



Rig Name: PRODUCTION WELL
State/County: COLORADO/WELD
Latitude: 40.49, Longitude: -104.38
GRID North is 0.72 Degrees East of True North
VS-Azi: 0.00 Degrees



FIELD COPY ONLY (NOT DEFINITIVE)

Depth Reference : GROUND ELEVATION

DRILLOG MS GYRO SURVEY CALCULATIONS

Filename: msgyro_run02-01_ed.ut

Minimum Curvature Method

Report Date/Time: 7/25/2011 / 15:44

Vaughn Energy Services

Henderson, CO

1-866-835-8333

Surveyor: Daniel Miller

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	0.58	212.18	100.00	-0.43	-0.27	-0.43	0.50	212.18	0.58
200.00	0.42	224.82	199.99	-1.12	-0.80	-1.12	1.37	215.57	0.19
300.00	0.25	268.46	299.99	-1.38	-1.28	-1.38	1.88	222.79	0.30
400.00	0.66	324.16	399.99	-0.92	-1.84	-0.92	2.06	243.31	0.56
500.00	1.00	355.70	499.98	0.41	-2.24	0.41	2.28	280.43	0.56
600.00	1.03	28.70	599.96	2.08	-1.87	2.08	2.80	317.95	0.58
700.00	1.14	27.89	699.95	3.75	-0.97	3.75	3.87	345.46	0.11
800.00	1.15	24.73	799.93	5.54	-0.09	5.54	5.54	359.10	0.06
900.00	1.14	25.02	899.91	7.35	0.75	7.35	7.39	5.85	0.01
1000.00	0.98	28.89	999.89	9.00	1.59	9.00	9.14	10.00	0.17
1100.00	0.91	28.08	1099.88	10.46	2.38	10.46	10.73	12.81	0.07
1200.00	1.02	25.47	1199.86	11.96	3.13	11.96	12.37	14.68	0.11
1300.00	1.09	26.09	1299.84	13.62	3.93	13.62	14.18	16.11	0.08
1400.00	0.88	29.46	1399.83	15.14	4.73	15.14	15.86	17.35	0.22
1500.00	1.00	39.17	1499.82	16.48	5.66	16.48	17.43	18.94	0.20
1600.00	0.99	51.43	1599.80	17.70	6.88	17.70	18.99	21.25	0.21
1700.00	0.66	69.84	1699.79	18.43	8.10	18.43	20.13	23.71	0.41
1800.00	0.51	97.93	1799.79	18.57	9.08	18.57	20.67	26.05	0.32
1900.00	0.68	110.92	1899.78	18.29	10.07	18.29	20.88	28.83	0.22
2000.00	1.15	115.43	1999.77	17.65	11.53	17.65	21.09	33.16	0.47
2100.00	1.17	109.92	2099.75	16.87	13.40	16.87	21.55	38.45	0.11
2200.00	0.93	98.11	2199.73	16.41	15.17	16.41	22.35	42.74	0.32
2300.00	0.73	98.72	2299.72	16.20	16.60	16.20	23.19	45.70	0.21
2400.00	0.53	97.23	2399.71	16.05	17.69	16.05	23.88	47.79	0.20
2500.00	0.64	114.58	2499.71	15.76	18.65	15.76	24.42	49.81	0.20
2600.00	0.46	135.00	2599.70	15.24	19.44	15.24	24.70	51.91	0.26
2700.00	0.38	122.08	2699.70	14.78	20.01	14.78	24.87	53.54	0.13
2800.00	0.28	111.90	2799.70	14.51	20.51	14.51	25.12	54.71	0.11
2900.00	0.27	115.41	2899.70	14.32	20.94	14.32	25.37	55.63	0.02
3000.00	0.25	121.83	2999.70	14.11	21.34	14.11	25.58	56.52	0.03
3100.00	0.63	96.02	3099.69	13.94	22.07	13.94	26.10	57.72	0.42
3200.00	0.53	85.82	3199.69	13.91	23.08	13.91	26.95	58.91	0.14
3300.00	0.48	83.47	3299.69	13.99	23.95	13.99	27.74	59.70	0.06
3400.00	0.82	37.31	3399.68	14.61	24.80	14.61	28.78	59.49	0.60

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
3500.00	1.47	32.30	3499.66	16.26	25.92	16.26	30.60	57.89	0.66
3600.00	1.73	32.53	3599.62	18.62	27.42	18.62	33.14	55.81	0.27
3700.00	2.01	32.82	3699.57	21.37	29.18	21.37	36.17	53.78	0.27
3800.00	1.62	33.94	3799.52	24.02	30.92	24.02	39.15	52.16	0.39
3900.00	1.43	30.84	3899.48	26.26	32.35	26.26	41.66	50.93	0.21
4000.00	1.00	41.20	3999.46	27.99	33.56	27.99	43.70	50.17	0.48
4100.00	0.85	57.71	4099.45	29.04	34.77	29.04	45.30	50.12	0.31
4200.00	0.67	70.61	4199.44	29.63	35.94	29.63	46.58	50.49	0.25
4300.00	0.63	87.09	4299.43	29.85	37.04	29.85	47.57	51.13	0.19
4400.00	0.68	93.73	4399.42	29.84	38.17	29.84	48.45	51.98	0.09
4500.00	0.43	119.41	4499.42	29.62	39.08	29.62	49.04	52.84	0.34
4600.00	0.33	143.50	4599.42	29.21	39.58	29.21	49.19	53.58	0.19
4700.00	0.33	111.20	4699.42	28.87	40.02	28.87	49.35	54.19	0.18
4800.00	0.29	115.67	4799.41	28.66	40.51	28.66	49.62	54.72	0.04
4900.00	0.26	109.51	4899.41	28.48	40.95	28.48	49.88	55.19	0.04
5000.00	0.46	164.55	4999.41	28.01	41.27	28.01	49.88	55.83	0.38
5100.00	0.51	175.20	5099.41	27.18	41.42	27.18	49.54	56.72	0.10
5200.00	0.59	185.56	5199.40	26.22	41.40	26.22	49.01	57.65	0.13
5300.00	0.93	125.77	5299.40	25.23	42.01	25.23	49.01	59.01	0.81
5400.00	1.03	122.27	5399.38	24.28	43.43	24.28	49.75	60.79	0.11
5500.00	1.33	111.87	5499.36	23.37	45.26	23.37	50.94	62.69	0.37
5600.00	1.51	110.01	5599.33	22.48	47.58	22.48	52.63	64.71	0.19
5700.00	1.52	110.14	5699.29	21.58	50.06	21.58	54.52	66.69	0.01
5800.00	1.84	120.73	5799.25	20.30	52.69	20.30	56.46	68.93	0.45
5900.00	2.91	128.46	5899.16	17.90	56.06	17.90	58.85	72.29	1.11
6000.00	4.45	129.71	5998.96	13.84	61.03	13.84	62.58	77.22	1.54
6100.00	5.17	126.02	6098.60	8.72	67.65	8.72	68.21	82.66	0.79
6200.00	1.30	146.35	6198.43	5.12	71.93	5.12	72.11	85.92	3.98
6300.00	0.15	346.42	6298.42	4.31	72.52	4.31	72.65	86.60	1.44
6400.00	0.48	331.06	6398.42	4.80	72.29	4.80	72.45	86.20	0.33
6500.00	0.74	338.09	6498.41	5.77	71.85	5.77	72.08	85.41	0.28
6600.00	1.61	339.99	6598.39	7.69	71.12	7.69	71.54	83.83	0.87
6700.00	1.77	340.56	6698.35	10.47	70.13	10.47	70.91	81.51	0.16
HORIZONTAL DISPLACEMENT IS 70.91 FEET AT 81.51 DEGREES									