

HALLIBURTON

SUR: H-33-17s-35e, 1380/N & 1280/E

BHL: G-33-17s-35e, 2204/N & 2477/E

API #30-025-26232

Phillips Petroleum

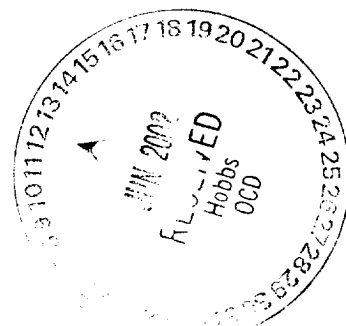
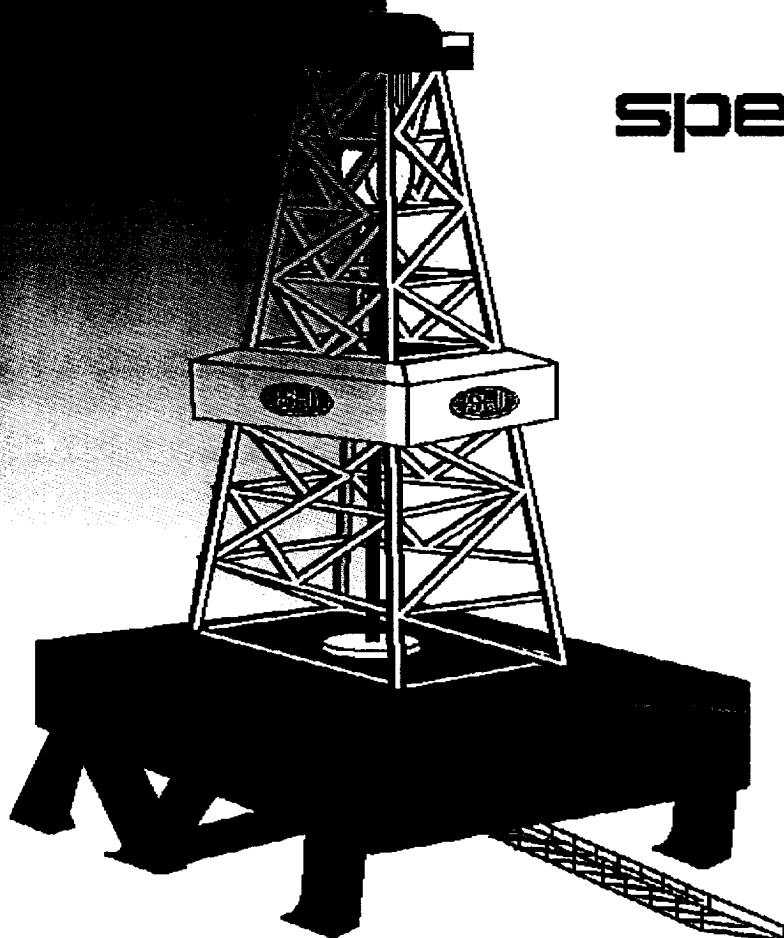
EVGSAU 3333-004

Lea County, New Mexico

Sec 33-T17S-R35E

May 28, 2002

sperry-sun



Phillips Petroleum Company

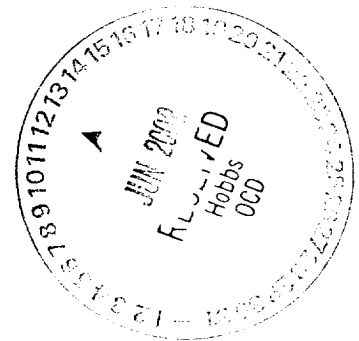
***New Mexico
Lea County
EVGSAU 3333-004 - MWD Surveys***

Survey Report

10 May, 2002

Data Source: Information from Location

**HALLIBURTON
Sperry-Sun**



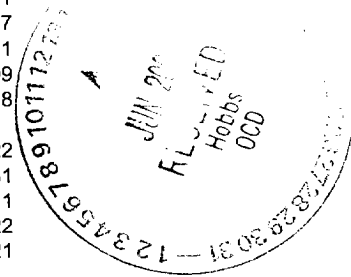
Phillips Petroleum Company

Survey Report for EVGSAU 3333-004
Data Source: Information from Location

New Mexico

Lea County

Measured Depth (ft)	Incl. (Deg)	Azim. (Deg)	Station Coordinates TVD (ft)	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	0.300	146.770	100.00	0.22 S	0.14 E	0.01	0.30	
200.00	0.320	155.990	200.00	0.69 S	0.40 E	0.06	0.05	
300.00	0.430	157.000	300.00	1.29 S	0.66 E	0.18	0.11	
400.00	0.830	156.770	399.99	2.30 S	1.09 E	0.40	0.40	
500.00	0.500	157.890	499.98	3.37 S	1.54 E	0.63	0.33	
600.00	0.370	159.250	599.98	4.08 S	1.82 E	0.80	0.13	
700.00	0.620	159.160	699.98	4.89 S	2.13 E	1.00	0.25	
800.00	0.440	159.710	799.97	5.75 S	2.45 E	1.22	0.18	
900.00	0.460	160.730	899.97	6.49 S	2.72 E	1.42	0.02	
1000.00	0.460	162.730	999.97	7.26 S	2.97 E	1.64	0.02	
1100.00	0.520	163.800	1099.96	8.07 S	3.22 E	1.90	0.06	
1200.00	0.520	166.450	1199.96	8.95 S	3.45 E	2.20	0.02	
1300.00	0.540	168.940	1299.95	9.85 S	3.65 E	2.55	0.03	
1400.00	0.570	169.290	1399.95	10.81 S	3.83 E	2.94	0.03	
1500.00	0.630	172.110	1499.94	11.84 S	4.00 E	3.38	0.07	
1600.00	0.640	174.300	1599.94	12.94 S	4.13 E	3.89	0.03	
1700.00	0.740	173.420	1699.93	14.14 S	4.26 E	4.46	0.10	
1800.00	0.810	172.140	1799.92	15.48 S	4.43 E	5.08	0.07	
1900.00	0.870	162.060	1899.91	16.90 S	4.76 E	5.61	0.16	
2000.00	0.900	157.060	1999.90	18.35 S	5.30 E	5.98	0.08	
2100.00	1.010	154.060	2099.88	19.86 S	5.99 E	6.26	0.12	
2200.00	1.180	153.290	2199.87	21.57 S	6.84 E	6.53	0.17	
2300.00	1.280	151.050	2299.84	23.47 S	7.84 E	6.77	0.11	
2400.00	1.320	139.380	2399.82	25.32 S	9.13 E	6.75	0.27	
2500.00	1.490	131.410	2499.79	27.06 S	10.86 E	6.31	0.26	
2600.00	1.440	122.080	2599.75	28.59 S	12.90 E	5.49	0.24	
2700.00	1.400	115.430	2699.72	29.78 S	15.07 E	4.37	0.17	
2800.00	1.290	108.880	2799.70	30.67 S	17.23 E	3.08	0.19	
2900.00	1.290	107.080	2899.67	31.36 S	19.38 E	1.71	0.04	
3000.00	1.190	105.040	2999.65	31.96 S	21.45 E	0.33	0.11	
3100.00	1.050	99.830	3099.63	32.39 S	23.36 E	-1.00	0.17	
3200.00	1.000	94.100	3199.61	32.61 S	25.13 E	-2.34	0.11	
3300.00	0.930	91.090	3299.60	32.68 S	26.81 E	-3.69	0.09	
3400.00	0.900	79.830	3399.59	32.56 S	28.40 E	-5.07	0.18	
3500.00	0.920	65.860	3499.57	32.09 S	29.90 E	-6.57	0.22	
3600.00	1.040	49.180	3599.56	31.17 S	31.32 E	-8.27	0.31	
3700.00	1.040	42.960	3699.54	29.91 S	32.63 E	-10.05	0.11	
3800.00	1.190	34.510	3799.52	28.39 S	33.84 E	-11.91	0.22	
3900.00	1.330	27.120	3899.50	26.51 S	34.95 E	-13.89	0.21	
4000.00	1.490	25.030	3999.47	24.29 S	36.03 E	-16.03	0.17	
4100.00	1.340	22.250	4099.44	22.03 S	37.03 E	-18.13	0.16	
4200.00	1.750	23.530	4199.40	19.55 S	38.08 E	-20.40	0.41	
4206.00	1.650	21.940	4205.40	19.39 S	38.15 E	-20.55	1.84	
4257.00	1.700	18.780	4256.38	17.99 S	38.66 E	-21.76	0.21	



Phillips Petroleum Company

Survey Report for EVGSAU 3333-004

Data Source: Information from Location

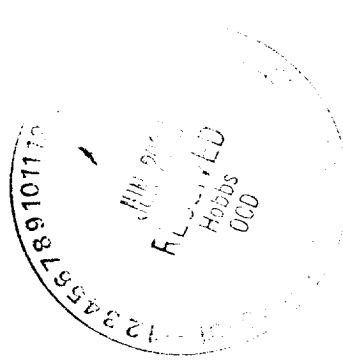
New Mexico

Lea County

Measured Depth (ft)	Incl. (Deg)	Azim. (Deg)	Station Coordinates TVD (ft)	Northings (ft)	Eastings (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Comment
4274.00	1.810	312.430	4273.37	17.57 S	38.55 E	-21.90	11.31	Top of Window @ 4274' md
4282.00	2.890	286.800	4281.36	17.43 S	38.26 E	-21.75	18.52	Bottom of Window @ 4282' md
4289.00	4.190	276.530	4288.35	17.35 S	37.84 E	-21.44	20.59	BHA # 1 / 2.57° / XS30S
4321.00	11.760	258.480	4320.02	17.87 S	33.47 E	-17.55	24.63	Last Gyro Survey @ 4321' md

MWD Surveys

4344.00	15.800	252.600	4342.36	19.27 S	28.19 E	-12.39	18.57	1st MWD Survey @ 4344' md
4376.00	23.700	252.000	4372.45	22.57 S	17.90 E	-2.04	24.70	
4406.00	31.400	252.700	4399.03	26.76 S	4.68 E	11.24	25.69	
4438.00	41.600	254.200	4424.72	32.15 S	13.55 W	29.33	31.99	BHA # 2 / 3.29° Standard Motor / XS30S
4470.00	52.600	251.900	4446.47	39.01 S	35.92 W	51.67	34.77	
4502.00	62.000	245.400	4463.75	48.87 S	60.92 W	77.87	33.96	
4533.00	71.000	239.800	4476.11	61.97 S	86.10 W	106.05	33.41	
4565.00	81.600	238.900	4483.68	77.80 S	112.81 W	137.03	33.24	
4597.00	87.800	238.500	4486.63	94.35 S	140.02 W	168.84	19.41	BHA # 3 / 1.69° Standard Motor / XS30S
4630.00	92.300	237.800	4486.60	111.76 S	168.04 W	201.80	13.80	
4662.00	93.100	239.000	4485.09	128.51 S	195.27 W	233.72	4.50	
4693.00	93.600	238.300	4483.28	144.61 S	221.69 W	264.63	2.77	
4726.00	93.500	237.700	4481.24	162.06 S	249.63 W	297.54	1.84	
4758.00	90.400	237.700	4480.15	179.15 S	276.66 W	329.49	9.69	
4790.00	86.800	237.500	4480.93	196.29 S	303.66 W	361.46	11.27	
4821.00	86.900	237.200	4482.64	212.99 S	329.72 W	392.40	1.02	
4853.00	87.600	237.000	4484.17	230.35 S	356.56 W	424.35	2.27	
4885.00	88.200	237.100	4485.34	247.74 S	383.40 W	456.32	1.90	
4918.00	88.600	237.000	4486.27	265.68 S	411.08 W	489.30	1.25	
4950.00	89.600	236.700	4486.77	283.18 S	437.86 W	521.28	3.26	
4982.00	88.200	238.400	4487.38	300.35 S	464.86 W	553.26	6.88	
5014.00	87.600	239.800	4488.56	316.77 S	492.30 W	585.18	4.76	
5046.00	87.700	239.200	4489.87	333.00 S	519.85 W	617.08	1.90	
5078.00	87.000	240.200	4491.35	349.12 S	547.45 W	648.96	3.81	
5110.00	87.100	238.900	4492.99	365.32 S	575.00 W	680.85	4.07	
5142.00	87.700	242.100	4494.45	381.06 S	602.82 W	712.69	10.16	
5174.00	87.700	244.200	4495.73	395.50 S	631.34 W	744.39	6.56	
5205.00	87.900	244.800	4496.92	408.83 S	659.30 W	775.00	2.04	
5237.00	88.300	244.600	4497.98	422.50 S	688.21 W	806.58	1.40	
5269.00	89.400	245.300	4498.62	436.05 S	717.20 W	838.15	4.07	
5301.00	89.800	245.300	4498.85	449.42 S	746.27 W	869.70	1.25	
5333.00	90.300	244.600	4498.82	462.97 S	775.26 W	901.28	2.69	
5365.00	90.700	243.400	4498.54	477.00 S	804.02 W	932.94	3.95	
5397.00	90.400	243.600	4498.23	491.27 S	832.66 W	964.63	1.13	
5430.00	90.500	242.900	4497.97	506.13 S	862.12 W	997.34	2.14	



Phillips Petroleum Company

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Data Source: Information from Location

New Mexico

Lea County

Measured Depth (ft)	Incl. (Deg)	Azim. (Deg)	Station Coordinates			Vertical Section (ft)	Dogleg Rate (°/100ft)	Comment
			TVD (ft)	Northings (ft)	Eastings (ft)			
5462.00	89.800	238.900	4497.89	521.68 S	890.08 W	1029.20	12.69	
5493.00	88.900	236.600	4498.24	538.22 S	916.29 W	1060.18	7.97	
5525.00	88.900	233.200	4498.86	556.62 S	942.46 W	1092.16	10.62	
5558.00	89.300	231.200	4499.37	576.84 S	968.53 W	1125.10	6.18	
5590.00	89.000	227.700	4499.85	597.64 S	992.84 W	1156.90	10.98	
5621.00	88.300	225.400	4500.58	618.95 S	1015.34 W	1187.50	7.75	
5653.00	88.100	222.700	4501.58	641.94 S	1037.58 W	1218.83	8.46	
5685.00	88.700	220.800	4502.48	665.80 S	1058.88 W	1249.88	6.22	
5717.00	89.400	221.400	4503.01	689.91 S	1079.91 W	1280.85	2.88	
5749.00	89.900	221.100	4503.20	713.97 S	1101.01 W	1311.85	1.82	
5781.00	90.200	221.000	4503.18	738.10 S	1122.02 W	1342.82	0.99	
5812.00	90.800	221.400	4502.91	761.43 S	1142.44 W	1372.83	2.33	
5844.00	91.200	221.400	4502.35	785.42 S	1163.60 W	1403.85	1.25	
5855.00	91.400	221.400	4502.10	793.67 S	1170.87 W	1414.51	1.82	Last MWD Survey @ 5855' md
5895.00	91.400	221.400	4501.12	823.67 S	1197.32 W	1453.27	0.00	Projection to TD @ 5895' md

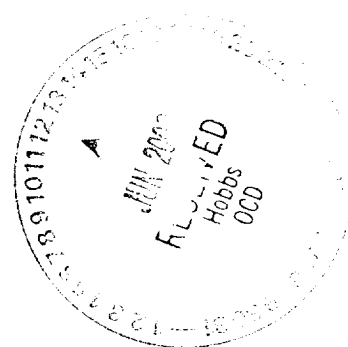
All data is in Feet (US) unless otherwise stated. Directions and coordinates are relative to True North.
Vertical depths are relative to Well. Northings and Eastings are relative to Well.

The Dogleg Severity is in Degrees per 100 feet.

Vertical Section is from Well and calculated along an Azimuth of 235.640° (True).

Magnetic Declination at Surface is 7.829° (10-May-02)

Based upon Minimum Curvature type calculations, at a Measured Depth of 5895.00ft.,
The Bottom Hole Displacement is 1453.27ft., in the Direction of 235.475° (True).



New Mexico
Lea County
Sec. 33, T17S-R35E
EVGSAU 3333-004

