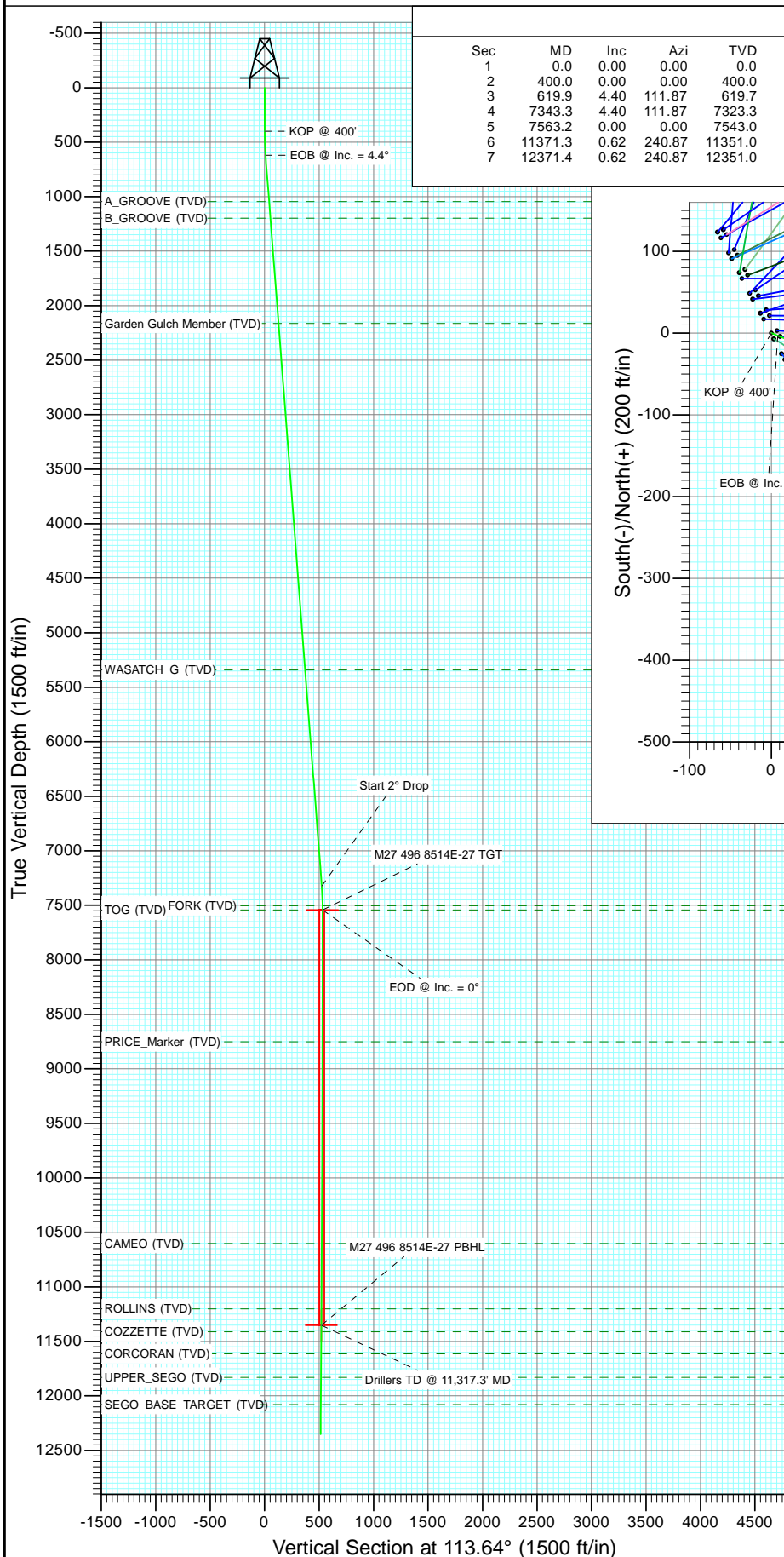


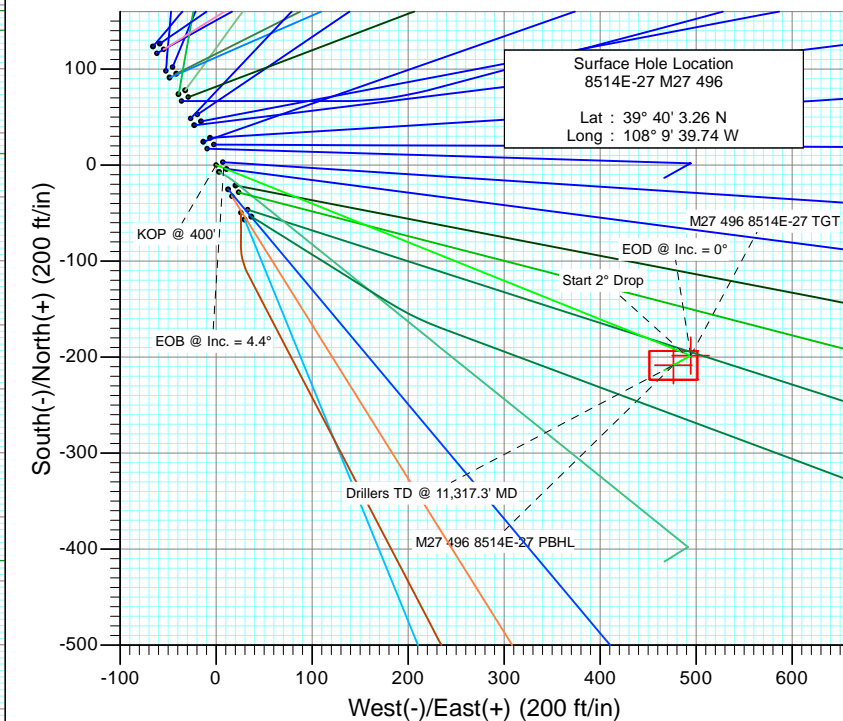


Project: Story Gulch  
Site: S27-T4S-R96W (M27 496)  
Well: 8514E-27 M27 496  
Wellbore: DD  
Design: Plan #2



#### 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	400.0	0.00	0.00	400.0	0.0	0.0	0.00	0.00	0.0	
3	619.9	4.40	111.87	619.7	-3.1	7.8	2.00	111.87	8.4	
4	7343.3	4.40	111.87	7323.3	-195.3	486.4	0.00	0.00	523.9	
5	7563.2	0.00	0.00	7543.0	-198.4	494.2	2.00	180.00	532.3	M27 496 8514E-27 TGT
6	11371.3	0.62	240.87	11351.0	-208.4	476.2	0.02	240.87	519.8	M27 496 8514E-27 PBHL
7	12371.4	0.62	240.87	12351.0	-213.7	466.8	0.00	0.00	513.3	



#### FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1044.0	1045.5	A_GROOVE (TVD)
1197.0	1198.9	B_GROOVE (TVD)
2162.0	2166.8	Garden Gulch Member (TVD)
5340.0	5354.2	WASATCH_G (TVD)
7503.0	7523.2	WILLIAMS_FORK (TVD)
7543.0	7563.2	TOG (TVD)
8752.0	8772.2	PRICE_Marker (TVD)
10601.0	10621.3	CAMEO (TVD)
11201.0	11221.3	ROLLINS (TVD)
11411.0	11431.3	COZZETTE (TVD)
11614.0	11634.3	CORCORAN (TVD)
11829.0	11849.3	UPPER_SEGO (TVD)
12079.0	12099.4	SEG0_BASE_TARGET (TVD)



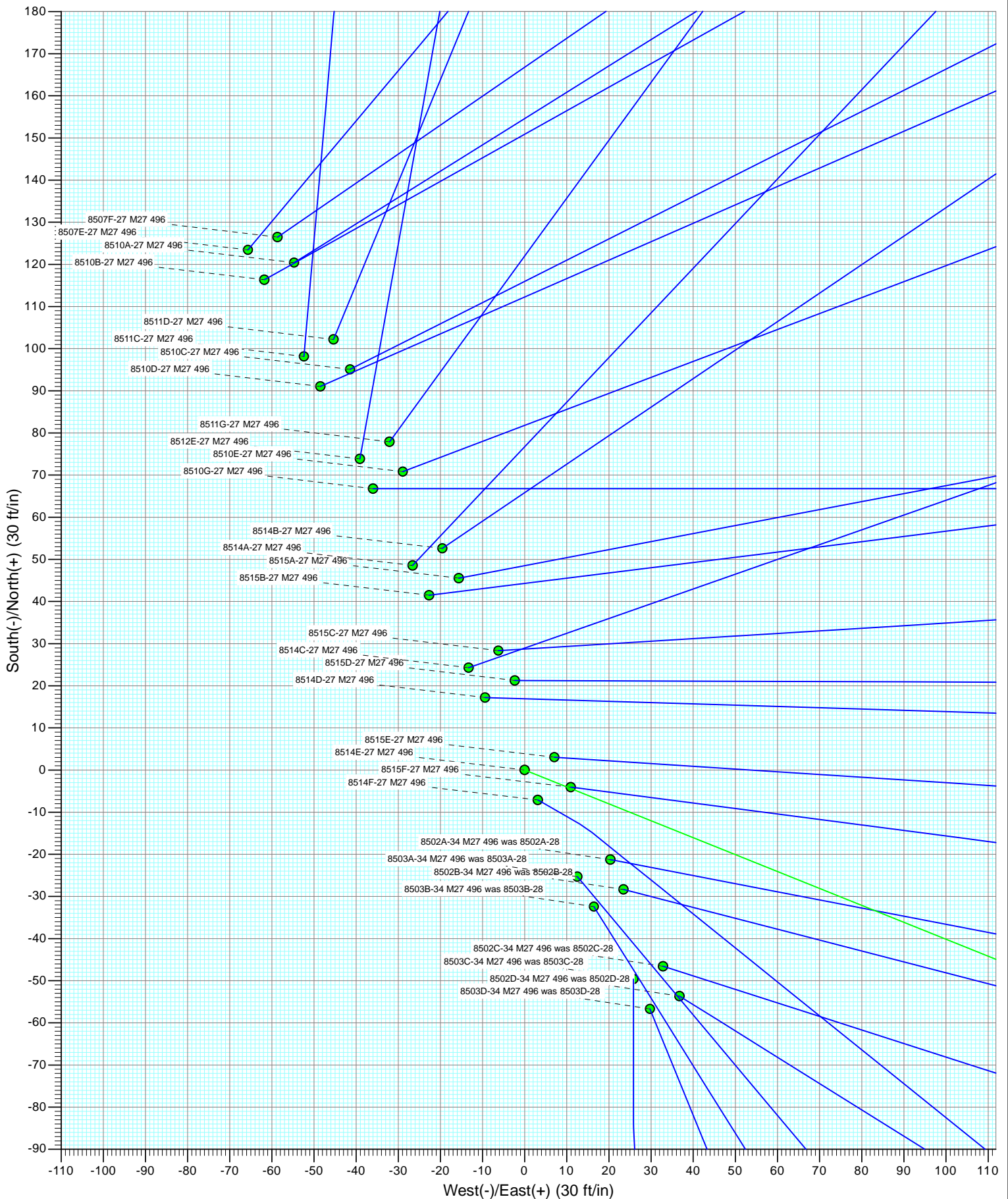
Azimuths to True North  
Magnetic North: 10.41°

Magnetic Field  
Strength: 52277.6snT  
Dip Angle: 65.84°  
Date: 9/21/2011  
Model: IGRF2010

Plan #2 8514E-27 M27 496 11560: LR KBE @ 8121.0ft (Original Well Elev) GL @ 8099.0 North American Datum 1983 Well 8514E-27 M27 496, True North							
Type	Target	Azimuth	Origin Type	N/S	E/W	From TVD	
Target	M27 496 8514E-27 PBHL	113.64	Slot	0.0	0.0	0.0	
Name	TVD	+N/-S	+E/-W	Latitude	Longitude		
M27 496 8514E-27 TGT	7543.0	-198.4	494.2	39° 40' 1.30 N	108° 9' 33.42 W		
M27 496 8514E-27 PBHL	11351.0	-208.4	476.2	39° 40' 1.20 N	108° 9' 33.65 W		

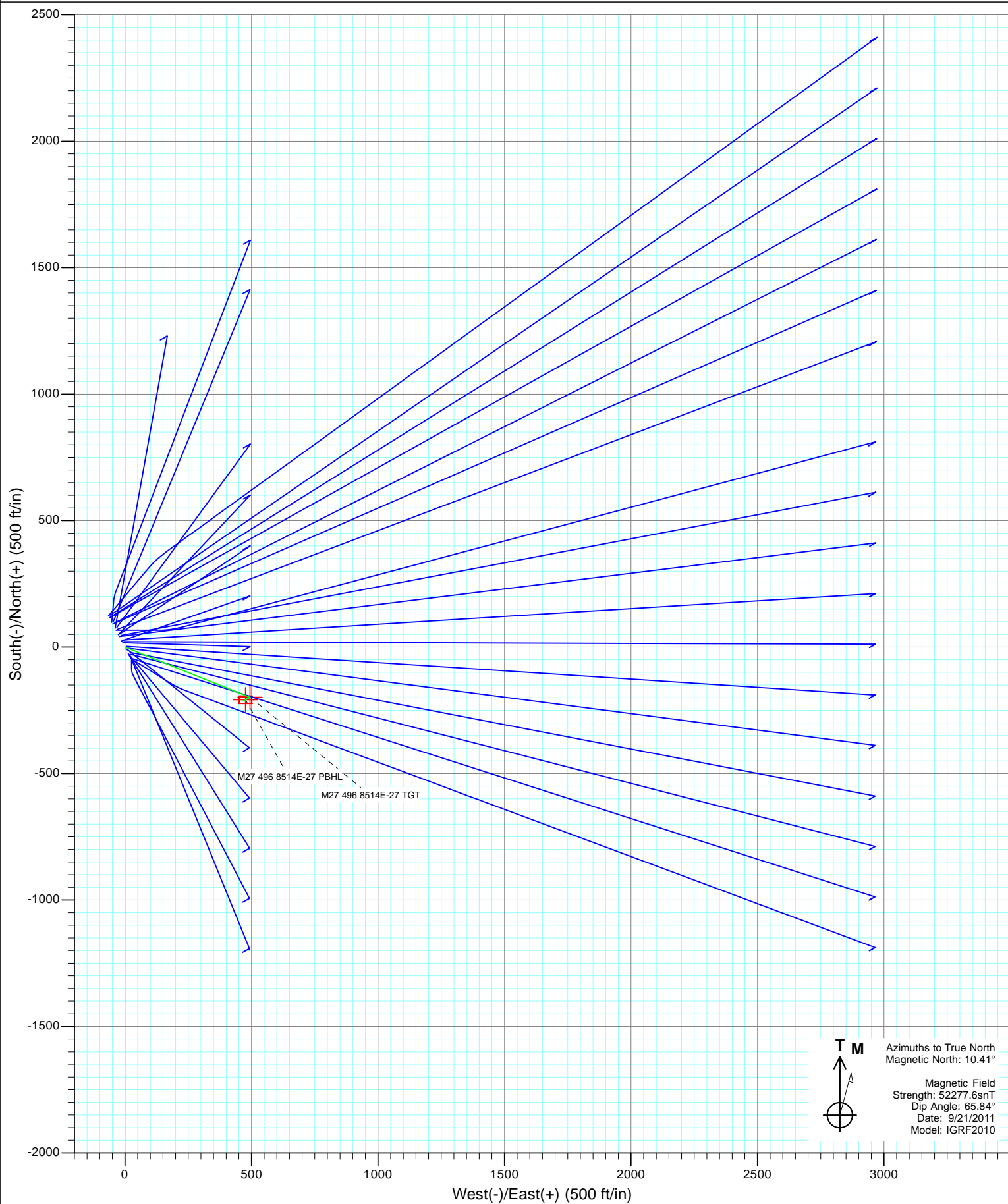


Project: Story Gulch  
Site: S27-T4S-R96W (M27 496)  
Well: 8514E-27 M27 496  
Wellbore: DD  
Design: Plan #2



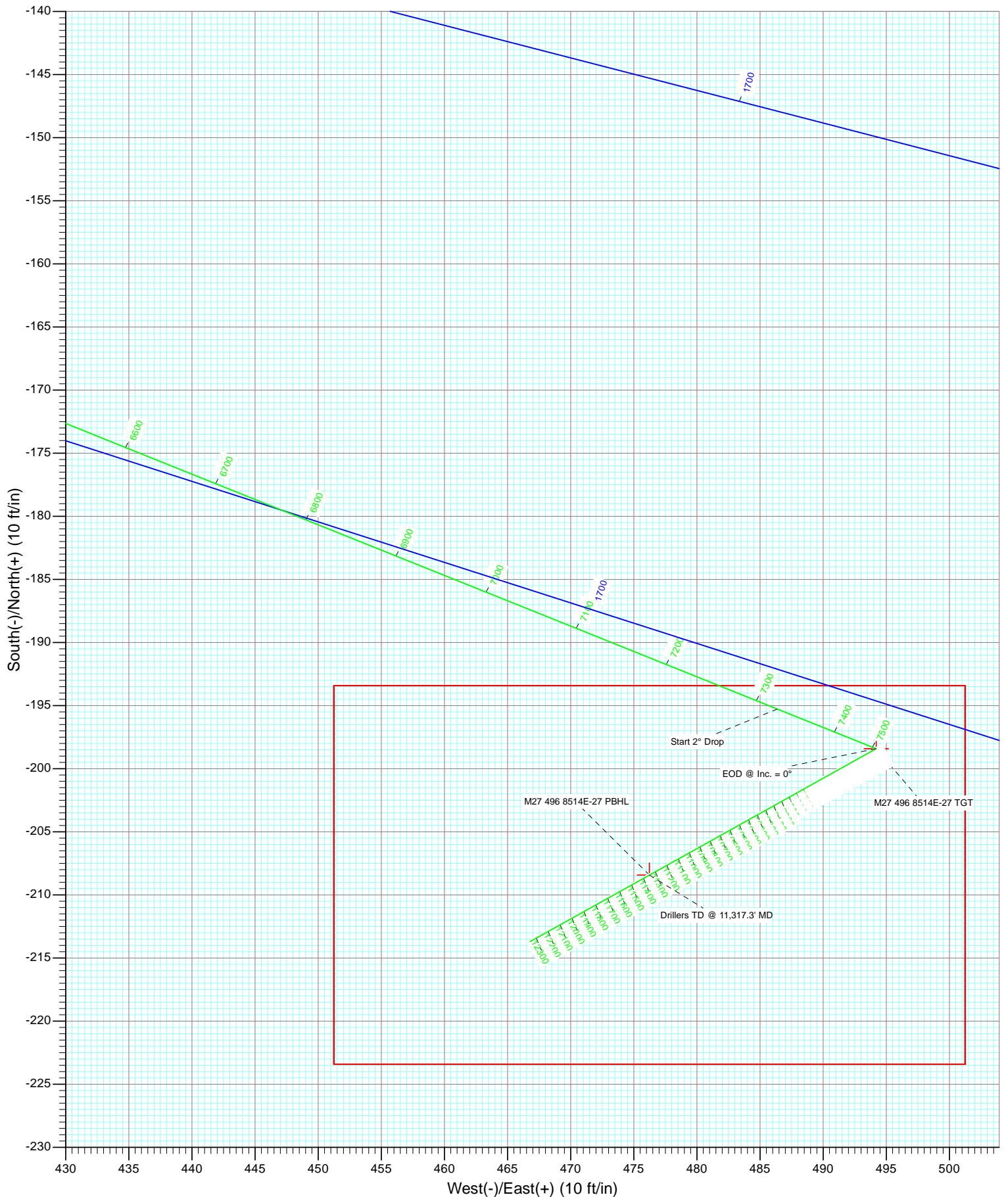


Project: Story Gulch  
Site: S27-T4S-R96W (M27 496)  
Well: 8514E-27 M27 496  
Wellbore: DD  
Design: Plan #2





Project: Story Gulch  
Site: S27-T4S-R96W (M27 496)  
Well: 8514E-27 M27 496  
Wellbore: DD  
Design: Plan #2



# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well 8514E-27 M27 496
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Project:</b>	Story Gulch	<b>MD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Site:</b>	S27-T4S-R96W (M27 496)	<b>North Reference:</b>	True
<b>Well:</b>	8514E-27 M27 496	<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		

Site		S27-T4S-R96W (M27 496)			
Site Position:		Northing:	1,678,990.24 ft	Latitude:	39° 40' 3.01 N
From:	Lat/Long	Easting:	2,251,008.33 ft	Longitude:	108° 9' 39.57 W
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	-1.68 °

Well	8514E-27 M27 496					
Well Position	+N/-S	0.0 ft	Northing:	1,679,015.91 ft	Latitude:	39° 40' 3.26 N
	+E/-W	0.0 ft	Easting:	2,250,995.78 ft	Longitude:	108° 9' 39.74 W
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	8,099.0 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	9/21/2011	10.41	65.84	52,278

<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	113.64

<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	
400.0	0.00	0.00	400.0	0.0	0.0	0.00	0.00	0.00	0.00	
619.9	4.40	111.87	619.7	-3.1	7.8	2.00	2.00	0.00	111.87	
7,343.3	4.40	111.87	7,323.3	-195.3	486.4	0.00	0.00	0.00	0.00	
7,563.2	0.00	0.00	7,543.0	-198.4	494.2	2.00	-2.00	0.00	180.00	M27 496 8514E-27 T
11,371.3	0.62	240.87	11,351.0	-208.4	476.2	0.02	0.02	-3.13	240.87	M27 496 8514E-27 PI
12,371.4	0.62	240.87	12,351.0	-213.7	466.8	0.00	0.00	0.00	0.00	

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well 8514E-27 M27 496
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Project:</b>	Story Gulch	<b>MD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Site:</b>	S27-T4S-R96W (M27 496)	<b>North Reference:</b>	True
<b>Well:</b>	8514E-27 M27 496	<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	KOP @ 400'
500.0	2.00	111.87	500.0	-0.7	1.6	1.7	2.00	2.00	
600.0	4.00	111.87	599.8	-2.6	6.5	7.0	2.00	2.00	
619.9	4.40	111.87	619.7	-3.1	7.8	8.4	2.00	2.00	EOB @ Inc. = 4.4°
700.0	4.40	111.87	699.5	-5.4	13.5	14.6	0.00	0.00	
800.0	4.40	111.87	799.3	-8.3	20.6	22.2	0.00	0.00	
900.0	4.40	111.87	899.0	-11.1	27.8	29.9	0.00	0.00	
1,000.0	4.40	111.87	998.7	-14.0	34.9	37.6	0.00	0.00	
1,045.5	4.40	111.87	1,044.0	-15.3	38.1	41.1	0.00	0.00	A_GROOVE (TVD)
1,100.0	4.40	111.87	1,098.4	-16.9	42.0	45.2	0.00	0.00	
1,198.9	4.40	111.87	1,197.0	-19.7	49.0	52.8	0.00	0.00	B_GROOVE (TVD)
1,200.0	4.40	111.87	1,198.1	-19.7	49.1	52.9	0.00	0.00	
1,300.0	4.40	111.87	1,297.8	-22.6	56.2	60.6	0.00	0.00	
1,400.0	4.40	111.87	1,397.5	-25.4	63.4	68.2	0.00	0.00	
1,500.0	4.40	111.87	1,497.2	-28.3	70.5	75.9	0.00	0.00	
1,600.0	4.40	111.87	1,596.9	-31.2	77.6	83.6	0.00	0.00	
1,700.0	4.40	111.87	1,696.6	-34.0	84.7	91.2	0.00	0.00	
1,800.0	4.40	111.87	1,796.3	-36.9	91.8	98.9	0.00	0.00	
1,900.0	4.40	111.87	1,896.0	-39.7	98.9	106.6	0.00	0.00	
2,000.0	4.40	111.87	1,995.7	-42.6	106.1	114.2	0.00	0.00	
2,100.0	4.40	111.87	2,095.4	-45.4	113.2	121.9	0.00	0.00	
2,166.8	4.40	111.87	2,162.0	-47.3	117.9	127.0	0.00	0.00	Garden Gulch Member (TVD)
2,200.0	4.40	111.87	2,195.1	-48.3	120.3	129.6	0.00	0.00	
2,300.0	4.40	111.87	2,294.8	-51.2	127.4	137.2	0.00	0.00	
2,400.0	4.40	111.87	2,394.5	-54.0	134.5	144.9	0.00	0.00	
2,500.0	4.40	111.87	2,494.2	-56.9	141.6	152.6	0.00	0.00	
2,600.0	4.40	111.87	2,594.0	-59.7	148.8	160.2	0.00	0.00	
2,700.0	4.40	111.87	2,693.7	-62.6	155.9	167.9	0.00	0.00	
2,800.0	4.40	111.87	2,793.4	-65.4	163.0	175.6	0.00	0.00	
2,900.0	4.40	111.87	2,893.1	-68.3	170.1	183.2	0.00	0.00	
3,000.0	4.40	111.87	2,992.8	-71.2	177.2	190.9	0.00	0.00	
3,100.0	4.40	111.87	3,092.5	-74.0	184.4	198.6	0.00	0.00	
3,200.0	4.40	111.87	3,192.2	-76.9	191.5	206.2	0.00	0.00	
3,300.0	4.40	111.87	3,291.9	-79.7	198.6	213.9	0.00	0.00	
3,400.0	4.40	111.87	3,391.6	-82.6	205.7	221.6	0.00	0.00	
3,500.0	4.40	111.87	3,491.3	-85.4	212.8	229.2	0.00	0.00	
3,600.0	4.40	111.87	3,591.0	-88.3	219.9	236.9	0.00	0.00	
3,700.0	4.40	111.87	3,690.7	-91.2	227.1	244.6	0.00	0.00	
3,800.0	4.40	111.87	3,790.4	-94.0	234.2	252.2	0.00	0.00	
3,900.0	4.40	111.87	3,890.1	-96.9	241.3	259.9	0.00	0.00	
4,000.0	4.40	111.87	3,989.8	-99.7	248.4	267.6	0.00	0.00	
4,100.0	4.40	111.87	4,089.5	-102.6	255.5	275.2	0.00	0.00	
4,200.0	4.40	111.87	4,189.2	-105.4	262.6	282.9	0.00	0.00	
4,300.0	4.40	111.87	4,288.9	-108.3	269.8	290.6	0.00	0.00	
4,400.0	4.40	111.87	4,388.6	-111.2	276.9	298.2	0.00	0.00	
4,500.0	4.40	111.87	4,488.4	-114.0	284.0	305.9	0.00	0.00	
4,600.0	4.40	111.87	4,588.1	-116.9	291.1	313.6	0.00	0.00	
4,700.0	4.40	111.87	4,687.8	-119.7	298.2	321.2	0.00	0.00	

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well 8514E-27 M27 496
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Project:</b>	Story Gulch	<b>MD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Site:</b>	S27-T4S-R96W (M27 496)	<b>North Reference:</b>	True
<b>Well:</b>	8514E-27 M27 496	<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	4.40	111.87	4,787.5	-122.6	305.3	328.9	0.00	0.00	
4,900.0	4.40	111.87	4,887.2	-125.5	312.5	336.6	0.00	0.00	
5,000.0	4.40	111.87	4,986.9	-128.3	319.6	344.2	0.00	0.00	
5,100.0	4.40	111.87	5,086.6	-131.2	326.7	351.9	0.00	0.00	
5,200.0	4.40	111.87	5,186.3	-134.0	333.8	359.5	0.00	0.00	
5,300.0	4.40	111.87	5,286.0	-136.9	340.9	367.2	0.00	0.00	
5,354.2	4.40	111.87	5,340.0	-138.4	344.8	371.4	0.00	0.00	WASATCH_G (TVD)
5,400.0	4.40	111.87	5,385.7	-139.7	348.1	374.9	0.00	0.00	
5,500.0	4.40	111.87	5,485.4	-142.6	355.2	382.5	0.00	0.00	
5,600.0	4.40	111.87	5,585.1	-145.5	362.3	390.2	0.00	0.00	
5,700.0	4.40	111.87	5,684.8	-148.3	369.4	397.9	0.00	0.00	
5,800.0	4.40	111.87	5,784.5	-151.2	376.5	405.5	0.00	0.00	
5,900.0	4.40	111.87	5,884.2	-154.0	383.6	413.2	0.00	0.00	
6,000.0	4.40	111.87	5,983.9	-156.9	390.8	420.9	0.00	0.00	
6,100.0	4.40	111.87	6,083.6	-159.7	397.9	428.5	0.00	0.00	
6,200.0	4.40	111.87	6,183.3	-162.6	405.0	436.2	0.00	0.00	
6,300.0	4.40	111.87	6,283.1	-165.5	412.1	443.9	0.00	0.00	
6,400.0	4.40	111.87	6,382.8	-168.3	419.2	451.5	0.00	0.00	
6,500.0	4.40	111.87	6,482.5	-171.2	426.3	459.2	0.00	0.00	
6,600.0	4.40	111.87	6,582.2	-174.0	433.5	466.9	0.00	0.00	
6,700.0	4.40	111.87	6,681.9	-176.9	440.6	474.5	0.00	0.00	
6,800.0	4.40	111.87	6,781.6	-179.7	447.7	482.2	0.00	0.00	
6,900.0	4.40	111.87	6,881.3	-182.6	454.8	489.9	0.00	0.00	
7,000.0	4.40	111.87	6,981.0	-185.5	461.9	497.5	0.00	0.00	
7,100.0	4.40	111.87	7,080.7	-188.3	469.1	505.2	0.00	0.00	
7,200.0	4.40	111.87	7,180.4	-191.2	476.2	512.9	0.00	0.00	
7,300.0	4.40	111.87	7,280.1	-194.0	483.3	520.5	0.00	0.00	
7,343.3	4.40	111.87	7,323.3	-195.3	486.4	523.9	0.00	0.00	Start 2° Drop
7,400.0	3.26	111.87	7,379.9	-196.7	489.9	527.6	2.00	-2.00	
7,500.0	1.26	111.87	7,479.8	-198.2	493.6	531.6	2.00	-2.00	
7,523.2	0.80	111.87	7,503.0	-198.3	493.9	532.0	2.00	-2.00	WILLIAMS_FORK (TVD)
7,563.2	0.00	0.00	7,543.0	-198.4	494.2	532.3	2.00	-2.00	EOD @ Inc. = 0° - TOG (TVD)
7,600.0	0.01	240.87	7,579.8	-198.4	494.2	532.3	0.02	0.02	
7,700.0	0.02	240.87	7,679.8	-198.4	494.2	532.3	0.02	0.02	
7,800.0	0.04	240.87	7,779.8	-198.5	494.1	532.2	0.02	0.02	
7,900.0	0.05	240.87	7,879.8	-198.5	494.1	532.2	0.02	0.02	
8,000.0	0.07	240.87	7,979.8	-198.5	494.0	532.1	0.02	0.02	
8,100.0	0.09	240.87	8,079.8	-198.6	493.8	532.0	0.02	0.02	
8,200.0	0.10	240.87	8,179.8	-198.7	493.7	531.9	0.02	0.02	
8,300.0	0.12	240.87	8,279.8	-198.8	493.5	531.8	0.02	0.02	
8,400.0	0.14	240.87	8,379.8	-198.9	493.3	531.7	0.02	0.02	
8,500.0	0.15	240.87	8,479.8	-199.0	493.1	531.5	0.02	0.02	
8,600.0	0.17	240.87	8,579.8	-199.2	492.9	531.4	0.02	0.02	
8,700.0	0.18	240.87	8,679.8	-199.3	492.6	531.2	0.02	0.02	
8,772.2	0.20	240.87	8,752.0	-199.4	492.4	531.0	0.02	0.02	PRICE_Marker (TVD)
8,800.0	0.20	240.87	8,779.8	-199.5	492.3	531.0	0.02	0.02	
8,900.0	0.22	240.87	8,879.8	-199.7	492.0	530.8	0.02	0.02	
9,000.0	0.23	240.87	8,979.8	-199.8	491.6	530.5	0.02	0.02	
9,100.0	0.25	240.87	9,079.8	-200.0	491.3	530.3	0.02	0.02	
9,200.0	0.27	240.87	9,179.8	-200.3	490.9	530.0	0.02	0.02	
9,300.0	0.28	240.87	9,279.8	-200.5	490.5	529.7	0.02	0.02	
9,400.0	0.30	240.87	9,379.8	-200.7	490.0	529.4	0.02	0.02	



# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well 8514E-27 M27 496
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Project:</b>	Story Gulch	<b>MD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Site:</b>	S27-T4S-R96W (M27 496)	<b>North Reference:</b>	True
<b>Well:</b>	8514E-27 M27 496	<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
9,500.0	0.31	240.87	9,479.8	-201.0	489.6	529.1	0.02	0.02	
9,600.0	0.33	240.87	9,579.8	-201.3	489.1	528.7	0.02	0.02	
9,700.0	0.35	240.87	9,679.8	-201.6	488.5	528.4	0.02	0.02	
9,800.0	0.36	240.87	9,779.7	-201.9	488.0	528.0	0.02	0.02	
9,900.0	0.38	240.87	9,879.7	-202.2	487.4	527.6	0.02	0.02	
10,000.0	0.40	240.87	9,979.7	-202.5	486.8	527.2	0.02	0.02	
10,100.0	0.41	240.87	10,079.7	-202.9	486.2	526.8	0.02	0.02	
10,200.0	0.43	240.87	10,179.7	-203.2	485.6	526.3	0.02	0.02	
10,300.0	0.44	240.87	10,279.7	-203.6	484.9	525.9	0.02	0.02	
10,400.0	0.46	240.87	10,379.7	-204.0	484.2	525.4	0.02	0.02	
10,500.0	0.48	240.87	10,479.7	-204.4	483.5	524.9	0.02	0.02	
10,600.0	0.49	240.87	10,579.7	-204.8	482.8	524.4	0.02	0.02	
10,621.3	0.50	240.87	10,601.0	-204.9	482.6	524.3	0.02	0.02	CAMEO (TVD)
10,700.0	0.51	240.87	10,679.7	-205.2	482.0	523.8	0.02	0.02	
10,800.0	0.53	240.87	10,779.7	-205.7	481.2	523.3	0.02	0.02	
10,900.0	0.54	240.87	10,879.7	-206.1	480.4	522.7	0.02	0.02	
11,000.0	0.56	240.87	10,979.7	-206.6	479.6	522.2	0.02	0.02	
11,100.0	0.57	240.87	11,079.7	-207.1	478.7	521.6	0.02	0.02	
11,200.0	0.59	240.87	11,179.7	-207.5	477.8	520.9	0.02	0.02	
11,221.3	0.60	240.87	11,201.0	-207.7	477.6	520.8	0.02	0.02	ROLLINS (TVD)
11,300.0	0.61	240.87	11,279.7	-208.1	476.9	520.3	0.02	0.02	
11,371.3	0.62	240.87	11,351.0	-208.4	476.2	519.8	0.02	0.02	Drillers TD @ 11,317.3' MD
11,400.0	0.62	240.87	11,379.7	-208.6	476.0	519.7	0.00	0.00	
11,431.3	0.62	240.87	11,411.0	-208.7	475.7	519.5	0.00	0.00	COZZETTE (TVD)
11,500.0	0.62	240.87	11,479.7	-209.1	475.0	519.0	0.00	0.00	
11,600.0	0.62	240.87	11,579.7	-209.6	474.1	518.3	0.00	0.00	
11,634.3	0.62	240.87	11,614.0	-209.8	473.7	518.1	0.00	0.00	CORCORAN (TVD)
11,700.0	0.62	240.87	11,679.7	-210.2	473.1	517.7	0.00	0.00	
11,800.0	0.62	240.87	11,779.7	-210.7	472.2	517.0	0.00	0.00	
11,849.3	0.62	240.87	11,829.0	-210.9	471.7	516.7	0.00	0.00	UPPER_SEGO (TVD)
11,900.0	0.62	240.87	11,879.7	-211.2	471.2	516.4	0.00	0.00	
12,000.0	0.62	240.87	11,979.7	-211.7	470.3	515.7	0.00	0.00	
12,099.4	0.62	240.87	12,079.0	-212.3	469.4	515.1	0.00	0.00	SEGO_BASE_TARGET (TVD)
12,100.0	0.62	240.87	12,079.6	-212.3	469.4	515.1	0.00	0.00	
12,200.0	0.62	240.87	12,179.6	-212.8	468.4	514.4	0.00	0.00	
12,300.0	0.62	240.87	12,279.6	-213.3	467.5	513.8	0.00	0.00	
12,371.4	0.62	240.87	12,351.0	-213.7	466.8	513.3	0.00	0.00	Permit TD @ 12,371.4' MD

### Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- hit/miss target									
- Shape									
M27 496 8514E-27 PBH	0.00	0.00	11,351.0	-208.4	476.2	1,678,793.62	2,251,465.70	39° 40' 1.20 N	108° 9' 33.65 W
- plan hits target center									
- Rectangle (sides W30.0 H50.0 D0.0)									
M27 496 8514E-27 TGT	0.00	0.00	7,543.0	-198.4	494.2	1,678,803.11	2,251,483.96	39° 40' 1.30 N	108° 9' 33.42 W
- plan hits target center									
- Point									



# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well 8514E-27 M27 496
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Project:</b>	Story Gulch	<b>MD Reference:</b>	KBE @ 8121.0ft (Original Well Elev)
<b>Site:</b>	S27-T4S-R96W (M27 496)	<b>North Reference:</b>	True
<b>Well:</b>	8514E-27 M27 496	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	DD		
<b>Design:</b>	Plan #2		

### Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,045.5	1,044.0	A_GROOVE (TVD)			
1,198.9	1,197.0	B_GROOVE (TVD)			
2,166.8	2,162.0	Garden Gulch Member (TVD)			
5,354.2	5,340.0	WASATCH_G (TVD)			
7,523.2	7,503.0	WILLIAMS_FORK (TVD)			
7,563.2	7,543.0	TOG (TVD)			
8,772.2	8,752.0	PRICE_Marker (TVD)			
10,621.3	10,601.0	CAMEO (TVD)			
11,221.3	11,201.0	ROLLINS (TVD)			
11,431.3	11,411.0	COZZETTE (TVD)			
11,634.3	11,614.0	CORCORAN (TVD)			
11,849.3	11,829.0	UPPER_SEGO (TVD)			
12,099.4	12,079.0	SEGO_BASE_TARGET (TVD)			

### Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
400.0	400.0	0.0	0.0	KOP @ 400'
619.9	619.7	-3.1	7.8	EOB @ Inc. = 4.4°
7,343.3	7,323.3	-195.3	486.4	Start 2° Drop
7,563.2	7,543.0	-198.4	494.2	EOD @ Inc. = 0°
11,371.3	11,351.0	-208.4	476.2	Drillers TD @ 11,317.3' MD
12,371.4	12,351.0	-213.7	466.8	Permit TD @ 12,371.4' MD