603	852

N/A – For WQCC Standards: Not Applicable; for other columns: Not Analyzed

Monitor Well #6

CONTAMINANT	WQCC STANDARD (mg/l)	Initial Test 4/08/99 (mg/L)	Test Date 9/23/99 (mg/L)	Test Date 12/09/99 (mg/L)
Arsenic	0.1	<0.1	N/A	N/A
Barium	1.0	<1.0	N/A	N/A
Cadmium	0.01	<0.01	N/A	N/A
Chloride	250	785	933	1,310
Chromium	0.05	<0.05	N/A	N/A
Copper	1.0	<1.0	N/A	N/A
Cyanide	0.2	<0.02	N/A	N/A
Fluoride	1.6	2.30	1.94	4.04
Iron	1.0	<1.0	N/A	N/A
Lead	0.05	.208	0.16	<0.05
Manganese	0.2	<0.20	<0.20	<0.20
Mercury	0.002	<0.002	N/A	N/A
Nitrate	10.0	0.13	N/A	N/A
Phenols	0.005	<0.005	N/A	N/A
Selenium	0.05	<0.05	N/A	N/A
Silver	0.05	0.056	<0.05	<0.05
Sulfate	600	399	501	76
Zinc	10.0	<1.0	N/A	N/A
TDS	1,000	2,800	2,640	2,090
pH	> 6 & <9	7.61	7.32	7.33
PAH	0.03	<0.005	N/A	N/A
PCBs	0.001	<0.001	N/A	N/A
Benzene	0.010	<0.002	<0.002	<0.002
Toluene	0.750	<0.002	<0.002	<0.002
Ethyl Benzene	0.750	<0.002	<0.002	<0.002
Total Xylenes	0.620	<0.006	<0.006	<0.006
TPH	N/A	N/A	2.66	<1.0
Sodium	N/A	N/A	578	728
Calcium	N/A	N/A	144	115
Magnesium	N/A	N/A	122	84
Potassium	N/A	N/A	6.49	22
Conductivity	N/A	N/A	1,796	4,770
T-Alkalinity	N/A	N/A	290	N/A
CO ₃	N/A	N/A	0	0
HCO ₃	N/A	N/A	354	390

N/A – For WQCC Standards: Not Applicable; for other columns: Not Analyzed

Monitor Well #6 (Continued)

CONTAMINANT	WQCC STANDARD (mg/l)	Test Date 3/25/00 (mg/L)	Test Date 6/14/00 (mg/L)	Test Date 9/28/00 (mg/L)	Test Date 12/29/00 (mg/L)
Arsenic	0.1	N/A	N/A	N/A	N/A
Barium	1.0	N/A	N/A	N/A	N/A
Cadmium	0.01	N/A	N/A	N/A	N/A
Chloride	250	1,104	1,090	1,526	1,449
Chromium	0.05	N/A	N/A	N/A	N/A
Copper	1.0	N/A	N/A	N/A	N/A
Cyanide	0.2	N/A	N/A	N/A	N/A
Fluoride	1.6	1.97	2.03	2.46	1.01
Iron	1.0	N/A	N/A	N/A	N/A
Lead	0.05	0.770	<0.05	0.208	<0.05
Manganese	0.2	<0.2	<0.2	<0.2	0.129
Mercury	0.002	N/A	N/A	N/A	N/A
Nitrate	10.0	N/A	N/A	N/A	N/A
Phenols	0.005	N/A	N/A	N/A	N/A
Selenium	0.05	N/A	N/A	N/A	N/A
Silver	0.05	0.088	0.250	<0.05	0.147
Sulfate	600	533	694	823	720
Zinc	10.0	N/A	N/A	N/A	N/A
TDS	1,000	3,096	3,244	3,332	3,512
pH	> 6 & <9	7.33	7.44	7.37	7.42
PAH	0.03	N/A	N/A	N/A	N/A
PCBs	0.001	N/A	N/A	N/A	N/A
Benzene	0.010	<0.002	<0.002	<0.002	<0.002
Toluene	0.750	<0.002	<0.002	<0.002	<0.002
Ethyl Benzene	0.750	<0.002	<0.002	<0.002	<0.002
Total Xylenes	0.620	<0.006	<0.006	<0.006	<0.006
TPH	N/A	<1.0	<1.0	<1.0	<1.0
Sodium	N/A	N/A	N/A	1,190	922
Calcium	N/A	182	200	123	210
Magnesium	N/A	133	152	102	148
Potassium	N/A	5.9	2.46	6.15	9.46
Conductivity	N/A	4,700	4,721	4,872	5,593
T-Alkalinity	N/A	316	320	357	359
CO ₃	N/A	0	0	0	0
HCO ₃	N/A	386	390	435	438

N/A – For WQCC Standards: Not Applicable; for other columns: Not Analyzed

Monitor Well #6 (Continued)

CONTAMINANT	WQCC STANDARD (mg/l)	Test Date 3/9/01 (mg/l)	Test Date 6/22/01 (mg/l)
Arsenic	0.1	N/A	N/A
Barium	1.0	N/A	N/A
Cadmium	0.01	N/A	N/A
Chloride	250	990	759
Chromium	0.05	N/A	N/A
Copper	1.0	N/A	N/A
Cyanide	0.2	N/A	N/A
Fluoride	1.6	1.83	1.61
Iron	1.0	N/A	N/A
Lead	0.05	<0.05	<0.05
Manganese	0.2	<0.2	<0.2
Mercury	0.002	N/A	N/A
Nitrate	10.0	N/A	N/A
Phenols	0.005	N/A	N/A
Selenium	0.05	N/A	N/A
Silver	0.05	<0.05	0.086
Sulfate	600	780	178
Zinc	10.0	N/A	N/A
TDS	1,000	3,348	2,388
pH	> 6 & <9	7.49	7.34
PAH	0.03	N/A	N/A
PCBs	0.001	N/A	N/A
Benzene	0.010	<0.002	<0.002
Toluene	0.750	0.007	<0.002
Ethyl Benzene	0.750	<0.002	<0.002
Total Xylenes	0.620	<0.006	<0.006
TPH	N/A	<1.0	<1.0
Sodium	N/A	N/A	655
Calcium	N/A	223	128
Magnesium	N/A	130	100
Potassium	N/A	7.1	5.37
Conductivity	N/A	5,328	3,779
T-Alkalinity	N/A	340	349
CO ₃	N/A	0	0
HCO ₃	N/A	415	426

N/A – For WQCC Standards: Not Applicable; for other columns: Not Analyzed

Appendix B

Analytical Results



ARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603

PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR SAFETY & ENVIRONMENTAL SOLUTIONS, INC.

ATTN: BOB ALLEN
703 E. CLINTON, STE. 103
HOBBS, NM 88240
FAX TO: (505) 393-4388

Receiving Date: 06/22/01
Reporting Date: 06/26/01
Project Owner: CHEVRON
Project Name: DYNEGY
Project Location: MONUMENT, NM

Sampling Date: 06/22/01
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: BC
Analyzed By: AH

LAB NUMBER	SAMPLE ID	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Conductivity (μ S/cm)	T-Alkalinity (mgCaCO ₃ /L)
------------	-----------	--------------	--------------	--------------	-------------	-------------------------------	--

ANALYSIS DATE:		06/26/01	06/25/01	06/25/01	06/25/01	06/25/01	06/25/01
H5938-1	MW #1	1330	307	226	11.81	8406	314
H5938-2	MW #2	844	58	106	3.55	4757	990
H5938-3	MW #3	515	86	142	5.76	3747	875
H5938-4	MW #4	472	157	190	20.16	6494	928
H5938-5	MW #5	865	226	197	20.59	8373	698
H5938-6	MW #6	655	128	100	5.37	3779	349
Quality Control		0.976	47	44	5.02	1489	NR
True Value QC		1.000	50	50	5.00	1413	NR
% Recovery		97.6	94.9	88.5	100	105	NR
Relative Percent Difference		2.7	8.5	13.6	5.2	0.3	NR
METHODS:		273.1	3500-Ca-D	3500-Mg E	8049	120.1	310.1

	Cl ⁻ (mg/L)	SO ₄ (mg/L)	CO ₃ (mg/L)	HCO ₃ (mg/L)	pH (s.u.)	TDS (mg/L)
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ANALYSIS DATE:		06/25/01	06/25/01	06/25/01	06/25/01	06/25/01	06/26/01
H5938-1	MW #1	1777	2144	0	383	7.14	6540
H5938-2	MW #2	970	24.16	0	1208	7.33	2894
H5938-3	MW #3	557	99.11	0	1068	7.14	2484
H5938-4	MW #4	1278	508	0	1132	7.42	4406
H5938-5	MW #5	1537	167	0	852	6.95	6200
H5938-6	MW #6	759	178	0	426	7.34	2388
Quality Control		961	51.23	NR	1011	6.96	NR
True Value QC		1000	50.00	NR	1000	7.00	NR
% Recovery		96.1	102	NR	101	99.4	NR
Relative Percent Difference		4.1	0.3	NR	0	0.3	NR
METHODS:		SM4500-Cl-B	375.4	310.1	310.1	150.1	160.1

Amy Hill
Chemist

6-26-01
Date

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ANALYTICAL RESULTS FOR
SAFETY & ENVIRONMENTAL SOLUTIONS, INC.
ATTN: BOB ALLEN
703 E. CLINTON, STE. 103
HOBBS, NM 88240
FAX TO: (505) 393-4388

Receiving Date: 06/22/01
Reporting Date: 06/26/01
Project Owner: CHEVRON
Project Name: DYNEGY
Project Location: MONUMENT, NM

Sampling Date: 06/22/01
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: BC
Analyzed By: BC

LAB NO.	SAMPLE ID	TPH (mg/Kg)	BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL BENZENE (mg/Kg)	TOTAL XYLENES (mg/Kg)
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ANALYSIS DATE:	06/26/01	06/22/01	06/22/01	06/22/01	06/22/01	06/22/01
H5938-1 MW #1	<1.00	<0.002	<0.002	<0.002	<0.002	<0.006
H5938-2 MW #2	<1.00	<0.002	<0.002	<0.002	<0.002	<0.006
H5938-3 MW #3	<1.00	<0.002	<0.002	<0.002	<0.002	<0.006
H5938-4 MW #4	1.38	<0.002	<0.002	<0.002	<0.002	<0.006
H5938-5 MW #5	<1.00	<0.002	<0.002	<0.002	<0.002	<0.006
H5938-6 MW #6	<1.00	<0.002	<0.002	<0.002	<0.002	<0.006
Quality Control	9.96	0.106	0.099	0.100	0.287	
True Value QC	10.00	0.100	0.100	0.100	0.300	
% Recovery	99.6	106	99.1	100	95.5	
Relative Percent Difference	6.7	1.2	1.1	1.9	1	

METHODS: TRPHC - EPA 600/4-79-020, 418.1; BTEX - EPA SW-846 8260

Barbara A. Cohen
Chemist

6/26/01
Date

H5938B.XLS

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PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
SAFETY & ENVIRONMENTAL SOLUTIONS, INC.
ATTN: BOB ALLEN
703 E. CLINTON, STE. 103
HOBBS, NM 88240
FAX TO: (505) 393-4388

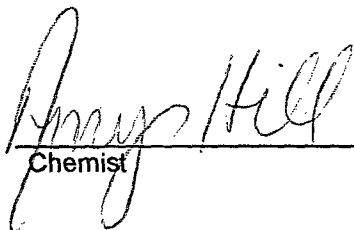
Receiving Date: 06/22/01
Reporting Date: 06/26/01
Project Owner: CHEVRON
Project Name: DYNEGY
Project Location: MONUMENT, NM

Sampling Date: 06/22/01
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: BC
Analyzed By: AH

LAB NUMBER	SAMPLE ID	F (ppm)	Ag (ppm)	Mn (ppm)	Pb (ppm)
ANALYSIS DATE		06/25/01	06/26/01	06/26/01	06/26/01
H5938-1	MW #1	1.55	<0.05	<0.2	<0.05
H5938-2	MW #2	1.42	<0.05	<0.2	<0.05
H5938-3	MW #3	1.56	<0.05	<0.2	<0.05
H5938-4	MW #4	1.40	<0.05	<0.2	<0.05
H5938-5	MW #5	1.64	0.100	<0.2	<0.05
H5938-6	MW #6	1.61	0.086	<0.2	<0.05
Quality Control		1.08	4.613	4.976	4.025
True Value QC		1.00	5.000	5.000	4.000
% Accuracy		108	92.3	99.5	101
Relative Percent Difference		0.9	0.2	0.5	1.3

METHODS:	EPA 600/4-79-020	4500-F'D*	272.1	243.1	239.1
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*Std Methods


Chemist

6-26-01
Date

2111 Beechwood, Abilene, TX 79603 101 East Marland, Hobbs, NM 88240
(915) 673-7001 Fax (915) 673-7020 (505) 393-2326 Fax (505) 393-2476

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476.

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(915) 673-7001 Fax (915) 673-7020 (505) 393-2326 Fax (505) 393-2476

Page _____ of _____

Company Name:		S.E.S.T.					
Project Manager:		Doe Whately					
Address:							
City:		State:					
Phone #:		Fax #:					
Project #:		Project Owner:					
Project Name:		Dydeg Monument					
Project Location:							
Sampler Name:		Doe Whately					
FOR LAB USE ONLY		Sample I.D.					
Lab I.D.	(G) RAB OR (C) OMP.	# CONTAINERS	MATRIX	PRESERV.	SAMPLING	DATE	TIME
H5938-1	✓	4	WASTEWATER	✓		6-22-01	1:50pm
-2	✓	4	GROUNDWATER	✓			
-3	✓	4	SLUDGE	✓			
-4	✓	4	CRUDE OIL	✓			
-5	✓	3	SOIL	✓			
-6	✓	4	OTHER:	✓			
	✓	4	ACID/BASE:	✓			
	✓	4	ICE / COOL	✓			
	✓	4	OTHER:	✓			
	✓	4	DATE	✓			
	✓	4	TIME	✓			
	✓	4	LABORATORY	✓			
	✓	4	ANALYSIS REQUEST	✓			
	✓	4	REMARKS:	✓			
	✓	4	PHONE RESULT:	✓			
	✓	4	FAX RESULT:	✓			
	✓	4	ADDITIONAL PHONE #:	✓			
	✓	4	ADDITIONAL FAX #:	✓			

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Delivered By: (Circle One)
Sampler - UPS - Bus - Other:

Relinquished By:
Date: 6-22-01
Time: 1:50pm

Received By: (Lab Staff)
Date: 6-22-01
Time: 1:50pm

CHECKED BY:
(Initials)

Sample Condition
Cool Intact
☒ Yes ☐ No

Appendix C

Water Analysis Validation

Chevron Dynegey-Monument Site

Cations and Anions Calculation Check							
	Sample Name	H5938-1	H5938-2	H5938-3	H5938-4	H5938-5	H5938-6
	Well Number	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6
	Date	06/22/01	06/22/01	06/22/01	06/22/01	06/22/01	06/22/01
Equivalent Weight:	Lab	Cardinal	Cardinal	Cardinal	Cardinal	Cardinal	Cardinal
22.99	Sodium (mg/L)	1,330	844	515	472	865	655
20.04	Calcium (mg/L)	307	58	86	157	226	128
12.15	Magnesium (mg/L)	226	106	142	190	197	100
39.09	Potassium (mg/L)	11.8	3.6	5.8	20.2	20.6	5.4
35.45	Chloride (mg/L)	1,777	970	557	1,278	1,537	759
48.04	Sulfate (mg/L)	2,144	24	99	508	167	178
30.00	Carbonate (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0
61.01	Bicarbonate (mg/L)	383	1,208	1,068	1,132	852	426
50.04	Alkalinity (mg/L CaCO3)	314	990	875	928	698	349
62.00	Nitrate (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0
	Elect. Conductivity (umhos/cm)	8,406	4,757	3,747	6,494	8,373	3,779
	Measured TDS (evap., mg/L)	6,540	2,894	2,484	4,406	6,200	2,388
	Sum Cations (meq/L)	92.1	48.4	38.5	44.5	65.6	43.2
	Sum Anions (meq/L)	101.0	47.6	35.3	65.2	60.8	32.1
1.	Percent Difference	4.6	-0.8	-4.4	18.8	-3.8	-14.8
	TDS (calc. USGS sum, mg/L)	5,984	2,600	1,930	3,182	3,431	2,035
2.	TDS (meas.) / TDS (calc. USGS)	1.1	1.1	1.3	1.4	1.8	1.2
	TDS (calc. sum, mg/L)	6,179	3,214	2,473	3,757	3,865	2,251
	TDS (C*0.7, mg/L)	5,884	3,330	2,623	4,546	5,861	2,645
3.	TDS (calc. USGS) / Conductivity	0.71	0.55	0.52	0.49	0.41	0.54
Test Criteria							
1. Anion-Cation Balance:			Anion Sum	Max % diff.			
			0 - 3.0	± 0.2			
			3.0 - 10.0	± 2			
			10.0 - 800	± 5			
2. TDS, Measured to Calculated:		1.0 < (measured TDS/calculated TDS) < 1.2					
3. TDS (calculated USGS) to EC Ratio:		Calculated TDS/conductivity = 0.55 - 0.7					

