



**Phillips Petroleum Company
New Mexico
Lea County
EVGSAU 2801-017 - MWD Surveys**

Sperry-Sun

Survey Report

10 June, 2003

Data Source: Information from Location

Survey Ref: svy6623

SUR: L-28-17s-35e, 2410/S & 200/W
BHL: I-29-17s-35e, 1522/S & 764/E
API # 30-025-26993

HALLIBURTON

HALLIBURTON**Phillips Petroleum Company**

New Mexico

Lea County

Survey Report for EVGSAU 2801-017 - MWD Surveys

Data Source: Information from Location

Measured Depth (ft)	Incl. (Deg)	Azim. (Deg)	Station Coordinates TVD (ft)	Northings (ft)	Eastings (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Comment
4300.00	1.220	162.040	4299.50	40.80 S	23.40 E	9.87		
4346.00	1.140	144.180	4345.49	41.64 S	23.82 E	10.12	0.81	
4378.00	1.360	198.450	4377.48	42.26 S	23.88 E	10.48	3.62	
4383.00	1.640	226.690	4382.48	42.36 S	23.81 E	10.61	15.61	
4391.00	2.980	243.760	4390.48	42.53 S	23.54 E	10.92	18.65	
4401.00	4.910	252.340	4400.45	42.78 S	22.90 E	11.56	20.13	
4409.00	3.520	249.340	4408.43	42.97 S	22.35 E	12.10	17.59	
4436.00	10.050	246.920	4435.23	44.18 S	19.40 E	15.11	24.20	
4465.00	18.020	244.620	4463.34	47.10 S	13.01 E	21.81	27.54	
4497.00	26.220	240.690	4492.96	52.69 S	2.36 E	33.47	26.03	
4528.00	37.630	235.390	4519.23	61.45 S	11.45 W	49.60	37.87	
4560.00	50.340	232.840	4542.21	74.50 S	29.38 W	71.65	40.10	
4592.00	63.470	231.500	4559.65	90.92 S	50.50 W	98.34	41.18	
4623.00	75.540	229.170	4570.48	109.44 S	72.79 W	127.30	39.56	
4655.00	80.590	230.040	4577.10	129.72 S	96.63 W	158.58	16.00	
4687.00	84.450	230.670	4581.26	149.96 S	121.06 W	190.28	12.22	
4718.00	86.800	233.260	4583.63	169.00 S	145.40 W	221.11	11.26	
4750.00	88.440	234.030	4584.96	187.95 S	171.15 W	252.93	5.66	
4781.00	88.630	232.060	4585.75	206.58 S	195.91 W	283.80	6.38	
4813.00	89.220	231.540	4586.35	226.37 S	221.05 W	315.72	2.46	
4844.00	91.450	229.850	4586.17	246.00 S	245.04 W	346.69	9.03	
4875.00	92.840	229.350	4585.01	266.08 S	268.63 W	377.65	4.76	
4907.00	93.770	230.180	4583.16	286.71 S	293.02 W	409.59	3.89	
4938.00	93.090	229.480	4581.31	306.67 S	316.66 W	440.52	3.15	
4970.00	94.320	228.440	4579.24	327.64 S	340.75 W	472.44	5.03	
5002.00	92.820	228.120	4577.25	348.89 S	364.58 W	504.38	4.79	
5033.00	91.150	228.140	4576.17	369.57 S	387.65 W	535.36	5.39	
5064.00	90.860	231.150	4575.63	389.64 S	411.27 W	566.34	9.75	
5096.00	90.000	227.750	4575.39	410.44 S	435.58 W	598.32	10.96	
5128.00	90.280	229.450	4575.31	431.60 S	459.58 W	630.32	5.38	
5160.00	90.580	228.650	4575.07	452.57 S	483.75 W	662.32	2.67	
5191.00	91.830	227.970	4574.42	473.18 S	506.90 W	693.31	4.59	
5223.00	91.560	228.520	4573.47	494.48 S	530.76 W	725.29	1.91	
5254.00	90.770	228.220	4572.84	515.07 S	553.92 W	756.29	2.73	
5285.00	91.840	228.380	4572.14	535.69 S	577.06 W	787.28	3.49	
5317.00	92.440	228.430	4570.94	556.92 S	600.98 W	819.25	1.88	
5349.00	91.700	228.300	4569.79	578.17 S	624.88 W	851.23	2.35	
5380.00	92.590	229.320	4568.63	598.57 S	648.19 W	882.21	4.37	
5411.00	93.660	229.950	4566.94	618.61 S	671.77 W	913.15	4.00	
5443.00	94.540	229.000	4564.65	639.35 S	696.04 W	945.06	4.04	
5475.00	94.940	228.960	4562.00	660.28 S	720.10 W	976.94	1.26	
5506.00	93.390	228.580	4559.75	680.66 S	743.35 W	1007.86	5.15	
5538.00	90.960	228.070	4558.54	701.92 S	767.23 W	1039.83	7.76	
5570.00	89.600	227.150	4558.38	723.49 S	790.86 W	1071.83	5.13	
5602.00	89.690	228.610	4558.58	744.95 S	814.60 W	1103.83	4.57	

HALLIBURTON

Phillips Petroleum Company
New Mexico
Lea County

Survey Report for EVGSAU 2801-017 - MWD Surveys

Data Source: Information from Location

Measured Depth (ft)	Incl. (Deg)	Azim. (Deg)	Station Coordinates TVD (ft)	Northings (ft)	Eastings (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Comment
5633.00	90.190	226.900	4558.61	765.79 S	837.55 W	1134.83	5.75	
5665.00	90.190	225.940	4558.51	787.85 S	860.73 W	1166.81	3.00	
5697.00	90.280	225.940	4558.37	810.11 S	883.72 W	1198.79	0.28	
5728.00	89.880	225.580	4558.33	831.73 S	905.93 W	1229.77	1.74	
5759.00	90.150	225.590	4558.32	853.43 S	928.07 W	1260.74	0.87	Last MWD Survey @ 5759' md
5809.00	90.150	225.590	4558.19	888.42 S	963.79 W	1310.69	0.00	Projection to TD @ 5809' md

All data is in Feet (US) unless otherwise stated. Directions and coordinates are relative to True North. Vertical depths are relative to Well. Northings and Eastings are relative to Well.

The Dogleg Severity is in Degrees per 100 feet.

Vertical Section is from Well and calculated along an Azimuth of 228.050° (True).

Magnetic Declination at Surface is 7.716° (10-Jun-03)

Based upon Minimum Curvature type calculations, at a Measured Depth of 5809.00ft., The Bottom Hole Displacement is 1310.79ft., in the Direction of 227.330° (True).

Comments

Measured Depth (ft)	Station Coordinates TVD (ft)	Northings (ft)	Eastings (ft)	Comment
5759.00	4558.32	853.43 S	928.07 W	Last MWD Survey @ 5759' md
5809.00	4558.19	888.42 S	963.79 W	Projection to TD @ 5809' md

S C I E N T I F I C D R I L L I N G C O N T R O L S

KEEPER GYRO SURVEY
Directional Survey Report
for

CONOCO\PHILLIPS

Well Number	:	E.V.G.S.A.U. 2801-017
Well Location	:	LEA COUNTY, NEW MEXICO
Job Number	:	32K03030118
Location Latitude	:	32.805
Survey Date	:	14-MAR-2003
S.D.C. Personnel	:	ANGEL GUEBARA
Length Units	:	Feet
North Reference	:	TRUE North
Grid Correction	:	0.00 Degrees
Survey Depth Zero	:	WELLHEAD
Proposal Direction	:	
Calculation Method	:	Minimum Curvature

Remarks : The INRUN Survey will be called definitive

SCIENTIFIC DRILLING CONTROLS

Inrun Survey
for
CONOCO/PHILLIPS

Page 1

Well No.: E.V.G.S.A.U. 2801-017

Date : 14-MAR-2003

Job No. : 32K03030118

Proposal : 0.00

Depth (Feet)	T.V.D. (Feet)	V.S. (Feet)	Inc Deg.	TRUE Azimuth Deg.	Latitude (Feet)	Departure (Feet)	D-leg /100
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	100.00	0.22	0.48	59.03	0.22	0.36	0.48
200.00	200.00	0.66	0.50	58.72	0.66	1.09	0.02
300.00	299.99	0.73	0.55	108.34	0.73	1.92	0.44
400.00	399.98	-0.02	0.89	140.95	-0.02	2.86	0.52
500.00	499.97	-0.94	0.56	131.16	-0.94	3.72	0.35
600.00	599.97	-1.62	0.89	116.81	-1.62	4.78	0.38
700.00	699.96	-2.44	0.67	143.35	-2.44	5.83	0.42
800.00	799.95	-3.25	0.97	113.79	-3.25	6.95	0.51
900.00	899.93	-4.22	1.02	135.00	-4.22	8.35	0.37
1000.00	999.91	-5.19	1.06	111.70	-5.19	9.84	0.42
1100.00	1099.90	-6.12	1.12	126.98	-6.12	11.47	0.30
1200.00	1199.88	-7.05	0.62	130.22	-7.05	12.67	0.50
1300.00	1299.87	-7.82	0.89	122.72	-7.82	13.73	0.28
1400.00	1399.86	-8.98	0.96	152.29	-8.98	14.78	0.48
1500.00	1499.85	-10.23	0.62	160.20	-10.23	15.35	0.35
1600.00	1599.85	-11.06	0.37	162.91	-11.06	15.63	0.25
1700.00	1699.84	-11.81	0.53	163.06	-11.81	15.86	0.16
1800.00	1799.84	-12.93	0.79	172.53	-12.93	16.08	0.28
1900.00	1899.82	-14.61	1.16	185.95	-14.61	16.07	0.43
2000.00	1999.80	-16.80	1.41	195.73	-16.80	15.63	0.33
2100.00	2099.77	-19.14	1.36	191.77	-19.14	15.05	0.11
2200.00	2199.74	-21.61	1.50	182.20	-21.61	14.76	0.27
2300.00	2299.70	-24.19	1.46	183.03	-24.19	14.64	0.04
2400.00	2399.67	-26.79	1.53	186.40	-26.79	14.43	0.11
2500.00	2499.64	-29.33	1.41	188.52	-29.33	14.10	0.13
2600.00	2599.62	-30.91	0.41	178.47	-30.91	13.93	1.01
2700.00	2699.62	-31.24	0.37	86.30	-31.24	14.26	0.56
2800.00	2799.61	-30.88	0.89	64.06	-30.88	15.28	0.56
2900.00	2899.60	-30.10	0.89	55.07	-30.10	16.61	0.14
3000.00	2999.59	-29.07	0.94	45.22	-29.07	17.83	0.16
3100.00	3099.58	-28.21	0.69	61.04	-28.21	18.94	0.33
3200.00	3199.57	-27.80	0.38	70.16	-27.80	19.78	0.32
3300.00	3299.57	-27.73	0.25	100.19	-27.73	20.31	0.21
3400.00	3399.57	-28.09	0.38	164.16	-28.09	20.61	0.36
3500.00	3499.57	-28.95	0.64	165.13	-28.95	20.85	0.25
3600.00	3599.56	-30.14	0.81	156.82	-30.14	21.27	0.20
3700.00	3699.55	-31.34	0.73	150.75	-31.34	21.86	0.11
3800.00	3799.54	-32.40	0.62	158.54	-32.40	22.37	0.14
3900.00	3899.53	-33.59	0.78	177.26	-33.59	22.60	0.28

SCIENTIFIC DRILLING CONTROLS

Inrun Survey
for
CONOCO/PHILLIPS

Page 2

Well No.: E.V.G.S.A.U. 2801-017

Date : 14-MAR-2003

Job No. : 32K03030118

TRUE

Proposal : 0.00

Depth	T.V.D.	V.S.	Inc	Azimuth	Latitude	Departure	D-leg
(Feet)	(Feet)	(Feet)	Deq.	Deq.	(Feet)	(Feet)	/100

4000.00	3999.52	-35.18	1.04	182.03	-35.18	22.60	0.28
4100.00	4099.51	-36.95	1.05	160.34	-36.95	22.88	0.39
4200.00	4199.49	-38.78	1.12	183.38	-38.78	23.13	0.44
4300.00	4299.47	-40.77	1.22	162.04	-40.77	23.40	0.44
4390.00	4389.45	-42.27	0.80	161.41	-42.27	23.89	0.47

The Horizontal Displacement (in Feet) at

Measured Depth 4390.00 is 48.56 in a Direction of 150.53 Degrees



**Phillips Petroleum Company
New Mexico
Lea County
EVGSAU 3229-010 - MWD Surveys**

Sperry-Sun

Survey Report

9 June, 2003

Data Source: Information from Location

Survey Ref: svy6609

HALLIBURTON

HALLIBURTON

Phillips Petroleum Company
New Mexico
Lea County

Survey Report for EVGSAU 3229-010

Data Source: Information from Location

Measured Depth (ft)	Incl. (Deg)	Azim. (Deg)	Station TVD (ft)	Coordinates Northings (ft)	Eastings (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Comment
Gyro								
0.00	0.000	0.000	0.00	0.00 N	0.00 E	0.00		
100.00	0.274	254.144	100.00	0.07 S	0.23 W	-0.21	0.27	
200.00	0.184	261.403	200.00	0.15 S	0.62 W	-0.58	0.10	
300.00	0.300	235.193	300.00	0.33 S	0.99 W	-0.91	0.16	
400.00	0.302	219.944	400.00	0.68 S	1.38 W	-1.21	0.08	
500.00	0.313	218.602	500.00	1.09 S	1.72 W	-1.46	0.01	
600.00	0.316	217.543	599.99	1.53 S	2.05 W	-1.71	0.01	
700.00	0.471	202.701	699.99	2.12 S	2.38 W	-1.91	0.18	
800.00	0.531	195.317	799.99	2.95 S	2.66 W	-2.02	0.09	
900.00	0.547	195.145	899.98	3.86 S	2.91 W	-2.08	0.02	
1000.00	0.574	193.158	999.98	4.81 S	3.15 W	-2.13	0.03	
1100.00	0.619	189.936	1099.97	5.83 S	3.35 W	-2.13	0.06	
1200.00	0.642	193.334	1199.97	6.90 S	3.58 W	-2.13	0.04	
1300.00	0.298	210.739	1299.96	7.67 S	3.84 W	-2.24	0.37	
1400.00	0.257	219.797	1399.96	8.07 S	4.12 W	-2.43	0.06	
1500.00	0.312	233.096	1499.96	8.40 S	4.48 W	-2.71	0.09	
1600.00	0.327	238.347	1599.96	8.72 S	4.94 W	-3.10	0.03	
1700.00	0.342	232.923	1699.96	9.05 S	5.42 W	-3.51	0.04	
1800.00	0.396	245.690	1799.96	9.37 S	5.97 W	-3.99	0.10	
1900.00	0.418	253.415	1899.95	9.61 S	6.64 W	-4.59	0.06	
2000.00	0.511	277.586	1999.95	9.66 S	7.43 W	-5.36	0.21	
2100.00	0.584	298.435	2099.95	9.36 S	8.32 W	-6.29	0.21	
2200.00	0.644	312.304	2199.94	8.74 S	9.18 W	-7.26	0.16	
2300.00	0.590	322.686	2299.93	7.95 S	9.91 W	-8.13	0.12	
2400.00	0.460	331.652	2399.93	7.19 S	10.41 W	-8.77	0.15	
2500.00	0.471	325.478	2499.93	6.49 S	10.84 W	-9.33	0.05	
2600.00	0.620	318.377	2599.92	5.75 S	11.43 W	-10.05	0.16	
2700.00	0.670	334.163	2699.92	4.82 S	12.04 W	-10.84	0.18	
2800.00	0.748	339.100	2799.91	3.68 S	12.53 W	-11.55	0.10	
2900.00	0.780	344.829	2899.90	2.42 S	12.94 W	-12.20	0.08	
3000.00	0.834	341.826	2999.89	1.07 S	13.35 W	-12.87	0.07	
3100.00	0.767	336.711	3099.88	0.24 N	13.84 W	-13.61	0.10	
3200.00	0.579	347.002	3199.87	1.34 N	14.22 W	-14.20	0.22	
3300.00	0.614	12.878	3299.87	2.36 N	14.21 W	-14.40	0.27	
3400.00	0.603	353.300	3399.86	3.40 N	14.15 W	-14.55	0.21	
3500.00	0.730	358.610	3499.85	4.56 N	14.23 W	-14.85	0.14	
3600.00	0.768	13.650	3599.85	5.85 N	14.09 W	-14.97	0.20	
3700.00	0.865	2.158	3699.84	7.26 N	13.90 W	-15.07	0.19	
3800.00	1.098	12.738	3799.82	8.95 N	13.66 W	-15.17	0.29	
3900.00	1.123	24.179	3899.80	10.77 N	13.05 W	-14.93	0.22	

HALLIBURTON

Phillips Petroleum Company
New Mexico
Lea County

Survey Report for EVGSAU 3229-010

Data Source: Information from Location

Measured Depth (ft)	Incl. (Deg)	Azim. (Deg)	Station TVD (ft)	Coordinates Northings (ft)	Eastings (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Comment
4000.00	1.489	20.006	3999.78	12.89 N	12.20 W	-14.52	0.38	
4100.00	1.360	30.093	4099.75	15.14 N	11.16 W	-13.95	0.28	
4200.00	1.685	24.873	4199.71	17.50 N	9.95 W	-13.23	0.35	
4213.00	1.750	27.150	4212.70	17.85 N	9.78 W	-13.13	0.72	
4254.00	2.060	54.450	4253.68	18.83 N	8.89 W	-12.46	2.31	
4270.00	4.740	89.980	4269.65	19.00 N	8.00 W	-11.62	20.55	
4285.00	8.960	95.670	4284.54	18.88 N	6.21 W	-9.85	28.46	Last Gyro Survey @ 4285' md

MWD Surveys

4310.00	14.920	110.710	4309.00	17.55 N	1.26 W	-4.73	26.70	1st MWD Survey @ 4310' md
4340.00	24.280	105.930	4337.23	14.49 N	8.30 E	5.26	31.63	
4371.00	33.590	103.460	4364.33	10.73 N	22.81 E	20.21	30.27	
4403.00	43.000	101.420	4389.42	6.50 N	42.15 E	40.02	29.67	
4434.00	52.470	100.200	4410.25	2.22 N	64.67 E	62.93	30.69	
4466.00	62.530	100.580	4427.42	2.64 S	91.18 E	89.88	31.45	
4496.00	72.300	102.780	4438.93	8.26 S	118.26 E	117.54	33.26	
4528.00	81.930	105.740	4446.05	15.95 S	148.45 E	148.66	31.41	
4560.00	85.130	107.930	4449.66	25.16 S	178.88 E	180.31	12.09	
4592.00	89.470	108.850	4451.17	35.24 S	209.21 E	212.03	13.86	
4624.00	91.410	108.680	4450.92	45.53 S	239.50 E	243.77	6.09	
4655.00	90.870	106.390	4450.30	54.87 S	269.05 E	274.59	7.59	
4687.00	91.580	105.860	4449.62	63.76 S	299.79 E	306.48	2.77	
4718.00	92.200	105.860	4448.60	72.22 S	329.59 E	337.37	2.00	
4749.00	92.200	105.160	4447.41	80.51 S	359.44 E	368.27	2.26	
4781.00	91.490	104.810	4446.38	88.78 S	390.34 E	400.20	2.47	
4813.00	89.470	104.460	4446.11	96.86 S	421.29 E	432.14	6.41	
4843.00	89.740	104.630	4446.32	104.40 S	450.33 E	462.10	1.06	
4874.00	90.610	104.460	4446.22	112.18 S	480.34 E	493.06	2.86	
4905.00	91.490	104.280	4445.65	119.87 S	510.36 E	524.01	2.90	
4937.00	90.700	104.810	4445.04	127.91 S	541.33 E	555.96	2.97	
4968.00	89.380	105.160	4445.02	135.92 S	571.28 E	586.90	4.41	
5000.00	88.940	104.280	4445.49	144.05 S	602.22 E	618.84	3.07	
5032.00	89.120	102.880	4446.03	151.57 S	633.32 E	650.82	4.41	
5063.00	89.120	101.290	4446.51	158.06 S	663.63 E	681.81	5.13	
5094.00	89.820	101.120	4446.79	164.08 S	694.04 E	712.81	2.32	
5126.00	89.560	99.540	4446.97	169.82 S	725.52 E	744.80	5.00	
5157.00	89.380	98.310	4447.25	174.63 S	756.14 E	775.77	4.01	
5189.00	89.740	98.480	4447.50	179.30 S	787.80 E	807.72	1.24	
5220.00	89.910	98.310	4447.60	183.82 S	818.46 E	838.68	0.78	
5251.00	90.790	97.600	4447.41	188.11 S	849.17 E	869.62	3.65	
5282.00	90.790	96.720	4446.98	191.98 S	879.92 E	900.53	2.84	
5314.00	90.090	97.070	4446.73	195.82 S	911.69 E	932.42	2.45	
5346.00	90.530	96.720	4446.56	199.66 S	943.46 E	964.32	1.76	
5378.00	91.050	98.480	4446.12	203.89 S	975.17 E	996.24	5.73	

HALLIBURTON

Phillips Petroleum Company
New Mexico
Lea County

Survey Report for EVGSAU 3229-010

Data Source: Information from Location

Measured Depth (ft)	Incl. (Deg)	Azim. (Deg)	Station Coordinates			Vertical Section (ft)	Dogleg Rate (°/100ft)	Comment
TVD (ft)	Northings (ft)	Eastings (ft)						
5409.00	91.320	97.950	4445.48	208.32 S	1005.85 E	1027.18	1.92	
5440.00	91.330	99.080	4444.76	212.91 S	1036.50 E	1058.13	3.64	
5472.00	92.090	99.220	4443.81	218.00 S	1068.07 E	1090.09	2.41	
5503.00	91.930	100.410	4442.72	223.28 S	1098.60 E	1121.06	3.87	
5535.00	92.370	100.240	4441.52	229.01 S	1130.06 E	1153.03	1.47	
5566.00	91.930	100.940	4440.35	234.70 S	1160.51 E	1184.01	2.67	
5598.00	91.930	100.240	4439.28	240.58 S	1191.95 E	1215.98	2.19	
5630.00	90.790	100.770	4438.52	246.41 S	1223.40 E	1247.97	3.93	
5661.00	92.020	100.770	4437.76	252.20 S	1253.85 E	1278.96	3.97	
5693.00	91.760	101.120	4436.70	258.28 S	1285.25 E	1310.94	1.36	
5725.00	92.460	101.120	4435.52	264.44 S	1316.62 E	1342.91	2.19	
5756.00	92.720	102.700	4434.12	270.83 S	1346.92 E	1373.88	5.16	
5788.00	93.780	102.700	4432.31	277.86 S	1378.09 E	1405.82	3.31	
5819.00	90.790	100.770	4431.07	284.16 S	1408.41 E	1436.79	11.48	
5832.00	94.570	102.350	4430.46	286.76 S	1421.13 E	1449.78	31.51	Last MWD Survey @ 5832' md
5882.00	94.570	102.350	4426.48	297.42 S	1469.82 E	1499.61	0.00	Projection to TD @ 5882' md

All data is in Feet (US) unless otherwise stated. Directions and coordinates are relative to True North. Vertical depths are relative to Well. Northings and Eastings are relative to Well.

The Dogleg Severity is in Degrees per 100 feet.

Vertical Section is from Well and calculated along an Azimuth of 101.480° (True).

Magnetic Declination at Surface is 7.724° (09-Jun-03)

Based upon Minimum Curvature type calculations, at a Measured Depth of 5882.00ft., The Bottom Hole Displacement is 1499.61ft., in the Direction of 101.439° (True).

Comments

Measured Depth (ft)	TVD (ft)	Station Coordinates		Comment
		Northings (ft)	Eastings (ft)	
4285.00	4284.54	18.88 N	6.21 W	Last Gyro Survey @ 4285' md
4310.00	4309.00	17.55 N	1.26 W	1st MWD Survey @ 4310' md
5832.00	4430.46	286.76 S	1421.13 E	Last MWD Survey @ 5832' md
5882.00	4426.48	297.42 S	1469.82 E	Projection to TD @ 5882' md

A Gyrodata Directional Survey

CONOCO PHILLIPS

Well: EVG TSAU 3229-10, 2 7/8" DRILLPIPE

Location: POOL # 680, LEA COUNTY, NEW MEXICO

Job Number: MD0503GW175

MEASURED INCL DEPTH feet	deg.	AZIMUTH deg.	BORE HOLE BEARING deg. min.	DOGLEG SEVERITY deg./ 100 ft.	VERTICAL DEPTH feet	CLOSURE DIST. AZIMUTH feet deg.	HORIZONTAL COORDINATES feet
0.00	0.00	0.00	N 0 0 E	0.00	0.00	0.0 0.0	0.00 N 0.00 E

0'-4213' RATE GYROSCOPIC MULTISHOT SURVEY RUN INSIDE 2 7/8" DRILLPIPE							
ALL MEASURED DEPTHS AND COORDINATES REFERENCED TO POOL # 680 R.K.B.							

100.00	0.27	254.14	S 74 9 W	0.27	100.00	0.2 254.1	0.07 S 0.23W
200.00	0.18	261.40	S 81 24 W	0.10	200.00	0.6 256.0	0.15 S 0.62W
300.00	0.30	235.19	S 55 12 W	0.16	300.00	1.0 251.7	0.33 S 0.99W
400.00	0.30	219.94	S 39 57 W	0.08	400.00	1.5 243.7	0.68 S 1.38W
500.00	0.31	218.60	S 38 36 W	0.01	500.00	2.0 237.5	1.09 S 1.72W
600.00	0.32	217.54	S 37 33 W	0.01	599.99	2.6 233.4	1.53 S 2.05W
700.00	0.47	202.70	S 22 42 W	0.18	699.99	3.2 228.3	2.12 S 2.38W
800.00	0.53	195.32	S 15 19 W	0.09	799.99	4.0 222.1	2.95 S 2.66W
900.00	0.55	195.15	S 15 9 W	0.02	899.98	4.8 217.0	3.86 S 2.91W
1000.00	0.57	193.16	S 13 9 W	0.03	999.98	5.7 213.2	4.81 S 3.15W
1100.00	0.62	189.94	S 9 56 W	0.06	1099.97	6.7 209.9	5.83 S 3.35W
1200.00	0.64	193.33	S 13 20 W	0.04	1199.97	7.8 207.4	6.90 S 3.58W
1300.00	0.30	210.74	S 30 44 W	0.37	1299.96	8.6 206.6	7.67 S 3.84W
1400.00	0.26	219.80	S 39 48 W	0.06	1399.96	9.1 207.0	8.07 S 4.12W

CONOCO PHILLIPS

Well: EVGTSAU 3229-10, 2 7/8" DRILLPIPE

Location: POOL # 680, LEA COUNTY, NEW MEXICO

Job Number: MD0503GW175

A Gyrodata Directional Survey

MEASURED INCL DEPTH feet	deg.	AZIMUTH deg.	BORE HOLE BEARING deg. min.	DOGLEG SEVERITY deg./ 100 ft.	VERTICAL DEPTH feet	CLOSURE DIST. AZIMUTH feet deg.	HORIZONTAL COORDINATES feet
1500.00	0.31	233.10	S 53 6 W	0.09	1499.96	9.5 208.0	8.40 S 4.48W
1600.00	0.33	238.35	S 58 21 W	0.03	1599.96	10.0 209.5	8.72 S 4.94W
1700.00	0.34	232.92	S 52 55 W	0.04	1699.96	10.5 210.9	9.05 S 5.42W
1800.00	0.40	245.69	S 65 41 W	0.10	1799.96	11.1 212.5	9.37 S 5.97W
1900.00	0.42	253.41	S 73 25 W	0.06	1899.95	11.7 214.6	9.61 S 6.64W
2000.00	0.51	277.59	N 82 25 W	0.21	1999.95	12.2 217.6	9.66 S 7.43W
2100.00	0.58	298.44	N 61 34 W	0.21	2099.95	12.5 221.6	9.36 S 8.32W
2200.00	0.64	312.30	N 47 42 W	0.16	2199.94	12.7 226.4	8.74 S 9.18W
2300.00	0.59	322.69	N 37 19 W	0.12	2299.93	12.7 231.3	7.95 S 9.91W
2400.00	0.46	331.65	N 28 21 W	0.15	2399.93	12.7 235.4	7.19 S 10.41W
2500.00	0.47	325.48	N 34 31 W	0.05	2499.93	12.6 239.1	6.49 S 10.84W
2600.00	0.62	318.38	N 41 37 W	0.16	2599.92	12.8 243.3	5.75 S 11.43W
2700.00	0.67	334.16	N 25 50 W	0.18	2699.92	13.0 248.2	4.82 S 12.04W
2800.00	0.75	339.10	N 20 54 W	0.10	2799.91	13.1 253.6	3.68 S 12.53W
2900.00	0.78	344.83	N 15 10 W	0.08	2899.90	13.2 259.4	2.42 S 12.94W
3000.00	0.83	341.83	N 18 10 W	0.07	2999.89	13.4 265.4	1.07 S 13.35W
3100.00	0.77	336.71	N 23 17 W	0.10	3099.88	13.8 271.0	0.24 N 13.84W
3200.00	0.58	347.00	N 13 0 W	0.22	3199.87	14.3 275.4	1.34 N 14.22W

CONOCO PHILLIPS

Well: EVGTSAU 3229-10, 2 7/8" DRILLPIPE

Location: POOL # 680, LEA COUNTY, NEW MEXICO

Job Number: MD0503GW175

A Gyrodata Directional Survey

MEASURED INCL DEPTH feet	deg.	AZIMUTH deg.	BORE HOLE BEARING deg. min.	DOGLEG SEVERITY deg./ 100 ft.	VERTICAL DEPTH feet	CLOSURE DIST. AZIMUTH feet deg.	HORIZONTAL COORDINATES feet
3300.00	0.61	12.88	N 12 53 E	0.27	3299.87	14.4 279.4	2.36 N 14.21 W
3400.00	0.60	353.30	N 6 42 W	0.21	3399.86	14.6 283.5	3.40 N 14.15 W
3500.00	0.73	358.61	N 1 23 W	0.14	3499.85	14.9 287.8	4.56 N 14.23 W
3600.00	0.77	13.65	N 13 39 E	0.20	3599.85	15.3 292.6	5.85 N 14.09 W
3700.00	0.86	2.16	N 2 9 E	0.19	3699.84	15.7 297.6	7.26 N 13.90 W
3800.00	1.10	12.74	N 12 44 E	0.29	3799.82	16.3 303.2	8.95 N 13.66 W
3900.00	1.12	24.18	N 24 11 E	0.22	3899.80	16.9 309.5	10.77 N 13.05 W
4000.00	1.49	20.01	N 20 0 E	0.38	3999.78	17.7 316.6	12.89 N 12.20 W
4100.00	1.36	30.09	N 30 6 E	0.28	4099.75	18.8 323.6	15.14 N 11.16 W
4200.00	1.69	24.87	N 24 52 E	0.35	4199.71	20.1 330.4	17.50 N 9.95 W
4213.00	1.75	27.15	N 27 9 E	0.75	4212.70	20.4 331.3	17.85 N 9.78 W

Final Station Closure: Distance: 20.35 ft Az: 331.28 deg.