



Company: Mewbourne Oil Company

Lease/Well: Ruger 6 Fed Com/4H

Location: Sec - 6, T- 20 S, R - 29 E

Rig Name: Patterson 74

State/County: New Mexico/Eddy

Latitude: 32.61

GRID North is 0.12 Degrees East of True North

VS-Azi: 0.00 Degrees



Depth Reference : RKB = 22' Elev. = 3310'

DRILLOG HA GYRO SURVEY CALCULATIONS

Filename: ruger6fedcom#4h_ed.ut

Minimum Curvature Method

Report Date/Time: 2/23/2012 / 09:14

Vaughn Energy Services

Midland, Texas

432-563-5444

Surveyor: Ray Seago

Ruger 6 Fed Com 4H / API 30-015-39686

15-39686

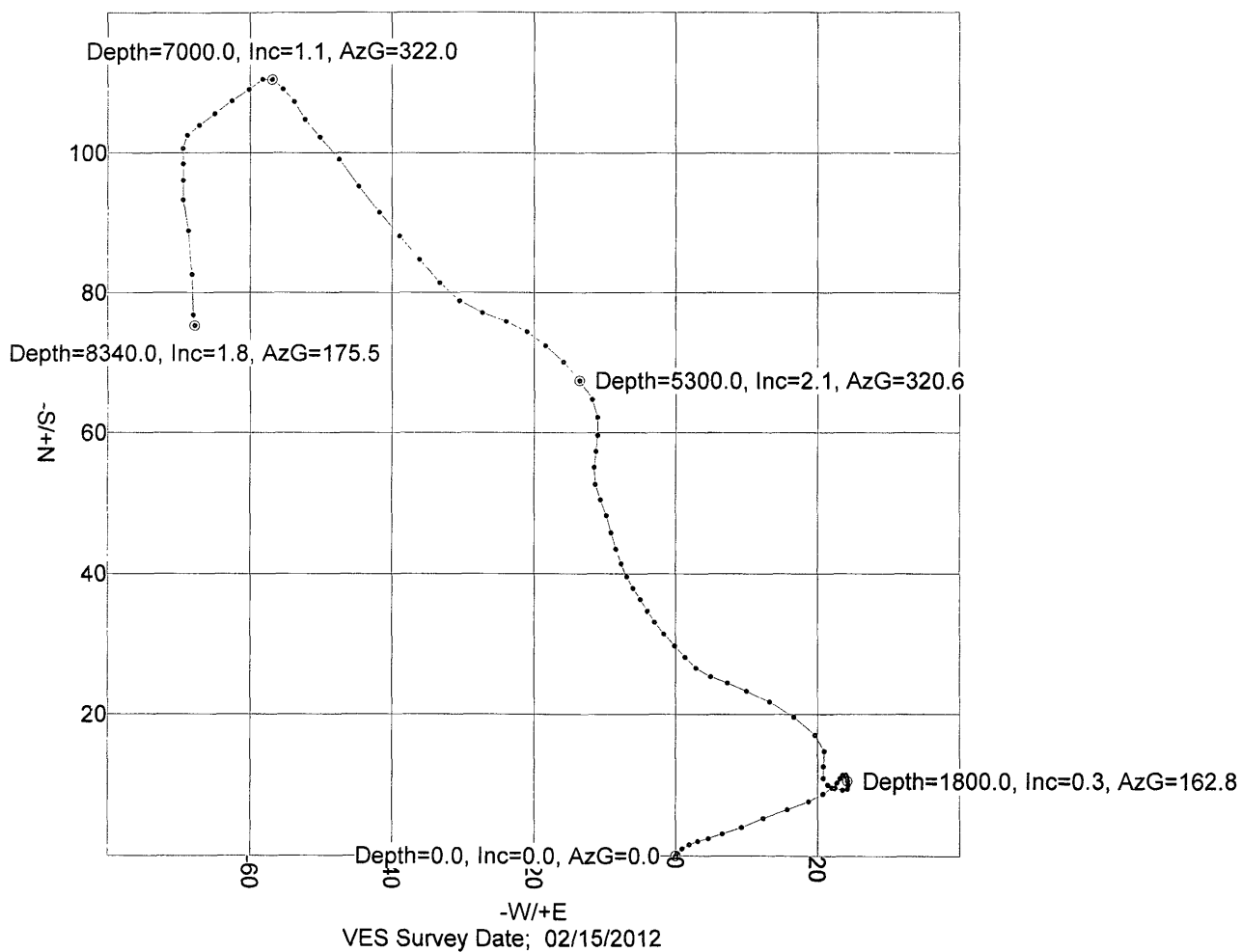
Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	****
100.00	0.47	28.49	100.00	0.36	0.20	0.36	0.41	28.49	0.47
200.00	0.64	60.41	199.99	0.99	0.87	0.99	1.32	41.32	0.34
300.00	0.70	58.73	299.99	1.58	1.88	1.58	2.46	49.84	0.06
400.00	0.82	76.66	399.98	2.06	3.09	2.06	3.72	56.27	0.26
500.00	0.94	70.84	499.97	2.50	4.56	2.50	5.20	61.28	0.15
600.00	1.43	73.29	599.95	3.12	6.52	3.12	7.23	64.41	0.49
700.00	1.86	70.19	699.90	4.03	9.24	4.03	10.08	66.43	0.44
800.00	2.05	65.33	799.85	5.32	12.38	5.32	13.48	66.74	0.25
900.00	2.10	73.32	899.78	6.60	15.76	6.60	17.09	67.30	0.29
1000.00	1.56	64.63	999.73	7.71	18.75	7.71	20.27	67.66	0.61
1100.00	1.06	57.43	1099.70	8.79	20.76	8.79	22.54	67.06	0.53
1200.00	0.66	50.25	1199.69	9.65	21.98	9.65	24.00	66.30	0.41
1300.00	0.49	45.92	1299.69	10.31	22.72	10.31	24.95	65.59	0.18
1400.00	0.42	20.29	1399.68	10.95	23.16	10.95	25.61	64.70	0.21
1500.00	0.31	62.13	1499.68	11.41	23.52	11.41	26.14	64.12	0.28
1600.00	0.26	110.63	1599.68	11.46	23.97	11.46	26.56	64.45	0.24
1700.00	0.33	181.12	1699.68	11.09	24.17	11.09	26.59	65.36	0.35
1800.00	0.30	162.80	1799.68	10.55	24.24	10.55	26.44	66.48	0.11

measured Depth FT	inci Angle Deg	Drit 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	0.33	173.44	1899.68	10.02	24.35	10.02	26.33	67.64	0.07
2000.00	0.34	212.48	1999.68	9.49	24.23	9.49	26.02	68.62	0.22
2100.00	0.63	277.34	2099.67	9.31	23.52	9.31	25.30	68.41	0.58
2200.00	0.69	292.57	2199.67	9.61	22.42	9.61	24.39	66.79	0.19
2300.00	0.57	296.83	2299.66	10.07	21.41	10.07	23.66	64.82	0.13
2400.00	0.85	347.24	2399.65	11.01	20.81	11.01	23.54	62.11	0.65
2500.00	1.07	9.34	2499.64	12.66	20.79	12.66	24.35	58.67	0.43
2600.00	1.37	1.87	2599.62	14.78	20.99	14.78	25.67	54.84	0.34
2700.00	1.97	308.33	2699.58	17.04	19.68	17.04	26.03	49.10	1.60
2800.00	2.52	311.27	2799.50	19.56	16.67	19.56	25.70	40.45	0.66
2900.00	2.22	293.30	2899.42	21.77	13.24	21.77	25.49	31.31	0.80
3000.00	1.91	296.58	2999.35	23.28	9.98	23.28	25.33	23.20	0.34
3100.00	1.48	290.60	3099.31	24.48	7.29	24.48	25.54	16.58	0.46
3200.00	1.46	291.34	3199.28	25.40	4.89	25.40	25.86	10.90	0.02
3300.00	1.29	311.07	3299.25	26.60	2.86	26.60	26.75	6.13	0.50
3400.00	1.24	318.37	3399.22	28.15	1.29	28.15	28.18	2.62	0.17
3500.00	1.25	317.24	3499.20	29.76	-0.17	29.76	29.76	359.68	0.03
3600.00	1.33	320.50	3599.17	31.45	-1.64	31.45	31.49	357.01	0.11
3700.00	1.10	322.43	3699.15	33.10	-2.96	33.10	33.23	354.88	0.23
3800.00	1.12	330.64	3799.13	34.71	-4.03	34.71	34.94	353.38	0.16
3900.00	1.10	326.94	3899.12	36.36	-5.03	36.36	36.71	352.13	0.07
4000.00	1.06	326.27	3999.10	37.93	-6.06	37.93	38.41	350.92	0.04
4100.00	1.10	336.90	4099.08	39.58	-6.95	39.58	40.18	350.04	0.20
4200.00	1.16	338.24	4199.06	41.40	-7.70	41.40	42.11	349.47	0.07
4300.00	1.39	342.16	4299.04	43.49	-8.45	43.49	44.30	349.01	0.24
4400.00	1.41	343.97	4399.01	45.82	-9.15	45.82	46.73	348.70	0.05
4500.00	1.50	344.76	4498.97	48.26	-9.84	48.26	49.25	348.48	0.09
4600.00	1.25	335.64	4598.95	50.51	-10.63	50.51	51.62	348.12	0.33
4700.00	1.44	344.90	4698.92	52.72	-11.41	52.72	53.94	347.79	0.29
4800.00	1.38	9.02	4798.89	55.13	-11.55	55.13	56.32	348.17	0.59
4900.00	1.20	2.24	4898.86	57.37	-11.32	57.37	58.47	348.84	0.24
5000.00	1.40	8.35	4998.84	59.63	-11.10	59.63	60.65	349.46	0.24
5100.00	1.53	351.78	5098.80	62.16	-11.11	62.16	63.14	349.87	0.44
5200.00	1.58	335.48	5198.77	64.73	-11.87	64.73	65.81	349.61	0.44
5300.00	2.06	320.64	5298.72	67.37	-13.58	67.37	68.73	348.60	0.67
5400.00	1.99	316.70	5398.66	70.02	-15.91	70.02	71.80	347.20	0.16
5500.00	1.97	309.65	5498.60	72.37	-18.42	72.37	74.68	345.72	0.24
5600.00	1.82	304.44	5598.54	74.37	-21.05	74.37	77.29	344.20	0.23
5700.00	1.91	290.34	5698.49	75.85	-23.92	75.85	79.53	342.50	0.47

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	2.17	289.67	5798.43	77.06	-27.27	77.06	81.74	340.52	0.26
5900.00	2.05	307.04	5898.36	78.78	-30.48	78.78	84.47	338.85	0.65
6000.00	2.38	317.88	5998.29	81.39	-33.29	81.39	87.94	337.75	0.53
6100.00	2.61	322.03	6098.19	84.72	-36.08	84.72	92.08	336.93	0.29
6200.00	2.44	317.82	6198.09	88.09	-38.91	88.09	96.30	336.17	0.25
6300.00	2.67	321.37	6297.99	91.49	-41.80	91.49	100.59	335.45	0.28
6400.00	2.71	322.76	6397.88	95.19	-44.68	95.19	105.16	334.85	0.07
6500.00	2.75	325.36	6497.77	99.05	-47.48	99.05	109.84	334.39	0.13
6600.00	1.99	312.39	6597.68	102.20	-50.13	102.20	113.83	333.87	0.93
6700.00	1.82	327.62	6697.63	104.71	-52.26	104.71	117.02	333.48	0.53
6800.00	1.57	329.71	6797.59	107.23	-53.80	107.23	119.97	333.36	0.25
6900.00	1.24	304.64	6897.56	109.03	-55.38	109.03	122.29	333.07	0.69
7000.00	1.05	322.02	6997.54	110.37	-56.84	110.37	124.15	332.75	0.39
7100.00	1.21	229.76	7097.52	110.41	-58.21	110.41	124.82	332.20	1.64
7200.00	1.57	236.60	7197.49	108.97	-60.16	108.97	124.48	331.10	0.40
7300.00	1.73	235.72	7297.45	107.37	-62.56	107.37	124.26	329.77	0.16
7400.00	1.74	228.65	7397.41	105.51	-64.95	105.51	123.90	328.39	0.21
7500.00	1.31	239.96	7497.37	103.93	-67.08	103.93	123.70	327.16	0.52
7600.00	1.27	217.06	7597.35	102.47	-68.75	102.47	123.40	326.14	0.52
7700.00	1.09	180.15	7697.33	100.63	-69.42	100.63	122.25	325.40	0.77
7800.00	1.44	178.25	7797.30	98.42	-69.38	98.42	120.42	324.82	0.34
7900.00	1.30	180.38	7897.27	96.03	-69.35	96.03	118.46	324.16	0.14
8000.00	1.90	179.57	7997.23	93.24	-69.35	93.24	116.20	323.36	0.60
8100.00	3.26	165.88	8097.13	88.82	-68.64	88.82	112.25	322.30	1.48
8200.00	4.02	183.35	8196.93	82.57	-68.15	82.57	107.06	320.46	1.34
8300.00	2.66	169.06	8296.76	76.79	-67.92	76.79	102.51	318.51	1.59
8340.00	1.80	175.51	8336.73	75.25	-67.69	75.25	101.21	318.03	2.23



Vaughn Energy Services
Midland, Texas
432-563-5444
Surveyor: Ray Seago
Ruger 6 Fed Com 4H / API 30-015-39686





Job Number: S12-013
Company: Mewbourne Oil Company
Lease/Well: Ruger "6" Federal Com #4H
Location: NM-East
Rig Name: Patterson #74
State/County: New Mexico/ Eddy
Country: United States of America
API Number: 30-015-39686

Elevation (To MSL): 0.00 ft
RKB: 0.00 ft
Projection System: US State Plane 1927 (Exact solution)
Projection Group: New Mexico East 3001
Projection Datum: CLARKE 1866
Magnetic Declination: 7.80
Grid Convergence: 0.12158 E
Date: Friday, March 16, 2012

Calculated by HawkEye Software
Minimum Curvature Method
Vertical Section Plane 179.87°
Northing: 585497.12 Easting: 569471.32
Latitude: 32°36'33.9605" N Longitude: -104°06'27.8055" W
Well Location: 179.65 FNL, 738.67 FEL, Section 6, T20S, R29E, Meridian 23, Eddy County, NM
Direction Reference: Grid North

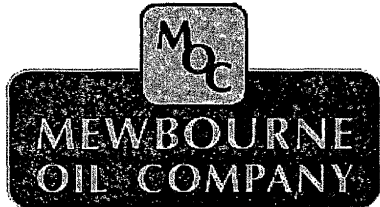
Measured Depth (Ft)	INC Deg	AZM Deg	TVD (Ft)	NS (Ft)	EW (Ft)	Northing (Ft)	Easting (Ft)	Latitude DMS	Longitude DMS	Build Rate "/100Ft	VS (Ft)	Closure (Ft)	Dir Deg	DLS "/100Ft
TI: 8340 MD, 1.80°														
8340.00	1.80	175.51	8336.73	75.25	-67.69	585572.37	569403.63	32°36'34.7066" N	-104°06'28.5950" W	0.00	-75.41	101.22	318.03	0.00
8403.00	2.10	147.90	8399.69	73.29	-67.00	585570.41	569404.32	32°36'34.6871" N	-104°06'28.5869" W	0.48	-73.44	99.30	317.57	1.55
8435.00	6.10	163.10	8431.61	71.16	-66.19	585568.28	569405.13	32°36'34.6661" N	-104°06'28.5776" W	12.50	-71.32	97.19	317.07	12.84
8466.00	10.80	166.60	8462.26	66.76	-65.04	585563.88	569406.28	32°36'34.6225" N	-104°06'28.5642" W	15.16	-66.91	93.20	315.75	15.24
8498.00	15.90	167.60	8493.39	59.56	-63.40	585556.68	569407.92	32°36'34.5512" N	-104°06'28.5452" W	15.94	-59.70	86.99	313.21	15.95
8530.00	19.60	167.10	8523.86	50.04	-61.26	585547.16	569410.06	32°36'34.4570" N	-104°06'28.5205" W	11.56	-50.18	79.10	309.24	11.57
8562.00	22.50	167.80	8553.72	38.82	-58.77	585535.94	569412.55	32°36'34.3459" N	-104°06'28.4916" W	9.06	-38.96	70.43	303.45	9.10
8593.00	25.10	169.90	8582.08	26.55	-56.36	585523.67	569414.96	32°36'34.2244" N	-104°06'28.4638" W	8.39	-26.68	62.30	295.22	8.82
8624.00	27.50	171.50	8609.87	12.99	-54.15	585510.12	569417.17	32°36'34.0902" N	-104°06'28.4382" W	7.74	-13.12	55.69	283.49	8.07
8656.00	30.30	172.90	8637.88	-2.33	-52.06	585494.79	569419.26	32°36'33.9386" N	-104°06'28.4142" W	8.75	2.21	52.11	267.44	9.00
8687.00	33.90	174.10	8664.14	-18.69	-50.21	585478.43	569421.12	32°36'33.7766" N	-104°06'28.3929" W	11.61	18.58	53.57	249.58	11.79
8719.00	36.40	175.40	8690.30	-37.04	-48.53	585460.09	569422.80	32°36'33.5950" N	-104°06'28.3737" W	7.81	36.92	61.05	232.65	8.15
8751.00	38.40	175.40	8715.72	-56.41	-46.97	585440.71	569424.36	32°36'33.4033" N	-104°06'28.3560" W	6.25	56.30	73.40	219.78	6.25
8783.00	41.50	174.00	8740.25	-76.86	-45.06	585420.26	569426.26	32°36'33.2008" N	-104°06'28.3342" W	9.69	76.76	89.10	210.38	10.09
8814.00	45.70	172.40	8762.70	-98.08	-42.52	585399.04	569428.80	32°36'32.9908" N	-104°06'28.3050" W	13.55	97.99	106.90	203.44	14.01
8847.00	49.10	171.10	8785.03	-122.12	-39.03	585375.00	569432.30	32°36'32.7529" N	-104°06'28.2648" W	10.30	122.03	128.20	197.72	10.70
8878.00	52.00	171.70	8804.73	-145.78	-35.45	585351.34	569435.87	32°36'32.5186" N	-104°06'28.2235" W	9.35	145.70	150.03	193.67	9.47
8909.00	54.80	172.60	8823.21	-170.44	-32.06	585326.69	569439.27	32°36'32.2746" N	-104°06'28.1845" W	9.03	170.36	173.43	190.65	9.33
8941.00	57.20	173.10	8841.10	-196.76	-28.76	585300.36	569442.57	32°36'32.0141" N	-104°06'28.1465" W	7.50	196.69	198.85	188.31	7.61
8972.00	61.10	174.30	8857.00	-223.21	-25.84	585273.92	569445.48	32°36'31.7523" N	-104°06'28.1131" W	12.58	223.14	224.70	186.60	13.01
9004.00	65.40	175.50	8871.40	-251.66	-23.31	585245.46	569448.02	32°36'31.4707" N	-104°06'28.0842" W	13.44	251.61	252.74	185.29	13.85
9035.00	69.50	176.60	8883.28	-280.22	-21.34	585216.91	569449.98	32°36'31.1880" N	-104°06'28.0619" W	13.23	280.17	281.03	184.36	13.63
9067.00	72.60	177.10	8893.67	-310.43	-19.68	585186.69	569451.65	32°36'30.8890" N	-104°06'28.0432" W	9.69	310.39	311.06	183.63	9.80
9099.00	75.00	177.30	8902.60	-341.12	-18.18	585156.00	569453.15	32°36'30.5853" N	-104°06'28.0264" W	7.50	341.08	341.61	183.05	7.52
9130.00	78.20	177.30	8909.78	-371.24	-16.76	585125.88	569454.57	32°36'30.2872" N	-104°06'28.0106" W	10.32	371.20	371.62	182.58	10.32
9162.00	81.40	177.10	8915.45	-402.69	-15.22	585094.43	569456.10	32°36'29.9759" N	-104°06'27.9934" W	10.00	402.66	402.98	182.16	10.02

Measured Depth (Ft)	INC Deg	AZM Deg	TVD (Ft)	NS (Ft)	EW (Ft)	Northing (Ft)	Easting (Ft)	Latitude DMS	Longitude DMS	Build Rate "/100Ft	VS (Ft)	Closure (Ft)	Closure Dir Deg	Closure DLS "/100Ft
9194.00	83.50	176.80	8919.65	-434.37	-13.53	585062.75	569457.79	32°36'29.6624" N	-104°06'27.9744" W	6.56	434.34	434.58	181.78	6.63
9225.00	84.90	176.20	8922.79	-465.15	-11.65	585031.97	569459.68	32°36'29.3578" N	-104°06'27.9532" W	4.52	465.12	465.30	181.43	4.91
9276.00	87.80	176.50	8926.03	-515.94	-8.41	584981.18	569462.92	32°36'28.8551" N	-104°06'27.9166" W	5.69	515.92	516.01	180.93	5.72
9307.00	88.40	177.50	8927.06	-546.88	-6.79	584950.24	569464.54	32°36'28.5489" N	-104°06'27.8984" W	1.94	546.86	546.92	180.71	3.76
9339.00	89.70	177.10	8927.59	-578.84	-5.28	584918.28	569466.04	32°36'28.2326" N	-104°06'27.8816" W	4.06	578.83	578.86	180.52	4.25
9371.00	89.90	176.90	8927.70	-610.80	-3.61	584886.33	569467.72	32°36'27.9163" N	-104°06'27.8628" W	0.63	610.79	610.81	180.34	0.88
9403.00	89.10	177.70	8927.98	-642.76	-2.10	584854.36	569469.23	32°36'27.6000" N	-104°06'27.8459" W	-2.50	642.75	642.76	180.19	3.54
9435.00	89.20	178.20	8928.46	-674.73	-0.95	584822.39	569470.37	32°36'27.2836" N	-104°06'27.8334" W	0.31	674.73	674.74	180.08	1.59
9467.00	88.40	177.80	8929.13	-706.71	0.16	584790.41	569471.49	32°36'26.9672" N	-104°06'27.8211" W	-2.50	706.71	706.71	179.99	2.79
9498.00	89.10	178.00	8929.80	-737.68	1.30	584759.44	569472.62	32°36'26.6606" N	-104°06'27.8086" W	2.26	737.68	737.68	179.90	2.35
9530.00	88.70	179.10	8930.42	-769.66	2.11	584727.46	569473.43	32°36'26.3441" N	-104°06'27.7999" W	-1.25	769.67	769.67	179.84	3.66
9561.00	88.50	178.90	8931.17	-800.65	2.65	584696.47	569473.97	32°36'26.0375" N	-104°06'27.7944" W	-0.65	800.65	800.65	179.81	0.91
9593.00	86.60	179.20	8932.54	-832.61	3.18	584664.51	569474.50	32°36'25.7212" N	-104°06'27.7890" W	-5.94	832.62	832.62	179.78	6.01
9625.00	84.70	179.20	8934.97	-864.52	3.62	584632.61	569474.95	32°36'25.4055" N	-104°06'27.7845" W	-5.94	864.52	864.52	179.76	5.94
9657.00	86.10	179.10	8937.54	-896.41	4.10	584600.71	569475.42	32°36'25.0898" N	-104°06'27.7798" W	4.37	896.42	896.42	179.74	4.39
9688.00	87.80	178.90	8939.18	-927.36	4.64	584569.76	569475.96	32°36'24.7836" N	-104°06'27.7742" W	5.48	927.37	927.37	179.71	5.52
9720.00	88.70	179.10	8940.16	-959.34	5.20	584537.78	569476.52	32°36'24.4671" N	-104°06'27.7685" W	2.81	959.35	959.35	179.69	2.88
9752.00	87.30	178.50	8941.28	-991.31	5.87	584505.81	569477.19	32°36'24.1507" N	-104°06'27.7615" W	-4.38	991.32	991.33	179.66	4.76
9783.00	87.50	179.10	8942.68	-1022.27	6.51	584474.85	569477.84	32°36'23.8443" N	-104°06'27.7547" W	0.65	1022.29	1022.29	179.63	2.04
9815.00	88.40	178.90	8943.83	-1054.25	7.07	584442.87	569478.40	32°36'23.5279" N	-104°06'27.7489" W	2.81	1054.26	1054.27	179.62	2.88
9847.00	88.50	179.20	8944.69	-1086.23	7.60	584410.89	569478.93	32°36'23.2113" N	-104°06'27.7435" W	0.31	1086.25	1086.26	179.60	0.99
9879.00	88.40	179.20	8945.56	-1118.22	8.05	584378.91	569479.37	32°36'22.8948" N	-104°06'27.7391" W	-0.31	1118.23	1118.25	179.59	0.31
9911.00	88.60	179.80	8946.40	-1150.20	8.33	584346.92	569479.65	32°36'22.5783" N	-104°06'27.7366" W	0.62	1150.22	1150.23	179.59	1.98
9943.00	89.50	179.80	8946.93	-1182.20	8.44	584314.92	569479.76	32°36'22.2617" N	-104°06'27.7361" W	2.81	1182.22	1182.23	179.59	2.81
9974.00	89.10	179.90	8947.31	-1213.20	8.52	584283.93	569479.85	32°36'21.9549" N	-104°06'27.7359" W	-1.29	1213.21	1213.23	179.60	1.33
10006.00	89.00	180.30	8947.84	-1245.19	8.47	584251.93	569479.79	32°36'21.6383" N	-104°06'27.7374" W	-0.31	1245.21	1245.22	179.61	1.29
10038.00	89.50	179.60	8948.26	-1277.19	8.49	584219.93	569479.82	32°36'21.3217" N	-104°06'27.7379" W	1.56	1277.21	1277.22	179.62	2.69
10070.00	89.90	179.40	8948.42	-1309.19	8.77	584187.93	569480.10	32°36'21.0050" N	-104°06'27.7354" W	1.25	1309.20	1309.22	179.62	1.40
10101.00	89.30	179.90	8948.64	-1340.19	8.96	584156.94	569480.29	32°36'20.6983" N	-104°06'27.7339" W	-1.94	1340.20	1340.22	179.62	2.52
10133.00	88.70	180.60	8949.20	-1372.18	8.82	584124.94	569480.15	32°36'20.3817" N	-104°06'27.7364" W	-1.87	1372.20	1372.21	179.63	2.88
10165.00	87.40	180.60	8950.29	-1404.16	8.49	584092.96	569479.81	32°36'20.0652" N	-104°06'27.7411" W	-4.06	1404.18	1404.19	179.65	4.06
10229.00	87.20	180.60	8953.30	-1468.08	7.82	584029.04	569479.14	32°36'19.4326" N	-104°06'27.7505" W	-0.31	1468.10	1468.11	179.69	0.31
10292.00	88.50	180.80	8955.67	-1531.03	7.05	583966.09	569478.37	32°36'18.8097" N	-104°06'27.7610" W	2.06	1531.05	1531.05	179.74	2.09
10355.00	90.40	182.20	8956.27	-1594.01	5.40	583903.12	569476.72	32°36'18.1866" N	-104°06'27.7819" W	3.02	1594.01	1594.01	179.81	3.75
10419.00	89.10	181.90	8956.55	-1657.96	3.11	583839.16	569474.43	32°36'17.5538" N	-104°06'27.8102" W	-2.03	1657.97	1657.97	179.89	2.08
10483.00	91.00	182.70	8956.49	-1721.91	0.54	583775.21	569471.87	32°36'16.9210" N	-104°06'27.8418" W	2.97	1721.90	1721.91	179.98	3.22
10546.00	88.70	182.90	8956.86	-1784.83	-2.53	583712.29	569468.79	32°36'16.2985" N	-104°06'27.8794" W	-3.65	1784.82	1784.83	180.08	3.66
10609.00	88.50	183.30	8958.20	-1847.72	-5.94	583649.41	569465.38	32°36'15.6762" N	-104°06'27.9207" W	-0.32	1847.70	1847.73	180.18	0.71
10673.00	87.10	182.70	8960.56	-1911.58	-9.29	583585.54	569462.04	32°36'15.0443" N	-104°06'27.9615" W	-2.19	1911.55	1911.60	180.28	2.38
10736.00	89.30	182.60	8962.53	-1974.48	-12.20	583522.64	569459.13	32°36'14.4219" N	-104°06'27.9971" W	3.49	1974.44	1974.52	180.35	3.50
10800.00	90.00	181.70	8963.03	-2038.43	-14.60	583458.69	569456.72	32°36'13.7891" N	-104°06'28.0267" W	1.09	2038.39	2038.48	180.41	1.78

Measured Depth (Ft)	INC Deg	AZM Deg	TVD (Ft)	NS (Ft)	EW (Ft)	Northing (Ft)	Easting (Ft)	Latitude DMS	Longitude DMS	Build Rate /100ft	VS (Ft)	Closure (Ft)	Closure Dir Deg	DLS /100Ft
10895.00	89.00	181.30	8963.85	-2133.39	-17.09	583363.73	569454.24	32°36'12.8495" N	-104°06'28.0581" W	-1.05	2133.35	2133.46	180.46	1.13
10990.00	87.70	180.30	8966.59	-2228.34	-18.41	583268.78	569452.91	32°36'11.9099" N	-104°06'28.0760" W	-1.37	2228.29	2228.42	180.47	1.73
11085.00	89.20	180.80	8969.16	-2323.30	-19.32	583173.82	569452.00	32°36'10.9703" N	-104°06'28.0890" W	1.58	2323.25	2323.38	180.48	1.66
11181.00	87.40	180.30	8972.01	-2419.25	-20.25	583077.87	569451.08	32°36'10.0208" N	-104°06'28.1021" W	-1.88	2419.19	2419.33	180.48	1.95
11275.00	87.80	180.30	8975.94	-2513.16	-20.74	582983.96	569450.59	32°36'9.0914" N	-104°06'28.1102" W	0.43	2513.11	2513.25	180.47	0.43
11370.00	91.10	180.30	8976.86	-2608.15	-21.23	582888.98	569450.09	32°36'8.1515" N	-104°06'28.1184" W	3.47	2608.09	2608.23	180.47	3.47
11464.00	91.60	179.40	8974.64	-2702.12	-20.99	582795.00	569450.34	32°36'7.2216" N	-104°06'28.1178" W	0.53	2702.06	2702.20	180.45	1.10
11528.00	91.50	179.40	8972.91	-2766.09	-20.32	582731.03	569451.01	32°36'6.5885" N	-104°06'28.1116" W	-0.16	2766.04	2766.17	180.42	0.16
11560.00	91.10	179.60	8972.18	-2798.08	-20.04	582699.04	569451.28	32°36'6.2720" N	-104°06'28.1091" W	-1.25	2798.03	2798.15	180.41	1.40
11592.00	90.50	179.40	8971.74	-2830.08	-19.76	582667.05	569451.56	32°36'5.9554" N	-104°06'28.1067" W	-1.87	2830.02	2830.15	180.40	1.98
11624.00	89.50	179.40	8971.74	-2862.07	-19.43	582635.05	569451.90	32°36'5.6387" N	-104°06'28.1035" W	-3.13	2862.02	2862.14	180.39	3.12
11656.00	89.30	179.40	8972.07	-2894.07	-19.09	582603.05	569452.23	32°36'5.3221" N	-104°06'28.1004" W	-0.63	2894.02	2894.13	180.38	0.62
11687.00	88.70	178.90	8972.61	-2925.06	-18.63	582572.06	569452.69	32°36'5.0154" N	-104°06'28.0958" W	-1.94	2925.01	2925.12	180.36	2.52
11719.00	88.00	178.50	8973.53	-2957.04	-17.90	582540.08	569453.42	32°36'4.6989" N	-104°06'28.0881" W	-2.19	2956.99	2957.09	180.35	2.52
11751.00	88.60	179.10	8974.48	-2989.02	-17.23	582508.10	569454.09	32°36'4.3824" N	-104°06'28.0811" W	1.87	2988.97	2989.07	180.33	2.65
11783.00	89.40	178.70	8975.04	-3021.01	-16.62	582476.11	569454.70	32°36'4.0659" N	-104°06'28.0747" W	2.50	3020.96	3021.05	180.32	2.79
11815.00	89.60	178.90	8975.32	-3053.00	-15.95	582444.12	569455.37	32°36'3.7493" N	-104°06'28.0677" W	0.62	3052.95	3053.04	180.30	0.88
11847.00	89.50	179.10	8975.57	-3084.99	-15.39	582412.13	569455.93	32°36'3.4327" N	-104°06'28.0619" W	-0.31	3084.95	3085.03	180.29	0.70
11879.00	89.10	178.90	8975.96	-3116.99	-14.83	582380.14	569456.49	32°36'3.1161" N	-104°06'28.0562" W	-1.25	3116.94	3117.02	180.27	1.40
11911.00	88.70	178.90	8976.58	-3148.97	-14.22	582348.15	569457.10	32°36'2.7995" N	-104°06'28.0498" W	-1.25	3148.93	3149.01	180.26	1.25
11943.00	89.70	178.70	8977.02	-3180.96	-13.55	582316.16	569457.77	32°36'2.4829" N	-104°06'28.0428" W	3.13	3180.92	3180.99	180.24	3.19
11975.00	91.20	179.10	8976.77	-3212.96	-12.93	582284.17	569458.39	32°36'2.1663" N	-104°06'28.0364" W	4.69	3212.92	3212.98	180.23	4.85
12007.00	90.20	178.40	8976.38	-3244.95	-12.24	582252.18	569459.09	32°36'1.8498" N	-104°06'28.0290" W	-3.13	3244.91	3244.97	180.22	3.81
12038.00	89.10	178.20	8976.57	-3275.93	-11.32	582221.19	569460.01	32°36'1.5431" N	-104°06'28.0190" W	-3.55	3275.90	3275.95	180.20	3.61
12070.00	89.40	178.50	8976.99	-3307.91	-10.40	582189.21	569460.93	32°36'1.2266" N	-104°06'28.0090" W	0.94	3307.88	3307.93	180.18	1.33
12102.00	90.50	178.50	8977.02	-3339.90	-9.56	582157.22	569461.77	32°36'0.9100" N	-104°06'28.0000" W	3.44	3339.87	3339.92	180.16	3.44
12134.00	90.10	178.20	8976.85	-3371.89	-8.64	582125.23	569462.69	32°36'0.5935" N	-104°06'27.9901" W	-1.25	3371.86	3371.90	180.15	1.56
12166.00	90.00	178.40	8976.82	-3403.88	-7.69	582093.25	569463.64	32°36'0.2769" N	-104°06'27.9798" W	-0.31	3403.85	3403.88	180.13	0.70
12197.00	90.50	178.50	8976.69	-3434.86	-6.85	582062.26	569464.47	32°35'59.9703" N	-104°06'27.9707" W	1.61	3434.84	3434.87	180.11	1.64
12229.00	90.00	178.90	8976.55	-3466.86	-6.12	582030.27	569465.20	32°35'59.6537" N	-104°06'27.9630" W	-1.56	3466.83	3466.86	180.10	2.00
12260.00	89.90	178.90	8976.58	-3497.85	-5.53	581999.27	569465.80	32°35'59.3470" N	-104°06'27.9568" W	-0.32	3497.83	3497.85	180.09	0.32
12291.00	89.90	179.10	8976.63	-3528.84	-4.99	581968.28	569466.34	32°35'59.0402" N	-104°06'27.9513" W	0.00	3528.82	3528.85	180.08	0.65
12323.00	88.70	179.60	8977.02	-3560.84	-4.62	581936.28	569466.70	32°35'58.7236" N	-104°06'27.9478" W	-3.75	3560.82	3560.84	180.07	4.06
12355.00	89.70	179.90	8977.47	-3592.84	-4.48	581904.29	569466.84	32°35'58.4070" N	-104°06'27.9470" W	3.13	3592.82	3592.84	180.07	3.26
12386.00	88.50	179.90	8977.95	-3623.83	-4.43	581873.29	569466.89	32°35'58.1003" N	-104°06'27.9471" W	-3.87	3623.81	3623.83	180.07	3.87
12418.00	88.20	180.50	8978.88	-3655.82	-4.54	581841.30	569466.78	32°35'57.7837" N	-104°06'27.9492" W	-0.94	3655.80	3655.82	180.07	2.10
12450.00	87.80	180.80	8979.99	-3687.80	-4.90	581809.33	569466.42	32°35'57.4673" N	-104°06'27.9543" W	-1.25	3687.77	3687.80	180.08	1.56
12474.00	87.80	180.80	8980.91	-3711.78	-5.24	581785.35	569466.08	32°35'57.2300" N	-104°06'27.9588" W	0.00	3711.75	3711.78	180.08	0.00
12506.00	88.60	180.80	8981.92	-3743.76	-5.69	581753.37	569465.64	32°35'56.9135" N	-104°06'27.9648" W	2.50	3743.73	3743.76	180.09	2.50
12537.00	89.20	180.80	8982.51	-3774.75	-6.12	581722.37	569465.21	32°35'56.6069" N	-104°06'27.9706" W	1.94	3774.72	3774.75	180.09	1.94
12570.00	89.30	180.60	8982.95	-3807.74	-6.52	581689.38	569464.80	32°35'56.2804" N	-104°06'27.9761" W	0.30	3807.72	3807.75	180.10	0.68

Measured Depth (Ft)	INC Deg	AZM Deg	TVD (Ft)	NS (Ft)	EW (Ft)	Northing (Ft)	Easting (Ft)	Latitude DMS	Longitude DMS	Build Rate "/100Ft	VS (Ft)	Closure (Ft)	Dir Deg	DLS "/100Ft
12601.00	89.00	180.60	8983.41	-3838.74	-6.85	581658.38	569464.48	32°35'55.9737" N	-104°06'27.9807" W	-0.97	3838.71	3838.74	180.10	0.97
12633.00	88.90	180.60	8983.99	-3870.73	-7.18	581626.39	569464.14	32°35'55.6571" N	-104°06'27.9854" W	-0.31	3870.70	3870.74	180.11	0.31
12664.00	88.90	180.10	8984.59	-3901.72	-7.37	581595.40	569463.95	32°35'55.3504" N	-104°06'27.9884" W	0.00	3901.70	3901.73	180.11	1.61
12696.00	88.70	179.80	8985.26	-3933.72	-7.34	581563.41	569463.98	32°35'55.0338" N	-104°06'27.9889" W	-0.63	3933.69	3933.72	180.11	1.13
12728.00	87.40	179.60	8986.35	-3965.70	-7.18	581531.42	569464.15	32°35'54.7173" N	-104°06'27.9877" W	-4.06	3965.67	3965.70	180.10	4.11
12760.00	87.50	179.60	8987.77	-3997.66	-6.95	581499.46	569464.37	32°35'54.4010" N	-104°06'27.9859" W	0.31	3997.64	3997.67	180.10	0.31
12791.00	89.40	179.90	8988.61	-4028.65	-6.82	581468.47	569464.51	32°35'54.0943" N	-104°06'27.9851" W	6.13	4028.62	4028.66	180.10	6.20
12823.00	89.60	179.60	8988.89	-4060.65	-6.68	581436.47	569464.65	32°35'53.7777" N	-104°06'27.9842" W	0.62	4060.62	4060.66	180.09	1.13
12855.00	89.40	179.40	8989.17	-4092.65	-6.40	581404.47	569464.93	32°35'53.4610" N	-104°06'27.9818" W	-0.62	4092.62	4092.65	180.09	0.88
12886.00	90.00	179.40	8989.33	-4123.65	-6.07	581373.48	569465.25	32°35'53.1543" N	-104°06'27.9787" W	1.94	4123.62	4123.65	180.08	1.94
12918.00	89.30	179.20	8989.52	-4155.64	-5.68	581341.48	569465.64	32°35'52.8376" N	-104°06'27.9750" W	-2.19	4155.62	4155.65	180.08	2.28
12950.00	89.40	178.90	8989.89	-4187.64	-5.15	581309.49	569466.17	32°35'52.5210" N	-104°06'27.9696" W	0.31	4187.61	4187.64	180.07	0.99
12981.00	89.30	178.00	8990.24	-4218.62	-4.31	581278.50	569467.01	32°35'52.2144" N	-104°06'27.9605" W	-0.32	4218.60	4218.62	180.06	2.92
13013.00	89.10	177.80	8990.69	-4250.60	-3.14	581246.52	569468.18	32°35'51.8979" N	-104°06'27.9476" W	-0.63	4250.58	4250.60	180.04	0.88
13044.00	88.80	177.50	8991.25	-4281.57	-1.87	581215.56	569469.45	32°35'51.5915" N	-104°06'27.9335" W	-0.97	4281.55	4281.57	180.03	1.37
13076.00	88.60	177.50	8991.98	-4313.53	-0.48	581183.59	569470.85	32°35'51.2751" N	-104°06'27.9180" W	-0.63	4313.51	4313.53	180.01	0.62
13108.00	89.30	177.50	8992.57	-4345.49	0.92	581151.63	569472.24	32°35'50.9588" N	-104°06'27.9025" W	2.19	4345.48	4345.49	179.99	2.19
13139.00	89.30	177.80	8992.95	-4376.46	2.19	581120.66	569473.52	32°35'50.6523" N	-104°06'27.8884" W	0.00	4376.46	4376.46	179.97	0.97
13171.00	89.90	177.70	8993.17	-4408.44	3.45	581088.68	569474.77	32°35'50.3359" N	-104°06'27.8745" W	1.88	4408.43	4408.44	179.96	1.90
13203.00	89.70	177.70	8993.28	-4440.41	4.73	581056.71	569476.06	32°35'50.0194" N	-104°06'27.8603" W	-0.63	4440.41	4440.41	179.94	0.63
13235.00	89.50	177.30	8993.50	-4472.38	6.13	581024.74	569477.45	32°35'49.7031" N	-104°06'27.8448" W	-0.63	4472.38	4472.38	179.92	1.40
13267.00	89.50	177.30	8993.78	-4504.34	7.64	580992.78	569478.96	32°35'49.3867" N	-104°06'27.8279" W	0.00	4504.35	4504.35	179.90	0.00
13299.00	89.30	177.50	8994.12	-4536.31	9.09	580960.81	569480.41	32°35'49.0704" N	-104°06'27.8118" W	-0.63	4536.32	4536.32	179.89	0.88
13331.00	88.50	176.90	8994.73	-4568.26	10.65	580928.86	569481.97	32°35'48.7541" N	-104°06'27.7943" W	-2.50	4568.28	4568.28	179.87	3.12
13363.00	88.60	177.70	8995.54	-4600.22	12.16	580896.90	569483.48	32°35'48.4379" N	-104°06'27.7775" W	0.31	4600.23	4600.23	179.85	2.52
13394.00	89.60	178.70	8996.03	-4631.20	13.13	580865.92	569484.45	32°35'48.1313" N	-104°06'27.7668" W	3.23	4631.22	4631.22	179.84	4.56
13426.00	88.80	177.80	8996.48	-4663.18	14.11	580833.94	569485.43	32°35'47.8148" N	-104°06'27.7562" W	-2.50	4663.20	4663.20	179.83	3.76
13457.00	88.80	177.70	8997.13	-4694.15	15.32	580802.97	569486.65	32°35'47.5083" N	-104°06'27.7428" W	0.00	4694.17	4694.17	179.81	0.32
13489.00	88.80	177.70	8997.80	-4726.12	16.61	580771.01	569487.93	32°35'47.1919" N	-104°06'27.7285" W	0.00	4726.14	4726.14	179.80	0.00
13521.00	88.60	177.50	8998.52	-4758.08	17.95	580739.04	569489.27	32°35'46.8756" N	-104°06'27.7137" W	-0.63	4758.11	4758.11	179.78	0.88
13553.00	88.70	177.30	8999.28	-4790.04	19.40	580707.08	569490.72	32°35'46.5593" N	-104°06'27.6975" W	0.31	4790.07	4790.08	179.77	0.70
BHL: 13601 MD, 88.70°														
13601.00	88.70	177.30	9000.36	-4837.97	21.66	580659.15	569492.98	32°35'46.0849" N	-104°06'27.6723" W	0.00	4838.01	4838.02	179.74	0.00

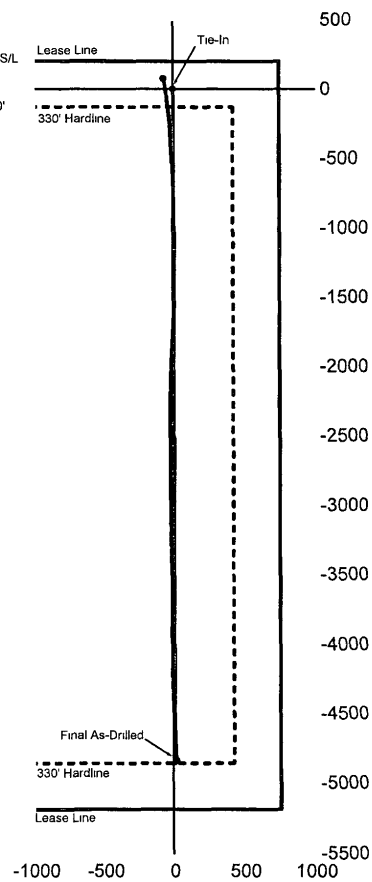
MAGNETICS INFORMATION									
Magnetic Model: C:\HawkEye\IGRF2010.MIF Date for Magnetics: 01/11/2012 Latitude: 32°36'33.9605" N Longitude: -104°06'27.8055" W Magnetic Declination: 7.80 Total Correction(Mag to Grid): 7.67					Field Strength (nt): 48757 B-X Component (nt): 23838 B-Y Component (nt): 3264 B-Z Component (nt): 42407 B-Horz Component (nt): 24061 Dip Angle: 60.43				
TARGET DATA									
Name	Shape	Easting (Ft)	Northing (Ft)	Subsea TVD (Ft)	NS (Ft)	EW (Ft)	Side A (Ft)	Side B (Ft)	Diameter (Ft)
LP	CYLINDER	569472.66	584924.12	8930.00	-573.00	1.34	100.00	100.00	100.00
PBHL	CYLINDER	569482.63	580638.53	9005.00	-4858.60	11.30	100.00	200.00	100.00



NM-East
NAD27
Grid Correction = 7.674" E

Final As-Drilled
4838.02' Displacement from S/L
@ 179.74° Azimuth from S/L
South 4837.97' East 21.66"
TVD: 9000.36' MD: 13601.00'
Y: 560659.15
X: 569492.98

Horizontal Plot
1" = 1000'



Final As-Drilled
March 14, 2012



Ruger "6" Federal Com #4H Eddy County, New Mexico Patterson #74

Vertical Section Plot
1" = 1000'

