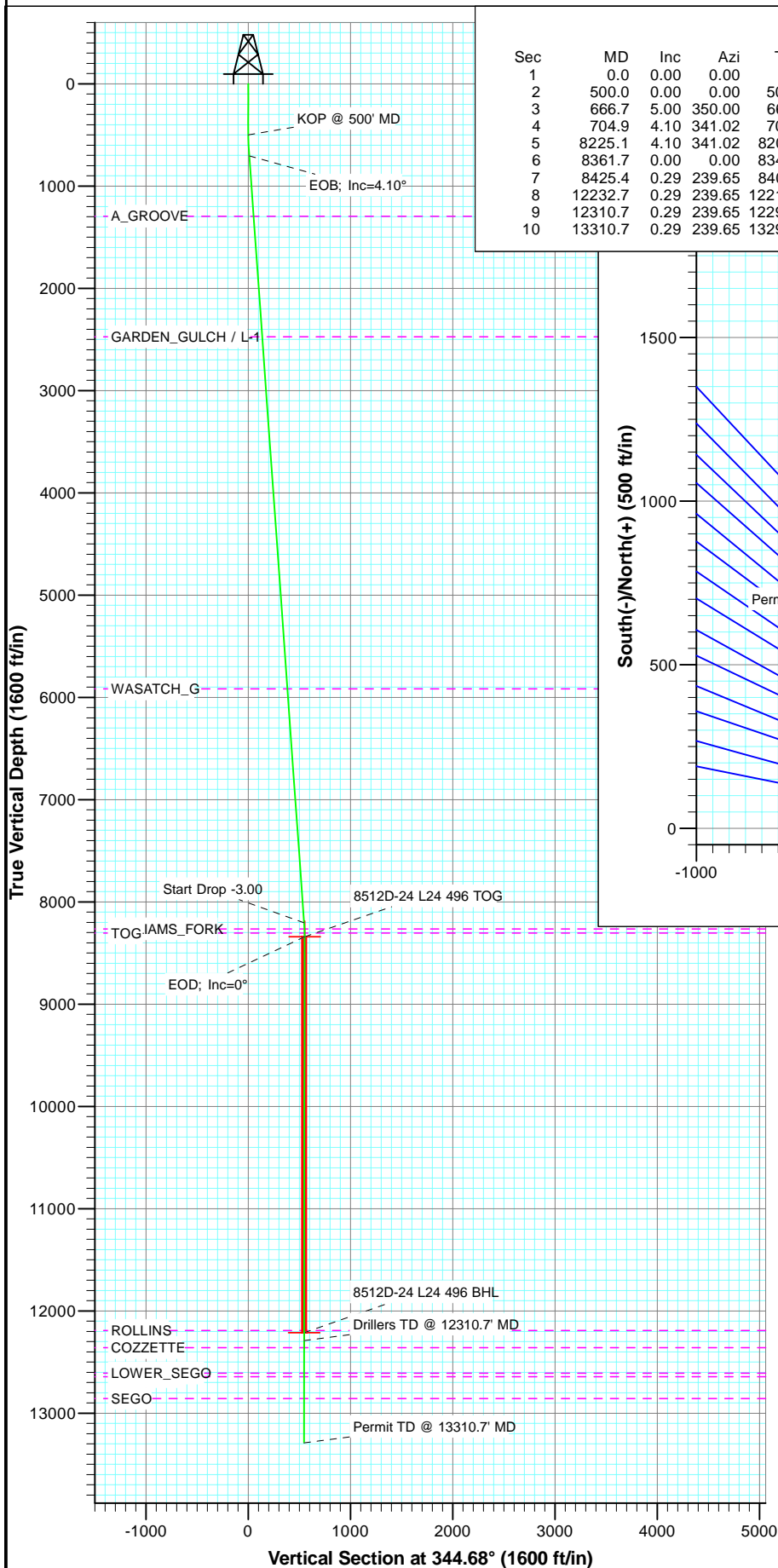
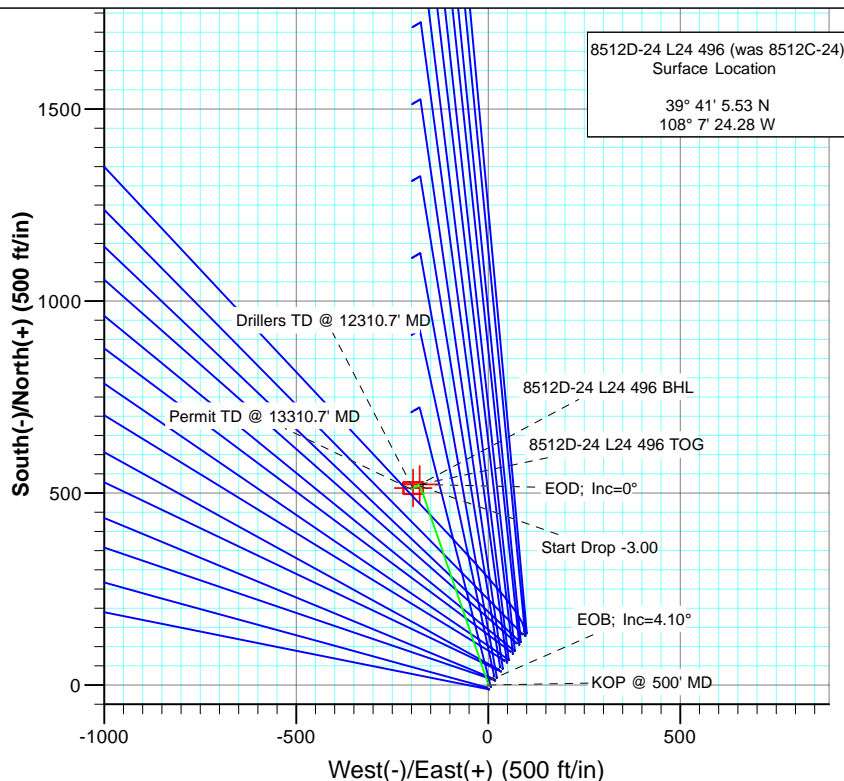




Project: Story Gulch  
Site: L24 496  
Well: 8512D-24 L24 496 (was 8512C-24)  
Wellbore: DD  
Plan: Plan #2



SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	V Sect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	500.0	0.00	0.00	500.0	0.0	0.0	0.00	0.00	0.0	
3	666.7	5.00	350.00	666.5	7.2	-1.3	3.00	350.00	7.2	
4	704.9	4.10	341.02	704.5	10.1	-2.0	3.00	-146.10	10.3	
5	8225.1	4.10	341.02	8205.5	518.4	-176.8	0.00	0.00	546.7	
6	8361.7	0.00	0.00	8342.0	523.0	-178.4	3.00	180.00	551.6	8512D-24 L24 496 TOG
7	8425.4	0.29	239.65	8405.7	522.9	-178.5	0.46	239.65	551.5	
8	12232.7	0.29	239.65	12213.0	513.0	-195.4	0.00	0.00	546.4	8512D-24 L24 496 BHL
9	12310.7	0.29	239.65	12291.0	512.8	-195.8	0.00	0.00	546.3	
10	13310.7	0.29	239.65	13291.0	510.2	-200.2	0.00	0.00	545.0	



#### FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1295.0	1296.8	A_GROOVE
2474.0	2478.9	GARDEN_GULCH / L-1
5917.0	5930.7	WASATCH_G
8264.0	8283.7	WILLIAMS_FORK
8304.0	8323.7	TOG
12191.0	12210.7	ROLLINS
12359.0	12378.7	COZZETTE
12608.0	12627.7	LOWER_SEGO
12644.0	12663.7	CORCORAN
12856.0	12875.7	SEGO



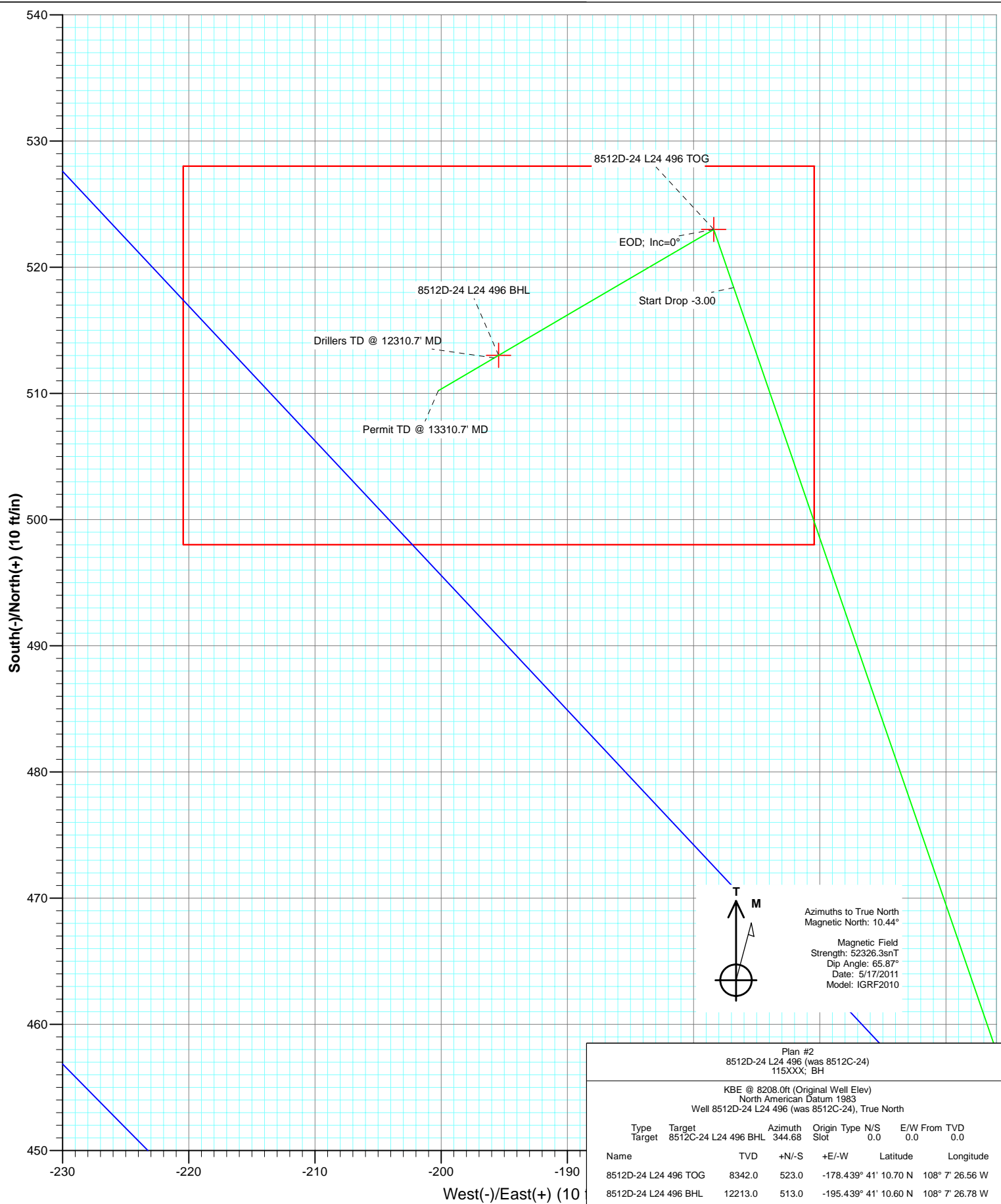
Azimuths to True North  
Magnetic North: 10.44°

Magnetic Field  
Strength: 52326.3nT  
Dip Angle: 65.87°  
Date: 5/17/2011  
Model: IGRF2010

Plan #2  
8512D-24 L24 496 (was 8512C-24)  
115XXX; BH

KBE @ 8208.0ft (Original Well Elev)  
North American Datum 1983  
Well 8512D-24 L24 496 (was 8512C-24), True North

Type	Target	Target	Azimuth	Origin	Type	N/S	E/W	From	TVD
Target	8512C-24 L24 496 BHL	344.68	Slot	0.0	0.0	0.0			
Name	TVD	+N/-S	+E/-W	Latitude	Longitude				
8512D-24 L24 496 TOG	8342.0	523.0	-178.439° 41'	10.70 N	108° 7' 26.56 W				
8512D-24 L24 496 BHL	12213.0	513.0	-195.439° 41'	10.60 N	108° 7' 26.78 W				



# Cathedral Energy Services

## Planning Report

<b>Database:</b>	EDM 5000.1 US Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well 8512D-24 L24 496 (was 8512C-24)
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	KBE @ 8208.0ft (Original Well Elev)
<b>Project:</b>	Story Gulch	<b>MD Reference:</b>	KBE @ 8208.0ft (Original Well Elev)
<b>Site:</b>	L24 496	<b>North Reference:</b>	True
<b>Well:</b>	8512D-24 L24 496 (was 8512C-24)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	DD		
<b>Design:</b>	Plan #2		

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

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

<b>Well</b>	8512D-24 L24 496 (was 8512C-24)			
<b>Well Position</b>	<b>+N/-S</b>	0.0 ft	<b>Northing:</b>	1,685,005.94 ft
	<b>+E/-W</b>	0.0 ft	<b>Easting:</b>	2,261,765.93 ft
<b>Position Uncertainty</b>	0.0 ft		<b>Wellhead Elevation:</b>	ft
			<b>Ground Level:</b>	8,193.0 ft

<b>Wellbore</b>	DD				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	5/17/2011	10.44	65.87	52,326

<b>Design</b>	Plan #2			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>
	0.0	0.0	0.0	344.68

<b>Plan Sections</b>										
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	
500.0	0.00	0.00	500.0	0.0	0.0	0.00	0.00	0.00	0.00	
666.7	5.00	350.00	666.5	7.2	-1.3	3.00	3.00	0.00	350.00	
704.9	4.10	341.02	704.5	10.1	-2.0	3.00	-2.36	-23.51	-146.10	
8,225.1	4.10	341.02	8,205.5	518.4	-176.8	0.00	0.00	0.00	0.00	
8,361.7	0.00	0.00	8,342.0	523.0	-178.4	3.00	-3.00	0.00	180.00	8512D-24 L24 496 TC
8,425.4	0.29	239.65	8,405.7	522.9	-178.5	0.46	0.46	-188.87	239.65	
12,232.7	0.29	239.65	12,213.0	513.0	-195.4	0.00	0.00	0.00	0.00	8512D-24 L24 496 B+
12,310.7	0.29	239.65	12,291.0	512.8	-195.8	0.00	0.00	0.00	0.00	
13,310.7	0.29	239.65	13,291.0	510.2	-200.2	0.00	0.00	0.00	0.00	

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	EDM 5000.1 US Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well 8512D-24 L24 496 (was 8512C-24)
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	KBE @ 8208.0ft (Original Well Elev)
<b>Project:</b>	Story Gulch	<b>MD Reference:</b>	KBE @ 8208.0ft (Original Well Elev)
<b>Site:</b>	L24 496	<b>North Reference:</b>	True
<b>Well:</b>	8512D-24 L24 496 (was 8512C-24)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	DD		
<b>Design:</b>	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	KOP @ 500' MD
600.0	3.00	350.00	600.0	2.6	-0.5	2.6	3.00	3.00	
666.7	5.00	350.00	666.5	7.2	-1.3	7.2	3.00	3.00	
700.0	4.21	342.37	699.7	9.8	-1.9	9.9	3.00	-2.38	
704.9	4.10	341.02	704.6	10.1	-2.0	10.3	2.98	-2.21	EOB; Inc=4.10°
800.0	4.10	341.02	799.4	16.5	-4.2	17.0	0.00	0.00	
900.0	4.10	341.02	899.2	23.3	-6.5	24.2	0.00	0.00	
1,000.0	4.10	341.02	998.9	30.0	-8.9	31.3	0.00	0.00	
1,100.0	4.10	341.02	1,098.7	36.8	-11.2	38.4	0.00	0.00	
1,200.0	4.10	341.02	1,198.4	43.6	-13.5	45.6	0.00	0.00	
1,296.8	4.10	341.02	1,295.0	50.1	-15.8	52.5	0.00	0.00	A_GROOVE
1,300.0	4.10	341.02	1,298.1	50.3	-15.8	52.7	0.00	0.00	
1,400.0	4.10	341.02	1,397.9	57.1	-18.2	59.8	0.00	0.00	
1,500.0	4.10	341.02	1,497.6	63.8	-20.5	67.0	0.00	0.00	
1,600.0	4.10	341.02	1,597.4	70.6	-22.8	74.1	0.00	0.00	
1,700.0	4.10	341.02	1,697.1	77.3	-25.1	81.2	0.00	0.00	
1,800.0	4.10	341.02	1,796.9	84.1	-27.5	88.4	0.00	0.00	
1,900.0	4.10	341.02	1,896.6	90.9	-29.8	95.5	0.00	0.00	
2,000.0	4.10	341.02	1,996.4	97.6	-32.1	102.6	0.00	0.00	
2,100.0	4.10	341.02	2,096.1	104.4	-34.4	109.8	0.00	0.00	
2,200.0	4.10	341.02	2,195.8	111.1	-36.8	116.9	0.00	0.00	
2,300.0	4.10	341.02	2,295.6	117.9	-39.1	124.0	0.00	0.00	
2,400.0	4.10	341.02	2,395.3	124.7	-41.4	131.2	0.00	0.00	
2,478.9	4.10	341.02	2,474.0	130.0	-43.2	136.8	0.00	0.00	GARDEN_GULCH / L-1
2,500.0	4.10	341.02	2,495.1	131.4	-43.7	138.3	0.00	0.00	
2,600.0	4.10	341.02	2,594.8	138.2	-46.0	145.4	0.00	0.00	
2,700.0	4.10	341.02	2,694.6	144.9	-48.4	152.6	0.00	0.00	
2,800.0	4.10	341.02	2,794.3	151.7	-50.7	159.7	0.00	0.00	
2,900.0	4.10	341.02	2,894.1	158.5	-53.0	166.8	0.00	0.00	
3,000.0	4.10	341.02	2,993.8	165.2	-55.3	174.0	0.00	0.00	
3,100.0	4.10	341.02	3,093.5	172.0	-57.7	181.1	0.00	0.00	
3,200.0	4.10	341.02	3,193.3	178.7	-60.0	188.2	0.00	0.00	
3,300.0	4.10	341.02	3,293.0	185.5	-62.3	195.4	0.00	0.00	
3,400.0	4.10	341.02	3,392.8	192.3	-64.6	202.5	0.00	0.00	
3,500.0	4.10	341.02	3,492.5	199.0	-67.0	209.6	0.00	0.00	
3,600.0	4.10	341.02	3,592.3	205.8	-69.3	216.8	0.00	0.00	
3,700.0	4.10	341.02	3,692.0	212.5	-71.6	223.9	0.00	0.00	
3,800.0	4.10	341.02	3,791.8	219.3	-73.9	231.0	0.00	0.00	
3,900.0	4.10	341.02	3,891.5	226.0	-76.3	238.2	0.00	0.00	
4,000.0	4.10	341.02	3,991.2	232.8	-78.6	245.3	0.00	0.00	
4,100.0	4.10	341.02	4,091.0	239.6	-80.9	252.4	0.00	0.00	
4,200.0	4.10	341.02	4,190.7	246.3	-83.2	259.6	0.00	0.00	
4,300.0	4.10	341.02	4,290.5	253.1	-85.6	266.7	0.00	0.00	
4,400.0	4.10	341.02	4,390.2	259.8	-87.9	273.8	0.00	0.00	
4,500.0	4.10	341.02	4,490.0	266.6	-90.2	281.0	0.00	0.00	
4,600.0	4.10	341.02	4,589.7	273.4	-92.5	288.1	0.00	0.00	
4,700.0	4.10	341.02	4,689.4	280.1	-94.9	295.2	0.00	0.00	

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	EDM 5000.1 US Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well 8512D-24 L24 496 (was 8512C-24)
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	KBE @ 8208.0ft (Original Well Elev)
<b>Project:</b>	Story Gulch	<b>MD Reference:</b>	KBE @ 8208.0ft (Original Well Elev)
<b>Site:</b>	L24 496	<b>North Reference:</b>	True
<b>Well:</b>	8512D-24 L24 496 (was 8512C-24)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	DD		
<b>Design:</b>	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
4,800.0	4.10	341.02	4,789.2	286.9	-97.2	302.4	0.00	0.00	
4,900.0	4.10	341.02	4,888.9	293.6	-99.5	309.5	0.00	0.00	
5,000.0	4.10	341.02	4,988.7	300.4	-101.8	316.6	0.00	0.00	
5,100.0	4.10	341.02	5,088.4	307.2	-104.2	323.8	0.00	0.00	
5,200.0	4.10	341.02	5,188.2	313.9	-106.5	330.9	0.00	0.00	
5,300.0	4.10	341.02	5,287.9	320.7	-108.8	338.0	0.00	0.00	
5,400.0	4.10	341.02	5,387.7	327.4	-111.1	345.2	0.00	0.00	
5,500.0	4.10	341.02	5,487.4	334.2	-113.5	352.3	0.00	0.00	
5,600.0	4.10	341.02	5,587.1	341.0	-115.8	359.4	0.00	0.00	
5,700.0	4.10	341.02	5,686.9	347.7	-118.1	366.6	0.00	0.00	
5,800.0	4.10	341.02	5,786.6	354.5	-120.4	373.7	0.00	0.00	
5,900.0	4.10	341.02	5,886.4	361.2	-122.8	380.8	0.00	0.00	
5,930.7	4.10	341.02	5,917.0	363.3	-123.5	383.0	0.00	0.00	WASATCH_G
6,000.0	4.10	341.02	5,986.1	368.0	-125.1	388.0	0.00	0.00	
6,100.0	4.10	341.02	6,085.9	374.7	-127.4	395.1	0.00	0.00	
6,200.0	4.10	341.02	6,185.6	381.5	-129.7	402.2	0.00	0.00	
6,300.0	4.10	341.02	6,285.4	388.3	-132.1	409.4	0.00	0.00	
6,400.0	4.10	341.02	6,385.1	395.0	-134.4	416.5	0.00	0.00	
6,500.0	4.10	341.02	6,484.8	401.8	-136.7	423.6	0.00	0.00	
6,600.0	4.10	341.02	6,584.6	408.5	-139.0	430.8	0.00	0.00	
6,700.0	4.10	341.02	6,684.3	415.3	-141.4	437.9	0.00	0.00	
6,800.0	4.10	341.02	6,784.1	422.1	-143.7	445.0	0.00	0.00	
6,900.0	4.10	341.02	6,883.8	428.8	-146.0	452.2	0.00	0.00	
7,000.0	4.10	341.02	6,983.6	435.6	-148.3	459.3	0.00	0.00	
7,100.0	4.10	341.02	7,083.3	442.3	-150.7	466.4	0.00	0.00	
7,200.0	4.10	341.02	7,183.1	449.1	-153.0	473.6	0.00	0.00	
7,300.0	4.10	341.02	7,282.8	455.9	-155.3	480.7	0.00	0.00	
7,400.0	4.10	341.02	7,382.5	462.6	-157.6	487.8	0.00	0.00	
7,500.0	4.10	341.02	7,482.3	469.4	-160.0	495.0	0.00	0.00	
7,600.0	4.10	341.02	7,582.0	476.1	-162.3	502.1	0.00	0.00	
7,700.0	4.10	341.02	7,681.8	482.9	-164.6	509.2	0.00	0.00	
7,800.0	4.10	341.02	7,781.5	489.7	-166.9	516.4	0.00	0.00	
7,900.0	4.10	341.02	7,881.3	496.4	-169.3	523.5	0.00	0.00	
8,000.0	4.10	341.02	7,981.0	503.2	-171.6	530.6	0.00	0.00	
8,100.0	4.10	341.02	8,080.8	509.9	-173.9	537.8	0.00	0.00	
8,200.0	4.10	341.02	8,180.5	516.7	-176.2	544.9	0.00	0.00	
8,225.1	4.10	341.02	8,205.5	518.4	-176.8	546.7	0.00	0.00	Start Drop -3.00
8,283.7	2.34	341.02	8,264.0	521.5	-177.9	550.0	3.00	-3.00	WILLIAMS_FORK
8,300.0	1.85	341.02	8,280.3	522.1	-178.1	550.6	3.00	-3.00	
8,323.7	1.14	341.02	8,304.0	522.6	-178.3	551.2	3.00	-3.00	TOG
8,361.7	0.00	341.02	8,342.0	523.0	-178.4	551.6	3.00	-3.00	EOD; Inc=0° - 8512C-24 L24 496 TOG - 8512D
8,400.0	0.18	239.65	8,380.3	523.0	-178.5	551.5	0.46	0.46	
8,425.4	0.29	239.65	8,405.7	522.9	-178.5	551.5	0.46	0.46	
8,500.0	0.29	239.65	8,480.3	522.7	-178.9	551.4	0.00	0.00	
8,600.0	0.29	239.65	8,580.3	522.5	-179.3	551.3	0.00	0.00	
8,700.0	0.29	239.65	8,680.3	522.2	-179.8	551.1	0.00	0.00	
8,800.0	0.29	239.65	8,780.3	521.9	-180.2	551.0	0.00	0.00	
8,900.0	0.29	239.65	8,880.3	521.7	-180.6	550.9	0.00	0.00	
9,000.0	0.29	239.65	8,980.3	521.4	-181.1	550.7	0.00	0.00	
9,100.0	0.29	239.65	9,080.3	521.2	-181.5	550.6	0.00	0.00	
9,200.0	0.29	239.65	9,180.3	520.9	-182.0	550.5	0.00	0.00	
9,300.0	0.29	239.65	9,280.3	520.6	-182.4	550.3	0.00	0.00	

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	EDM 5000.1 US Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well 8512D-24 L24 496 (was 8512C-24)
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	KBE @ 8208.0ft (Original Well Elev)
<b>Project:</b>	Story Gulch	<b>MD Reference:</b>	KBE @ 8208.0ft (Original Well Elev)
<b>Site:</b>	L24 496	<b>North Reference:</b>	True
<b>Well:</b>	8512D-24 L24 496 (was 8512C-24)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	DD		
<b>Design:</b>	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
9,400.0	0.29	239.65	9,380.3	520.4	-182.9	550.2	0.00	0.00	
9,500.0	0.29	239.65	9,480.3	520.1	-183.3	550.1	0.00	0.00	
9,600.0	0.29	239.65	9,580.3	519.9	-183.8	549.9	0.00	0.00	
9,700.0	0.29	239.65	9,680.3	519.6	-184.2	549.8	0.00	0.00	
9,800.0	0.29	239.65	9,780.3	519.3	-184.6	549.7	0.00	0.00	
9,900.0	0.29	239.65	9,880.3	519.1	-185.1	549.5	0.00	0.00	
10,000.0	0.29	239.65	9,980.3	518.8	-185.5	549.4	0.00	0.00	
10,100.0	0.29	239.65	10,080.3	518.6	-186.0	549.3	0.00	0.00	
10,200.0	0.29	239.65	10,180.3	518.3	-186.4	549.1	0.00	0.00	
10,300.0	0.29	239.65	10,280.3	518.0	-186.9	549.0	0.00	0.00	
10,400.0	0.29	239.65	10,380.3	517.8	-187.3	548.9	0.00	0.00	
10,500.0	0.29	239.65	10,480.3	517.5	-187.8	548.7	0.00	0.00	
10,600.0	0.29	239.65	10,580.3	517.3	-188.2	548.6	0.00	0.00	
10,700.0	0.29	239.65	10,680.3	517.0	-188.6	548.5	0.00	0.00	
10,800.0	0.29	239.65	10,780.3	516.7	-189.1	548.3	0.00	0.00	
10,900.0	0.29	239.65	10,880.3	516.5	-189.5	548.2	0.00	0.00	
11,000.0	0.29	239.65	10,980.3	516.2	-190.0	548.1	0.00	0.00	
11,100.0	0.29	239.65	11,080.3	516.0	-190.4	547.9	0.00	0.00	
11,200.0	0.29	239.65	11,180.3	515.7	-190.9	547.8	0.00	0.00	
11,300.0	0.29	239.65	11,280.3	515.4	-191.3	547.7	0.00	0.00	
11,400.0	0.29	239.65	11,380.3	515.2	-191.7	547.5	0.00	0.00	
11,500.0	0.29	239.65	11,480.3	514.9	-192.2	547.4	0.00	0.00	
11,600.0	0.29	239.65	11,580.3	514.7	-192.6	547.3	0.00	0.00	
11,700.0	0.29	239.65	11,680.3	514.4	-193.1	547.1	0.00	0.00	
11,800.0	0.29	239.65	11,780.3	514.1	-193.5	547.0	0.00	0.00	
11,900.0	0.29	239.65	11,880.3	513.9	-194.0	546.9	0.00	0.00	
12,000.0	0.29	239.65	11,980.3	513.6	-194.4	546.7	0.00	0.00	
12,100.0	0.29	239.65	12,080.3	513.4	-194.9	546.6	0.00	0.00	
12,200.0	0.29	239.65	12,180.3	513.1	-195.3	546.5	0.00	0.00	
12,210.7	0.29	239.65	12,191.0	513.1	-195.3	546.5	0.00	0.00	ROLLINS
12,232.2	0.29	239.65	12,212.5	513.0	-195.4	546.4	0.00	0.00	8512C-24 L24 496 BHL
12,232.7	0.29	239.65	12,213.0	513.0	-195.4	546.4	0.00	0.00	8512D-24 L24 496 BHL
12,300.0	0.29	239.65	12,280.3	512.8	-195.7	546.3	0.00	0.00	
12,310.7	0.29	239.65	12,291.0	512.8	-195.8	546.3	0.00	0.00	Drillers TD @ 12310.7' MD
12,378.7	0.29	239.65	12,359.0	512.6	-196.1	546.2	0.00	0.00	COZZETTE
12,400.0	0.29	239.65	12,380.3	512.6	-196.2	546.2	0.00	0.00	
12,500.0	0.29	239.65	12,480.3	512.3	-196.6	546.1	0.00	0.00	
12,600.0	0.29	239.65	12,580.3	512.1	-197.1	545.9	0.00	0.00	
12,627.7	0.29	239.65	12,608.0	512.0	-197.2	545.9	0.00	0.00	LOWER_SEGO
12,663.7	0.29	239.65	12,644.0	511.9	-197.4	545.9	0.00	0.00	CORCORAN
12,700.0	0.29	239.65	12,680.3	511.8	-197.5	545.8	0.00	0.00	
12,800.0	0.29	239.65	12,780.3	511.5	-198.0	545.7	0.00	0.00	
12,875.7	0.29	239.65	12,856.0	511.3	-198.3	545.6	0.00	0.00	SEGO
12,900.0	0.29	239.65	12,880.3	511.3	-198.4	545.5	0.00	0.00	
13,000.0	0.29	239.65	12,980.3	511.0	-198.8	545.4	0.00	0.00	
13,100.0	0.29	239.65	13,080.3	510.8	-199.3	545.3	0.00	0.00	
13,200.0	0.29	239.65	13,180.3	510.5	-199.7	545.1	0.00	0.00	
13,300.0	0.29	239.65	13,280.3	510.2	-200.2	545.0	0.00	0.00	
13,310.7	0.29	239.65	13,291.0	510.2	-200.2	545.0	0.00	0.00	Permit TD @ 13310.7' MD

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	EDM 5000.1 US Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well 8512D-24 L24 496 (was 8512C-24)
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	KBE @ 8208.0ft (Original Well Elev)
<b>Project:</b>	Story Gulch	<b>MD Reference:</b>	KBE @ 8208.0ft (Original Well Elev)
<b>Site:</b>	L24 496	<b>North Reference:</b>	True
<b>Well:</b>	8512D-24 L24 496 (was 8512C-24)	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	DD		
<b>Design:</b>	Plan #2		

Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)		
8512C-24 L24 496 TOG	0.00	0.00	8,342.0	723.4	-178.5	1,685,734.15	2,261,608.43	39° 41' 12.68 N	108° 7' 26.56 W
- plan misses target center by 200.4ft at 8361.7ft MD (8342.0 TVD, 523.0 N, -178.4 E)									
- Point									
8512D-24 L24 496 BHL	0.00	0.00	12,213.0	513.0	-195.4	1,685,524.39	2,261,585.39	39° 41' 10.60 N	108° 7' 26.78 W
- plan hits target center									
- Rectangle (sides W30.0 H50.0 D0.0)									
8512C-24 L24 496 BHL	0.00	0.00	12,213.0	713.4	-195.4	1,685,724.65	2,261,591.17	39° 41' 12.58 N	108° 7' 26.78 W
- plan misses target center by 200.3ft at 12232.2ft MD (12212.5 TVD, 513.0 N, -195.4 E)									
- Rectangle (sides W30.0 H50.0 D0.0)									
8512D-24 L24 496 TOG	0.00	0.00	8,342.0	523.0	-178.4	1,685,533.88	2,261,602.71	39° 41' 10.70 N	108° 7' 26.56 W
- plan hits target center									
- Point									

Formations						
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction	
(ft)	(ft)			(°)	(°)	
1,296.8	1,295.0	A_GROOVE				
2,478.9	2,474.0	GARDEN_GULCH / L-1				
5,930.7	5,917.0	WASATCH_G				
8,283.7	8,264.0	WILLIAMS_FORK				
8,323.7	8,304.0	TOG				
12,210.7	12,191.0	ROLLINS				
12,378.7	12,359.0	COZZETTE				
12,627.7	12,608.0	LOWER_SEGO				
12,663.7	12,644.0	CORCORAN				
12,875.7	12,856.0	SEGO				

Plan Annotations					
Measured Depth	Vertical Depth	Local Coordinates		Comment	
(ft)	(ft)	+N/-S (ft)	+E/-W (ft)		
500.0	500.0	0.0	0.0	KOP @ 500' MD	
704.9	704.6	10.1	-2.0	EOB; Inc=4.10°	
8,225.1	8,205.5	518.4	-176.8	Start Drop -3.00	
8,361.7	8,342.0	523.0	-178.4	EOD; Inc=0°	
12,310.7	12,291.0	512.8	-195.8	Drillers TD @ 12310.7' MD	
13,310.7	13,291.0	510.2	-200.2	Permit TD @ 13310.7' MD	