



Company: Mewbourne Oil Company
Lease/Well: Phoenix 21 Fed Com/1H

Rig Name: Patterson 47
State/County: New Mexico/Eddy
Latitude: 32.73

GRID North is 0.19 Degrees East of True North
VS-Azi: 0.00 Degrees



RKB : 18 feet

3D-D15-39350

DRILLOG HA GYRO SURVEY CALCULATIONS

Filename: phoenix21fedcom#1h_ed.ut

Minimum Curvature Method

Report Date/Time: 10/4/2011 / 15:02

Vaughn Energy Services
Fort Worth, Texas
817-741-3610

Surveyor: Ray Seago
Phoenix 21 Fed Com 1H

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	****
100.00	0.26	337.83	100.00	0.21	-0.09	0.21	0.23	337.83	0.26
200.00	1.22	351.67	199.99	1.48	-0.33	1.48	1.51	347.51	0.97
300.00	0.77	359.55	299.97	3.20	-0.49	3.20	3.24	351.36	0.47
400.00	0.56	321.60	399.97	4.26	-0.79	4.26	4.33	349.44	0.48
500.00	1.11	300.74	499.96	5.13	-1.93	5.13	5.48	339.39	0.63
600.00	0.75	358.53	599.95	6.28	-2.78	6.28	6.87	336.12	0.96
700.00	0.31	13.02	699.94	7.20	-2.74	7.20	7.70	339.17	0.46
800.00	0.87	0.29	799.94	8.22	-2.67	8.22	8.64	341.97	0.58
900.00	0.53	24.85	899.93	9.40	-2.48	9.40	9.72	345.24	0.44
1000.00	0.18	310.75	999.93	9.92	-2.40	9.92	10.20	346.41	0.51
1100.00	0.48	341.64	1099.93	10.42	-2.65	10.42	10.75	345.75	0.34
1200.00	1.22	52.01	1199.92	11.47	-1.94	11.47	11.63	350.39	1.15
1300.00	1.44	82.20	1299.89	12.29	0.14	12.29	12.29	0.64	0.72
1400.00	0.95	78.18	1399.87	12.63	2.19	12.63	12.82	9.84	0.49
1500.00	0.62	81.87	1499.86	12.88	3.54	12.88	13.35	15.36	0.34
1600.00	0.20	65.38	1599.86	13.02	4.23	13.02	13.69	17.98	0.43
1700.00	0.10	112.13	1699.86	13.06	4.46	13.06	13.81	18.85	0.15
1800.00	0.22	92.19	1799.86	13.03	4.73	13.03	13.86	19.97	0.13

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N-S FT	+E-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
1900.00	0.16	57.56	1899.85	13.09	5.04	13.09	14.03	21.07	0.13
2000.00	0.26	338.55	1999.85	13.38	5.08	13.38	14.31	20.79	0.28
2100.00	0.48	335.17	2099.85	13.97	4.82	13.97	14.78	19.03	0.22
2200.00	0.57	275.08	2199.85	14.40	4.15	14.40	14.98	16.06	0.53
2300.00	0.54	252.38	2299.84	14.30	3.20	14.30	14.66	12.62	0.22
2400.00	0.83	340.97	2399.84	14.85	2.52	14.85	15.06	9.63	0.98
2500.00	0.89	343.62	2499.83	16.27	2.07	16.27	16.40	7.24	0.07
2600.00	0.85	291.06	2599.82	17.28	1.15	17.28	17.32	3.82	0.77
2700.00	0.31	269.84	2699.81	17.55	0.19	17.55	17.55	0.61	0.58
2800.00	0.94	309.62	2799.81	18.07	-0.71	18.07	18.08	357.74	0.73
2900.00	0.98	325.18	2899.79	19.30	-1.84	19.30	19.39	354.56	0.26
3000.00	0.41	284.00	2999.78	20.09	-2.67	20.09	20.27	352.42	0.73
3100.00	0.55	307.64	3099.78	20.47	-3.40	20.47	20.75	350.57	0.24
3200.00	0.46	349.72	3199.78	21.16	-3.85	21.16	21.51	349.68	0.37
3300.00	0.40	352.83	3299.77	21.91	-3.97	21.91	22.26	349.73	0.06
3400.00	0.33	339.38	3399.77	22.53	-4.12	22.53	22.90	349.65	0.11
3500.00	0.32	332.92	3499.77	23.05	-4.35	23.05	23.45	349.32	0.04
3600.00	0.38	350.17	3599.77	23.63	-4.53	23.63	24.06	349.15	0.12
3700.00	0.34	347.45	3699.77	24.24	-4.65	24.24	24.69	349.14	0.05
3800.00	0.92	355.17	3799.76	25.33	-4.78	25.33	25.77	349.31	0.59
3900.00	1.09	7.57	3899.75	27.07	-4.72	27.07	27.48	350.10	0.28
4000.00	0.95	12.98	3999.73	28.82	-4.41	28.82	29.15	351.29	0.17
4100.00	1.08	12.25	4099.71	30.55	-4.03	30.55	30.82	352.49	0.13
4200.00	1.07	339.20	4199.70	32.35	-4.16	32.35	32.61	352.68	0.61
4300.00	1.63	327.69	4299.67	34.42	-5.25	34.42	34.82	351.33	0.62
4400.00	1.41	338.05	4399.63	36.76	-6.47	36.76	37.33	350.02	0.36
4500.00	2.26	320.87	4499.58	39.43	-8.17	39.43	40.27	348.29	1.01
4600.00	2.44	337.51	4599.50	42.92	-10.23	42.92	44.13	346.60	0.70
4700.00	2.40	351.34	4699.41	46.96	-11.36	46.96	48.31	346.40	0.58
4800.00	1.56	346.64	4799.35	50.35	-11.99	50.35	51.76	346.61	0.86
4900.00	1.45	336.91	4899.32	52.83	-12.80	52.83	54.36	346.39	0.28
5000.00	2.26	325.86	4999.26	55.63	-14.40	55.63	57.46	345.49	0.89
5100.00	2.30	300.84	5099.19	58.29	-17.23	58.29	60.78	343.53	0.99
5200.00	2.01	305.21	5199.12	60.33	-20.39	60.33	63.68	341.33	0.34
5300.00	1.93	304.23	5299.06	62.29	-23.21	62.29	66.47	339.56	0.09
5400.00	1.90	308.10	5399.00	64.25	-25.90	64.25	69.28	338.04	0.13
5500.00	2.03	305.86	5498.94	66.31	-28.64	66.31	72.23	336.64	0.15
5600.00	2.32	310.97	5598.87	68.67	-31.60	68.67	75.59	335.29	0.35
5700.00	2.57	313.49	5698.78	71.54	-34.75	71.54	79.54	334.09	0.27

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
5800.00	2.85	309.22	5798.67	74.66	-38.30	74.66	83.91	332.84	0.34
5900.00	3.36	304.05	5898.52	77.87	-42.65	77.87	88.78	331.29	0.58
6000.00	3.38	304.73	5998.35	81.19	-47.50	81.19	94.06	329.67	0.05
6100.00	3.33	306.77	6098.18	84.61	-52.26	84.61	99.44	328.30	0.13
6200.00	3.17	301.01	6198.02	87.77	-56.96	87.77	104.63	327.02	0.37
6300.00	3.08	306.66	6297.87	90.80	-61.48	90.80	109.66	325.90	0.32
6400.00	3.09	307.81	6397.72	94.06	-65.77	94.06	114.77	325.04	0.06
6500.00	2.85	309.52	6497.59	97.29	-69.81	97.29	119.74	324.34	0.25
6600.00	2.33	310.01	6597.49	100.18	-73.28	100.18	124.12	323.81	0.52
6700.00	2.20	306.46	6697.41	102.62	-76.38	102.62	127.92	323.34	0.19
6800.00	2.31	300.16	6797.33	104.77	-79.66	104.77	131.62	322.75	0.27
6900.00	2.41	301.55	6897.25	106.88	-83.19	106.88	135.44	322.10	0.11
7000.00	2.60	294.11	6997.15	108.91	-87.05	108.91	139.43	321.36	0.38
7100.00	2.48	287.15	7097.05	110.48	-91.20	110.48	143.26	320.46	0.33
7200.00	2.20	279.47	7196.97	111.43	-95.16	111.43	146.54	319.50	0.42
7300.00	2.31	278.50	7296.89	112.04	-99.05	112.04	149.55	318.52	0.12
7400.00	2.43	274.05	7396.81	112.49	-103.16	112.49	152.63	317.48	0.22
7500.00	2.62	268.55	7496.71	112.58	-107.56	112.58	155.70	316.31	0.31
7527.00	2.71	270.51	7523.68	112.57	-108.81	112.57	156.57	315.97	0.46

