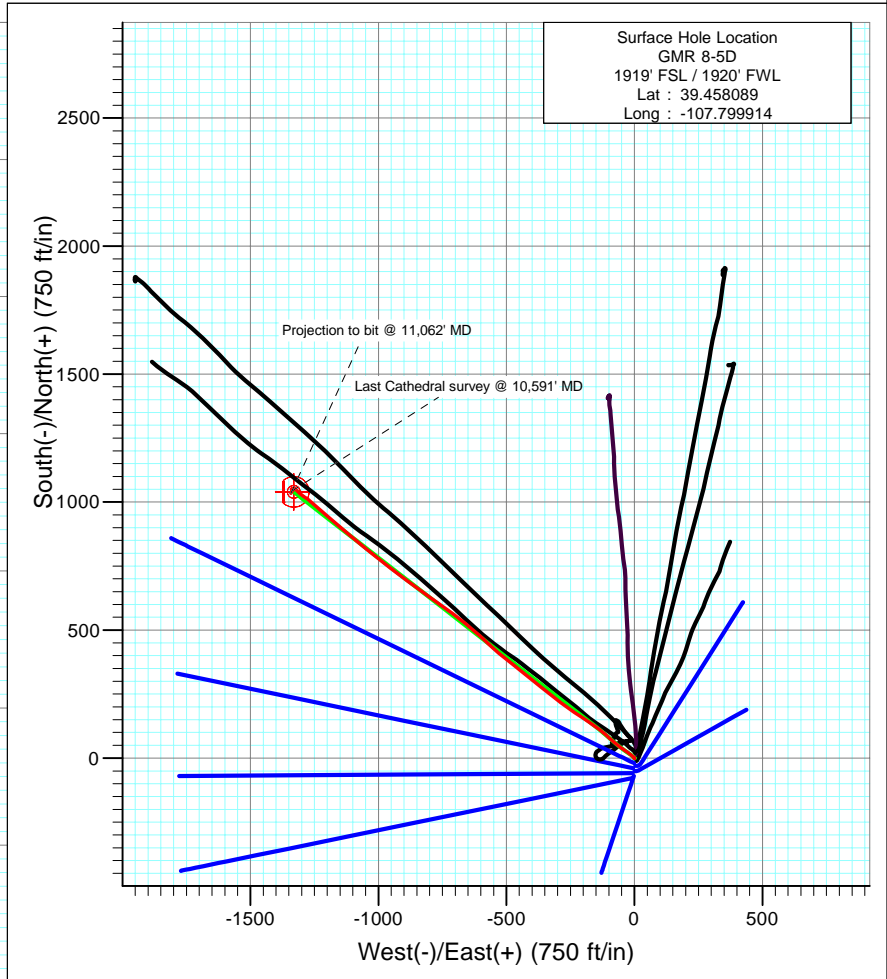
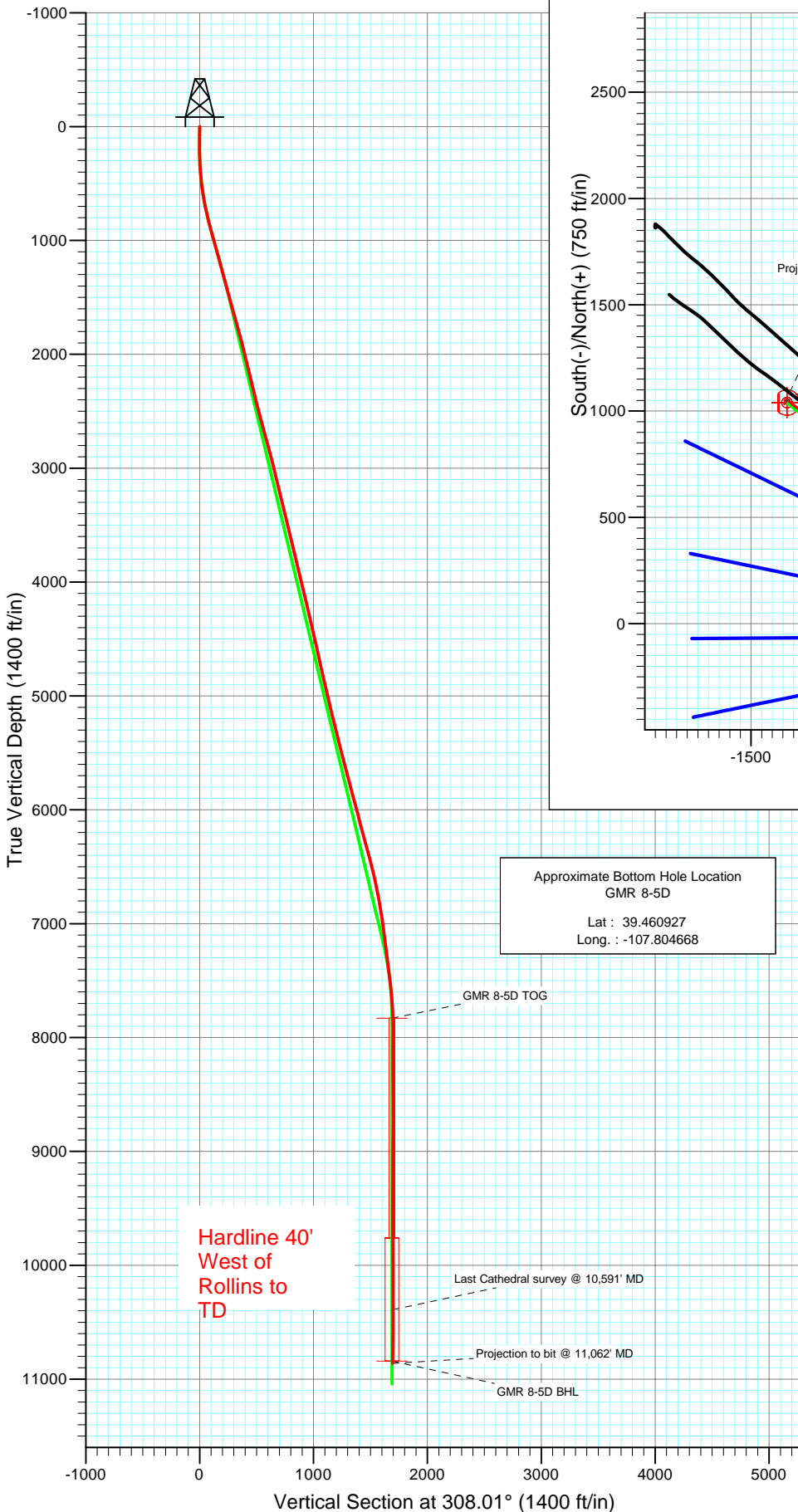


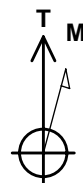


Project: Mamm Creek
 Site: NESW S8 T7S R93W (K8W Pad)
 Well: GMR 8-5D
 Wellbore: Final
 Design: DD



Surface Hole Location
 GMR 8-5D
 1919' FSL / 1920' FWL
 Lat : 39.458089
 Long : -107.799914

Approximate Bottom Hole Location
 GMR 8-5D
 Lat : 39.460927
 Long. : -107.804668



Azimuths to True North
 Magnetic North: 10.34°

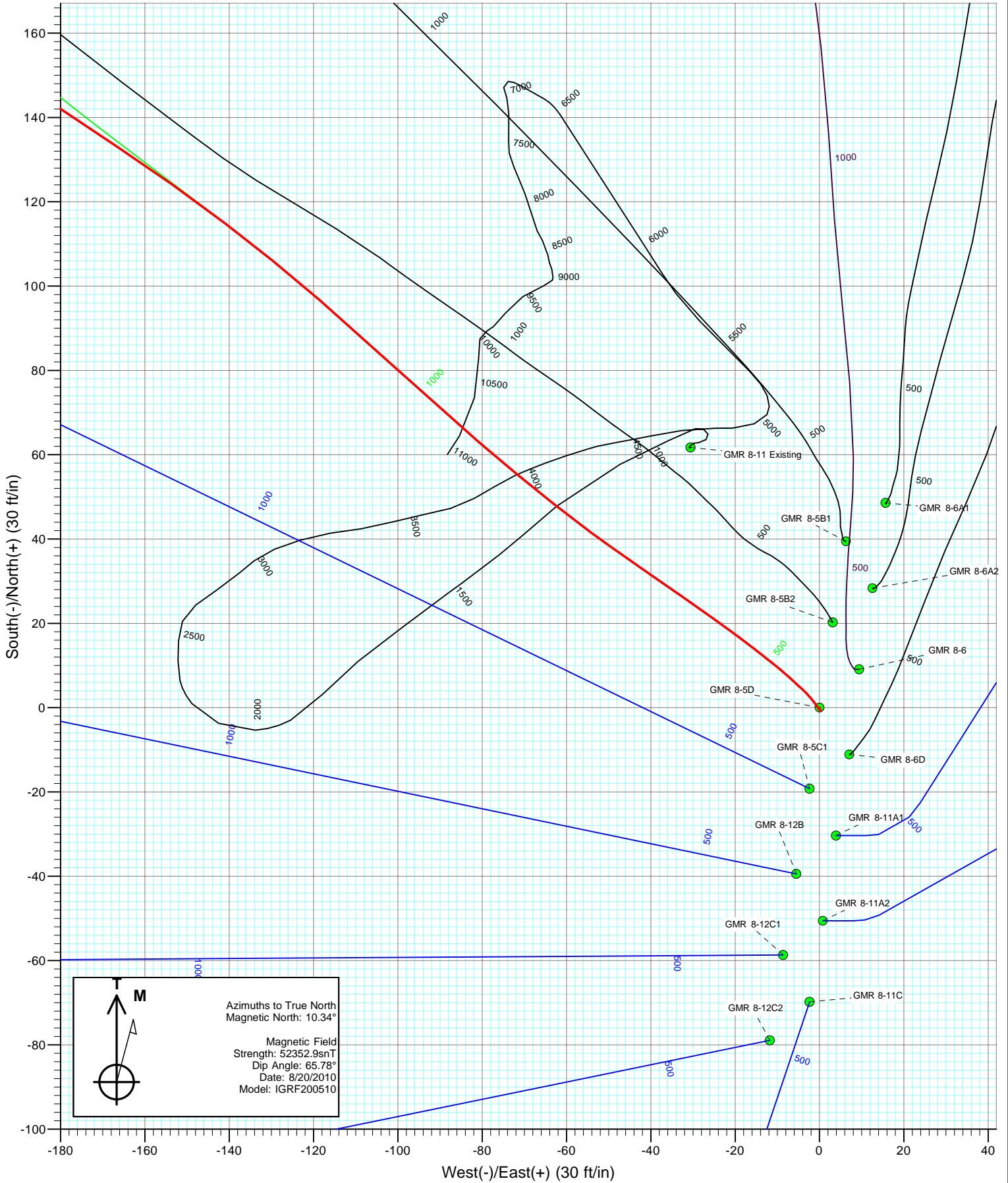
Magnetic Field
 Strength: 52352.9snT
 Dip Angle: 65.78°
 Date: 8/20/2010
 Model: IGRF200510

DESIGN DETAILS: DD
 105283 (SH) 105354 (MH): KR
 KBE @ 7848.0ft (Nabors M13)

Target	Azimuth	Origin	N/S	E/W	From	TVD
GMR 8-5D BHL	308.01	Slot	0.0	0.0	0.0	0.0

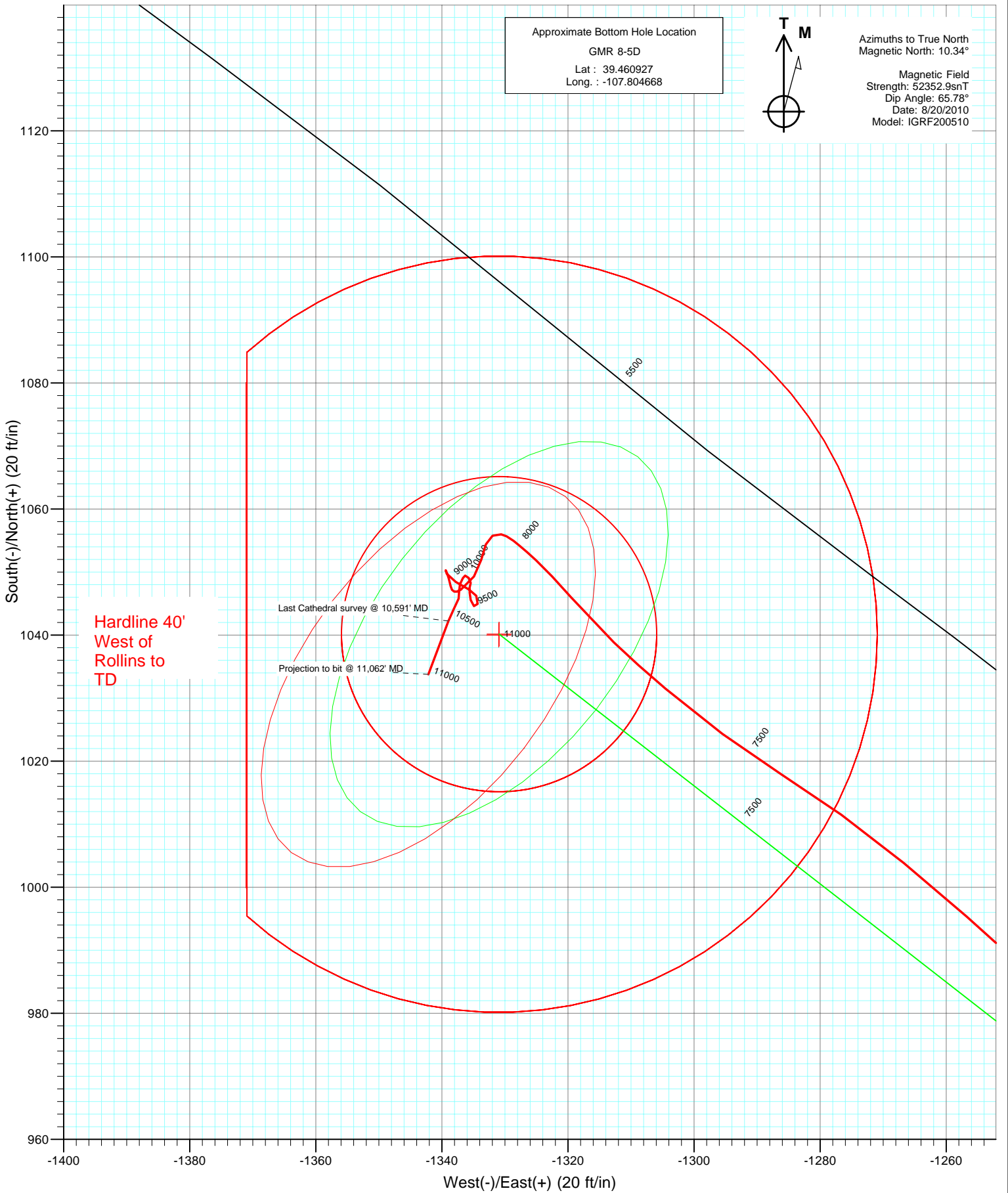


Project: Mamm Creek
Site: NESW S8 T7S R93W (K8W Pad)
Well: GMR 8-5D
Wellbore: Final
Design: DD





Project: Mamm Creek
Site: NESW S8 T7S R93W (K8W Pad)
Well: GMR 8-5D
Wellbore: Final
Design: DD



Cathedral Energy Services

Survey Report

Company: EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference: Well GMR 8-5D
Project: Mamm Creek	TVD Reference: KBE @ 7848.0ft (Nabors M13)
Site: NESW S8 T7S R93W (K8W Pad)	MD Reference: KBE @ 7848.0ft (Nabors M13)
Well: GMR 8-5D	North Reference: True
Wellbore: Final	Survey Calculation Method: Minimum Curvature
Design: DD	Database: EDM 5000.1 US Multi Users DB

Project Mamm Creek		
Map System: US State Plane 1983	System Datum: Mean Sea Level	
Geo Datum: North American Datum 1983		
Map Zone: Colorado Central Zone		

Site NESW S8 T7S R93W (K8W Pad)				
Site Position:	Northing: 1,599,999.23 ft	Latitude: 39.458194		
From: Lat/Long	Easting: 2,350,698.86 ft	Longitude: -107.799878		
Position Uncertainty: 0.0 ft	Slot Radius: 13.200 in	Grid Convergence: -1.45 °		

Well GMR 8-5D				
Well Position	+N/-S 0.0 ft	Northing: 1,599,961.04 ft	Latitude: 39.458089	
	+E/-W 0.0 ft	Easting: 2,350,687.70 ft	Longitude: -107.799914	
Position Uncertainty	0.0 ft	Wellhead Elevation: ft	Ground Level: 7,826.0 ft	

Wellbore Final					
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	8/20/2010	10.34	65.78	52,353

Design DD				
Audit Notes:				
Version: 1.0	Phase: ACTUAL	Tie On Depth: 0.0		
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	308.01

Survey Program		Date 9/8/2010
From (ft)	To (ft)	Survey (Wellbore)
134.0	11,062.0	Survey #1 (Final)
		Tool Name MWD
		Description Geolink MWD

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Formations / Comments
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	
134.0	0.50	173.70	134.0	-0.6	0.1	-0.4	0.37	0.37	
165.0	0.30	100.40	165.0	-0.7	0.2	-0.6	1.63	-0.65	
195.0	0.20	44.50	195.0	-0.7	0.3	-0.7	0.83	-0.33	
226.0	0.50	311.30	226.0	-0.6	0.2	-0.5	1.77	0.97	
257.0	0.60	297.50	257.0	-0.4	0.0	-0.2	0.53	0.32	
287.0	1.50	327.40	287.0	0.0	-0.4	0.3	3.41	3.00	
318.0	2.50	323.60	318.0	0.9	-1.0	1.3	3.25	3.23	
349.0	3.50	322.50	348.9	2.2	-2.0	2.9	3.23	3.23	
379.0	3.90	312.90	378.9	3.6	-3.3	4.8	2.45	1.33	
409.0	4.80	312.80	408.8	5.1	-5.0	7.1	3.00	3.00	
440.0	5.60	312.60	439.7	7.0	-7.0	9.9	2.58	2.58	
471.0	6.70	309.60	470.5	9.2	-9.5	13.2	3.70	3.55	

Cathedral Energy Services

Survey Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well GMR 8-5D
Project:	Mamm Creek	TD Reference:	KBE @ 7848.0ft (Nabors M13)
Site:	NESW S8 T7S R93W (K8W Pad)	MVD Reference:	KBE @ 7848.0ft (Nabors M13)
Well:	GMR 8-5D	North Reference:	True
Wellbore:	Final	Survey Calculation Method:	Minimum Curvature
Design:	DD	Database:	EDM 5000.1 US Multi Users DB

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Formations / Comments
563.0	8.10	306.60	561.7	16.5	-18.9	25.0	1.58	1.52	
655.0	10.10	305.10	652.5	25.0	-30.7	39.6	2.19	2.17	
747.0	12.90	304.60	742.7	35.5	-45.7	57.9	3.05	3.04	
839.0	13.80	308.30	832.2	48.1	-62.8	79.1	1.35	0.98	
931.0	15.60	310.60	921.2	63.0	-80.8	102.4	2.06	1.96	
1,025.0	15.40	312.80	1,011.8	79.7	-99.6	127.5	0.66	-0.21	
1,120.0	15.90	310.90	1,103.2	96.8	-118.6	153.1	0.75	0.53	
1,225.0	15.50	307.20	1,204.3	114.7	-140.7	181.5	1.03	-0.38	
1,346.0	14.90	303.50	1,321.1	133.0	-166.5	213.1	0.94	-0.50	
1,442.0	14.60	303.90	1,413.9	146.6	-186.9	237.5	0.33	-0.31	
1,538.0	15.30	304.20	1,506.7	160.5	-207.4	262.2	0.73	0.73	
1,633.0	15.60	305.00	1,598.3	174.8	-228.2	287.5	0.39	0.32	
1,729.0	16.50	304.50	1,690.5	190.0	-250.0	314.0	0.95	0.94	
1,824.0	15.10	305.20	1,781.9	204.7	-271.3	339.8	1.49	-1.47	
1,919.0	13.90	307.10	1,873.9	218.7	-290.5	363.6	1.36	-1.26	
2,015.0	14.60	306.70	1,966.9	232.9	-309.4	387.2	0.74	0.73	
2,110.0	13.80	309.50	2,059.0	247.3	-327.7	410.5	1.11	-0.84	
2,206.0	13.60	310.20	2,152.3	261.9	-345.2	433.2	0.27	-0.21	
2,302.0	13.50	307.90	2,245.6	276.0	-362.6	455.7	0.57	-0.10	
2,397.0	13.20	306.80	2,338.1	289.3	-380.1	477.6	0.41	-0.32	
2,493.0	14.10	310.00	2,431.4	303.4	-397.8	500.3	1.22	0.94	
2,588.0	14.90	308.80	2,523.3	318.5	-416.2	524.1	0.90	0.84	
2,683.0	15.60	309.30	2,615.0	334.3	-435.6	549.0	0.75	0.74	
2,779.0	14.90	309.30	2,707.6	350.2	-455.1	574.3	0.73	-0.73	
2,874.0	15.00	308.00	2,799.4	365.6	-474.3	598.8	0.37	0.11	
2,969.0	15.00	307.20	2,891.1	380.6	-493.8	623.4	0.22	0.00	
3,064.0	13.90	307.20	2,983.1	394.9	-512.6	647.1	1.16	-1.16	
3,160.0	13.20	312.50	3,076.5	409.3	-529.9	669.5	1.48	-0.73	
3,255.0	13.20	311.90	3,169.0	423.8	-546.0	691.2	0.14	0.00	
3,351.0	14.00	313.40	3,262.3	439.1	-562.6	713.7	0.91	0.83	
3,446.0	14.20	313.10	3,354.4	455.0	-579.4	736.7	0.22	0.21	
3,541.0	14.40	313.10	3,446.5	471.0	-596.6	760.1	0.21	0.21	
3,637.0	12.90	310.90	3,539.8	486.2	-613.4	782.7	1.65	-1.56	
3,732.0	13.50	310.70	3,632.2	500.4	-629.8	804.4	0.63	0.63	
3,827.0	13.30	309.10	3,724.7	514.5	-646.7	826.4	0.44	-0.21	
3,922.0	13.90	308.70	3,817.0	528.5	-664.1	848.7	0.64	0.63	
4,018.0	14.00	309.50	3,910.2	543.1	-682.0	871.8	0.23	0.10	
4,113.0	12.90	306.00	4,002.6	556.7	-699.5	893.9	1.44	-1.16	
4,208.0	13.40	305.70	4,095.1	569.3	-717.0	915.5	0.53	0.53	
4,303.0	13.40	305.50	4,187.5	582.1	-734.9	937.5	0.05	0.00	
4,398.0	13.60	305.80	4,279.9	595.1	-752.9	959.7	0.22	0.21	
4,493.0	13.20	306.60	4,372.3	608.1	-770.7	981.7	0.46	-0.42	
4,589.0	13.00	305.90	4,465.8	620.9	-788.2	1,003.4	0.27	-0.21	
4,684.0	12.40	304.20	4,558.4	632.9	-805.3	1,024.3	0.74	-0.63	
4,779.0	12.20	306.40	4,651.3	644.6	-821.8	1,044.5	0.54	-0.21	
4,874.0	12.30	306.00	4,744.1	656.5	-838.1	1,064.6	0.14	0.11	
4,969.0	12.60	306.20	4,836.9	668.6	-854.7	1,085.1	0.32	0.32	
5,065.0	13.00	306.10	4,930.5	681.1	-871.8	1,106.4	0.42	0.42	
5,160.0	13.50	306.60	5,023.0	694.0	-889.4	1,128.1	0.54	0.53	
5,256.0	13.40	307.10	5,116.3	707.4	-907.2	1,150.4	0.16	-0.10	
5,351.0	13.60	305.80	5,208.7	720.6	-925.1	1,172.6	0.38	0.21	
5,446.0	14.30	308.20	5,300.9	734.4	-943.4	1,195.5	0.96	0.74	
5,542.0	14.30	306.60	5,393.9	748.8	-962.2	1,219.2	0.41	0.00	

Cathedral Energy Services

Survey Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well GMR 8-5D
Project:	Mamm Creek	TVD Reference:	KBE @ 7848.0ft (Nabors M13)
Site:	NESW S8 T7S R93W (K8W Pad)	MD Reference:	KBE @ 7848.0ft (Nabors M13)
Well:	GMR 8-5D	North Reference:	True
Wellbore:	Final	Survey Calculation Method:	Minimum Curvature
Design:	DD	Database:	EDM 5000.1 US Multi Users DB

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Formations / Comments
5,636.0	14.70	309.50	5,484.9	763.3	-980.7	1,242.7	0.88	0.43	
5,732.0	14.30	307.10	5,577.9	778.2	-999.6	1,266.8	0.75	-0.42	
5,827.0	14.70	310.50	5,669.8	793.1	-1,018.1	1,290.6	0.99	0.42	
5,923.0	14.60	308.10	5,762.7	808.5	-1,036.9	1,314.8	0.64	-0.10	
6,018.0	14.60	309.50	5,854.7	823.5	-1,055.5	1,338.8	0.37	0.00	
6,113.0	15.60	310.20	5,946.4	839.4	-1,074.5	1,363.5	1.07	1.05	
6,209.0	14.90	309.10	6,039.0	855.5	-1,094.0	1,388.7	0.79	-0.73	
6,304.0	14.50	310.40	6,130.9	870.9	-1,112.5	1,412.8	0.55	-0.42	
6,399.0	15.00	310.50	6,222.8	886.6	-1,130.9	1,437.0	0.53	0.53	
6,494.0	15.90	310.10	6,314.3	902.9	-1,150.2	1,462.3	0.95	0.95	
6,589.0	14.90	311.30	6,405.9	919.4	-1,169.3	1,487.5	1.10	-1.05	
6,684.0	13.60	311.70	6,498.0	934.9	-1,186.9	1,510.8	1.37	-1.37	
6,780.0	12.80	309.10	6,591.4	949.1	-1,203.5	1,532.7	1.04	-0.83	
6,875.0	11.90	308.30	6,684.2	961.8	-1,219.4	1,553.0	0.96	-0.95	
6,970.0	10.90	313.80	6,777.4	974.1	-1,233.6	1,571.8	1.55	-1.05	
7,066.0	9.30	312.40	6,871.9	985.6	-1,245.8	1,588.5	1.69	-1.67	
7,161.0	8.40	311.10	6,965.8	995.3	-1,256.7	1,603.1	0.97	-0.95	
7,256.0	7.50	309.50	7,059.8	1,003.8	-1,266.8	1,616.2	0.98	-0.95	
7,352.0	7.50	306.10	7,155.0	1,011.5	-1,276.7	1,628.8	0.46	0.00	
7,447.0	6.70	301.60	7,249.3	1,018.1	-1,286.4	1,640.5	1.03	-0.84	
7,542.0	6.70	307.30	7,343.6	1,024.3	-1,295.5	1,651.5	0.70	0.00	
7,638.0	7.10	309.70	7,438.9	1,031.5	-1,304.5	1,663.1	0.51	0.42	
7,733.0	6.20	314.10	7,533.3	1,038.8	-1,312.7	1,674.0	1.09	-0.95	
7,828.0	5.80	319.10	7,627.8	1,046.0	-1,319.6	1,683.8	0.69	-0.42	
7,923.0	3.90	312.90	7,722.4	1,051.9	-1,325.1	1,691.8	2.07	-2.00	
8,018.0	1.80	306.60	7,817.3	1,055.0	-1,328.6	1,696.5	2.23	-2.21	
8,114.0	0.90	280.40	7,913.3	1,056.0	-1,330.6	1,698.6	1.11	-0.94	
8,209.0	0.90	241.20	8,008.3	1,055.8	-1,332.0	1,699.6	0.64	0.00	
8,305.0	1.30	201.00	8,104.3	1,054.4	-1,333.0	1,699.6	0.88	0.42	
8,400.0	1.80	194.40	8,199.2	1,051.9	-1,333.8	1,698.7	0.56	0.53	
8,495.0	1.70	212.90	8,294.2	1,049.3	-1,334.9	1,697.9	0.60	-0.11	
8,591.0	1.90	235.40	8,390.1	1,047.2	-1,337.0	1,698.3	0.76	0.21	
8,685.0	1.80	347.20	8,484.1	1,047.8	-1,338.6	1,699.9	3.26	-0.11	
8,780.0	0.70	337.40	8,579.1	1,049.8	-1,339.2	1,701.6	1.18	-1.16	
8,875.0	0.00	181.90	8,674.1	1,050.3	-1,339.4	1,702.1	0.74	-0.74	
8,971.0	0.70	165.40	8,770.1	1,049.7	-1,339.2	1,701.6	0.73	0.73	
9,066.0	1.80	119.20	8,865.1	1,048.4	-1,337.8	1,699.7	1.48	1.16	
9,161.0	1.10	120.80	8,960.0	1,047.2	-1,335.7	1,697.3	0.74	-0.74	
9,256.0	0.80	145.70	9,055.0	1,046.2	-1,334.5	1,695.8	0.53	-0.32	
9,351.0	0.90	191.90	9,150.0	1,044.9	-1,334.3	1,694.8	0.71	0.11	
9,447.0	0.70	313.40	9,246.0	1,044.6	-1,334.9	1,695.0	1.46	-0.21	
9,542.0	0.70	349.10	9,341.0	1,045.6	-1,335.4	1,696.1	0.45	0.00	
9,638.0	0.70	355.60	9,437.0	1,046.7	-1,335.6	1,696.9	0.08	0.00	
9,733.0	0.30	13.40	9,532.0	1,047.6	-1,335.6	1,697.4	0.45	-0.42	
9,828.0	0.60	11.10	9,627.0	1,048.3	-1,335.4	1,697.7	0.32	0.32	
9,924.0	0.60	305.10	9,723.0	1,049.1	-1,335.7	1,698.5	0.68	0.00	
10,019.0	0.20	294.50	9,818.0	1,049.4	-1,336.3	1,699.1	0.43	-0.42	
10,114.0	0.60	204.90	9,913.0	1,049.0	-1,336.7	1,699.2	0.66	0.42	
10,209.0	0.70	207.20	10,008.0	1,048.1	-1,337.1	1,698.9	0.11	0.11	
10,305.0	0.70	167.70	10,104.0	1,047.0	-1,337.3	1,698.4	0.49	0.00	
10,400.0	0.80	197.70	10,199.0	1,045.8	-1,337.4	1,697.7	0.42	0.11	
10,495.0	1.40	207.80	10,293.9	1,044.1	-1,338.1	1,697.3	0.66	0.63	
10,591.0	1.10	200.60	10,389.9	1,042.2	-1,339.0	1,696.8	0.35	-0.31	

Cathedral Energy Services

Survey Report

Company: EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference: Well GMR 8-5D
Project: Mamm Creek	TVD Reference: KBE @ 7848.0ft (Nabors M13)
Site: NESW S8 T7S R93W (K8W Pad)	MD Reference: KBE @ 7848.0ft (Nabors M13)
Well: GMR 8-5D	North Reference: True
Wellbore: Final	Survey Calculation Method: Minimum Curvature
Design: DD	Database: EDM 5000.1 US Multi Users DB

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Formations / Comments
11,062.0	1.10	200.60	10,860.8	1,033.8	-1,342.2	1,694.1	0.00	0.00	

Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
GMR 8-5D BHL	0.00	0.00	10,842.0	1,040.1	-1,330.9	1,601,034.54	2,349,383.53	39.460944	-107.804628
- actual wellpath misses target center by 12.6ft at 11043.0ft MD (10841.8 TVD, 1034.1 N, -1342.0 E)									
- Circle (radius 60.0)									
GMR 8-5D TOG	0.00	0.00	7,831.0	1,040.1	-1,330.9	1,601,034.54	2,349,383.53	39.460944	-107.804628
- actual wellpath misses target center by 15.2ft at 8031.6ft MD (7830.9 TVD, 1055.2 N, -1329.0 E)									
- Circle (radius 25.0)									
Hardline 40' West	0.00	0.00	-10,857.0	1,040.0	-1,331.0	1,601,034.38	2,349,383.46	39.460944	-107.804628
- actual wellpath misses target center by 10987.6ft at 0.0ft MD (0.0 TVD, 0.0 N, 0.0 E)									
- Polygon									
Point 1			-10,857.0	40.0	-40.0	1,601,075.38	2,349,344.49		
Point 2			-10,857.0	-40.0	-40.0	1,600,995.41	2,349,342.46		

Design Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
10,591.0	10,389.9	1,042.2	-1,339.0	Last Cathedral survey @ 10,591' MD	
11,062.0	10,860.8	1,033.8	-1,342.2	Projection to bit @ 11,062' MD	

Checked By: _____ Approved By: _____ Date: _____