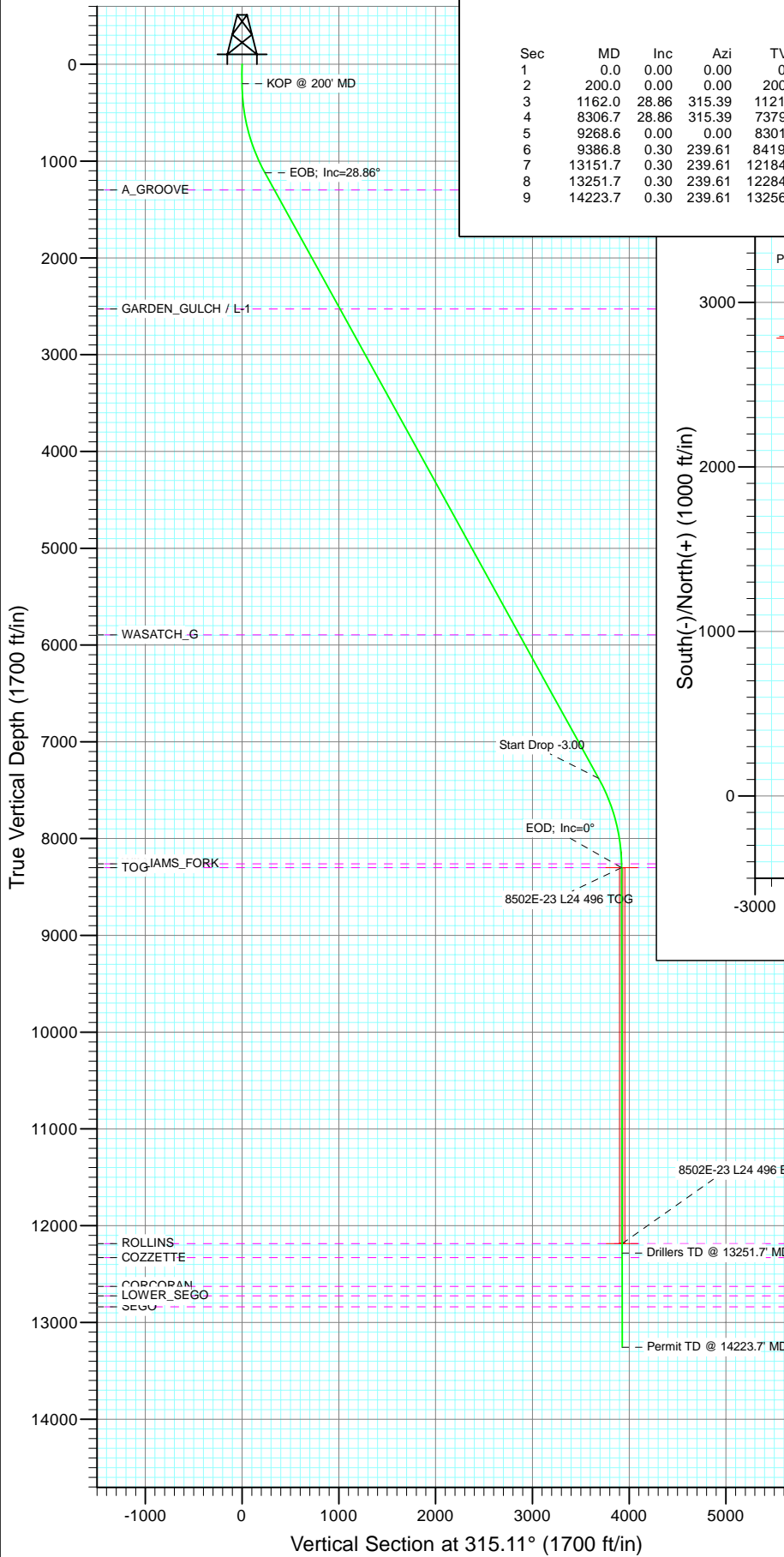
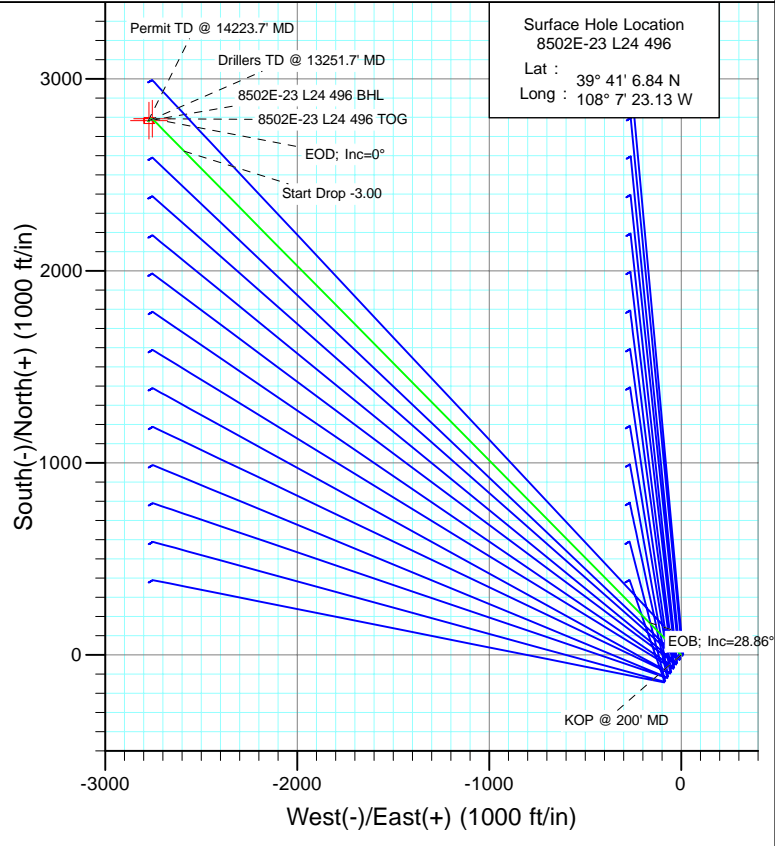




Project: Story Gulch
Site: L24 496
Well: 8502E-23 L24 496
Wellbore: DD
Design: Plan #1



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	200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.0	
3	1162.0	28.86	315.39	1121.8	168.9	-166.6	3.00	315.39	237.2	
4	8306.7	28.86	315.39	7379.2	2623.8	-2588.3	0.00	0.00	3685.6	
5	9268.6	0.00	0.00	8301.0	2792.7	-2754.9	3.00	180.00	3922.8	8502E-23 L24 496 TOG
6	9386.8	0.30	239.61	8419.1	2792.5	-2755.2	0.25	239.61	3922.9	
7	13151.7	0.30	239.61	12184.0	2782.7	-2771.9	0.00	0.00	3927.7	8502E-23 L24 496 BHL
8	13251.7	0.30	239.61	12284.0	2782.5	-2772.3	0.00	0.00	3927.9	
9	14223.7	0.30	239.61	13256.0	2779.9	-2776.7	0.00	0.00	3929.1	



T M

Azimuths to True North
Magnetic North: 10.44°

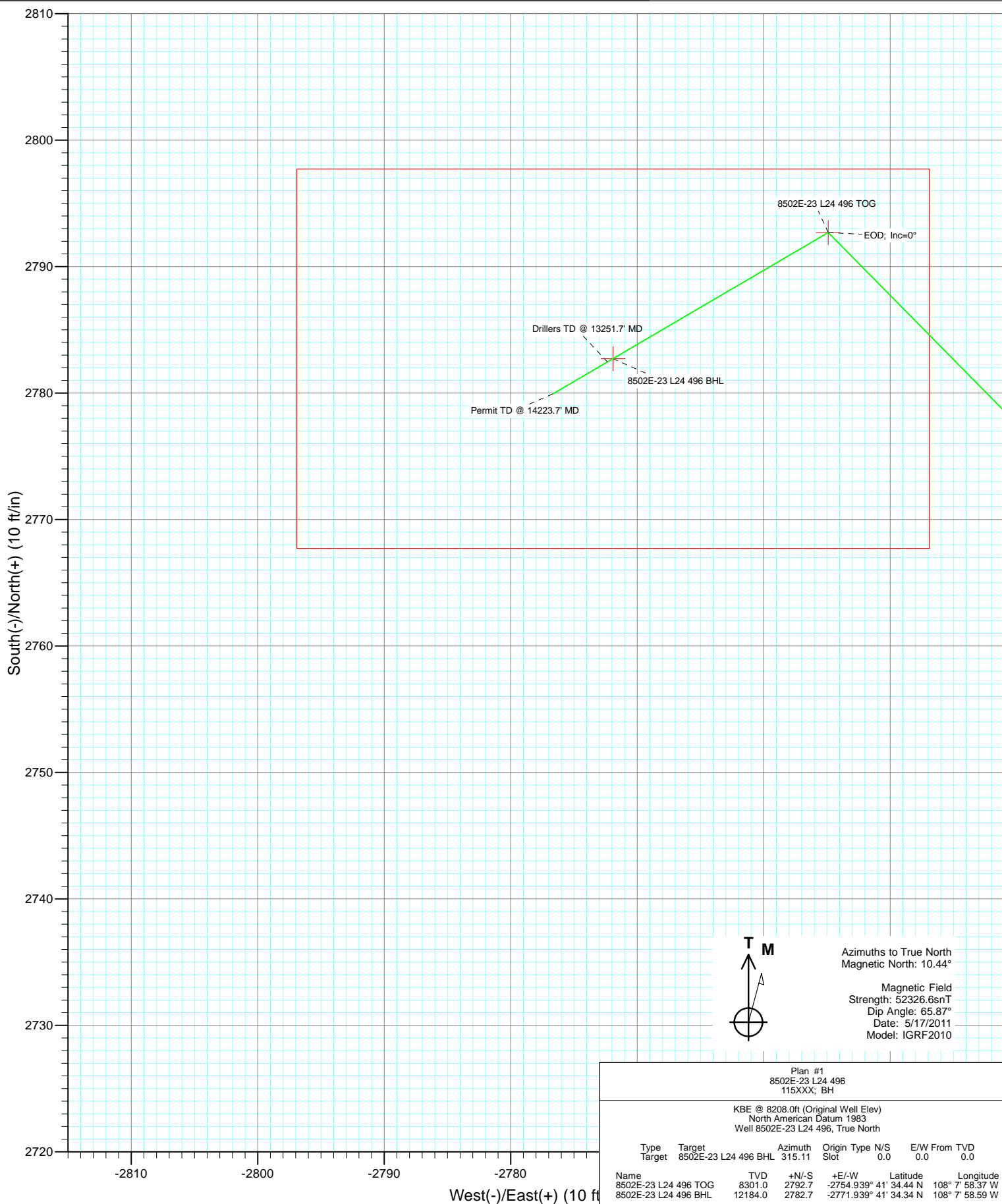
Magnetic Field
Strength: 52326.6nT
Dip Angle: 65.87°
Date: 5/17/2011
Model: IGRF2010

FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
1298.0	1363.1	A_GROOVE
2527.0	2766.4	GARDEN_GULCH / L-1
5895.0	6612.0	WASATCH_G
8261.0	9228.6	WILLIAMS_FORK
8301.0	9268.6	TOG
12184.0	13151.7	ROLLINS
12329.0	13296.7	COZZETTE
12627.0	13594.7	CORCORAN
12725.0	13692.7	LOWER_SEGO
12838.0	13805.7	SEGO

Plan #1 8502E-23 L24 496 115XXX; BH					
KBE @ 8208.0ft (Original Well Elev) North American Datum 1983 Well 8502E-23 L24 496, True North					
Type	Target	Azimuth	Origin	Type	N/S
Target	8502E-23 L24 496 BHL	315.11	Slot	0.0	0.0
E/W From TVD					
Name	Target	TVD	+N/-S	+E/-W	Latitude
8502E-23 L24 496 TOG	8301.0	2792.7	-2754.939°	41' 34.44 N	108° 7' 58.37 W
8502E-23 L24 496 BHL	12184.0	2782.7	-2771.939°	41' 34.34 N	108° 7' 58.59 W



Project: Story Gulch
 Site: L24 496
 Well: 8502E-23 L24 496
 Wellbore: DD
 Design: Plan #1



Cathedral Energy Services

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well 8502E-23 L24 496
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	KBE @ 8208.0ft (Original Well Elev)
Project:	Story Gulch	MD Reference:	KBE @ 8208.0ft (Original Well Elev)
Site:	L24 496	North Reference:	True
Well:	8502E-23 L24 496	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

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

Site	L24 496				
Site Position:		Northing:	1,685,024.52 ft	Latitude:	39° 41' 5.72 N
From:	Lat/Long	Easting:	2,261,789.15 ft	Longitude:	108° 7' 23.99 W
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	-1.65 °

Well	8502E-23 L24 496					
Well Position	+N/-S	0.0 ft	Northing:	1,685,135.85 ft	Latitude:	39° 41' 6.84 N
	+E/-W	0.0 ft	Easting:	2,261,859.63 ft	Longitude:	108° 7' 23.13 W
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	8,193.0 ft

Wellbore	DD				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	5/17/2011	10.44	65.87	52,327

Design	Plan #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	315.11

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	
200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,162.0	28.86	315.39	1,121.8	168.9	-166.6	3.00	3.00	0.00	315.39	
8,306.7	28.86	315.39	7,379.2	2,623.8	-2,588.3	0.00	0.00	0.00	0.00	
9,268.6	0.00	0.00	8,301.0	2,792.7	-2,754.9	3.00	-3.00	0.00	180.00	8502E-23 L24 496 TC
9,386.8	0.30	239.61	8,419.1	2,792.5	-2,755.2	0.25	0.25	-101.90	239.61	
13,151.7	0.30	239.61	12,184.0	2,782.7	-2,771.9	0.00	0.00	0.00	0.00	8502E-23 L24 496 B+
13,251.7	0.30	239.61	12,284.0	2,782.5	-2,772.3	0.00	0.00	0.00	0.00	
14,223.7	0.30	239.61	13,256.0	2,779.9	-2,776.7	0.00	0.00	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well 8502E-23 L24 496
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	KBE @ 8208.0ft (Original Well Elev)
Project:	Story Gulch	MD Reference:	KBE @ 8208.0ft (Original Well Elev)
Site:	L24 496	North Reference:	True
Well:	8502E-23 L24 496	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

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	KOP @ 200' MD
300.0	3.00	315.39	300.0	1.9	-1.8	2.6	3.00	3.00	
400.0	6.00	315.39	399.6	7.4	-7.3	10.5	3.00	3.00	
500.0	9.00	315.39	498.8	16.7	-16.5	23.5	3.00	3.00	
600.0	12.00	315.39	597.1	29.7	-29.3	41.7	3.00	3.00	
700.0	15.00	315.39	694.3	46.3	-45.7	65.1	3.00	3.00	
800.0	18.00	315.39	790.2	66.5	-65.6	93.5	3.00	3.00	
900.0	21.00	315.39	884.4	90.3	-89.1	126.9	3.00	3.00	
1,000.0	24.00	315.39	976.8	117.5	-116.0	165.1	3.00	3.00	
1,100.0	27.00	315.39	1,067.1	148.2	-146.2	208.2	3.00	3.00	
1,162.0	28.86	315.39	1,121.8	168.9	-166.6	237.2	3.00	3.00	EOB; Inc=28.86°
1,200.0	28.86	315.39	1,155.1	181.9	-179.5	255.5	0.00	0.00	
1,300.0	28.86	315.39	1,242.7	216.3	-213.4	303.8	0.00	0.00	
1,363.1	28.86	315.39	1,298.0	238.0	-234.8	334.3	0.00	0.00	A_GROOVE
1,400.0	28.86	315.39	1,330.3	250.6	-247.3	352.1	0.00	0.00	
1,500.0	28.86	315.39	1,417.9	285.0	-281.1	400.3	0.00	0.00	
1,600.0	28.86	315.39	1,505.4	319.4	-315.0	448.6	0.00	0.00	
1,700.0	28.86	315.39	1,593.0	353.7	-348.9	496.9	0.00	0.00	
1,800.0	28.86	315.39	1,680.6	388.1	-382.8	545.1	0.00	0.00	
1,900.0	28.86	315.39	1,768.2	422.4	-416.7	593.4	0.00	0.00	
2,000.0	28.86	315.39	1,855.8	456.8	-450.6	641.7	0.00	0.00	
2,100.0	28.86	315.39	1,943.3	491.2	-484.5	689.9	0.00	0.00	
2,200.0	28.86	315.39	2,030.9	525.5	-518.4	738.2	0.00	0.00	
2,300.0	28.86	315.39	2,118.5	559.9	-552.3	786.5	0.00	0.00	
2,400.0	28.86	315.39	2,206.1	594.3	-586.2	834.7	0.00	0.00	
2,500.0	28.86	315.39	2,293.7	628.6	-620.1	883.0	0.00	0.00	
2,600.0	28.86	315.39	2,381.2	663.0	-654.0	931.3	0.00	0.00	
2,700.0	28.86	315.39	2,468.8	697.3	-687.9	979.5	0.00	0.00	
2,766.4	28.86	315.39	2,527.0	720.2	-710.4	1,011.6	0.00	0.00	GARDEN_GULCH / L-1
2,800.0	28.86	315.39	2,556.4	731.7	-721.8	1,027.8	0.00	0.00	
2,900.0	28.86	315.39	2,644.0	766.1	-755.7	1,076.1	0.00	0.00	
3,000.0	28.86	315.39	2,731.6	800.4	-789.6	1,124.3	0.00	0.00	
3,100.0	28.86	315.39	2,819.1	834.8	-823.5	1,172.6	0.00	0.00	
3,200.0	28.86	315.39	2,906.7	869.1	-857.4	1,220.8	0.00	0.00	
3,300.0	28.86	315.39	2,994.3	903.5	-891.3	1,269.1	0.00	0.00	
3,400.0	28.86	315.39	3,081.9	937.9	-925.2	1,317.4	0.00	0.00	
3,500.0	28.86	315.39	3,169.5	972.2	-959.1	1,365.6	0.00	0.00	
3,600.0	28.86	315.39	3,257.1	1,006.6	-993.0	1,413.9	0.00	0.00	
3,700.0	28.86	315.39	3,344.6	1,040.9	-1,026.9	1,462.2	0.00	0.00	
3,800.0	28.86	315.39	3,432.2	1,075.3	-1,060.8	1,510.4	0.00	0.00	
3,900.0	28.86	315.39	3,519.8	1,109.7	-1,094.6	1,558.7	0.00	0.00	
4,000.0	28.86	315.39	3,607.4	1,144.0	-1,128.5	1,607.0	0.00	0.00	
4,100.0	28.86	315.39	3,695.0	1,178.4	-1,162.4	1,655.2	0.00	0.00	
4,200.0	28.86	315.39	3,782.5	1,212.8	-1,196.3	1,703.5	0.00	0.00	
4,300.0	28.86	315.39	3,870.1	1,247.1	-1,230.2	1,751.8	0.00	0.00	
4,400.0	28.86	315.39	3,957.7	1,281.5	-1,264.1	1,800.0	0.00	0.00	
4,500.0	28.86	315.39	4,045.3	1,315.8	-1,298.0	1,848.3	0.00	0.00	
4,600.0	28.86	315.39	4,132.9	1,350.2	-1,331.9	1,896.6	0.00	0.00	
4,700.0	28.86	315.39	4,220.4	1,384.6	-1,365.8	1,944.8	0.00	0.00	
4,800.0	28.86	315.39	4,308.0	1,418.9	-1,399.7	1,993.1	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well 8502E-23 L24 496
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	KBE @ 8208.0ft (Original Well Elev)
Project:	Story Gulch	MD Reference:	KBE @ 8208.0ft (Original Well Elev)
Site:	L24 496	North Reference:	True
Well:	8502E-23 L24 496	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

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
4,900.0	28.86	315.39	4,395.6	1,453.3	-1,433.6	2,041.4	0.00	0.00	
5,000.0	28.86	315.39	4,483.2	1,487.6	-1,467.5	2,089.6	0.00	0.00	
5,100.0	28.86	315.39	4,570.8	1,522.0	-1,501.4	2,137.9	0.00	0.00	
5,200.0	28.86	315.39	4,658.3	1,556.4	-1,535.3	2,186.2	0.00	0.00	
5,300.0	28.86	315.39	4,745.9	1,590.7	-1,569.2	2,234.4	0.00	0.00	
5,400.0	28.86	315.39	4,833.5	1,625.1	-1,603.1	2,282.7	0.00	0.00	
5,500.0	28.86	315.39	4,921.1	1,659.4	-1,637.0	2,331.0	0.00	0.00	
5,600.0	28.86	315.39	5,008.7	1,693.8	-1,670.9	2,379.2	0.00	0.00	
5,700.0	28.86	315.39	5,096.2	1,728.2	-1,704.8	2,427.5	0.00	0.00	
5,800.0	28.86	315.39	5,183.8	1,762.5	-1,738.7	2,475.7	0.00	0.00	
5,900.0	28.86	315.39	5,271.4	1,796.9	-1,772.6	2,524.0	0.00	0.00	
6,000.0	28.86	315.39	5,359.0	1,831.2	-1,806.5	2,572.3	0.00	0.00	
6,100.0	28.86	315.39	5,446.6	1,865.6	-1,840.4	2,620.5	0.00	0.00	
6,200.0	28.86	315.39	5,534.2	1,900.0	-1,874.3	2,668.8	0.00	0.00	
6,300.0	28.86	315.39	5,621.7	1,934.3	-1,908.2	2,717.1	0.00	0.00	
6,400.0	28.86	315.39	5,709.3	1,968.7	-1,942.0	2,765.3	0.00	0.00	
6,500.0	28.86	315.39	5,796.9	2,003.1	-1,975.9	2,813.6	0.00	0.00	
6,600.0	28.86	315.39	5,884.5	2,037.4	-2,009.8	2,861.9	0.00	0.00	
6,612.0	28.86	315.39	5,895.0	2,041.5	-2,013.9	2,867.7	0.00	0.00	WASATCH_G
6,700.0	28.86	315.39	5,972.1	2,071.8	-2,043.7	2,910.1	0.00	0.00	
6,800.0	28.86	315.39	6,059.6	2,106.1	-2,077.6	2,958.4	0.00	0.00	
6,900.0	28.86	315.39	6,147.2	2,140.5	-2,111.5	3,006.7	0.00	0.00	
7,000.0	28.86	315.39	6,234.8	2,174.9	-2,145.4	3,054.9	0.00	0.00	
7,100.0	28.86	315.39	6,322.4	2,209.2	-2,179.3	3,103.2	0.00	0.00	
7,200.0	28.86	315.39	6,410.0	2,243.6	-2,213.2	3,151.5	0.00	0.00	
7,300.0	28.86	315.39	6,497.5	2,277.9	-2,247.1	3,199.7	0.00	0.00	
7,400.0	28.86	315.39	6,585.1	2,312.3	-2,281.0	3,248.0	0.00	0.00	
7,500.0	28.86	315.39	6,672.7	2,346.7	-2,314.9	3,296.3	0.00	0.00	
7,600.0	28.86	315.39	6,760.3	2,381.0	-2,348.8	3,344.5	0.00	0.00	
7,700.0	28.86	315.39	6,847.9	2,415.4	-2,382.7	3,392.8	0.00	0.00	
7,800.0	28.86	315.39	6,935.4	2,449.7	-2,416.6	3,441.1	0.00	0.00	
7,900.0	28.86	315.39	7,023.0	2,484.1	-2,450.5	3,489.3	0.00	0.00	
8,000.0	28.86	315.39	7,110.6	2,518.5	-2,484.4	3,537.6	0.00	0.00	
8,100.0	28.86	315.39	7,198.2	2,552.8	-2,518.3	3,585.9	0.00	0.00	
8,200.0	28.86	315.39	7,285.8	2,587.2	-2,552.2	3,634.1	0.00	0.00	
8,300.0	28.86	315.39	7,373.3	2,621.6	-2,586.1	3,682.4	0.00	0.00	
8,306.7	28.86	315.39	7,379.2	2,623.8	-2,588.3	3,685.6	0.00	0.00	Start Drop -3.00
8,400.0	26.06	315.39	7,462.0	2,654.5	-2,618.5	3,728.6	3.00	-3.00	
8,500.0	23.06	315.39	7,552.9	2,684.1	-2,647.7	3,770.2	3.00	-3.00	
8,600.0	20.06	315.39	7,645.9	2,710.2	-2,673.5	3,806.9	3.00	-3.00	
8,700.0	17.06	315.39	7,740.7	2,732.9	-2,695.9	3,838.8	3.00	-3.00	
8,800.0	14.06	315.39	7,837.0	2,752.0	-2,714.7	3,865.6	3.00	-3.00	
8,900.0	11.06	315.39	7,934.6	2,767.5	-2,730.0	3,887.3	3.00	-3.00	
9,000.0	8.06	315.39	8,033.2	2,779.3	-2,741.7	3,903.9	3.00	-3.00	
9,100.0	5.06	315.39	8,132.6	2,787.4	-2,749.7	3,915.3	3.00	-3.00	
9,200.0	2.06	315.39	8,232.4	2,791.8	-2,754.0	3,921.6	3.00	-3.00	
9,228.6	1.20	315.39	8,261.0	2,792.4	-2,754.6	3,922.4	3.00	-3.00	WILLIAMS_FORK
9,268.6	0.00	0.00	8,301.0	2,792.7	-2,754.9	3,922.8	3.00	-3.00	EOD; Inc=0° - TOG - 8502E-23 L24 496 TOG
9,300.0	0.08	239.61	8,332.4	2,792.7	-2,754.9	3,922.8	0.25	0.25	
9,386.8	0.30	239.61	8,419.1	2,792.5	-2,755.2	3,922.9	0.25	0.25	
9,400.0	0.30	239.61	8,432.4	2,792.5	-2,755.2	3,922.9	0.00	0.00	
9,500.0	0.30	239.61	8,532.4	2,792.3	-2,755.7	3,923.0	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well 8502E-23 L24 496
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	KBE @ 8208.0ft (Original Well Elev)
Project:	Story Gulch	MD Reference:	KBE @ 8208.0ft (Original Well Elev)
Site:	L24 496	North Reference:	True
Well:	8502E-23 L24 496	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

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
9,600.0	0.30	239.61	8,632.4	2,792.0	-2,756.1	3,923.1	0.00	0.00	
9,700.0	0.30	239.61	8,732.4	2,791.7	-2,756.6	3,923.3	0.00	0.00	
9,800.0	0.30	239.61	8,832.4	2,791.5	-2,757.0	3,923.4	0.00	0.00	
9,900.0	0.30	239.61	8,932.4	2,791.2	-2,757.4	3,923.5	0.00	0.00	
10,000.0	0.30	239.61	9,032.3	2,790.9	-2,757.9	3,923.7	0.00	0.00	
10,100.0	0.30	239.61	9,132.3	2,790.7	-2,758.3	3,923.8	0.00	0.00	
10,200.0	0.30	239.61	9,232.3	2,790.4	-2,758.8	3,923.9	0.00	0.00	
10,300.0	0.30	239.61	9,332.3	2,790.2	-2,759.2	3,924.0	0.00	0.00	
10,400.0	0.30	239.61	9,432.3	2,789.9	-2,759.7	3,924.2	0.00	0.00	
10,500.0	0.30	239.61	9,532.3	2,789.6	-2,760.1	3,924.3	0.00	0.00	
10,600.0	0.30	239.61	9,632.3	2,789.4	-2,760.6	3,924.4	0.00	0.00	
10,700.0	0.30	239.61	9,732.3	2,789.1	-2,761.0	3,924.6	0.00	0.00	
10,800.0	0.30	239.61	9,832.3	2,788.9	-2,761.4	3,924.7	0.00	0.00	
10,900.0	0.30	239.61	9,932.3	2,788.6	-2,761.9	3,924.8	0.00	0.00	
11,000.0	0.30	239.61	10,032.3	2,788.3	-2,762.3	3,924.9	0.00	0.00	
11,100.0	0.30	239.61	10,132.3	2,788.1	-2,762.8	3,925.1	0.00	0.00	
11,200.0	0.30	239.61	10,232.3	2,787.8	-2,763.2	3,925.2	0.00	0.00	
11,300.0	0.30	239.61	10,332.3	2,787.6	-2,763.7	3,925.3	0.00	0.00	
11,400.0	0.30	239.61	10,432.3	2,787.3	-2,764.1	3,925.5	0.00	0.00	
11,500.0	0.30	239.61	10,532.3	2,787.0	-2,764.6	3,925.6	0.00	0.00	
11,600.0	0.30	239.61	10,632.3	2,786.8	-2,765.0	3,925.7	0.00	0.00	
11,700.0	0.30	239.61	10,732.3	2,786.5	-2,765.4	3,925.9	0.00	0.00	
11,800.0	0.30	239.61	10,832.3	2,786.3	-2,765.9	3,926.0	0.00	0.00	
11,900.0	0.30	239.61	10,932.3	2,786.0	-2,766.3	3,926.1	0.00	0.00	
12,000.0	0.30	239.61	11,032.3	2,785.7	-2,766.8	3,926.2	0.00	0.00	
12,100.0	0.30	239.61	11,132.3	2,785.5	-2,767.2	3,926.4	0.00	0.00	
12,200.0	0.30	239.61	11,232.3	2,785.2	-2,767.7	3,926.5	0.00	0.00	
12,300.0	0.30	239.61	11,332.3	2,784.9	-2,768.1	3,926.6	0.00	0.00	
12,400.0	0.30	239.61	11,432.3	2,784.7	-2,768.6	3,926.8	0.00	0.00	
12,500.0	0.30	239.61	11,532.3	2,784.4	-2,769.0	3,926.9	0.00	0.00	
12,600.0	0.30	239.61	11,632.3	2,784.2	-2,769.5	3,927.0	0.00	0.00	
12,700.0	0.30	239.61	11,732.3	2,783.9	-2,769.9	3,927.1	0.00	0.00	
12,800.0	0.30	239.61	11,832.3	2,783.6	-2,770.3	3,927.3	0.00	0.00	
12,900.0	0.30	239.61	11,932.3	2,783.4	-2,770.8	3,927.4	0.00	0.00	
13,000.0	0.30	239.61	12,032.3	2,783.1	-2,771.2	3,927.5	0.00	0.00	
13,100.0	0.30	239.61	12,132.3	2,782.9	-2,771.7	3,927.7	0.00	0.00	
13,151.7	0.30	239.61	12,184.0	2,782.7	-2,771.9	3,927.7	0.00	0.00	ROLLINS - 8502E-23 L24 496 BHL
13,200.0	0.30	239.61	12,232.3	2,782.6	-2,772.1	3,927.8	0.00	0.00	
13,251.7	0.30	239.61	12,284.0	2,782.5	-2,772.3	3,927.9	0.00	0.00	Drillers TD @ 13251.7' MD
13,296.7	0.30	239.61	12,329.0	2,782.4	-2,772.5	3,927.9	0.00	0.00	COZZETTE
13,300.0	0.30	239.61	12,332.3	2,782.3	-2,772.6	3,927.9	0.00	0.00	
13,400.0	0.30	239.61	12,432.3	2,782.1	-2,773.0	3,928.0	0.00	0.00	
13,500.0	0.30	239.61	12,532.3	2,781.8	-2,773.5	3,928.2	0.00	0.00	
13,594.7	0.30	239.61	12,627.0	2,781.6	-2,773.9	3,928.3	0.00	0.00	CORCORAN
13,600.0	0.30	239.61	12,632.3	2,781.6	-2,773.9	3,928.3	0.00	0.00	
13,692.7	0.30	239.61	12,725.0	2,781.3	-2,774.3	3,928.4	0.00	0.00	LOWER_SEGO
13,700.0	0.30	239.61	12,732.3	2,781.3	-2,774.3	3,928.4	0.00	0.00	
13,800.0	0.30	239.61	12,832.3	2,781.0	-2,774.8	3,928.6	0.00	0.00	
13,805.7	0.30	239.61	12,838.0	2,781.0	-2,774.8	3,928.6	0.00	0.00	SEGO
13,900.0	0.30	239.61	12,932.3	2,780.8	-2,775.2	3,928.7	0.00	0.00	
14,000.0	0.30	239.61	13,032.3	2,780.5	-2,775.7	3,928.8	0.00	0.00	
14,100.0	0.30	239.61	13,132.3	2,780.3	-2,776.1	3,929.0	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well 8502E-23 L24 496
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	KBE @ 8208.0ft (Original Well Elev)
Project:	Story Gulch	MD Reference:	KBE @ 8208.0ft (Original Well Elev)
Site:	L24 496	North Reference:	True
Well:	8502E-23 L24 496	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

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
14,200.0	0.30	239.61	13,232.3	2,780.0	-2,776.6	3,929.1	0.00	0.00	
14,223.7	0.30	239.61	13,256.0	2,779.9	-2,776.7	3,929.1	0.00	0.00	Permit TD @ 14223.7' 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
8502E-23 L24 496 TOG - plan hits target center - Point	0.00	0.00	8,301.0	2,792.7	-2,754.9	1,688,006.92	2,259,186.50	39° 41' 34.44 N	108° 7' 58.37 W
8502E-23 L24 496 BHL - plan hits target center - Rectangle (sides W30.0 H50.0 D0.0)	0.00	0.00	12,184.0	2,782.7	-2,771.9	1,687,997.44	2,259,169.22	39° 41' 34.34 N	108° 7' 58.59 W

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,363.1	1,298.0	A_GROOVE			
2,766.4	2,527.0	GARDEN_GULCH / L-1			
6,612.0	5,895.0	WASATCH_G			
9,228.6	8,261.0	WILLIAMS_FORK			
9,268.6	8,301.0	TOG			
13,151.7	12,184.0	ROLLINS			
13,296.7	12,329.0	COZZETTE			
13,594.7	12,627.0	CORCORAN			
13,692.7	12,725.0	LOWER_SEGO			
13,805.7	12,838.0	SEGO			

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
200.0	200.0	0.0	0.0	KOP @ 200' MD
1,162.0	1,121.8	168.9	-166.6	EOB; Inc=28.86°
8,306.7	7,379.2	2,623.8	-2,588.3	Start Drop -3.00
9,268.6	8,301.0	2,792.7	-2,754.9	EOD; Inc=0°
13,251.7	12,284.0	2,782.5	-2,772.3	Drillers TD @ 13251.7' MD
14,223.7	13,256.0	2,779.9	-2,776.7	Permit TD @ 14223.7' MD