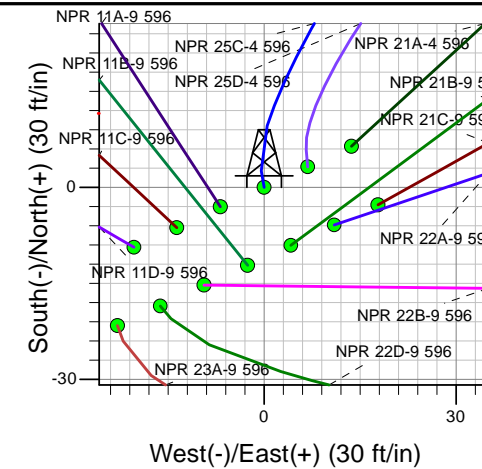
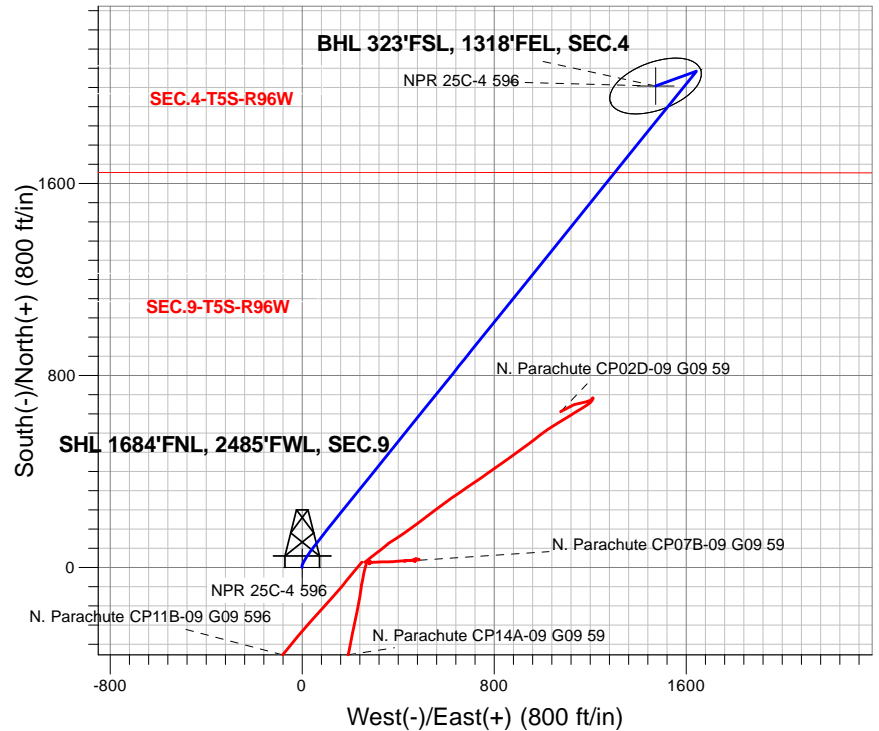
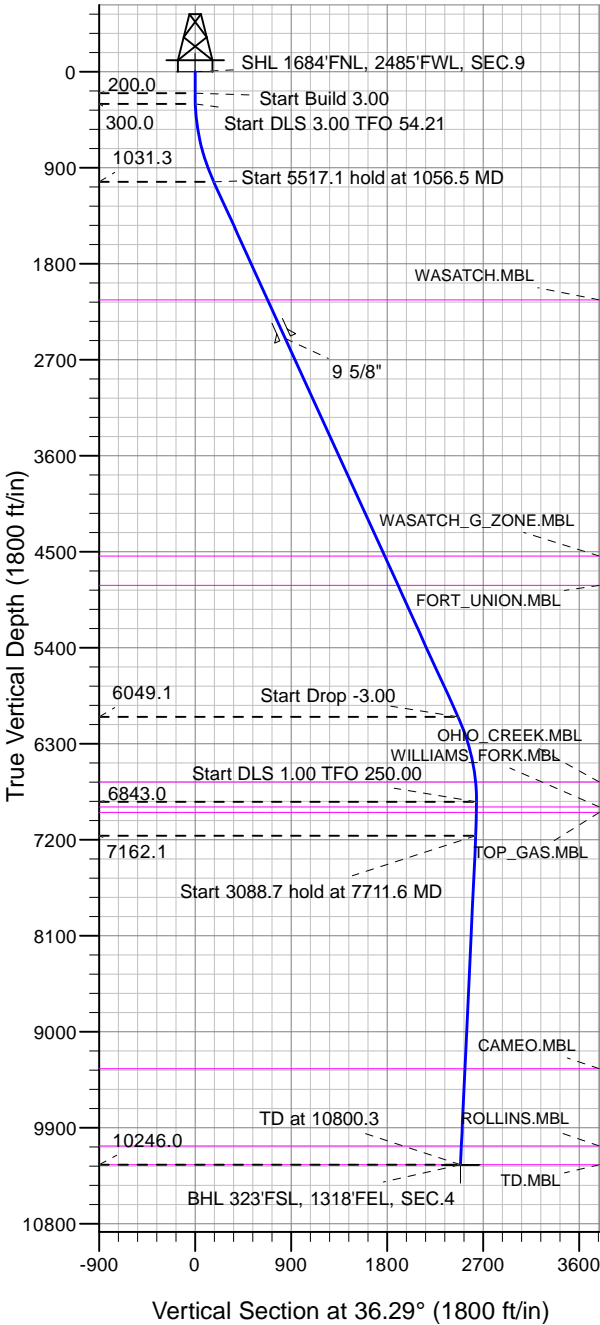
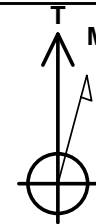


### Caerus Oil and Gas LLC



NPR 25C-4 596  
 Plan #2 (3-06-18)  
 8:55, March 16 2018



Azimuths to True North  
 Magnetic North: 9.62°  
 Magnetic Field  
 Strength: 51484.8snT  
 Dip Angle: 65.85°  
 Date: 3/16/2018  
 Model: HDGM

#### DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
SHL 1684'FNL, 2485'FWL, SEC.9	1.0	0.0	0.0	39.632217	-108.174073	Point
BHL 323'FSL, 1318'FEL, SEC.4	10246.0	2005.5	1472.8	39.637723	-108.168844	Ellipse (Radii: L200.0 W100.0)

#### 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	300.0	3.00	350.00	300.0	2.6	-0.5	3.00	350.00	1.8	
4	1056.5	24.56	38.84	1031.3	146.4	96.0	3.00	54.21	174.8	
5	6573.6	24.56	38.84	6049.1	1932.8	1534.4	0.00	0.00	2466.0	
6	7392.4	0.00	0.00	6843.0	2067.4	1642.8	3.00	180.00	2638.7	
7	7711.6	3.19	250.00	7162.1	2064.4	1634.4	1.00	250.00	2631.3	
8	10800.3	3.19	250.00	10246.0	2005.5	1472.8	0.00	0.00	2488.2	BHL 323'FSL, 1318'FEL, SEC.4



## **Caerus Oil and Gas LLC**

**SEC.9-T5S-R96W**

**NPR G09 596 Pad Sec.9-T5S-R96W**

**NPR 25C-4 596**

**Wellbore #1**

**Plan: Plan #2 (3-06-18)**

## **Standard Planning Report**

**16 March, 2018**

<b>Database:</b>	US_EDM	<b>Local Co-ordinate Reference:</b>	Well NPR 25C-4 596
<b>Company:</b>	Caerus Oil and Gas LLC	<b>TVD Reference:</b>	WELL @ 7670.0ft (Original Well Elev)
<b>Project:</b>	SEC.9-T5S-R96W	<b>MD Reference:</b>	WELL @ 7670.0ft (Original Well Elev)
<b>Site:</b>	NPR G09 596 Pad Sec.9-T5S-R96W	<b>North Reference:</b>	True
<b>Well:</b>	NPR 25C-4 596	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #2 (3-06-18)		

<b>Project</b>	SEC.9-T5S-R96W, Garfield County, CO		
<b>Map System:</b>	Universal Transverse Mercator (US Survey Feet)	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	NAD 1927 - Western US		Using Well Reference Point
<b>Map Zone:</b>	Zone 12N (114 W to 108 W)		Using geodetic scale factor

<b>Site</b>	NPR G09 596 Pad Sec.9-T5S-R96W		
<b>Site Position:</b>		<b>Northing:</b>	14,404,590.33 usft
<b>From:</b>	Lat/Long	<b>Easting:</b>	2,436,015.01 usft
<b>Position Uncertainty:</b>	0.0 ft	<b>Slot Radius:</b>	13-3/16 "
		<b>Latitude:</b>	39.632067
		<b>Longitude:</b>	-108.174492
		<b>Grid Convergence:</b>	1.80 °

<b>Well</b>	NPR 25C-4 596		
<b>Well Position</b>	<b>+N/-S</b>	54.6 ft	<b>Northing:</b>
	<b>+E/-W</b>	117.9 ft	<b>Easting:</b>
<b>Position Uncertainty</b>	0.0 ft	<b>Wellhead Elevation:</b>	0.0 ft
		<b>Latitude:</b>	39.632217
		<b>Longitude:</b>	-108.174073
		<b>Ground Level:</b>	7,640.0 ft

<b>Wellbore</b>	Wellbore #1				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	HDGM	3/16/2018	9.62	65.85	51,485

<b>Design</b>	Plan #2 (3-06-18)			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PROTOTYPE	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD)</b>	<b>+N/-S</b>	<b>+E/-W</b>	<b>Direction</b>
	(ft)	(ft)	(ft)	(°)
	0.0	0.0	0.0	36.29

<b>Plan Sections</b>										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	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	
300.0	3.00	350.00	300.0	2.6	-0.5	3.00	3.00	0.00	350.00	
1,056.5	24.56	38.84	1,031.3	146.4	96.0	3.00	2.85	6.46	54.21	
6,573.6	24.56	38.84	6,049.1	1,932.8	1,534.4	0.00	0.00	0.00	0.00	
7,392.4	0.00	0.00	6,843.0	2,067.4	1,642.8	3.00	-3.00	0.00	180.00	
7,711.6	3.19	250.00	7,162.1	2,064.4	1,634.4	1.00	1.00	-34.46	250.00	
10,800.3	3.19	250.00	10,246.0	2,005.5	1,472.8	0.00	0.00	0.00	0.00	BHL 323'FSL, 1318'FI

<b>Database:</b>	US_EDM	<b>Local Co-ordinate Reference:</b>	Well NPR 25C-4 596
<b>Company:</b>	Caerus Oil and Gas LLC	<b>TVD Reference:</b>	WELL @ 7670.0ft (Original Well Elev)
<b>Project:</b>	SEC.9-T5S-R96W	<b>MD Reference:</b>	WELL @ 7670.0ft (Original Well Elev)
<b>Site:</b>	NPR G09 596 Pad Sec.9-T5S-R96W	<b>North Reference:</b>	True
<b>Well:</b>	NPR 25C-4 596	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #2 (3-06-18)		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
1.0	0.00	0.00	1.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>SHL 1684'FNL, 2485'FWL, SEC.9</b>									
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	3.00	350.00	300.0	2.6	-0.5	1.8	3.00	3.00	0.00
400.0	5.34	17.14	399.7	9.6	0.5	8.0	3.00	2.34	27.14
500.0	8.13	26.86	499.0	20.4	5.0	19.4	3.00	2.79	9.72
600.0	11.02	31.58	597.6	34.8	13.2	35.9	3.00	2.90	4.72
700.0	13.96	34.34	695.2	52.9	25.0	57.5	3.00	2.94	2.76
800.0	16.93	36.15	791.6	74.6	40.4	84.1	3.00	2.96	1.81
900.0	19.90	37.43	886.5	99.9	59.4	115.7	3.00	2.97	1.28
1,000.0	22.88	38.40	979.6	128.7	81.8	152.1	3.00	2.98	0.96
1,056.5	24.56	38.84	1,031.3	146.4	96.0	174.8	3.00	2.98	0.79
1,100.0	24.56	38.84	1,070.9	160.5	107.3	192.9	0.00	0.00	0.00
1,200.0	24.56	38.84	1,161.8	192.9	133.4	234.4	0.00	0.00	0.00
1,300.0	24.56	38.84	1,252.8	225.3	159.5	276.0	0.00	0.00	0.00
1,400.0	24.56	38.84	1,343.7	257.7	185.5	317.5	0.00	0.00	0.00
1,500.0	24.56	38.84	1,434.7	290.0	211.6	359.0	0.00	0.00	0.00
1,600.0	24.56	38.84	1,525.6	322.4	237.7	400.6	0.00	0.00	0.00
1,700.0	24.56	38.84	1,616.6	354.8	263.8	442.1	0.00	0.00	0.00
1,800.0	24.56	38.84	1,707.5	387.2	289.8	483.6	0.00	0.00	0.00
1,900.0	24.56	38.84	1,798.5	419.5	315.9	525.1	0.00	0.00	0.00
2,000.0	24.56	38.84	1,889.4	451.9	342.0	566.7	0.00	0.00	0.00
2,100.0	24.56	38.84	1,980.4	484.3	368.0	608.2	0.00	0.00	0.00
2,200.0	24.56	38.84	2,071.3	516.7	394.1	649.7	0.00	0.00	0.00
2,274.4	24.56	38.84	2,139.0	540.8	413.5	680.6	0.00	0.00	0.00
<b>WASATCH.MBL</b>									
2,300.0	24.56	38.84	2,162.3	549.1	420.2	691.3	0.00	0.00	0.00
2,400.0	24.56	38.84	2,253.2	581.4	446.3	732.8	0.00	0.00	0.00
2,500.0	24.56	38.84	2,344.2	613.8	472.3	774.3	0.00	0.00	0.00
2,600.0	24.56	38.84	2,435.1	646.2	498.4	815.8	0.00	0.00	0.00
2,671.4	24.56	38.84	2,500.0	669.3	517.0	845.5	0.00	0.00	0.00
<b>9 5/8"</b>									
2,700.0	24.56	38.84	2,526.1	678.6	524.5	857.4	0.00	0.00	0.00
2,800.0	24.56	38.84	2,617.0	710.9	550.6	898.9	0.00	0.00	0.00
2,900.0	24.56	38.84	2,708.0	743.3	576.6	940.4	0.00	0.00	0.00
3,000.0	24.56	38.84	2,798.9	775.7	602.7	982.0	0.00	0.00	0.00
3,100.0	24.56	38.84	2,889.9	808.1	628.8	1,023.5	0.00	0.00	0.00
3,200.0	24.56	38.84	2,980.8	840.5	654.8	1,065.0	0.00	0.00	0.00
3,300.0	24.56	38.84	3,071.8	872.8	680.9	1,106.6	0.00	0.00	0.00
3,400.0	24.56	38.84	3,162.7	905.2	707.0	1,148.1	0.00	0.00	0.00
3,500.0	24.56	38.84	3,253.7	937.6	733.1	1,189.6	0.00	0.00	0.00
3,600.0	24.56	38.84	3,344.6	970.0	759.1	1,231.1	0.00	0.00	0.00
3,700.0	24.56	38.84	3,435.6	1,002.4	785.2	1,272.7	0.00	0.00	0.00
3,800.0	24.56	38.84	3,526.5	1,034.7	811.3	1,314.2	0.00	0.00	0.00
3,900.0	24.56	38.84	3,617.5	1,067.1	837.3	1,355.7	0.00	0.00	0.00
4,000.0	24.56	38.84	3,708.4	1,099.5	863.4	1,397.3	0.00	0.00	0.00
4,100.0	24.56	38.84	3,799.4	1,131.9	889.5	1,438.8	0.00	0.00	0.00
4,200.0	24.56	38.84	3,890.3	1,164.2	915.6	1,480.3	0.00	0.00	0.00
4,300.0	24.56	38.84	3,981.3	1,196.6	941.6	1,521.8	0.00	0.00	0.00
4,400.0	24.56	38.84	4,072.2	1,229.0	967.7	1,563.4	0.00	0.00	0.00
4,500.0	24.56	38.84	4,163.2	1,261.4	993.8	1,604.9	0.00	0.00	0.00

<b>Database:</b>	US_EDM	<b>Local Co-ordinate Reference:</b>	Well NPR 25C-4 596
<b>Company:</b>	Caerus Oil and Gas LLC	<b>TVD Reference:</b>	WELL @ 7670.0ft (Original Well Elev)
<b>Project:</b>	SEC.9-T5S-R96W	<b>MD Reference:</b>	WELL @ 7670.0ft (Original Well Elev)
<b>Site:</b>	NPR G09 596 Pad Sec.9-T5S-R96W	<b>North Reference:</b>	True
<b>Well:</b>	NPR 25C-4 596	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #2 (3-06-18)		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,600.0	24.56	38.84	4,254.1	1,293.8	1,019.8	1,646.4	0.00	0.00	0.00
4,700.0	24.56	38.84	4,345.1	1,326.1	1,045.9	1,688.0	0.00	0.00	0.00
4,800.0	24.56	38.84	4,436.0	1,358.5	1,072.0	1,729.5	0.00	0.00	0.00
4,900.0	24.56	38.84	4,527.0	1,390.9	1,098.1	1,771.0	0.00	0.00	0.00
4,913.2	24.56	38.84	4,539.0	1,395.2	1,101.5	1,776.5	0.00	0.00	0.00
<b>WASATCH_G_ZONE.MBL</b>									
5,000.0	24.56	38.84	4,617.9	1,423.3	1,124.1	1,812.6	0.00	0.00	0.00
5,100.0	24.56	38.84	4,708.9	1,455.7	1,150.2	1,854.1	0.00	0.00	0.00
5,200.0	24.56	38.84	4,799.8	1,488.0	1,176.3	1,895.6	0.00	0.00	0.00
5,217.8	24.56	38.84	4,816.0	1,493.8	1,180.9	1,903.0	0.00	0.00	0.00
<b>FORT_UNION.MBL</b>									
5,300.0	24.56	38.84	4,890.8	1,520.4	1,202.4	1,937.1	0.00	0.00	0.00
5,400.0	24.56	38.84	4,981.7	1,552.8	1,228.4	1,978.7	0.00	0.00	0.00
5,500.0	24.56	38.84	5,072.7	1,585.2	1,254.5	2,020.2	0.00	0.00	0.00
5,600.0	24.56	38.84	5,163.6	1,617.5	1,280.6	2,061.7	0.00	0.00	0.00
5,700.0	24.56	38.84	5,254.5	1,649.9	1,306.6	2,103.3	0.00	0.00	0.00
5,800.0	24.56	38.84	5,345.5	1,682.3	1,332.7	2,144.8	0.00	0.00	0.00
5,900.0	24.56	38.84	5,436.4	1,714.7	1,358.8	2,186.3	0.00	0.00	0.00
6,000.0	24.56	38.84	5,527.4	1,747.1	1,384.9	2,227.8	0.00	0.00	0.00
6,100.0	24.56	38.84	5,618.3	1,779.4	1,410.9	2,269.4	0.00	0.00	0.00
6,200.0	24.56	38.84	5,709.3	1,811.8	1,437.0	2,310.9	0.00	0.00	0.00
6,300.0	24.56	38.84	5,800.2	1,844.2	1,463.1	2,352.4	0.00	0.00	0.00
6,400.0	24.56	38.84	5,891.2	1,876.6	1,489.1	2,394.0	0.00	0.00	0.00
6,500.0	24.56	38.84	5,982.1	1,909.0	1,515.2	2,435.5	0.00	0.00	0.00
6,573.6	24.56	38.84	6,049.1	1,932.8	1,534.4	2,466.0	0.00	0.00	0.00
6,600.0	23.77	38.84	6,073.2	1,941.2	1,541.2	2,476.9	3.00	-3.00	0.00
6,700.0	20.77	38.84	6,165.7	1,970.7	1,564.9	2,514.7	3.00	-3.00	0.00
6,800.0	17.77	38.84	6,260.1	1,996.4	1,585.6	2,547.7	3.00	-3.00	0.00
6,900.0	14.77	38.84	6,356.1	2,018.2	1,603.2	2,575.7	3.00	-3.00	0.00
7,000.0	11.77	38.84	6,453.4	2,036.1	1,617.6	2,598.6	3.00	-3.00	0.00
7,100.0	8.77	38.84	6,551.8	2,050.0	1,628.8	2,616.4	3.00	-3.00	0.00
7,200.0	5.77	38.84	6,651.0	2,059.9	1,636.7	2,629.1	3.00	-3.00	0.00
7,208.1	5.53	38.84	6,659.0	2,060.5	1,637.2	2,629.8	3.00	-3.00	0.00
<b>OHIO_CREEK.MBL</b>									
7,300.0	2.77	38.84	6,750.7	2,065.7	1,641.4	2,636.5	3.00	-3.00	0.00
7,392.4	0.00	0.00	6,843.0	2,067.4	1,642.8	2,638.7	3.00	-3.00	0.00
7,400.0	0.08	250.00	6,850.6	2,067.4	1,642.8	2,638.7	1.00	1.00	0.00
7,442.4	0.50	250.00	6,893.0	2,067.3	1,642.6	2,638.5	1.00	1.00	0.00
<b>WILLIAMS_FORK.MBL</b>									
7,492.4	1.00	250.00	6,943.0	2,067.1	1,642.0	2,638.0	1.00	1.00	0.00
<b>TOP_GAS.MBL</b>									
7,500.0	1.08	250.00	6,950.6	2,067.1	1,641.8	2,637.9	1.00	1.00	0.00
7,600.0	2.08	250.00	7,050.6	2,066.1	1,639.3	2,635.6	1.00	1.00	0.00
7,700.0	3.08	250.00	7,150.5	2,064.6	1,635.0	2,631.9	1.00	1.00	0.00
7,711.6	3.19	250.00	7,162.1	2,064.4	1,634.4	2,631.3	1.00	1.00	0.00
7,800.0	3.19	250.00	7,250.3	2,062.7	1,629.8	2,627.2	0.00	0.00	0.00
7,900.0	3.19	250.00	7,350.2	2,060.8	1,624.6	2,622.6	0.00	0.00	0.00
8,000.0	3.19	250.00	7,450.0	2,058.9	1,619.4	2,618.0	0.00	0.00	0.00
8,100.0	3.19	250.00	7,549.9	2,057.0	1,614.1	2,613.3	0.00	0.00	0.00
8,200.0	3.19	250.00	7,649.7	2,055.1	1,608.9	2,608.7	0.00	0.00	0.00
8,300.0	3.19	250.00	7,749.6	2,053.2	1,603.7	2,604.1	0.00	0.00	0.00
8,400.0	3.19	250.00	7,849.4	2,051.2	1,598.4	2,599.4	0.00	0.00	0.00
8,500.0	3.19	250.00	7,949.2	2,049.3	1,593.2	2,594.8	0.00	0.00	0.00
8,600.0	3.19	250.00	8,049.1	2,047.4	1,588.0	2,590.2	0.00	0.00	0.00

<b>Database:</b>	US_EDM	<b>Local Co-ordinate Reference:</b>	Well NPR 25C-4 596
<b>Company:</b>	Caerus Oil and Gas LLC	<b>TVD Reference:</b>	WELL @ 7670.0ft (Original Well Elev)
<b>Project:</b>	SEC.9-T5S-R96W	<b>MD Reference:</b>	WELL @ 7670.0ft (Original Well Elev)
<b>Site:</b>	NPR G09 596 Pad Sec.9-T5S-R96W	<b>North Reference:</b>	True
<b>Well:</b>	NPR 25C-4 596	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #2 (3-06-18)		

### Planned Survey

[illegible]

## Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
SHL 1684'FNL, 2485'FW - plan hits target center - Point	0.00	0.00	1.0	0.0	0.0	14,404,648.67	2,436,131.18	39.632217	-108.174073
BHL 323'FSL, 1318'FEL - plan hits target center - Ellipse (radii L200.0 W100.0 on 250.00 azi)	0.00	0.00	10,246.0	2,005.5	1,472.8	14,406,700.23	2,437,540.59	39.637723	-108.168844

### Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
2,671.4	2,500.0	9 5/8"	9-5/8	12-1/4

<b>Database:</b>	US_EDM	<b>Local Co-ordinate Reference:</b>	Well NPR 25C-4 596
<b>Company:</b>	Caerus Oil and Gas LLC	<b>TVD Reference:</b>	WELL @ 7670.0ft (Original Well Elev)
<b>Project:</b>	SEC.9-T5S-R96W	<b>MD Reference:</b>	WELL @ 7670.0ft (Original Well Elev)
<b>Site:</b>	NPR G09 596 Pad Sec.9-T5S-R96W	<b>North Reference:</b>	True
<b>Well:</b>	NPR 25C-4 596	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #2 (3-06-18)		

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
2,274.4	2,139.0	WASATCH.MBL		0.00	
4,913.2	4,539.0	WASATCH_G_ZONE.MBL		0.00	
5,217.8	4,816.0	FORT_UNION.MBL		0.00	
7,208.1	6,659.0	OHIO_CREEK.MBL		0.00	
7,442.4	6,893.0	WILLIAMS_FORK.MBL		0.00	
7,492.4	6,943.0	TOP_GAS.MBL		0.00	
9,897.9	9,345.0	CAMEO.MBL		0.00	
10,625.0	10,071.0	ROLLINS.MBL		0.00	
10,800.3	10,246.0	TD.MBL		0.00	