

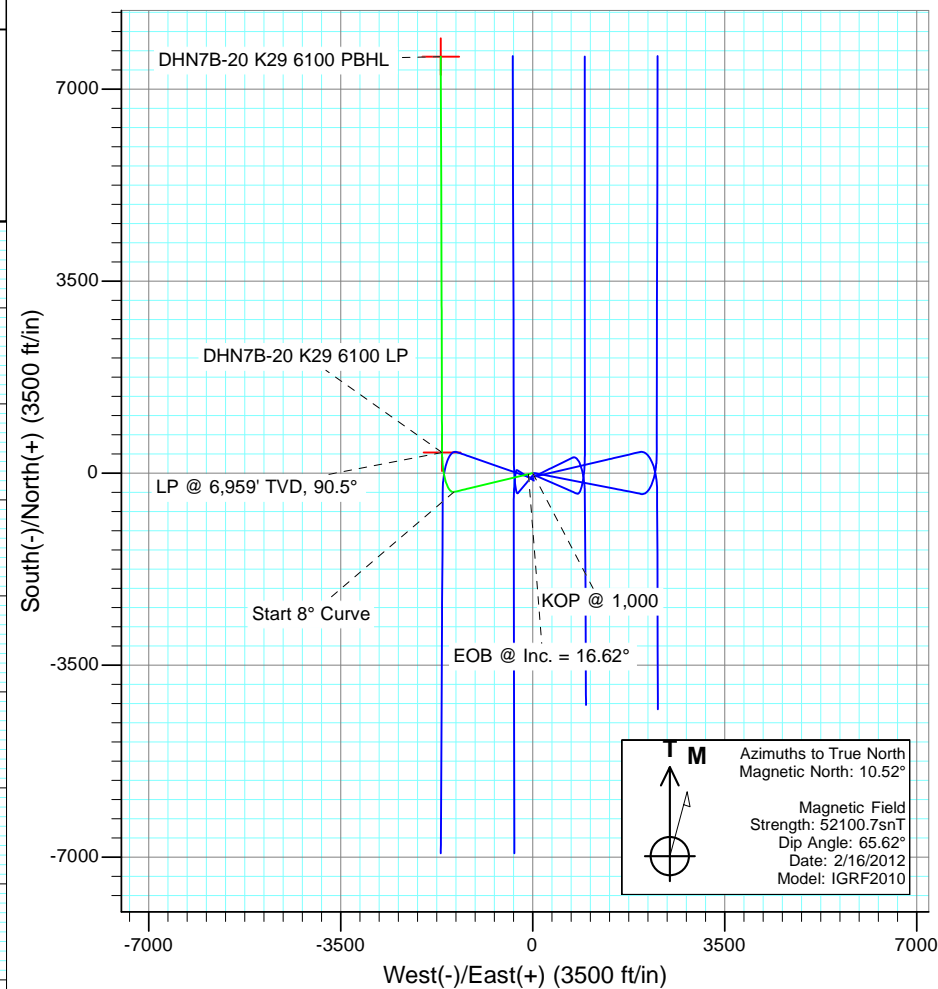
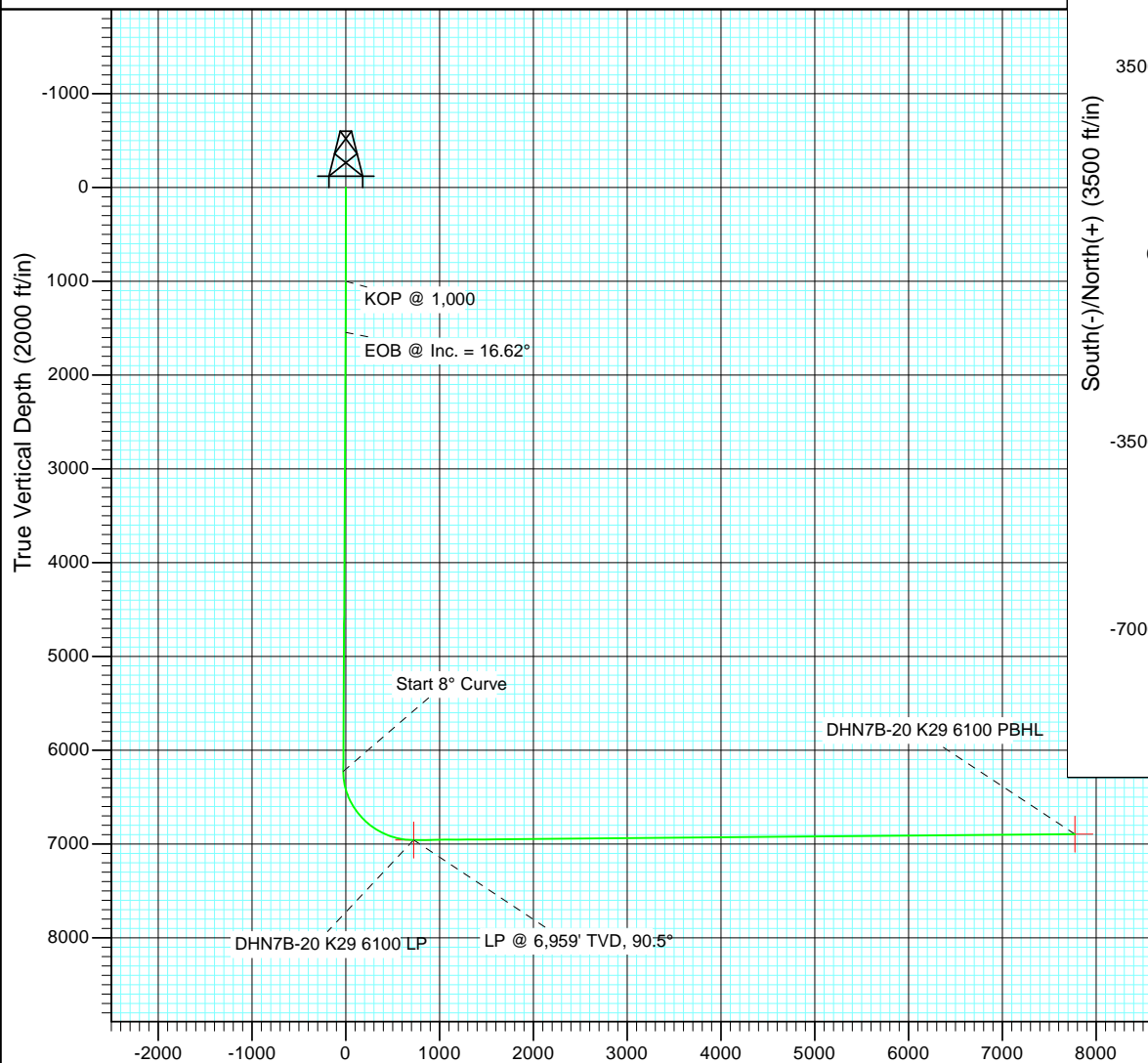


Project: Cedar Bench
 Site: Sec 29-6S-100W (K29 Pad)
 Well: DHN7B-20 K29 6100
 Wellbore: HZ
 Design: Plan #2



SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	1000.0	0.00	0.00	1000.0	0.0	0.0	0.00	0.00	0.0	
3	1554.0	16.62	256.51	1546.3	-18.6	-77.6	3.00	256.51	-1.4	
4	6438.3	16.62	256.51	6226.5	-344.5	-1436.0	0.00	0.00	-26.5	
5	7616.5	90.50	359.81	6959.0	375.5	-1653.2	8.00	102.62	723.3	DHN7B-20 K29 6100 LP
6	14830.4	90.50	359.81	6896.0	7589.0	-1677.0	0.00	0.00	7772.1	DHN7B-20 K29 6100 PBHL



M
 Azimuths to True North
 Magnetic North: 10.52°
 Magnetic Field
 Strength: 52100.7snT
 Dip Angle: 65.62°
 Date: 2/16/2012
 Model: IGRF2010

Plan #2
 DHN7B-20 K29 6100
 125XXX; SC
 kbe @ 7065.0ft
 North American Datum 1983
 Well DHN7B-20 K29 6100, True North

Type	Target	Azimuth	Origin	Type	N/S	E/W	From TVD
TD	No Target (Freehand)	347.54	Slot		0.0	0.0	0.0
Name	TVD	+N/-S	+E/-W	Latitude	Longitude		
DHN7B-20 K29 6100 PBH	6896.0	7589.0	-1677.0	39° 31' 28.51 N	108° 35' 3.50 W		
DHN7B-20 K29 6100 LP	6959.0	375.5	-1653.2	39° 30' 17.22 N	108° 35' 3.19 W		

Vertical Section at 347.54° (2000 ft/in)

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well DHN7B-20 K29 6100
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	kbe @ 7065.0ft
Project:	Cedar Bench	MD Reference:	kbe @ 7065.0ft
Site:	Sec 29-6S-100W (K29 Pad)	North Reference:	True
Well:	DHN7B-20 K29 6100	Survey Calculation Method:	Minimum Curvature
Wellbore:	HZ		
Design:	Plan #2		

Project	Cedar Bench		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site		Sec 29-6S-100W (K29 Pad)			
Site Position:		Northing:	1,077,018.76 ft	Latitude:	39° 30' 12.14 N
From:	Lat/Long	Easting:	2,131,504.99 ft	Longitude:	108° 34' 41.84 W
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	-1.99 °

Well	DHN7B-20 K29 6100					
Well Position	+N/-S	0.0 ft	Northing:	1,077,158.01 ft	Latitude:	39° 30' 13.51 N
	+E/-W	0.0 ft	Easting:	2,131,489.43 ft	Longitude:	108° 34' 42.10 W
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	7,033.0 ft

Wellbore	HZ				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	IGRF2010	2/16/2012	10.52	65.62	52,101

Design	Plan #2			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(ft)	(ft)	(ft)	(°)
	0.0	0.0	0.0	347.54

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,554.0	16.62	256.51	1,546.3	-18.6	-77.6	3.00	3.00	0.00	256.51	
6,438.3	16.62	256.51	6,226.5	-344.5	-1,436.0	0.00	0.00	0.00	0.00	
7,616.5	90.50	359.81	6,959.0	375.5	-1,653.2	8.00	6.27	8.77	102.62	DHN7B-20 K29 6100
14,830.4	90.50	359.81	6,896.0	7,589.0	-1,677.0	0.00	0.00	0.00	0.00	DHN7B-20 K29 6100

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well DHN7B-20 K29 6100
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	kbe @ 7065.0ft
Project:	Cedar Bench	MD Reference:	kbe @ 7065.0ft
Site:	Sec 29-6S-100W (K29 Pad)	North Reference:	True
Well:	DHN7B-20 K29 6100	Survey Calculation Method:	Minimum Curvature
Wellbore:	HZ		
Design:	Plan #2		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	KOP @ 1,000
1,100.0	3.00	256.51	1,100.0	-0.6	-2.5	0.0	3.00	3.00	
1,200.0	6.00	256.51	1,199.6	-2.4	-10.2	-0.2	3.00	3.00	
1,300.0	9.00	256.51	1,298.8	-5.5	-22.9	-0.4	3.00	3.00	
1,400.0	12.00	256.51	1,397.1	-9.7	-40.6	-0.7	3.00	3.00	
1,500.0	15.00	256.51	1,494.3	-15.2	-63.3	-1.2	3.00	3.00	
1,554.0	16.62	256.51	1,546.3	-18.6	-77.6	-1.4	3.00	3.00	EOB @ Inc. = 16.62°
1,600.0	16.62	256.51	1,590.3	-21.7	-90.4	-1.7	0.00	0.00	
1,700.0	16.62	256.51	1,686.2	-28.4	-118.2	-2.2	0.00	0.00	
1,800.0	16.62	256.51	1,782.0	-35.0	-146.0	-2.7	0.00	0.00	
1,900.0	16.62	256.51	1,877.8	-41.7	-173.8	-3.2	0.00	0.00	
2,000.0	16.62	256.51	1,973.6	-48.4	-201.6	-3.7	0.00	0.00	
2,100.0	16.62	256.51	2,069.5	-55.0	-229.4	-4.2	0.00	0.00	
2,200.0	16.62	256.51	2,165.3	-61.7	-257.3	-4.7	0.00	0.00	
2,300.0	16.62	256.51	2,261.1	-68.4	-285.1	-5.3	0.00	0.00	
2,400.0	16.62	256.51	2,356.9	-75.1	-312.9	-5.8	0.00	0.00	
2,500.0	16.62	256.51	2,452.7	-81.7	-340.7	-6.3	0.00	0.00	
2,600.0	16.62	256.51	2,548.6	-88.4	-368.5	-6.8	0.00	0.00	
2,700.0	16.62	256.51	2,644.4	-95.1	-396.3	-7.3	0.00	0.00	
2,800.0	16.62	256.51	2,740.2	-101.7	-424.1	-7.8	0.00	0.00	
2,900.0	16.62	256.51	2,836.0	-108.4	-451.9	-8.3	0.00	0.00	
3,000.0	16.62	256.51	2,931.9	-115.1	-479.8	-8.9	0.00	0.00	
3,100.0	16.62	256.51	3,027.7	-121.7	-507.6	-9.4	0.00	0.00	
3,200.0	16.62	256.51	3,123.5	-128.4	-535.4	-9.9	0.00	0.00	
3,300.0	16.62	256.51	3,219.3	-135.1	-563.2	-10.4	0.00	0.00	
3,400.0	16.62	256.51	3,315.1	-141.8	-591.0	-10.9	0.00	0.00	
3,500.0	16.62	256.51	3,411.0	-148.4	-618.8	-11.4	0.00	0.00	
3,600.0	16.62	256.51	3,506.8	-155.1	-646.6	-11.9	0.00	0.00	
3,700.0	16.62	256.51	3,602.6	-161.8	-674.4	-12.4	0.00	0.00	
3,800.0	16.62	256.51	3,698.4	-168.4	-702.3	-13.0	0.00	0.00	
3,900.0	16.62	256.51	3,794.3	-175.1	-730.1	-13.5	0.00	0.00	
4,000.0	16.62	256.51	3,890.1	-181.8	-757.9	-14.0	0.00	0.00	
4,100.0	16.62	256.51	3,985.9	-188.5	-785.7	-14.5	0.00	0.00	
4,200.0	16.62	256.51	4,081.7	-195.1	-813.5	-15.0	0.00	0.00	
4,300.0	16.62	256.51	4,177.5	-201.8	-841.3	-15.5	0.00	0.00	
4,400.0	16.62	256.51	4,273.4	-208.5	-869.1	-16.0	0.00	0.00	
4,500.0	16.62	256.51	4,369.2	-215.1	-897.0	-16.5	0.00	0.00	
4,600.0	16.62	256.51	4,465.0	-221.8	-924.8	-17.1	0.00	0.00	
4,700.0	16.62	256.51	4,560.8	-228.5	-952.6	-17.6	0.00	0.00	
4,800.0	16.62	256.51	4,656.7	-235.2	-980.4	-18.1	0.00	0.00	
4,900.0	16.62	256.51	4,752.5	-241.8	-1,008.2	-18.6	0.00	0.00	
5,000.0	16.62	256.51	4,848.3	-248.5	-1,036.0	-19.1	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well DHN7B-20 K29 6100
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	kbe @ 7065.0ft
Project:	Cedar Bench	MD Reference:	kbe @ 7065.0ft
Site:	Sec 29-6S-100W (K29 Pad)	North Reference:	True
Well:	DHN7B-20 K29 6100	Survey Calculation Method:	Minimum Curvature
Wellbore:	HZ		
Design:	Plan #2		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
5,100.0	16.62	256.51	4,944.1	-255.2	-1,063.8	-19.6	0.00	0.00	
5,200.0	16.62	256.51	5,040.0	-261.8	-1,091.6	-20.1	0.00	0.00	
5,300.0	16.62	256.51	5,135.8	-268.5	-1,119.5	-20.7	0.00	0.00	
5,400.0	16.62	256.51	5,231.6	-275.2	-1,147.3	-21.2	0.00	0.00	
5,500.0	16.62	256.51	5,327.4	-281.9	-1,175.1	-21.7	0.00	0.00	
5,600.0	16.62	256.51	5,423.2	-288.5	-1,202.9	-22.2	0.00	0.00	
5,700.0	16.62	256.51	5,519.1	-295.2	-1,230.7	-22.7	0.00	0.00	
5,800.0	16.62	256.51	5,614.9	-301.9	-1,258.5	-23.2	0.00	0.00	
5,900.0	16.62	256.51	5,710.7	-308.5	-1,286.3	-23.7	0.00	0.00	
6,000.0	16.62	256.51	5,806.5	-315.2	-1,314.1	-24.2	0.00	0.00	
6,100.0	16.62	256.51	5,902.4	-321.9	-1,342.0	-24.8	0.00	0.00	
6,200.0	16.62	256.51	5,998.2	-328.6	-1,369.8	-25.3	0.00	0.00	
6,300.0	16.62	256.51	6,094.0	-335.2	-1,397.6	-25.8	0.00	0.00	
6,400.0	16.62	256.51	6,189.8	-341.9	-1,425.4	-26.3	0.00	0.00	
6,438.3	16.62	256.51	6,226.5	-344.5	-1,436.0	-26.5	0.00	0.00	Start 8° Curve
6,450.0	16.44	259.74	6,237.7	-345.1	-1,439.3	-26.5	8.00	-1.54	
6,500.0	16.25	273.97	6,285.7	-345.9	-1,453.3	-24.2	8.00	-0.38	
6,550.0	17.00	287.74	6,333.7	-343.2	-1,467.2	-18.6	8.00	1.50	
6,600.0	18.58	299.80	6,381.3	-337.0	-1,481.1	-9.5	8.00	3.15	
6,650.0	20.79	309.72	6,428.4	-327.4	-1,494.8	2.9	8.00	4.43	
6,700.0	23.47	317.63	6,474.7	-314.4	-1,508.4	18.5	8.00	5.35	
6,750.0	26.46	323.93	6,520.0	-298.0	-1,521.6	37.3	8.00	5.99	
6,800.0	29.68	329.00	6,564.2	-278.4	-1,534.6	59.3	8.00	6.43	
6,850.0	33.05	333.13	6,606.8	-255.6	-1,547.1	84.2	8.00	6.75	
6,900.0	36.54	336.57	6,647.9	-229.8	-1,559.2	112.1	8.00	6.97	
6,950.0	40.11	339.48	6,687.1	-201.0	-1,570.8	142.6	8.00	7.14	
7,000.0	43.74	341.98	6,724.3	-169.5	-1,581.8	175.8	8.00	7.27	
7,050.0	47.42	344.18	6,759.3	-135.3	-1,592.1	211.4	8.00	7.36	
7,100.0	51.14	346.12	6,791.9	-98.7	-1,601.8	249.3	8.00	7.44	
7,150.0	54.89	347.87	6,822.0	-59.8	-1,610.8	289.2	8.00	7.50	
7,200.0	58.66	349.47	6,849.4	-18.8	-1,619.0	331.0	8.00	7.54	
7,250.0	62.45	350.94	6,874.0	24.1	-1,626.4	374.5	8.00	7.58	
7,300.0	66.25	352.32	6,895.6	68.7	-1,632.9	419.4	8.00	7.61	
7,350.0	70.07	353.61	6,914.2	114.8	-1,638.6	465.6	8.00	7.63	
7,400.0	73.89	354.85	6,929.7	162.1	-1,643.4	512.8	8.00	7.65	
7,450.0	77.72	356.04	6,941.9	210.4	-1,647.2	560.8	8.00	7.66	
7,500.0	81.56	357.19	6,950.9	259.5	-1,650.1	609.4	8.00	7.67	
7,550.0	85.39	358.32	6,956.6	309.1	-1,652.1	658.3	8.00	7.68	
7,600.0	89.23	359.44	6,959.0	359.0	-1,653.0	707.2	8.00	7.68	
7,616.5	90.50	359.81	6,959.0	375.5	-1,653.2	723.3	8.00	7.68	LP @ 6,959' TVD, 90.5°
7,700.0	90.50	359.81	6,958.3	459.0	-1,653.4	804.9	0.00	0.00	
7,800.0	90.50	359.81	6,957.4	559.0	-1,653.8	902.7	0.00	0.00	
7,900.0	90.50	359.81	6,956.5	659.0	-1,654.1	1,000.4	0.00	0.00	
8,000.0	90.50	359.81	6,955.7	759.0	-1,654.4	1,098.1	0.00	0.00	
8,100.0	90.50	359.81	6,954.8	859.0	-1,654.8	1,195.8	0.00	0.00	
8,200.0	90.50	359.81	6,953.9	959.0	-1,655.1	1,293.5	0.00	0.00	
8,300.0	90.50	359.81	6,953.0	1,059.0	-1,655.4	1,391.2	0.00	0.00	
8,400.0	90.50	359.81	6,952.2	1,159.0	-1,655.7	1,488.9	0.00	0.00	
8,500.0	90.50	359.81	6,951.3	1,259.0	-1,656.1	1,586.6	0.00	0.00	
8,600.0	90.50	359.81	6,950.4	1,359.0	-1,656.4	1,684.3	0.00	0.00	
8,700.0	90.50	359.81	6,949.5	1,459.0	-1,656.7	1,782.1	0.00	0.00	
8,800.0	90.50	359.81	6,948.7	1,559.0	-1,657.1	1,879.8	0.00	0.00	

Cathedral Energy Services

Planning Report

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Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	kbe @ 7065.0ft
Project:	Cedar Bench	MD Reference:	kbe @ 7065.0ft
Site:	Sec 29-6S-100W (K29 Pad)	North Reference:	True
Well:	DHN7B-20 K29 6100	Survey Calculation Method:	Minimum Curvature
Wellbore:	HZ		
Design:	Plan #2		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
8,900.0	90.50	359.81	6,947.8	1,658.9	-1,657.4	1,977.5	0.00	0.00	
9,000.0	90.50	359.81	6,946.9	1,758.9	-1,657.7	2,075.2	0.00	0.00	
9,100.0	90.50	359.81	6,946.0	1,858.9	-1,658.1	2,172.9	0.00	0.00	
9,200.0	90.50	359.81	6,945.2	1,958.9	-1,658.4	2,270.6	0.00	0.00	
9,300.0	90.50	359.81	6,944.3	2,058.9	-1,658.7	2,368.3	0.00	0.00	
9,400.0	90.50	359.81	6,943.4	2,158.9	-1,659.0	2,466.0	0.00	0.00	
9,500.0	90.50	359.81	6,942.6	2,258.9	-1,659.4	2,563.8	0.00	0.00	
9,600.0	90.50	359.81	6,941.7	2,358.9	-1,659.7	2,661.5	0.00	0.00	
9,700.0	90.50	359.81	6,940.8	2,458.9	-1,660.0	2,759.2	0.00	0.00	
9,800.0	90.50	359.81	6,939.9	2,558.9	-1,660.4	2,856.9	0.00	0.00	
9,900.0	90.50	359.81	6,939.1	2,658.9	-1,660.7	2,954.6	0.00	0.00	
10,000.0	90.50	359.81	6,938.2	2,758.9	-1,661.0	3,052.3	0.00	0.00	
10,100.0	90.50	359.81	6,937.3	2,858.9	-1,661.4	3,150.0	0.00	0.00	
10,200.0	90.50	359.81	6,936.4	2,958.9	-1,661.7	3,247.7	0.00	0.00	
10,300.0	90.50	359.81	6,935.6	3,058.9	-1,662.0	3,345.4	0.00	0.00	
10,400.0	90.50	359.81	6,934.7	3,158.9	-1,662.3	3,443.2	0.00	0.00	
10,500.0	90.50	359.81	6,933.8	3,258.9	-1,662.7	3,540.9	0.00	0.00	
10,600.0	90.50	359.81	6,932.9	3,358.9	-1,663.0	3,638.6	0.00	0.00	
10,700.0	90.50	359.81	6,932.1	3,458.9	-1,663.3	3,736.3	0.00	0.00	
10,800.0	90.50	359.81	6,931.2	3,558.9	-1,663.7	3,834.0	0.00	0.00	
10,900.0	90.50	359.81	6,930.3	3,658.9	-1,664.0	3,931.7	0.00	0.00	
11,000.0	90.50	359.81	6,929.5	3,758.9	-1,664.3	4,029.4	0.00	0.00	
11,100.0	90.50	359.81	6,928.6	3,858.9	-1,664.7	4,127.1	0.00	0.00	
11,200.0	90.50	359.81	6,927.7	3,958.8	-1,665.0	4,224.8	0.00	0.00	
11,300.0	90.50	359.81	6,926.8	4,058.8	-1,665.3	4,322.6	0.00	0.00	
11,400.0	90.50	359.81	6,926.0	4,158.8	-1,665.6	4,420.3	0.00	0.00	
11,500.0	90.50	359.81	6,925.1	4,258.8	-1,666.0	4,518.0	0.00	0.00	
11,600.0	90.50	359.81	6,924.2	4,358.8	-1,666.3	4,615.7	0.00	0.00	
11,700.0	90.50	359.81	6,923.3	4,458.8	-1,666.6	4,713.4	0.00	0.00	
11,800.0	90.50	359.81	6,922.5	4,558.8	-1,667.0	4,811.1	0.00	0.00	
11,900.0	90.50	359.81	6,921.6	4,658.8	-1,667.3	4,908.8	0.00	0.00	
12,000.0	90.50	359.81	6,920.7	4,758.8	-1,667.6	5,006.5	0.00	0.00	
12,100.0	90.50	359.81	6,919.8	4,858.8	-1,668.0	5,104.3	0.00	0.00	
12,200.0	90.50	359.81	6,919.0	4,958.8	-1,668.3	5,202.0	0.00	0.00	
12,300.0	90.50	359.81	6,918.1	5,058.8	-1,668.6	5,299.7	0.00	0.00	
12,400.0	90.50	359.81	6,917.2	5,158.8	-1,668.9	5,397.4	0.00	0.00	
12,500.0	90.50	359.81	6,916.4	5,258.8	-1,669.3	5,495.1	0.00	0.00	
12,600.0	90.50	359.81	6,915.5	5,358.8	-1,669.6	5,592.8	0.00	0.00	
12,700.0	90.50	359.81	6,914.6	5,458.8	-1,669.9	5,690.5	0.00	0.00	
12,800.0	90.50	359.81	6,913.7	5,558.8	-1,670.3	5,788.2	0.00	0.00	
12,900.0	90.50	359.81	6,912.9	5,658.8	-1,670.6	5,885.9	0.00	0.00	
13,000.0	90.50	359.81	6,912.0	5,758.8	-1,670.9	5,983.7	0.00	0.00	
13,100.0	90.50	359.81	6,911.1	5,858.8	-1,671.3	6,081.4	0.00	0.00	
13,200.0	90.50	359.81	6,910.2	5,958.8	-1,671.6	6,179.1	0.00	0.00	
13,300.0	90.50	359.81	6,909.4	6,058.8	-1,671.9	6,276.8	0.00	0.00	
13,400.0	90.50	359.81	6,908.5	6,158.8	-1,672.2	6,374.5	0.00	0.00	
13,500.0	90.50	359.81	6,907.6	6,258.7	-1,672.6	6,472.2	0.00	0.00	
13,600.0	90.50	359.81	6,906.7	6,358.7	-1,672.9	6,569.9	0.00	0.00	
13,700.0	90.50	359.81	6,905.9	6,458.7	-1,673.2	6,667.6	0.00	0.00	
13,800.0	90.50	359.81	6,905.0	6,558.7	-1,673.6	6,765.3	0.00	0.00	
13,900.0	90.50	359.81	6,904.1	6,658.7	-1,673.9	6,863.1	0.00	0.00	
14,000.0	90.50	359.81	6,903.3	6,758.7	-1,674.2	6,960.8	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well DHN7B-20 K29 6100
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	kbe @ 7065.0ft
Project:	Cedar Bench	MD Reference:	kbe @ 7065.0ft
Site:	Sec 29-6S-100W (K29 Pad)	North Reference:	True
Well:	DHN7B-20 K29 6100	Survey Calculation Method:	Minimum Curvature
Wellbore:	HZ		
Design:	Plan #2		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
14,100.0	90.50	359.81	6,902.4	6,858.7	-1,674.6	7,058.5	0.00	0.00	
14,200.0	90.50	359.81	6,901.5	6,958.7	-1,674.9	7,156.2	0.00	0.00	
14,300.0	90.50	359.81	6,900.6	7,058.7	-1,675.2	7,253.9	0.00	0.00	
14,400.0	90.50	359.81	6,899.8	7,158.7	-1,675.5	7,351.6	0.00	0.00	
14,500.0	90.50	359.81	6,898.9	7,258.7	-1,675.9	7,449.3	0.00	0.00	
14,600.0	90.50	359.81	6,898.0	7,358.7	-1,676.2	7,547.0	0.00	0.00	
14,700.0	90.50	359.81	6,897.1	7,458.7	-1,676.5	7,644.7	0.00	0.00	
14,800.0	90.50	359.81	6,896.3	7,558.7	-1,676.9	7,742.5	0.00	0.00	
14,830.4	90.50	359.81	6,896.0	7,589.0	-1,677.0	7,772.1	0.00	0.00	TD @ 14,830.4' MD

Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
DHN7B-20 K29 6100 LP - plan hits target center - Point	0.00	0.00	6,956.5	659.0	-1,654.1	1,077,874.02	2,129,859.20	39° 30' 20.02 N	108° 35' 3.20 W
DHN7B-20 K29 6100 LP - plan hits target center - Point	0.00	0.00	6,959.0	375.5	-1,653.2	1,077,590.63	2,129,850.31	39° 30' 17.22 N	108° 35' 3.19 W
DHN7B-20 K29 6100 PE - plan hits target center - Point	0.00	0.00	6,896.0	7,589.0	-1,677.0	1,084,800.68	2,130,076.88	39° 31' 28.51 N	108° 35' 3.50 W

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
1,000.0	1,000.0	0.0	0.0	KOP @ 1,000
1,554.0	1,546.3	-18.6	-77.6	EOB @ Inc. = 16.62°
6,438.3	6,226.5	-344.5	-1,436.0	Start 8° Curve
7,616.5	6,959.0	375.5	-1,653.2	LP @ 6,959' TVD, 90.5°
14,830.4	6,896.0	7,589.0	-1,677.0	TD @ 14,830.4' MD