



**Cimarex Energy
New Mexico
Eddy County
Sec. 13-T22S-R25E
McGruder 13 Fed #3 - Plan 091705**

Revised: 19 September, 2005

Halliburton Sperry-Drilling Proposal Report

20 September, 2005

Data Source: Mr. Zeno Farns

Surface Coordinates: 505956.10 N, 492734.70 E (32° 23' 27.5485" N, 104° 21' 24.7342" W)

Grid Coordinate System: NAD27 New Mexico State Planes, Eastern Zone

Surface Coordinates relative to Center of County: 39656.66 S, 7265.30 W (Grid)

Surface Coordinates relative to SW Cor Sec 13: 2445.00 N, 260.00 E (Grid)

Kelly Bushing Elevation: 3458.00ft above Mean Sea Level

Kelly Bushing Elevation: 20.00ft above Structure

Proposal Ref: pro9303

HALLIBURTON
Sperry Drilling Services

Proposal Report for Sec. 13-T22S-R25E - McGruder 13 Fed #3 - Plan 091705

Data Source: Mr. Zeno Farris

Revised: 19 September, 2005

Measure Depth (ft)	Incl. Angle (Deg)	Drift Direction (Deg)	True Vertical Depth	Vertical Section (ft)	Local Coordinates N-S (ft)	E-W (ft)	Dogleg Severit (*°/100ft)	Lease Calls FNL-FSL (ft)	FEL-FWL (ft)	Global Coordinates Grid Y (ft)	Grid X (ft)
0.00	0.000	0.000	0.00	0.00	0.00 N	0.00 E		2445.00 FSL	260.00 FWL	505956.10 N	492734.70 E
9 5/8" Casing											
2400.00	0.000	0.000	2400.00	0.00	0.00 N	0.00 E	0.00	2445.00 FSL	260.00 FWL	505956.10 N	492734.70 E
Kick-Off at 4907.03ft											
4907.03	0.000	0.000	4907.03	0.00	0.00 N	0.00 E	0.00	2445.00 FSL	260.00 FWL	505956.10 N	492734.70 E
5000.00	1.859	52.376	4999.98	1.51	0.92 N	1.19 E	2.00	2445.92 FSL	261.19 FWL	505957.02 N	492735.89 E
5100.00	3.859	52.376	5099.85	6.50	3.97 N	5.15 E	2.00	2448.97 FSL	265.15 FWL	505960.07 N	492739.85 E
5200.00	5.859	52.376	5199.49	14.97	9.14 N	11.85 E	2.00	2454.14 FSL	271.85 FWL	505965.24 N	492746.55 E
5300.00	7.859	52.376	5298.77	26.91	16.43 N	21.31 E	2.00	2461.43 FSL	281.31 FWL	505972.53 N	492756.01 E
5400.00	9.859	52.376	5397.57	42.31	25.83 N	33.51 E	2.00	2470.83 FSL	293.51 FWL	505981.93 N	492768.21 E
5500.00	11.859	52.376	5495.78	61.15	37.33 N	48.43 E	2.00	2482.33 FSL	308.43 FWL	505993.43 N	492783.13 E
5600.00	13.859	52.376	5593.26	83.40	50.92 N	66.06 E	2.00	2495.92 FSL	326.06 FWL	506007.02 N	492800.76 E
End of Build at 5657.03ft											
5657.03	15.000	52.376	5648.49	97.62	59.59 N	77.31 E	2.00	2504.59 FSL	337.31 FWL	506015.69 N	492812.01 E
5700.00	15.000	52.376	5690.00	108.74	66.38 N	86.12 E	0.00	2511.38 FSL	346.12 FWL	506022.48 N	492820.82 E
5800.00	15.000	52.376	5786.59	134.62	82.18 N	106.62 E	0.00	2527.18 FSL	366.62 FWL	506038.28 N	492841.32 E
5900.00	15.000	52.376	5883.18	160.50	97.98 N	127.12 E	0.00	2542.98 FSL	387.12 FWL	506054.08 N	492861.82 E
6000.00	15.000	52.376	5979.78	186.38	113.78 N	147.62 E	0.00	2558.78 FSL	407.62 FWL	506069.88 N	492882.32 E
6100.00	15.000	52.376	6076.37	212.26	129.58 N	168.12 E	0.00	2574.58 FSL	428.12 FWL	506085.68 N	492902.82 E
6200.00	15.000	52.376	6172.96	238.15	145.38 N	188.62 E	0.00	2590.38 FSL	448.62 FWL	506101.48 N	492923.32 E
6300.00	15.000	52.376	6269.55	264.03	161.18 N	209.12 E	0.00	2606.18 FSL	469.12 FWL	506117.28 N	492943.82 E
6400.00	15.000	52.376	6366.15	289.91	176.98 N	229.62 E	0.00	2621.98 FSL	489.62 FWL	506133.08 N	492964.32 E
6500.00	15.000	52.376	6462.74	315.79	192.79 N	250.12 E	0.00	2637.79 FSL	510.12 FWL	506148.89 N	492984.82 E

Measure Depth (ft)	Incl. Angle (Deg)	Drift Direction (Deg)	True Vertical Depth	Vertical Section (ft)	Local Coordinates		Dogleg Severit ("100ft)	Lease Calls		Global Coordinates	
					N-S (ft)	E-W (ft)		FNL-FSL (ft)	FEL-FWL (ft)	Grid Y (ft)	Grid X (ft)
6600.00	15.000	52.376	6559.33	341.67	208.59 N	270.62 E	0.00	2653.59 FSL	530.62 FWL	506184.69 N	493005.32 E
6700.00	15.000	52.376	6655.92	367.56	224.39 N	291.11 E	0.00	2669.39 FSL	551.11 FWL	506180.49 N	493025.81 E
6800.00	15.000	52.376	6752.52	393.44	240.19 N	311.61 E	0.00	2685.19 FSL	571.61 FWL	506196.29 N	493046.31 E
6900.00	15.000	52.376	6849.11	419.32	255.99 N	332.11 E	0.00	2700.99 FSL	592.11 FWL	506212.09 N	493066.81 E
7000.00	15.000	52.376	6945.70	445.20	271.79 N	352.61 E	0.00	2716.79 FSL	612.61 FWL	506227.89 N	493087.31 E
7100.00	15.000	52.376	7042.29	471.08	287.59 N	373.11 E	0.00	2732.59 FSL	633.11 FWL	506243.69 N	493107.81 E
7200.00	15.000	52.376	7138.89	496.96	303.39 N	393.61 E	0.00	2748.39 FSL	653.61 FWL	506259.49 N	493128.31 E
7300.00	15.000	52.376	7235.48	522.85	319.19 N	414.11 E	0.00	2764.19 FSL	674.11 FWL	506275.29 N	493148.81 E
7400.00	15.000	52.376	7332.07	548.73	334.99 N	434.61 E	0.00	2779.99 FSL	694.61 FWL	506291.09 N	493169.31 E
7500.00	15.000	52.376	7428.66	574.61	350.79 N	455.11 E	0.00	2795.79 FSL	715.11 FWL	506306.89 N	493189.81 E
7600.00	15.000	52.376	7525.26	600.49	366.59 N	475.61 E	0.00	2811.59 FSL	735.61 FWL	506322.69 N	493210.31 E
7700.00	15.000	52.376	7621.85	626.37	382.39 N	496.11 E	0.00	2827.39 FSL	756.11 FWL	506338.49 N	493230.81 E
7800.00	15.000	52.376	7718.44	652.26	398.19 N	516.61 E	0.00	2843.19 FSL	776.61 FWL	506354.29 N	493251.31 E
7900.00	15.000	52.376	7815.03	678.14	413.99 N	537.11 E	0.00	2858.99 FSL	797.11 FWL	506370.09 N	493271.81 E
8000.00	15.000	52.376	7911.63	704.02	429.79 N	557.60 E	0.00	2874.79 FSL	817.60 FWL	506385.89 N	493292.30 E
8100.00	15.000	52.376	8008.22	729.90	445.59 N	578.10 E	0.00	2890.59 FSL	838.10 FWL	506401.69 N	493312.80 E
8200.00	15.000	52.376	8104.81	755.78	461.39 N	598.60 E	0.00	2906.39 FSL	858.60 FWL	506417.49 N	493333.30 E
8300.00	15.000	52.376	8201.41	781.67	477.19 N	619.10 E	0.00	2922.19 FSL	879.10 FWL	506433.29 N	493353.80 E
8400.00	15.000	52.376	8298.00	807.55	492.99 N	639.60 E	0.00	2937.99 FSL	899.60 FWL	506449.09 N	493374.30 E
8500.00	15.000	52.376	8394.59	833.43	508.79 N	660.10 E	0.00	2953.79 FSL	920.10 FWL	506464.89 N	493394.80 E
8600.00	15.000	52.376	8491.18	859.31	524.59 N	680.60 E	0.00	2969.59 FSL	940.60 FWL	506480.69 N	493415.30 E
8700.00	15.000	52.376	8587.78	885.19	540.40 N	701.10 E	0.00	2985.40 FSL	961.10 FWL	506496.50 N	493435.80 E
8800.00	15.000	52.376	8684.37	911.08	556.20 N	721.60 E	0.00	3001.20 FSL	981.60 FWL	506512.30 N	493456.30 E
8900.00	15.000	52.376	8780.96	936.96	572.00 N	742.10 E	0.00	3017.00 FSL	1002.10 FWL	506528.10 N	493476.80 E
9000.00	15.000	52.376	8877.55	962.84	587.80 N	762.60 E	0.00	3032.80 FSL	1022.60 FWL	506543.90 N	493497.30 E
9100.00	15.000	52.376	8974.15	988.72	603.60 N	783.10 E	0.00	3048.60 FSL	1043.10 FWL	506559.70 N	493517.80 E
9200.00	15.000	52.376	9070.74	1014.60	619.40 N	803.60 E	0.00	3064.40 FSL	1063.60 FWL	506575.50 N	493538.30 E
9300.00	15.000	52.376	9167.33	1040.48	635.20 N	824.09 E	0.00	3080.20 FSL	1084.09 FWL	506591.30 N	493558.79 E
9400.00	15.000	52.376	9263.92	1066.37	651.00 N	844.59 E	0.00	3096.00 FSL	1104.59 FWL	506607.10 N	493579.29 E
Target - 9300' Tgt, Current Target											
9437.35	15.000	52.376	9300.00	1076.03	656.90 N	852.25 E	0.00	3101.90 FSL	1112.25 FWL	506613.00 N	493588.95 E
9500.00	15.000	52.376	9360.52	1092.25	666.80 N	865.09 E	0.00	3111.80 FSL	1125.09 FWL	506622.90 N	493599.79 E
9600.00	15.000	52.376	9457.11	1118.13	682.60 N	885.59 E	0.00	3127.60 FSL	1145.59 FWL	506638.70 N	493620.29 E
9700.00	15.000	52.376	9553.70	1144.01	698.40 N	906.09 E	0.00	3143.40 FSL	1166.09 FWL	506654.50 N	493640.79 E

Measure Depth (ft)	Incl. Angle (Deg)	Drift Direction (Deg)	True Vertical Depth	Vertical Section (ft)	Local Coordinates		Dogleg Severit (°/100ft)	Lease Calls		Global Coordinates	
					N-S (ft)	E-W (ft)		FNL-FSL (ft)	FEL-FWL (ft)	Grid Y (ft)	Grid X (ft)
9800.00	15.000	52.376	9650.29	1169.89	714.20 N	926.59 E	0.00	3159.20 FSL	1186.59 FWL	506670.30 N	493661.29 E
9900.00	15.000	52.376	9746.89	1195.78	730.00 N	947.09 E	0.00	3175.00 FSL	1207.09 FWL	506686.10 N	493681.79 E
10000.00	15.000	52.376	9843.48	1221.66	745.80 N	967.59 E	0.00	3190.80 FSL	1227.59 FWL	506701.90 N	493702.29 E
10100.00	15.000	52.376	9940.07	1247.54	761.60 N	988.09 E	0.00	3206.60 FSL	1248.09 FWL	506717.70 N	493722.79 E
10200.00	15.000	52.376	10036.66	1273.42	777.40 N	1008.59 E	0.00	3222.40 FSL	1268.59 FWL	506733.50 N	493743.29 E
10300.00	15.000	52.376	10133.26	1299.30	793.20 N	1029.09 E	0.00	3238.20 FSL	1289.09 FWL	506749.30 N	493763.79 E
10400.00	15.000	52.376	10229.85	1325.19	809.00 N	1049.59 E	0.00	3254.00 FSL	1309.59 FWL	506765.10 N	493784.29 E
10500.00	15.000	52.376	10326.44	1351.07	824.80 N	1070.09 E	0.00	3269.80 FSL	1330.09 FWL	506780.90 N	493804.79 E
10600.00	15.000	52.376	10423.03	1376.95	840.60 N	1090.58 E	0.00	3285.60 FSL	1350.58 FWL	506796.70 N	493825.28 E
10700.00	15.000	52.376	10519.63	1402.83	856.40 N	1111.08 E	0.00	3301.40 FSL	1371.08 FWL	506812.50 N	493845.78 E
10800.00	15.000	52.376	10616.22	1428.71	872.21 N	1131.58 E	0.00	3317.21 FSL	1391.58 FWL	506828.31 N	493866.28 E
10900.00	15.000	52.376	10712.81	1454.60	888.01 N	1152.08 E	0.00	3333.01 FSL	1412.08 FWL	506844.11 N	493886.78 E
T Middle Morrow, Target - 10736" TVD #3, Current Target											
10924.01	15.000	52.376	10736.00	1460.81	891.80 N	1157.00 E	0.00	3336.80 FSL	1417.00 FWL	506847.90 N	493891.70 E
11000.00	15.000	52.376	10809.40	1480.48	903.81 N	1172.58 E	0.00	3348.81 FSL	1432.58 FWL	506859.91 N	493907.28 E
11100.00	15.000	52.376	10906.00	1506.36	919.61 N	1193.08 E	0.00	3364.61 FSL	1453.08 FWL	506875.71 N	493927.78 E
11200.00	15.000	52.376	11002.59	1532.24	935.41 N	1213.58 E	0.00	3380.41 FSL	1473.58 FWL	506891.51 N	493948.28 E
11300.00	15.000	52.376	11099.18	1558.12	951.21 N	1234.08 E	0.00	3396.21 FSL	1494.08 FWL	506907.31 N	493968.78 E
11400.00	15.000	52.376	11195.78	1584.00	967.01 N	1254.58 E	0.00	3412.01 FSL	1514.58 FWL	506923.11 N	493989.28 E
11500.00	15.000	52.376	11292.37	1609.89	982.81 N	1275.08 E	0.00	3427.81 FSL	1535.08 FWL	506938.91 N	494009.78 E
11600.00	15.000	52.376	11388.96	1635.77	998.61 N	1295.58 E	0.00	3443.61 FSL	1555.58 FWL	506954.71 N	494030.28 E
11700.00	15.000	52.376	11485.55	1661.65	1014.41 N	1316.08 E	0.00	3459.41 FSL	1576.08 FWL	506970.51 N	494050.78 E
11800.00	15.000	52.376	11582.15	1687.53	1030.21 N	1336.58 E	0.00	3475.21 FSL	1596.58 FWL	506986.31 N	494071.28 E
11900.00	15.000	52.376	11678.74	1713.41	1046.01 N	1357.07 E	0.00	3491.01 FSL	1617.07 FWL	507002.11 N	494091.77 E
Total Depth at 11973.78ft, 8 3/4" Open Hole											
11973.78	15.000	52.376	11750.00	1732.51	1057.67 N	1372.20 E	0.00	3502.67 FSL	1632.20 FWL	507013.77 N	494106.90 E

All data is in Feet (US) unless otherwise stated. Directions and coordinates are relative to Grid North.
Vertical depths are relative to RKB(3438'+20' KB). Northings and Eastings are relative to Wellhead.

Based upon Minimum Curvature type calculations, at a Measured Depth of 11973.78ft.,
The Bottom Hole Displacement is 1732.51ft., in the Direction of 52.376° (Grid).

Proposal Report for Sec. 13-T22S-R25E - McGruder 13 Fed #3 - Plan 091705
Data Source: Mr. Zeno Farris
Revised: 19 September, 2005

Comments

Measured Depth (ft)	Station Coordinates			Comment
	TVD (ft)	Northings (ft)	Eastings (ft)	
4907.03	4907.03	0.00 N	0.00 E	Kick-Off at 4907.03ft
5657.03	5648.49	59.59 N	77.31 E	End of Build at 5657.03ft
11973.78	11750.00	1057.67 N	1372.20 E	Total Depth at 11973.78ft

Formation Tops

Formation Plane (Below Well Origin)			Profile		Penetration Point			Formation Name
Sub-Sea (ft)	Dip Angle	Up-Dip Dim.	Measured Depth (ft)	Vertical Depth (ft)	Sub-Sea Depth (ft)	Northings (ft)	Eastings (ft)	
7278.00	0.000	0.000	10924.01	10736.00	7278.00	891.80 N	1157.00 E	T Middle Morrow

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Casing details

From		To		Casing Detail
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	
<Surface>	<Surface>	2400.00	2400.00	9 5/8" Casing
<Surface>	<Surface>	<Run-TD>	<Run-TD>	8 3/4" Open Hole

Targets associated with this wellpath

Target Name	Target Entry Coordinates			Target Shape	Target Type
	TVD (ft)	Northings (ft)	Eastings (ft)		
9300' Tgt	9300.00	656.90 N	852.25 E	Point	Current Target
	Mean Sea Level/Global Coordinates:	5842.00	508613.00 N		
	Geographical Coordinates:	32° 23' 34.0510" N	104° 21' 14.7960" W		
10736' TVD #3	10736.00	891.80 N	1157.00 E	Point	Current Target
	Mean Sea Level/Global Coordinates:	7278.00	506847.90 N		
	Geographical Coordinates:	32° 23' 36.3762" N	104° 21' 11.2422" W		

North Reference Sheet for Sec. 13-T22S-R25E - McGruder 13 Fed #3

Coordinate System is NAD27 New Mexico State Planes, Eastern Zone, US Foot
Source: Snyder, J.P., 1987, Map Projections - A Working Manual

Datum is North American Datum of 1927 (US48, AK, HI, and Canada)

Spheroid is Clarke - 1866
Equatorial Radius: 6378206.400m.
Polar Radius: 6356583.800m.
Inverse Flattening: 294.978698213901

Projection method is Transverse Mercator or Gauss Kruger Projection
Central Meridian is -104.333°
Longitude Origin: 0.000°
Latitude Origin: 31.000°
False Easting: 152400.00m
False Northing: 0.00m
Scale Reduction: 0.99990909

Grid Coordinates of Well: 505956.10 N, 492734.70 E
Geographical Coordinates of Well: 32° 23' 27.5485" N, 104° 21' 24.7342" W
Surface Elevation of Well: 3458.00ft
Grid Convergence at Surface is -0.013°
Magnetic Convergence at Surface is -8.658° (17 September, 2005)

