

VES

VAUGHN ENERGY SERVICES

Company: Gulfport

Well: Moffat 22-11-1

Location: Sect 11/T6N/ R91W

Rig Name: DHS 20

State/County: Colorado/Moffat

Latitude: 40.494, Longitude: -107.575

GRID North is 1.340 Degrees West of True North

VS-Azi: 0.000 Degrees

GTI

GYRO TECHNOLOGIES

FIELD COPY ONLY (NOT DEFINITIVE)

Depth Reference : RKB=14.5 feet

DRILLOG MS GYRO SURVEY CALCULATIONS

Filename: moffat3-01_ed.ut

Minimum Curvature Method

Report Date/Time: 10/2/2011 / 00:49

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
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	****
100.000	0.389	169.840	99.999	-0.334	0.060	-0.334	0.339	169.840	0.389
200.000	0.504	178.620	199.996	-1.108	0.130	-1.108	1.116	173.291	0.134
300.000	0.401	273.693	299.994	-1.526	-0.209	-1.526	1.540	187.787	0.672
400.000	0.374	275.221	399.992	-1.474	-0.883	-1.474	1.718	210.929	0.030
500.000	0.504	262.864	499.989	-1.498	-1.644	-1.498	2.225	227.654	0.161
600.000	0.900	211.697	599.982	-2.221	-2.493	-2.221	3.339	228.304	0.703
700.000	0.586	206.008	699.974	-3.349	-3.130	-3.349	4.584	223.066	0.322
800.000	0.913	218.934	799.965	-4.428	-3.855	-4.428	5.871	221.042	0.366
839.000	0.875	218.247	838.960	-4.903	-4.234	-4.903	6.479	220.812	0.101

HORIZONTAL DISPLACEMENT IS
6.479 FEET AT 220.812 DEGREES



Job Number: []
 Company: Gulfport Energy
 Lease/Well: Moffat 22-11-1
 Location: Moffat County
 Rig Name: []
 RKB: []
 G.L. or M.S.L.: []

State/Country: Colorado
 Declination: []
 Grid: []
 File name: C:\CUST20~1\GULFPORT03264~1.SVY
 Date/Time: 11-Oct-11 / 16:44
 Curve Name: As Drilled Moffat 22-11-1

As Drilled Moffat 22-11-1

WINSERVE SURVEY CALCULATIONS
 Minimum Curvature Method
 Vertical Section Plane .00
 Vertical Section Referenced to Wellhead
 Rectangular Coordinates Referenced to Wellhead

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	Dogleg Severity Deg/100	Grid X FT	Grid Y FT
.00	.00	.00	.00	.00	.00	.00	.00	1423032.00	429682.00
100.00	.30	169.80	100.00	-.26	.05	-.26	.30	1423032.05	429681.74
200.00	.50	178.60	200.00	-.95	.10	-.95	.21	1423032.10	429681.05
300.00	.40	173.60	299.99	-1.73	.15	-1.73	.11	1423032.15	429680.27
400.00	.30	275.20	399.99	-2.06	-.07	-2.06	.55	1423031.93	429679.94
500.00	.50	262.80	499.99	-2.09	-.76	-2.09	.22	1423031.24	429679.91
600.00	.90	211.60	599.98	-2.81	-1.61	-2.81	.70	1423030.39	429679.19
700.00	.50	206.00	699.98	-3.87	-2.21	-3.87	.41	1423029.79	429678.13
800.00	.90	218.90	799.97	-4.88	-2.89	-4.88	.43	1423029.11	429677.12
839.00	.87	218.20	838.96	-5.35	-3.27	-5.35	.08	1423028.73	429676.65
904.00	.90	226.80	903.96	-6.09	-3.95	-6.09	.21	1423028.05	429675.91
996.00	1.50	234.10	995.94	-7.29	-5.45	-7.29	.67	1423026.55	429674.71
1088.00	1.80	234.10	1087.90	-8.84	-7.59	-8.84	.33	1423024.41	429673.16
1183.00	2.30	237.30	1182.84	-10.74	-10.41	-10.74	.54	1423021.59	429671.26
1277.00	2.70	232.50	1276.75	-13.11	-13.75	-13.11	.48	1423018.25	429668.89
1372.00	2.20	229.70	1371.66	-15.65	-16.92	-15.65	.54	1423015.08	429666.35
1466.00	1.10	223.80	1465.62	-17.47	-18.92	-17.47	1.18	1423013.08	429664.53
1561.00	1.10	202.10	1560.60	-18.97	-19.89	-18.97	.44	1423012.11	429663.03
1656.00	1.60	198.30	1655.58	-21.08	-20.65	-21.08	.53	1423011.35	429660.92
1750.00	2.30	203.90	1749.52	-24.05	-21.83	-24.05	.77	1423010.17	429657.95
1844.00	1.60	191.90	1843.47	-27.06	-22.86	-27.06	.86	1423009.14	429654.94
1939.00	1.70	184.70	1938.43	-29.76	-23.25	-29.76	.24	1423008.75	429652.24
2034.00	2.10	182.90	2033.37	-32.90	-23.46	-32.90	.43	1423008.54	429649.10
2128.00	2.60	185.40	2127.29	-36.74	-23.74	-36.74	.54	1423008.26	429645.26
2222.00	2.10	195.30	2221.22	-40.53	-24.40	-40.53	.68	1423007.60	429641.47

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	Dogleg Severity Deg/100	Grid X FT	Grid Y FT
2317.00	1.80	212.10	2316.16	-43.47	-25.65	-43.47	.68	1423006.35	429638.53
2411.00	2.00	214.80	2410.11	-46.07	-27.37	-46.07	.23	1423004.63	429635.93
2506.00	2.80	214.40	2505.03	-49.34	-29.63	-49.34	.84	1423002.37	429632.66
2601.00	2.20	224.60	2599.94	-52.56	-32.22	-52.56	.78	1422999.78	429629.44
2696.00	1.80	239.20	2694.88	-54.62	-34.78	-54.62	.68	1422997.22	429627.38
2790.00	1.80	244.00	2788.83	-56.02	-37.38	-56.02	.16	1422994.62	429625.98
2885.00	2.50	248.80	2883.76	-57.43	-40.65	-57.43	.76	1422991.35	429624.57
2980.00	2.20	254.90	2978.68	-58.65	-44.34	-58.65	.41	1422987.66	429623.35
3074.00	1.80	265.90	3072.63	-59.23	-47.56	-59.23	.59	1422984.44	429622.77
3168.00	1.80	272.50	3166.58	-59.27	-50.50	-59.27	.22	1422981.50	429622.73
3263.00	2.20	262.10	3261.52	-59.45	-53.80	-59.45	.57	1422978.20	429622.55
3357.00	2.00	258.60	3355.46	-60.02	-57.19	-60.02	.25	1422974.81	429621.98
3452.00	1.20	251.10	3450.42	-60.67	-59.76	-60.67	.87	1422972.24	429621.33
3547.00	1.20	248.60	3545.40	-61.36	-61.63	-61.36	.06	1422970.37	429620.64
3641.00	2.00	240.60	3639.36	-62.52	-63.97	-62.52	.88	1422968.03	429619.48
3735.00	2.90	236.30	3733.28	-64.65	-67.38	-64.65	.98	1422964.62	429617.35
3829.00	3.20	234.20	3827.14	-67.50	-71.49	-67.50	.34	1422960.51	429614.50
3923.00	2.30	229.30	3921.03	-70.27	-75.05	-70.27	.99	1422956.95	429611.73
4017.00	2.20	223.60	4014.96	-72.80	-77.72	-72.80	.26	1422954.28	429609.20
4112.00	2.50	209.30	4109.88	-75.93	-79.99	-75.93	.69	1422952.01	429606.07
4206.00	2.30	228.60	4203.80	-78.97	-82.41	-78.97	.88	1422949.59	429603.03
4300.00	2.20	238.80	4297.73	-81.15	-85.37	-81.15	.44	1422946.63	429600.85
4395.00	1.50	236.70	4392.68	-82.78	-87.97	-82.78	.74	1422944.03	429599.22
4489.00	1.90	215.10	4486.64	-84.73	-89.89	-84.73	.80	1422942.11	429597.27
4583.00	2.70	210.50	4580.56	-87.91	-91.91	-87.91	.87	1422940.09	429594.09
4677.00	2.50	210.20	4674.47	-91.59	-94.07	-91.59	.21	1422937.93	429590.41
4771.00	2.00	202.10	4768.39	-94.88	-95.71	-94.88	.63	1422936.29	429587.12
4866.00	1.80	202.90	4863.34	-97.79	-96.92	-97.79	.21	1422935.08	429584.21
4961.00	2.20	201.40	4958.28	-100.86	-98.16	-100.86	.42	1422933.84	429581.14
5055.00	2.90	194.00	5052.19	-104.85	-99.40	-104.85	.82	1422932.60	429577.15
5149.00	2.50	194.40	5146.09	-109.14	-100.48	-109.14	.43	1422931.52	429572.86
5244.00	1.80	199.50	5241.02	-112.56	-101.50	-112.56	.76	1422930.50	429569.44
5338.00	1.30	296.90	5335.00	-113.47	-102.94	-113.47	2.50	1422929.06	429568.53
5433.00	2.50	212.00	5429.96	-114.74	-105.00	-114.74	2.86	1422927.00	429567.26
5527.00	2.30	217.80	5523.87	-117.96	-107.24	-117.96	.33	1422924.76	429564.04
5622.00	1.80	220.80	5618.81	-120.60	-109.38	-120.60	.54	1422922.62	429561.40
5716.00	2.70	227.80	5712.74	-123.20	-111.99	-123.20	1.00	1422920.01	429558.80
5811.00	2.50	232.70	5807.64	-125.96	-115.30	-125.96	.31	1422916.70	429556.04
5905.00	2.30	228.40	5901.56	-128.46	-118.34	-128.46	.29	1422913.66	429553.54
6000.00	1.50	194.70	5996.51	-130.93	-120.08	-130.93	1.41	1422911.92	429551.07
6094.00	2.00	187.10	6090.47	-133.74	-120.59	-133.74	.59	1422911.41	429548.26
6186.00	2.80	180.40	6182.38	-137.58	-120.81	-137.58	.92	1422911.19	429544.42
6249.00	2.80	179.20	6245.31	-140.66	-120.80	-140.66	.09	1422911.20	429541.34
6335.00	3.40	185.80	6331.18	-145.30	-121.02	-145.30	.81	1422910.98	429536.70
6430.00	2.10	187.30	6426.07	-149.83	-121.53	-149.83	1.37	1422910.47	429532.17

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	Dogleg Severity Deg/100	Grid X FT	Grid Y FT
6525.00	1.50	181.20	6521.02	-152.80	-121.78	-152.80	.66	1422910.22	429529.20
6619.00	3.70	178.30	6614.92	-157.06	-121.71	-157.06	2.34	1422910.29	429524.94
6713.00	2.30	176.80	6708.79	-161.98	-121.52	-161.98	1.49	1422910.48	429520.02
6807.00	.70	190.60	6802.76	-164.42	-121.52	-164.42	1.73	1422910.48	429517.58
6901.00	1.80	174.90	6896.73	-166.46	-121.49	-166.46	1.21	1422910.51	429515.54
6995.00	3.90	187.90	6990.61	-171.10	-121.80	-171.10	2.32	1422910.20	429510.90
7090.00	2.00	196.50	7085.48	-175.89	-122.72	-175.89	2.05	1422909.28	429506.11
7184.00	1.40	220.90	7179.44	-178.33	-123.93	-178.33	.99	1422908.07	429503.67
7279.00	1.50	152.90	7274.42	-180.31	-124.13	-180.31	1.71	1422907.87	429501.69
7373.00	2.80	179.90	7368.35	-183.70	-123.56	-183.70	1.72	1422908.44	429498.30
7468.00	1.80	209.80	7463.28	-187.32	-124.30	-187.32	1.61	1422907.70	429494.68
7563.00	3.30	243.40	7558.18	-189.84	-127.49	-189.84	2.17	1422904.51	429492.16
7657.00	3.30	255.50	7652.03	-191.73	-132.53	-191.73	.74	1422899.47	429490.27
7751.00	4.60	209.40	7745.83	-195.69	-137.00	-195.69	3.53	1422895.00	429486.31
7783.00	5.10	207.90	7777.71	-198.06	-138.29	-198.06	1.61	1422893.71	429483.94
Projected									
7870.00	5.10	207.90	7864.37	-204.90	-141.91	-204.90	.00	1422890.09	429477.10

Company: Gulfport Energy
Lease/Well: Moffat 22-11-1
Location: Moffat County
State/Country: Colorado

