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REPORTS

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

March 9, 2001

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ENVIRONMENTAL BUREAU
OIL CONSERVATION DIVISION

Prepared for:

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I. Background

The subject property is located in Lea County approximately 5 miles southwest of Monument, New Mexico. 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, except well #4. Well #4 is typically a very sandy well and was not sampled for lack of sufficient groundwater. (See Vicinity Map) The casing size in all wells is 4".

II. Work Performed

A field technician with SESI arrived at the site on March 9, 2001. Ground water samples were taken from each well, except #4, 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. The total depth of each well was measured in order to compute the proper casing volumes. A summary of this data follows:

ID	DATE	TOP OF CASING ELEVATION	DEPTH TO WATER	GROUNDWATER POTENTIOMETRIC ELEVATION	TOTAL WELL DEPTH	FREE PRODUCT THICKNESS
MW – 1	3/9/01	3565.24'	37.65'	3527.59'	49.00'	0.00
MW – 2	3/9/01	3564.21'	36.78'	3527.43'	45.75'	0.00
MW – 3	3/9/01	3564.06'	36.63'	3527.43'	46.93'	0.00
MW – 4	3/9/01	3564.62'	37.11'	3527.51'	37.63'	0.00
MW – 5	3/9/01	3564.58'	36.98'	3527.60'	44.90'	0.00
MW – 6	3/9/01	3564.58'	37.16'	3527.42'	43.25'	0.00

III. Analytical Results

The analysis of the groundwater samples performed by Cardinal Laboratories are summarized as follows:

CONTA-MINANT	WQCC STANDARD	MW #1	MW #2	MW #3	MW #4	MW #5	MW #6
Chloride	250.0ppm	2199ppm	1060ppm	840ppm		1919ppm	990ppm
Fluoride	1.6ppm	1.70ppm	1.84ppm	1.72ppm		1.90ppm	1.83ppm
Lead	0.05ppm	<0.05ppm	<0.05ppm	<0.05ppm		<0.05ppm	<0.05ppm
Manganese	0.2ppm	<0.2ppm	0.339ppm	<0.2ppm		0.417ppm	<0.2ppm
Silver	0.05ppm	<0.05ppm	<0.05ppm	<0.05ppm		<0.05ppm	<0.05ppm
Sulfate	600ppm	4250ppm	645ppm	752ppm		3997ppm	780ppm
TDS	1000ppm	8470ppm	3756ppm	3620ppm		8462ppm	3348ppm
pH	> 6 & <9	7.22	7.29	7.18		7.23	7.49
TPH	N/A	4.44ppm	<1.0ppm	<1.0ppm		<1.0ppm	<1.0ppm
Benzene	0.01ppm	<0.002ppm	<0.002ppm	<0.002ppm		<0.002ppm	<0.002ppm
Toluene	0.75ppm	<0.002ppm	<0.002ppm	<0.002ppm		<0.002ppm	0.007ppm
Ethyl Benzene	0.75ppm	<0.002ppm	<0.002ppm	<0.002ppm		<0.002ppm	<0.002ppm
Total Xylenes	0.62ppm	<0.006ppm	<0.006ppm	<0.006ppm		<0.006ppm	<0.006ppm

SAMPLE ID	NA (MG/L)	CA (MG/L)	MG (MG/L)	K (MG/L)	CO_3 (MG/L)	HCO_3 (MG/L)
MW – 1	1921ppm	575ppm	270ppm	15ppm	0ppm	341ppm
MW – 2	1187ppm	154ppm	182ppm	7.2ppm	0ppm	847ppm
MW – 3	1010ppm	120ppm	213ppm	9.5ppm	0ppm	955ppm
MW – 4						
MW – 5	1834ppm	403ppm	395ppm	20ppm	0ppm	603pm
MW – 6	1012ppm	223ppm	130ppm	7.1ppm	0ppm	415ppm

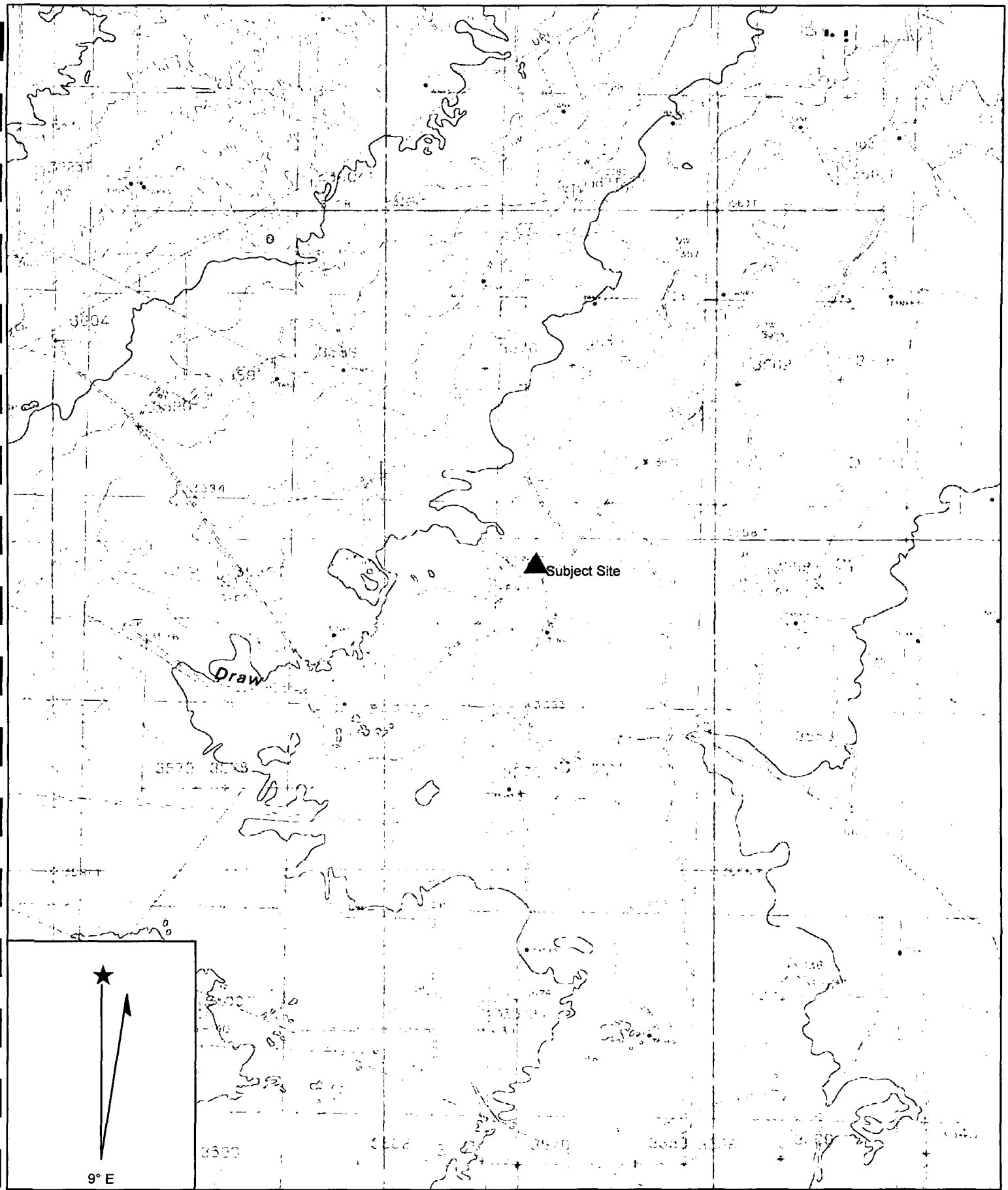
*Red exceeds WQCC Standards

IV. Figures and Appendices

Figures:
Vicinity Map
Potentiometric Map

Appendices:
Cumulative Well Water Quality Data
Analytical Results
Water Analysis Validation

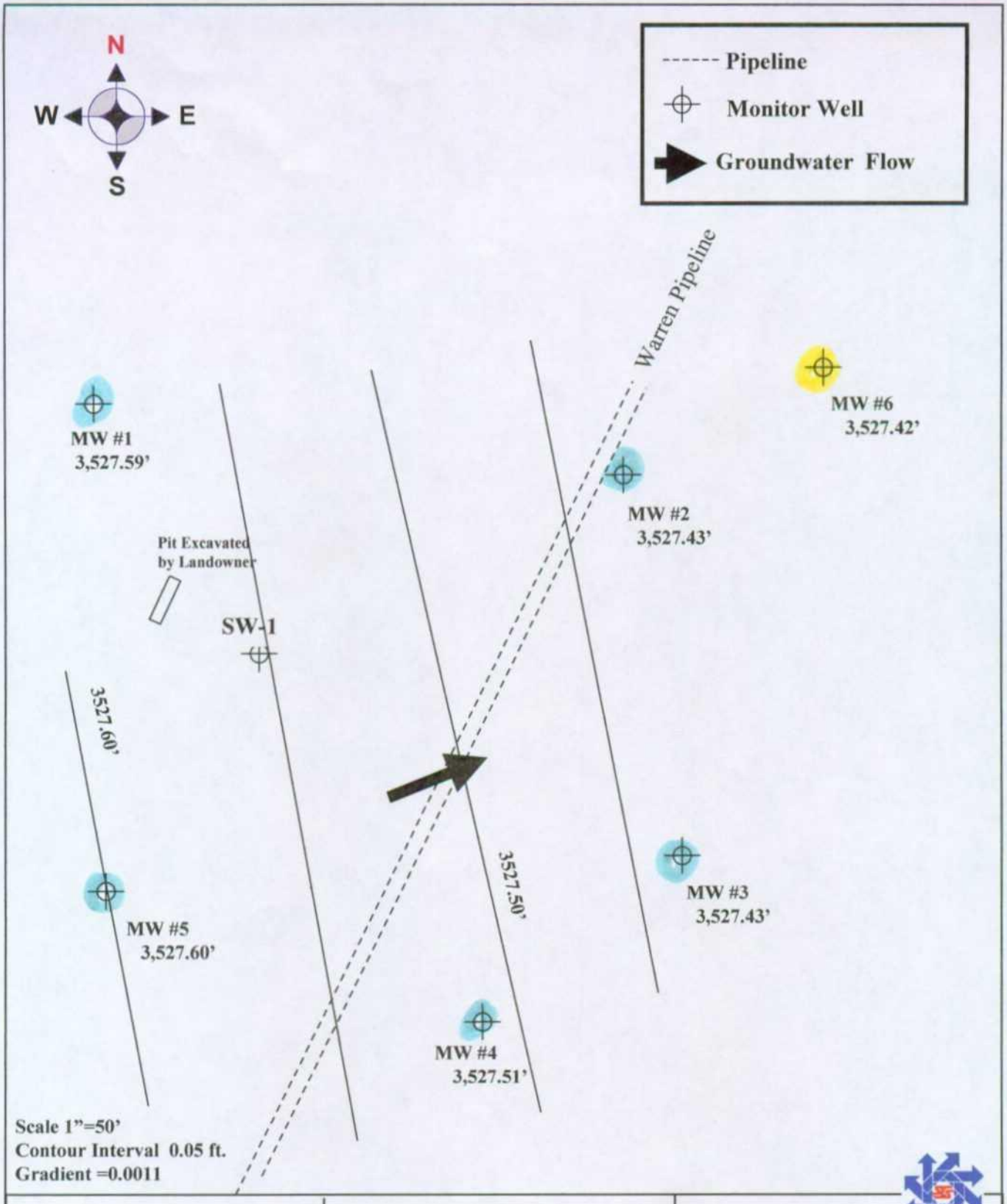
Figure 1
Vicinity Map



Name: MONUMENT SOUTH
Date: 3/26/2001
Scale: 1 inch equals 2000 feet

Location: 032° 34' 40.1" N 103° 19' 36.9" W
Caption: Chevron USA
Dynegy Monitor Wells
Vicinity Map

Figure 2
Potentiometric Map



Chevron USA	Potentiometric Map Dynegy Monument Site March 9, 2001	Safety & Environmental Solutions, Inc.

Appendix A
Cumulative Well Water Quality Data

Chevron Dynegy -Monument Cumulative Well Data

Monitor Well #1

CONTAMINANT	WQCC STANDARD	TEST DATE 3/25/00	TEST DATE 6/14/00	TEST DATE 9/28/00	TEST DATE 12/29/00
Arsenic	0.1ppm	N/a	N/a	N/a	N/a
Barium	1.0ppm	N/a	N/a	N/a	N/a
Cadmium	0.01ppm	N/a	N/a	N/a	N/a
Chloride	250.0ppm	2433ppm	2405ppm	2765ppm	2691ppm
Chromium	0.05ppm	N/a	N/a	N/a	N/a
Copper	1.0ppm	N/a	N/a	N/a	N/a
Cyanide	0.2ppm	N/a	N/a	N/a	N/a
Fluoride	1.6ppm	1.90ppm	1.97ppm	2.15ppm	1.04ppm
Iron	1.0ppm	N/a	N/a	N/a	N/a
Lead	0.05ppm	0.597ppm	<0.05ppm	0.509ppm	<0.05ppm
Manganese	0.2ppm	<0.2ppm	<0.2ppm	<0.2ppm	0.204ppm
Mercury	0.002ppm	N/a	N/a	N/a	N/a
Nitrate	10.0ppm	N/a	N/a	N/a	N/a
Phenols	0.005ppm	N/a	N/a	N/a	N/a
Selenium	0.05ppm	N/a	N/a	N/a	N/a
Silver	0.05ppm	0.051ppm	0.302ppm	0.05ppm	0.092ppm
Sulfate	600ppm	2899ppm	2773ppm	3437ppm	3293ppm
Zinc	10.0ppm	N/a	N/a	N/a	N/a
TDS	1000.0ppm	9212	8876ppm	8854ppm	7350ppm
pH	> 6 & <9	7.26	7.55	7.33	7.44
PAH	0.03ppm	N/a	N/a	N/a	N/a
PCBs	0.001ppm	N/a	N/a	N/a	N/a
Benzene	0.01ppm	<0.002ppm	<0.002ppm	<0.002ppm	<0.002ppm
Toluene	0.75ppm	<0.002ppm	<0.002ppm	<0.002ppm	<0.002ppm
Ethyl Benzene	0.75ppm	<0.002ppm	0.002ppm	<0.002ppm	<0.002ppm
Total Xylenes	0.62ppm	<0.006ppm	<0.006ppm	<0.006ppm	<0.006ppm
TPH	N/a	<1.0	1.39	<1.0	<1.0
Sodium	N/a	2065ppm	1643ppm	2750ppm	2390ppm
Calcium	N/a	445ppm	525ppm	332ppm	429ppm
Magnesium	N/a	417ppm	334ppm	248ppm	302ppm
Potassium	N/a	11.6ppm	8.01ppm	4.95ppm	12.86ppm
Conductivity	N/a	11.46ppm	11170ppm	10809ppm	10507ppm
T-Alkalinity	N/a	232ppm	244ppm	295ppm	308ppm
CO_3	N/a	0ppm	0ppm	0ppm	0ppm
HCO_3	N/a	282ppm	298ppm	360ppm	375ppm

Monitor Well #1 (Continued)

CONTAMINANT	WQCC STANDARD	TEST DATE 3/9/01
Arsenic	0.1ppm	N/a
Barium	1.0ppm	N/a
Cadmium	0.01ppm	N/a
Chloride	250.0ppm	2199ppm
Chromium	0.05ppm	N/a
Copper	1.0ppm	N/a
Cyanide	0.2ppm	N/a
Fluoride	1.6ppm	1.70ppm
Iron	1.0ppm	N/a
Lead	0.05ppm	<0.05ppm
Manganese	0.2ppm	<0.2ppm
Mercury	0.002ppm	N/a
Nitrate	10.0ppm	N/a
Phenols	0.005ppm	N/a
Selenium	0.05ppm	N/a
Silver	0.05ppm	<0.05ppm
Sulfate	600ppm	4250ppm
Zinc	10.0ppm	N/a
TDS	1000.0ppm	8470ppm
pH	> 6 & <9	7.22
PAH	0.03ppm	N/a
PCBs	0.001ppm	N/a
Benzene	0.01ppm	<0.002ppm
Toluene	0.75ppm	<0.002ppm
Ethyl Benzene	0.75ppm	<0.002ppm
Total Xylenes	0.62ppm	<0.006ppm
TPH	N/a	4.44
Sodium	N/a	1921ppm
Calcium	N/a	575ppm
Magnesium	N/a	270ppm
Potassium	N/a	15ppm
Conductivity	N/a	11059ppm
T-Alkalinity	N/a	280ppm
CO_3	N/a	0ppm
HCO_3	N/a	341ppm

Monitor Well #2

CONTAMINANT	WQCC STANDARD	INITIAL TEST 3/25/00	TEST DATE 6/14/00	TEST DATE 9/28/00	TEST DATE 12/29/00
Arsenic	0.1ppm	N/a	N/a	N/a	N/a
Barium	1.0ppm	N/a	N/a	N/a	N/a
Cadmium	0.01ppm	N/a	N/a	N/a	N/a
Chloride	250.0ppm	1216ppm	1296ppm	1240ppm	1346ppm
Chromium	0.05ppm	N/a	N/a	N/a	N/a
Copper	1.0ppm	N/a	N/a	N/a	N/a
Cyanide	0.2ppm	N/a	N/a	N/a	N/a
Fluoride	1.6ppm	1.87	1.93	2.24ppm	1.12ppm
Iron	1.0ppm	N/a	N/a	N/a	N/a
Lead	0.05ppm	0.580ppm	<0.05ppm	0.305ppm	<0.05ppm
Manganese	0.2ppm	0.324ppm	0.320ppm	0.284ppm	0.315ppm
Mercury	0.002ppm	N/a	N/a	N/a	N/a
Nitrate	10.0ppm	N/a	N/a	N/a	N/a
Phenols	0.005ppm	N/a	N/a	N/a	N/a
Selenium	0.05ppm	N/a	N/a	N/a	N/a
Silver	0.05ppm	<0.05ppm	0.198ppm	0.05ppm	0.107ppm
Sulfate	600ppm	1180ppm	948ppm	788ppm	902ppm
Zinc	10.0ppm	N/a	N/a	N/a	N/a
TDS	1000.0ppm	3898ppm	3988ppm	3822ppm	3968ppm
pH	> 6 & <9	7.18	7.41	7.33	7.35
PAH	0.03ppm	N/a	N/a	N/a	N/a
PCBs	0.001ppm	N/a	N/a	N/a	N/a
Benzene	0.01ppm	<0.002	<0.002ppm	<0.002ppm	<0.002ppm
Toluene	0.75ppm	<0.002	<0.002ppm	<0.002ppm	<0.002ppm
Ethyl Benzene	0.75ppm	<0.002	0.002ppm	<0.002ppm	<0.002ppm
Total Xylenes	0.62ppm	<0.006	<0.006ppm	<0.006ppm	<0.006ppm
TPH	N/a	2.36	<1.0	1.72	<1.0
Sodium	N/a	N/a	N/a	1000ppm	1046ppm
Calcium	N/a	186ppm	208ppm	294ppm	197ppm
Magnesium	N/a	152ppm	157ppm	107ppm	164ppm
Potassium	N/a	6.8	2.46	5.05ppm	6.85ppm
Conductivity	N/a	5770ppm	5757ppm	5447ppm	6283ppm
T-Alkalinity	N/a	552ppm	588ppm	726ppm	615ppm
CO_3	N/a	0ppm	0ppm	0ppm	0ppm
HCO_3	N/a	673ppm	717ppm	885ppm	750ppm

Monitor Well #2 (Continued)

CONTAMINANT	WQCC STANDARD	TEST DATE 3/9/01
Arsenic	0.1ppm	N/a
Barium	1.0ppm	N/a
Cadmium	0.01ppm	N/a
Chloride	250.0ppm	1060ppm
Chromium	0.05ppm	N/a
Copper	1.0ppm	N/a
Cyanide	0.2ppm	N/a
Fluoride	1.6ppm	1.87
Iron	1.0ppm	N/a
Lead	0.05ppm	<0.05ppm
Manganese	0.2ppm	0.339ppm
Mercury	0.002ppm	N/a
Nitrate	10.0ppm	N/a
Phenols	0.005ppm	N/a
Selenium	0.05ppm	N/a
Silver	0.05ppm	<0.05ppm
Sulfate	600ppm	645ppm
Zinc	10.0ppm	N/a
TDS	1000.0ppm	3756ppm
pH	> 6 & <9	7.29
PAH	0.03ppm	N/a
PCBs	0.001ppm	N/a
Benzene	0.01ppm	<0.002
Toluene	0.75ppm	<0.002
Ethyl Benzene	0.75ppm	<0.002
Total Xylenes	0.62ppm	<0.006
TPH	N/a	<1.0
Sodium	N/a	N/a
Calcium	N/a	154ppm
Magnesium	N/a	182ppm
Potassium	N/a	7.2
Conductivity	N/a	6015ppm
T-Alkalinity	N/a	694ppm
CO_3	N/a	0ppm
HCO_3	N/a	847ppm

Monitor Well #3

CONTAMINANT	WQCC STANDARD	INITIAL TEST 3/25/00	TEST DATE 6/14/00	TEST DATE 9/28/00	TEST DATE 12/29/00
Arsenic	0.1ppm	N/a	N/a	N/a	N/a
Barium	1.0ppm	N/a	N/a	N/a	N/a
Cadmium	0.01ppm	N/a	N/a	N/a	N/a
Chloride	250.0ppm	1086ppm	1033ppm	1144ppm	1346ppm
Chromium	0.05ppm	N/a	N/a	N/a	N/a
Copper	1.0ppm	N/a	N/a	N/a	N/a
Cyanide	0.2ppm	N/a	N/a	N/a	N/a
Fluoride	1.6ppm	1.92ppm	2.02ppm	2.25ppm	1.05ppm
Iron	1.0ppm	N/a	N/a	N/a	N/a
Lead	0.05ppm	0.611ppm	<0.05ppm	0.379ppm	<0.05ppm
Manganese	0.2ppm	<0.2ppm	<0.2ppm	<0.2ppm	0.168ppm
Mercury	0.002ppm	N/a	N/a	N/a	N/a
Nitrate	10.0ppm	N/a	N/a	N/a	N/a
Phenols	0.005ppm	N/a	N/a	N/a	N/a
Selenium	0.05ppm	N/a	N/a	N/a	N/a
Silver	0.05ppm	<0.05ppm	0.200ppm	<0.05ppm	0.114ppm
Sulfate	600ppm	1230ppm	971ppm	800ppm	866ppm
Zinc	10.0ppm	N/a	N/a	N/a	N/a
TDS	1000.0ppm	4058ppm	3848ppm	3764ppm	4078ppm
pH	> 6 & <9	7.08	7.26	7.12	7.14
PAH	0.03ppm	N/a	N/a	N/a	N/a
PCBs	0.001ppm	N/a	N/a	N/a	N/a
Benzene	0.01ppm	<0.002ppm	<0.002ppm	<0.002ppm	<0.002ppm
Toluene	0.75ppm	<0.002ppm	<0.002ppm	<0.002ppm	<0.002ppm
Ethyl Benzene	0.75ppm	<0.002ppm	<0.002ppm	<0.002ppm	<0.002ppm
Total Xylenes	0.62ppm	<0.006ppm	<0.006ppm	<0.006ppm	<0.006ppm
TPH	N/a	1.47	<1.0	<1.0	<1.0
Sodium	N/a	N/a	N/a	1085ppm	1033ppm
Calcium	N/a	158ppm	142ppm	100ppm	146ppm
Magnesium	N/a	236ppm	238ppm	148ppm	226ppm
Potassium	N/a	8.5ppm	4.35ppm	6.90ppm	16.25ppm
Conductivity	N/a	5550ppm	5372ppm	5117ppm	5932ppm
T-Alkalinity	N/a	624ppm	664ppm	800ppm	764ppm
CO_3	N/a	0ppm	0ppm	0ppm	0ppm
HCO_3	N/a	761ppm	810ppm	975ppm	932ppm

Monitor Well #3 (Continued)

CONTAMINANT	WQCC STANDARD	TEST DATE 3/9/01
Arsenic	0.1ppm	N/a
Barium	1.0ppm	N/a
Cadmium	0.01ppm	N/a
Chloride	250.0ppm	840ppm
Chromium	0.05ppm	N/a
Copper	1.0ppm	N/a
Cyanide	0.2ppm	N/a
Fluoride	1.6ppm	1.72ppm
Iron	1.0ppm	N/a
Lead	0.05ppm	<0.05ppm
Manganese	0.2ppm	<0.2ppm
Mercury	0.002ppm	N/a
Nitrate	10.0ppm	N/a
Phenols	0.005ppm	N/a
Selenium	0.05ppm	N/a
Silver	0.05ppm	<0.05ppm
Sulfate	600ppm	752ppm
Zinc	10.0ppm	N/a
TDS	1000.0ppm	3620ppm
pH	> 6 & <9	7.18
PAH	0.03ppm	N/a
PCBs	0.001ppm	N/a
Benzene	0.01ppm	<0.002ppm
Toluene	0.75ppm	<0.002ppm
Ethyl Benzene	0.75ppm	<0.002ppm
Total Xylenes	0.62ppm	<0.006ppm
TPH	N/a	<1.0
Sodium	N/a	N/a
Calcium	N/a	120ppm
Magnesium	N/a	213ppm
Potassium	N/a	9.5ppm
Conductivity	N/a	5423ppm
T-Alkalinity	N/a	783ppm
CO_3	N/a	0ppm
HCO_3	N/a	955ppm

Monitor Well #4

CONTAMINANT	WQCC STANDARD	TEST DATE 3/25/00	TEST DATE 6/14/00	TEST DATE 9/28/00	TEST DATE 12/29/00
Arsenic	0.1ppm	N/a	N/a	N/a	N/a
Barium	1.0ppm	N/a	N/a	N/a	N/a
Cadmium	0.01ppm	N/a	N/a	N/a	N/a
Chloride	250.0ppm	1554ppm	1691ppm	1716ppm	1760ppm
Chromium	0.05ppm	N/a	N/a	N/a	N/a
Copper	1.0ppm	N/a	N/a	N/a	N/a
Cyanide	0.2ppm	N/a	N/a	N/a	N/a
Fluoride	1.6ppm	1.83ppm	1.98ppm	2.29ppm	1.10ppm
Iron	1.0ppm	N/a	N/a	N/a	N/a
Lead	0.05ppm	0.603ppm	<0.05ppm	0.444ppm	<0.05ppm
Manganese	0.2ppm	0.403ppm	0.435ppm	0.462ppm	0.416ppm
Mercury	0.002ppm	N/a	N/a	N/a	N/a
Nitrate	10.0ppm	N/a	N/a	N/a	N/a
Phenols	0.005ppm	N/a	N/a	N/a	N/a
Selenium	0.05ppm	N/a	N/a	N/a	N/a
Silver	0.05ppm	<0.05ppm	0.249ppm	<0.05ppm	0.130ppm
Sulfate	600ppm	1040ppm	804ppm	850ppm	760ppm
Zinc	10.0ppm	N/a	N/a	N/a	N/a
TDS	1000.0ppm	4730ppm	5144ppm	4818ppm	4758ppm
pH	> 6 & <9	7.52	7.39	7.35	7.32
PAH	0.03ppm	N/a	N/a	N/a	N/a
PCBs	0.001ppm	N/a	N/a	N/a	N/a
Benzene	0.01ppm	<0.002ppm	<0.002ppm	<0.002ppm	<0.002ppm
Toluene	0.75ppm	<0.002ppm	<0.002ppm	<0.002ppm	<0.002ppm
Ethyl Benzene	0.75ppm	<0.002	<0.002ppm	<0.002ppm	<0.002ppm
Total Xylenes	0.62ppm	<0.006	<0.006ppm	<0.006ppm	<0.006ppm
TPH	N/a	1.11	<1.0	3.31	<1.0
Sodium	N/a	1224ppm	822ppm	1485ppm	1319ppm
Calcium	N/a	178ppm	242ppm	132ppm	197ppm
Magnesium	N/a	228ppm	217ppm	153ppm	192ppm
Potassium	N/a	12.1ppm	12.39ppm	13.71ppm	30.88ppm
Conductivity	N/a	6950ppm	7380ppm	6737ppm	7102ppm
T-Alkalinity	N/a	800ppm	840ppm	943ppm	918ppm
CO_3	N/a	0ppm	0ppm	0ppm	0ppm
HCO_3	N/a	673ppm	1025ppm	1150ppm	1120ppm

Monitor Well #4 (Continued)

CONTAMINANT	WQCC STANDARD	TEST DATE 3/9/01
Arsenic	0.1ppm	N/a
Barium	1.0ppm	N/a
Cadmium	0.01ppm	N/a
Chloride	250.0ppm	N/a
Chromium	0.05ppm	N/a
Copper	1.0ppm	N/a
Cyanide	0.2ppm	N/a
Fluoride	1.6ppm	N/a
Iron	1.0ppm	N/a
Lead	0.05ppm	N/a
Manganese	0.2ppm	N/a
Mercury	0.002ppm	N/a
Nitrate	10.0ppm	N/a
Phenols	0.005ppm	N/a
Selenium	0.05ppm	N/a
Silver	0.05ppm	N/a
Sulfate	600ppm	N/a
Zinc	10.0ppm	N/a
TDS	1000.0ppm	N/a
pH	> 6 & <9	N/a
PAH	0.03ppm	N/a
PCBs	0.001ppm	N/a
Benzene	0.01ppm	N/a
Toluene	0.75ppm	N/a
Ethyl Benzene	0.75ppm	N/a
Total Xylenes	0.62ppm	N/a
TPH	N/a	N/a
Sodium	N/a	N/a
Calcium	N/a	N/a
Magnesium	N/a	N/a
Potassium	N/a	N/a
Conductivity	N/a	N/a
T-Alkalinity	N/a	N/a
CO_3	N/a	N/a
HCO_3	N/a	N/a

Monitor Well #5

CONTAMINANT	WQCC STANDARD	INITIAL TEST 3/25/00	TEST DATE 6/14/00	TEST DATE 9/28/00	TEST DATE 12/29/00
Arsenic	0.1ppm	N/a	N/a	N/a	N/a
Barium	1.0ppm	N/a	N/a	N/a	N/a
Cadmium	0.01ppm	N/a	N/a	N/a	N/a
Chloride	250.0ppm	2059ppm	2104ppm	2193ppm	2691ppm
Chromium	0.05ppm	N/a	N/a	N/a	N/a
Copper	1.0ppm	N/a	N/a	N/a	N/a
Cyanide	0.2ppm	N/a	N/a	N/a	N/a
Fluoride	1.6ppm	1.98ppm	2.10ppm	2.44ppm	1.05ppm
Iron	1.0ppm	N/a	N/a	N/a	N/a
Lead	0.05ppm	0.747ppm	<0.005ppm	0.483ppm	<0.05ppm
Manganese	0.2ppm	0.380ppm	0.402ppm	0.397ppm	0.515ppm
Mercury	0.002ppm	N/a	N/a	N/a	N/a
Nitrate	10.0ppm	N/a	N/a	N/a	N/a
Phenols	0.005ppm	N/a	N/a	N/a	N/a
Selenium	0.05ppm	N/a	N/a	N/a	N/a
Silver	0.05ppm	0.103ppm	0.327ppm	<0.05ppm	0.144ppm
Sulfate	600ppm	2254ppm	2247ppm	2598ppm	4034ppm
Zinc	10.0ppm	N/a	N/a	N/a	N/a
TDS	1000.0ppm	8054ppm	7744ppm	7926ppm	7628ppm
pH	> 6 & <9	7.14	7.38	7.15	7.21
PAH	0.03ppm	N/a	N/a	N/a	N/a
PCBs	0.001ppm	N/a	N/a	N/a	N/a
Benzene	0.01ppm	<0.002ppm	<0.002ppm	<0.002ppm	<0.002ppm
Toluene	0.75ppm	<0.002ppm	<0.002ppm	<0.002ppm	<0.002ppm
Ethyl Benzene	0.75ppm	<0.002ppm	<0.002ppm	<0.002ppm	<0.002ppm
Total Xylenes	0.62ppm	<0.006ppm	<0.006ppm	<0.006ppm	<0.006ppm
TPH	N/a	2.38	<1.0	1.17	<1.0
Sodium	N/a	N/a	N/a	2300ppm	2963ppm
Calcium	N/a	283ppm	333ppm	256ppm	296ppm
Magnesium	N/a	441ppm	349ppm	210ppm	343ppm
Potassium	N/a	14.5ppm	13.38ppm	1.75ppm	21.95ppm
Conductivity	N/a	10370ppm	10210ppm	9956ppm	10600ppm
T-Alkalinity	N/a	532ppm	560ppm	636ppm	629ppm
CO_3	N/a	0ppm	0ppm	0ppm	0ppm
HCO_3	N/a	649ppm	683ppm	775ppm	768ppm

Monitor Well #5 (Continued)

CONTAMINANT	WQCC STANDARD	TEST DATE 3/9/01
Arsenic	0.1ppm	N/a
Barium	1.0ppm	N/a
Cadmium	0.01ppm	N/a
Chloride	250.0ppm	1919ppm
Chromium	0.05ppm	N/a
Copper	1.0ppm	N/a
Cyanide	0.2ppm	N/a
Fluoride	1.6ppm	1.90ppm
Iron	1.0ppm	N/a
Lead	0.05ppm	<0.05ppm
Manganese	0.2ppm	0.417ppm
Mercury	0.002ppm	N/a
Nitrate	10.0ppm	N/a
Phenols	0.005ppm	N/a
Selenium	0.05ppm	N/a
Silver	0.05ppm	<0.05ppm
Sulfate	600ppm	3997ppm
Zinc	10.0ppm	N/a
TDS	1000.0ppm	8462ppm
pH	> 6 & <9	7.23
PAH	0.03ppm	N/a
PCBs	0.001ppm	N/a
Benzene	0.01ppm	<0.002ppm
Toluene	0.75ppm	<0.002ppm
Ethyl Benzene	0.75ppm	<0.002ppm
Total Xylenes	0.62ppm	<0.006ppm
TPH	N/a	<1.0
Sodium	N/a	N/a
Calcium	N/a	403ppm
Magnesium	N/a	395ppm
Potassium	N/a	20ppm
Conductivity	N/a	11378ppm
T-Alkalinity	N/a	494ppm
CO_3	N/a	0ppm
HCO_3	N/a	603ppm

Monitor Well #6

CONTAMINANT	WQCC STANDARD	TEST DATE 3/25/00	TEST DATE 6/14/00	TEST DATE 9/28/00	TEST DATE 12/29/00
Arsenic	0.1ppm	N/a	N/a	N/a	N/a
Barium	1.0ppm	N/a	N/a	N/a	N/a
Cadmium	0.01ppm	N/a	N/a	N/a	N/a
Chloride	250.0ppm	1104ppm	1090ppm	1526ppm	1449ppm
Chromium	0.05ppm	N/a	N/a	N/a	N/a
Copper	1.0ppm	N/a	N/a	N/a	N/a
Cyanide	0.2ppm	N/a	N/a	N/a	N/a
Fluoride	1.6ppm	1.97ppm	2.03ppm	2.46ppm	1.01ppm
Iron	1.0ppm	N/a	N/a	N/a	N/a
Lead	0.05ppm	0.770ppm	<0.05ppm	0.208ppm	<0.05ppm
Manganese	0.2ppm	<0.2ppm	<0.2ppm	<0.2ppm	0.129ppm
Mercury	0.002ppm	N/a	N/a	N/a	N/a
Nitrate	10.0ppm	N/a	N/a	N/a	N/a
Phenols	0.005ppm	N/a	N/a	N/a	N/a
Selenium	0.05ppm	N/a	N/a	N/a	N/a
Silver	0.05ppm	0.088ppm	0.250ppm	<0.05ppm	0.147ppm
Sulfate	600ppm	533ppm	694ppm	823ppm	720ppm
Zinc	10.0ppm	N/a	N/a	N/a	N/a
TDS	1000.0ppm	3096ppm	3244ppm	3332ppm	3512ppm
pH	> 6 & <9	7.33	7.44	7.37	7.42ppm
PAH	0.03ppm	N/a	N/a	N/a	N/a
PCBs	0.001ppm	N/a	N/a	N/a	N/a
Benzene	0.01ppm	<0.002ppm	<0.002ppm	<0.002ppm	<0.002ppm
Toluene	0.75ppm	<0.002ppm	<0.002ppm	<0.002ppm	<0.002ppm
Ethyl Benzene	0.75ppm	<0.002ppm	<0.002ppm	<0.002ppm	<0.002ppm
Total Xylenes	0.62ppm	<0.006ppm	<0.006ppm	<0.006ppm	<0.006ppm
TPH	N/a	<1.0	<1.0	<1.0	<1.0
Sodium	N/a	N/a	N/a	1190ppm	922ppm
Calcium	N/a	182ppm	200ppm	123ppm	210ppm
Magnesium	N/a	133ppm	152ppm	102ppm	148ppm
Potassium	N/a	5.9ppm	2.46ppm	6.15ppm	9.46ppm
Conductivity	N/a	4700ppm	4721ppm	4872ppm	5593ppm
T-Alkalinity	N/a	316ppm	320ppm	357ppm	359ppm
CO_3	N/a	0ppm	0ppm	0ppm	0ppm
HCO_3	N/a	386ppm	390ppm	435ppm	438ppm

Monitor Well #6 (Continued)

CONTAMINANT	WQCC STANDARD	TEST DATE 3/9/01
Arsenic	0.1ppm	N/a
Barium	1.0ppm	N/a
Cadmium	0.01ppm	N/a
Chloride	250.0ppm	990ppm
Chromium	0.05ppm	N/a
Copper	1.0ppm	N/a
Cyanide	0.2ppm	N/a
Fluoride	1.6ppm	1.83ppm
Iron	1.0ppm	N/a
Lead	0.05ppm	<0.05ppm
Manganese	0.2ppm	<0.2ppm
Mercury	0.002ppm	N/a
Nitrate	10.0ppm	N/a
Phenols	0.005ppm	N/a
Selenium	0.05ppm	N/a
Silver	0.05ppm	<0.05ppm
Sulfate	600ppm	780ppm
Zinc	10.0ppm	N/a
TDS	1000.0ppm	3348ppm
pH	> 6 & <9	7.49
PAH	0.03ppm	N/a
PCBs	0.001ppm	N/a
Benzene	0.01ppm	<0.002ppm
Toluene	0.75ppm	0.007ppm
Ethyl Benzene	0.75ppm	<0.002ppm
Total Xylenes	0.62ppm	<0.006ppm
TPH	N/a	<1.0
Sodium	N/a	N/a
Calcium	N/a	223ppm
Magnesium	N/a	130ppm
Potassium	N/a	7.1ppm
Conductivity	N/a	5328ppm
T-Alkalinity	N/a	340ppm
CO_3	N/a	0ppm
HCO_3	N/a	415ppm

Appendix B
Analytical Results

CARDINAL 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: DEE WHATLEY
703 E. CLINTON, STE. 103
HOBBS, NM 88240
FAX TO:

Receiving Date: 03/09/01
Reporting Date: 03/13/01
Project Owner: CHEVRON
Project Name: CHEVRON/DYNEGY
Project Location: MONUMENT

Sampling Date: 03/09/01
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: AH
Analyzed By: AH

LAB NUMBER	SAMPLE ID	Na (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Conductivity (mS/cm)	T-Alkalinity ($mgCaCO_3/L$)
ANALYSIS DATE:		03/13/01	03/12/01	03/12/01	03/12/01	03/12/01	03/12/01
H5690-1	MW 1	1921	575	270	15	11059	280
H5690-2	MW 2	1187	154	182	7.2	6015	694
H5690-3	MW 3	1010	120	213	9.5	5423	783
H5690-5	MW 5	1834	403	395	20	11378	494
H5690-6	MW 6	1012	223	130	7.1	5328	340
Quality Control		1.160	47	52	5.02	1489	NR
True Value QC		1.000	50	50	5.00	1413	NR
% Recovery		116	94.3	104	100	105	NR
Relative Percent Difference		0.9	0	0	2.8	0.3	NR
METHODS:		273.1	3500-Ca-D	3500-Mg E	8049	120.1	310.1

LAB NUMBER	SAMPLE ID	Cl^- (mg/L)	SO_4 (mg/L)	CO_3 (mg/L)	HCO_3 (mg/L)	pH (s.u.)	TDS (mg/L)
ANALYSIS DATE:		03/12/01	03/12/01	03/12/01	03/12/01	03/12/01	03/13/01
H5690-1	MW 1	2199	4250	0	341	7.22	8470
H5690-2	MW 2	1060	645	0	847	7.29	3756
H5690-3	MW 3	840	752	0	955	7.18	3620
H5690-5	MW 5	1919	3997	0	603	7.23	8462
H5690-6	MW 6	990	780	0	415	7.49	3348
Quality Control		1050	54.86	NR	995	7.03	NR
True Value QC		1000	50.00	NR	1000	7.00	NR
% Recovery		105	110	NR	99.5	100	NR
Relative Percent Difference		10.5	7.4	NR	0	0.1	NR
METHODS:		SM4500-Cl-B	375.4	310.1	310.1	150.1	160.1

Gayle A. Potter, Chemist

03/14/2001
Date

CARDINAL 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: DEE WHATLEY
703 E. CLINTON, #103
HOBBS, NM 88240
FAX TO:

Receiving Date: 03/09/01
Reporting Date: 03/14/01
Project Owner: CHEVRON
Project Name: CHEVRON/DYNEGY
Project Location: DYNEGY MONUMENT

Sampling Date: 03/09/01
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: AH
Analyzed By: BCBC

LAB NO.	SAMPLE ID	TPH (mg/L)	BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL BENZENE (mg/L)	TOTAL XYLENES (mg/L)
ANALYSIS DATE:		03/14/01	03/09/01	03/09/01	03/09/01	03/09/01
H5690-1	MW #1	4.44	<0.002	<0.002	<0.002	<0.006
H5690-2	MW #2	<1.0	<0.002	<0.002	<0.002	<0.006
H5690-3	MW #3	<1.0	<0.002	<0.002	<0.002	<0.006
H5690-5	MW #5	<1.0	<0.002	<0.002	<0.002	<0.006
H5690-6	MW #6	<1.0	<0.002	0.007	<0.002	<0.006
Quality Control		5.73	0.104	0.104	0.105	0.308
True Value QC		6.00	0.100	0.100	0.100	0.300
% Recovery		95.5	104	104	105	103
Relative Percent Difference		5.4	1.9	0.2	2.2	3.4

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

Burgess J.D. Cooke
Chemist

3/14/01
Date

H5690A.XLS

CARDINAL 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: DEE WHATLEY
703 E. CLINTON, STE. 103
HOBBS, NM 88240
FAX TO:

Receiving Date: 03/09/01
Reporting Date: 03/13/01
Project Owner: CHEVRON
Project Name: CHEVRON/DYNEGY
Project Location: MONUMENT

Sampling Date: 03/09/01
Sample Type: GROUNDWATER
Sample Condition: COOL & INTACT
Sample Received By: AH
Analyzed By: AH

LAB NUMBER	SAMPLE ID	F^- (ppm)	Ag (ppm)	Mn (ppm)	Pb (ppm)
ANALYSIS DATE		03/12/01	03/13/01	03/13/01	03/13/01
H5690-1	MW 1	1.70	<0.05	<0.2	<0.05
H5690-2	MW 2	1.84	<0.05	0.339	<0.05
H5690-3	MW 3	1.72	<0.05	<0.2	<0.05
H5690-5	MW 5	1.90	<0.05	0.417	<0.05
H5690-6	MW 6	1.83	<0.05	<0.2	<0.05
Quality Control		1.04	4.758	1.979	4.992
True Value QC		1.00	5.000	2.000	5.000
% Recovery		104	95.2	99.0	99.8
Relative Percent Difference		1.0	0.1	0.7	0.2

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

*Standard Methods

Chemist

03/14/2001
Date

CARDINAL LABORATORIES, INC.

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page____ of____

Company Name:	ESE	BILL TO	
Project Manager:	Dee Whatley	P.O. #:	
Address:		Company:	
City:	State: Zip:	Attn:	
Phone #:	Fax #:	Address:	
Project #:	Project Owner: Chevron	City:	
Project Name:	Chevron Dynegy	State: Zip:	
Project Location:	Dynegy Monument	Phone #:	
Sampler Name:	Dee Whatley	Fax #:	

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	OTHER:	PRESERV: ACID/BASE:	ICE / COOL	OTHER:	SAMPLING DATE	TIME	ANALYSIS REQUEST: BTEX	TPH 418.1	Florida	Cats + ANS	MN	PB	AG
H3690-1	M.W. #1	6	4	✓							✓		3-9-01	1:20	✓	✓	✓	✓	✓	✓	✓
-2	M.W. #2	6	4	✓							✓		"	"	✓	✓	✓	✓	✓	✓	✓
-3	M.W. #3	6	4	✓							✓		"	"	✓	✓	✓	✓	✓	✓	✓
-4	~~M.W. #4~~	6																			
-5	M.W. #5	6	4	✓							✓		"	"	✓	✓	✓	✓	✓	✓	✓
-6	M.W. #6	6	4	✓							✓		"	"	✓	✓	✓	✓	✓	✓	✓

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Terms and Conditions: Interest will be charged on all accounts more than 30 days past due at the rate of 24% per annum from the original date of invoice, and all costs of collections, including attorney's fees.

Sampler Relinquished:	Date: 3-9-01 Time: 1:20pm	Received By:	
Relinquished By:	Date: 3/9/01 Time: 1:35	Received By: (Lab Staff)	
Delivered By: (Circle One) Sampler - UPS - Bus - Other:		Sample Condition Cool: ☑ Yes ☐ No Intact: ☑ Yes ☐ No	CHECKED BY: (Initials)

Phone Result: ☐ Yes ☐ No Add'l Phone #:
Fax Result: ☐ Yes ☐ No Add'l Fax #:
REMARKS:

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

Appendix C
Water Analysis Validation

Cations and Anions Calculation Check							
	Sample Name	H5482-1	H5482-2	H5482-3		H5482-5	H5482-6
	Well Number	MW1	MW2	MW3	MW4	MW5	MW6
	Date	03/09/01	03/09/01	03/09/01		03/09/01	03/09/01
Equivalent Weight:	Lab	Cardinal	Cardinal	Cardinal	Cardinal	Cardinal	Cardinal
22.99	Sodium (mg/L)	1,921	1,187	1,010		1,834	1,012
20.04	Calcium (mg/L)	575	154	120		403	223
12.15	Magnesium (mg/L)	270	182	213		395	130
39.09	Potassium (mg/L)	15.0	7.2	9.5		20.0	7.1
35.45	Chloride (mg/L)	2,199	1,060	840		1,919	990
48.04	Sulfate (mg/L)	4,250	645	752		3,997	780
30.00	Carbonate (mg/L)	0.0	0.0	0.0		0.0	0.0
61.01	Bicarbonate (mg/L)	341	847	955		603	415
50.04	Alkalinity (mg/L CaCO3)	280	694	783		494	340
62.00	Nitrate (mg/L)	0.0	0.0	0.0		0.0	0.0
	Sum Cations (meq/L)	134.9	74.5	67.7		132.9	66.0
	Sum Anions (meq/L)	156.1	57.2	55.0		147.2	51.0
	Percent Difference	7.3	-13.1	-10.3		5.1	-12.9
	Measured TDS (evap., mg/L)	8,470	3,756	3,620		8,462	3,348
	TDS (calc. USGS sum, mg/L)	9,398	3,652	3,414		8,864	3,346
	TDS (meas.) / TDS (calc. USGS)	0.9	1.0	1.1		1.0	1.0
	TDS (calc. sum, mg/L)	9,571	4,082	3,900		9,171	3,557
	Elect. Conductivity (umhos/cm)	11,059	6,015	5,423		11,378	5,328
	TDS (C*0.7, mg/L)	7,741	4,211	3,796		7,965	3,730
	TDS (calc. USGS) / Conductivity	0.85	0.61	0.63		0.78	0.63
	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				