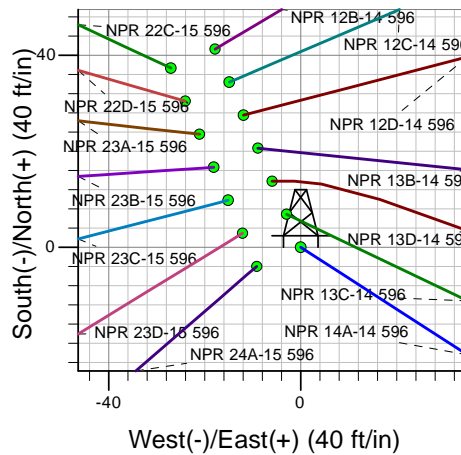
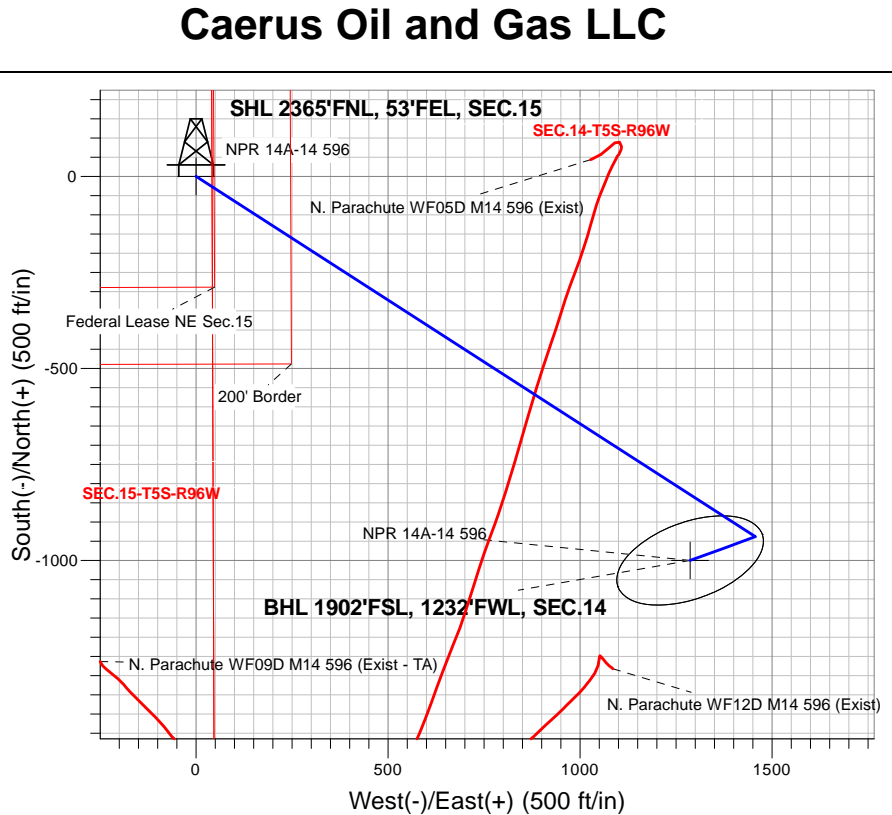
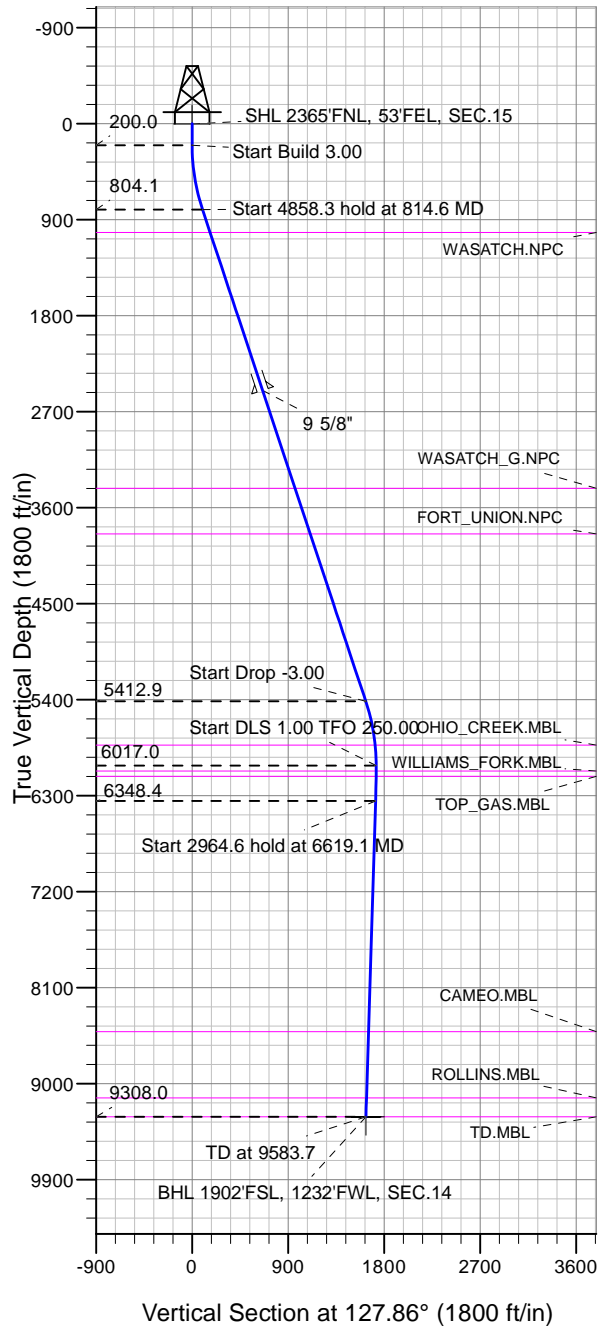


Well Name: **NPR 14A-14 596**  
 Surface Location: NPR H15 596 North Pad Sec.15-T5S-R96W  
 NAD 1927 - Western US , Universal Transverse Mercator (US Survey Feet)  
 Zone 12N (114 W to 108 W)  
 Ground Elevation: 6429.0  
 +N/-S+E/-W Northing Easting Latitude Longitude Slot  
 0.0 0.0 14398947.09 2444331.83 39.615866 -108.145626  
 Original Well Elev WELL @ 6453.0ft (Original Well Elev)



NPR 14A-14 596  
 Plan #1 (12-01-17)  
 10:01, December 15 2017



Azimuths to True North  
 Magnetic North: 9.63°  
 Magnetic Field  
 Strength: 51522.3snT  
 Dip Angle: 65.85°  
 Date: 12/15/2017  
 Model: HDGM

### DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
SHL 2365'FNL, 53'FEL, SEC.15	1.0	0.0	0.0	39.615866	-108.145626	Point
BHL 1902'FSL, 1232'FWL, SEC.14	9308.0	-1000.1	1286.6	39.613120	-108.141059	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	814.6	18.44	122.78	804.1	-53.1	82.4	3.00	122.78	97.7	
4	5672.9	18.44	122.78	5412.9	-885.1	1374.3	0.00	0.00	1628.2	
5	6287.5	0.00	0.00	6017.0	-938.2	1456.7	3.00	180.00	1725.9	
6	6619.1	3.32	250.00	6348.4	-941.5	1447.7	1.00	250.00	1720.8	
7	9583.7	3.32	250.00	9308.0	-1000.1	1286.6	0.00	0.00	1629.6	BHL 1902'FSL, 1232'FWL, SEC.14



## **Caerus Oil and Gas LLC**

**SEC.15-T5S-R96W**

**NPR H15 596 North Pad Sec.15-T5S-R96W**

**NPR 14A-14 596**

**Wellbore #1**

**Plan: Plan #1 (12-01-17)**

## **Standard Planning Report**

**15 December, 2017**

<b>Database:</b>	US_EDM	<b>Local Co-ordinate Reference:</b>	Well NPR 14A-14 596
<b>Company:</b>	Caerus Oil and Gas LLC	<b>TVD Reference:</b>	WELL @ 6453.0ft (Original Well Elev)
<b>Project:</b>	SEC.15-T5S-R96W	<b>MD Reference:</b>	WELL @ 6453.0ft (Original Well Elev)
<b>Site:</b>	NPR H15 596 North Pad Sec.15-T5S-R96W	<b>North Reference:</b>	True
<b>Well:</b>	NPR 14A-14 596	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (12-01-17)		

<b>Project</b>	SEC.15-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 H15 596 North Pad Sec.15-T5S-R96W			
<b>Site Position:</b>		<b>Northing:</b>	14,398,987.82 usft	<b>Latitude:</b> 39.615979
<b>From:</b>	Lat/Long	<b>Easting:</b>	2,444,312.67 usft	<b>Longitude:</b> -108.145689
<b>Position Uncertainty:</b>	0.0 ft	<b>Slot Radius:</b>	13-3/16 "	<b>Grid Convergence:</b> 1.82 °

Well	NPR 14A-14 596					
Well Position	+N/-S	-41.3 ft	Northing:	14,398,947.09 usft	Latitude:	39.615866
	+E/-W	17.9 ft	Easting:	2,444,331.84 usft	Longitude:	-108.145626
Position Uncertainty		0.0 ft	Wellhead Elevation:	0.0 ft	Ground Level:	6,429.0 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	12/15/2017	9.63	65.85	51,522

<b>Design</b>	Plan #1 (12-01-17)			
<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) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>
	0.0	0.0	0.0	127.86

<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	
814.6	18.44	122.78	804.1	-53.1	82.4	3.00	3.00	0.00	122.78	
5,672.9	18.44	122.78	5,412.9	-885.1	1,374.3	0.00	0.00	0.00	0.00	
6,287.5	0.00	0.00	6,017.0	-938.2	1,456.7	3.00	-3.00	0.00	180.00	
6,619.1	3.32	250.00	6,348.4	-941.5	1,447.7	1.00	1.00	-33.17	250.00	
9,583.7	3.32	250.00	9,308.0	-1,000.1	1,286.6	0.00	0.00	0.00	0.00	BHL 1902'FSL, 1232'I

<b>Database:</b>	US_EDM	<b>Local Co-ordinate Reference:</b>	Well NPR 14A-14 596
<b>Company:</b>	Caerus Oil and Gas LLC	<b>TVD Reference:</b>	WELL @ 6453.0ft (Original Well Elev)
<b>Project:</b>	SEC.15-T5S-R96W	<b>MD Reference:</b>	WELL @ 6453.0ft (Original Well Elev)
<b>Site:</b>	NPR H15 596 North Pad Sec.15-T5S-R96W	<b>North Reference:</b>	True
<b>Well:</b>	NPR 14A-14 596	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (12-01-17)		

### 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
SHL 2365'FNL, 53'FEL, SEC.15									
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	122.78	300.0	-1.4	2.2	2.6	3.00	3.00	0.00
400.0	6.00	122.78	399.6	-5.7	8.8	10.4	3.00	3.00	0.00
500.0	9.00	122.78	498.8	-12.7	19.8	23.4	3.00	3.00	0.00
600.0	12.00	122.78	597.1	-22.6	35.1	41.6	3.00	3.00	0.00
700.0	15.00	122.78	694.3	-35.2	54.7	64.8	3.00	3.00	0.00
800.0	18.00	122.78	790.2	-50.6	78.6	93.1	3.00	3.00	0.00
814.6	18.44	122.78	804.1	-53.1	82.4	97.7	3.00	3.00	0.00
900.0	18.44	122.78	885.1	-67.7	105.1	124.6	0.00	0.00	0.00
1,000.0	18.44	122.78	979.9	-84.8	131.7	156.1	0.00	0.00	0.00
1,040.1	18.44	122.78	1,018.0	-91.7	142.4	168.7	0.00	0.00	0.00
WASATCH.NPC									
1,100.0	18.44	122.78	1,074.8	-102.0	158.3	187.6	0.00	0.00	0.00
1,200.0	18.44	122.78	1,169.7	-119.1	184.9	219.1	0.00	0.00	0.00
1,300.0	18.44	122.78	1,264.5	-136.2	211.5	250.6	0.00	0.00	0.00
1,400.0	18.44	122.78	1,359.4	-153.3	238.1	282.1	0.00	0.00	0.00
1,500.0	18.44	122.78	1,454.3	-170.5	264.7	313.6	0.00	0.00	0.00
1,600.0	18.44	122.78	1,549.1	-187.6	291.3	345.1	0.00	0.00	0.00
1,700.0	18.44	122.78	1,644.0	-204.7	317.9	376.6	0.00	0.00	0.00
1,800.0	18.44	122.78	1,738.9	-221.9	344.4	408.1	0.00	0.00	0.00
1,900.0	18.44	122.78	1,833.7	-239.0	371.0	439.6	0.00	0.00	0.00
2,000.0	18.44	122.78	1,928.6	-256.1	397.6	471.1	0.00	0.00	0.00
2,100.0	18.44	122.78	2,023.5	-273.2	424.2	502.6	0.00	0.00	0.00
2,200.0	18.44	122.78	2,118.3	-290.4	450.8	534.1	0.00	0.00	0.00
2,300.0	18.44	122.78	2,213.2	-307.5	477.4	565.6	0.00	0.00	0.00
2,400.0	18.44	122.78	2,308.1	-324.6	504.0	597.1	0.00	0.00	0.00
2,500.0	18.44	122.78	2,402.9	-341.7	530.6	628.6	0.00	0.00	0.00
2,600.0	18.44	122.78	2,497.8	-358.9	557.2	660.1	0.00	0.00	0.00
2,602.3	18.44	122.78	2,500.0	-359.3	557.8	660.9	0.00	0.00	0.00
9 5/8"									
2,700.0	18.44	122.78	2,592.7	-376.0	583.8	691.6	0.00	0.00	0.00
2,800.0	18.44	122.78	2,687.5	-393.1	610.4	723.1	0.00	0.00	0.00
2,900.0	18.44	122.78	2,782.4	-410.2	636.9	754.7	0.00	0.00	0.00
3,000.0	18.44	122.78	2,877.3	-427.4	663.5	786.2	0.00	0.00	0.00
3,100.0	18.44	122.78	2,972.1	-444.5	690.1	817.7	0.00	0.00	0.00
3,200.0	18.44	122.78	3,067.0	-461.6	716.7	849.2	0.00	0.00	0.00
3,300.0	18.44	122.78	3,161.9	-478.7	743.3	880.7	0.00	0.00	0.00
3,400.0	18.44	122.78	3,256.7	-495.9	769.9	912.2	0.00	0.00	0.00
3,500.0	18.44	122.78	3,351.6	-513.0	796.5	943.7	0.00	0.00	0.00
3,570.0	18.44	122.78	3,418.0	-525.0	815.1	965.7	0.00	0.00	0.00
WASATCH_G.NPC									
3,600.0	18.44	122.78	3,446.5	-530.1	823.1	975.2	0.00	0.00	0.00
3,700.0	18.44	122.78	3,541.3	-547.3	849.7	1,006.7	0.00	0.00	0.00
3,800.0	18.44	122.78	3,636.2	-564.4	876.3	1,038.2	0.00	0.00	0.00
3,900.0	18.44	122.78	3,731.1	-581.5	902.8	1,069.7	0.00	0.00	0.00
4,000.0	18.44	122.78	3,825.9	-598.6	929.4	1,101.2	0.00	0.00	0.00
4,019.1	18.44	122.78	3,844.0	-601.9	934.5	1,107.2	0.00	0.00	0.00
FORT_UNION.NPC									
4,100.0	18.44	122.78	3,920.8	-615.8	956.0	1,132.7	0.00	0.00	0.00
4,200.0	18.44	122.78	4,015.7	-632.9	982.6	1,164.2	0.00	0.00	0.00

Database:	US_EDM	Local Co-ordinate Reference:	Well NPR 14A-14 596
Company:	Caerus Oil and Gas LLC	TVD Reference:	WELL @ 6453.0ft (Original Well Elev)
Project:	SEC.15-T5S-R96W	MD Reference:	WELL @ 6453.0ft (Original Well Elev)
Site:	NPR H15 596 North Pad Sec.15-T5S-R96W	North Reference:	True
Well:	NPR 14A-14 596	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (12-01-17)		

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)
4,300.0	18.44	122.78	4,110.5	-650.0	1,009.2	1,195.7	0.00	0.00	0.00
4,400.0	18.44	122.78	4,205.4	-667.1	1,035.8	1,227.2	0.00	0.00	0.00
4,500.0	18.44	122.78	4,300.3	-684.3	1,062.4	1,258.7	0.00	0.00	0.00
4,600.0	18.44	122.78	4,395.1	-701.4	1,089.0	1,290.2	0.00	0.00	0.00
4,700.0	18.44	122.78	4,490.0	-718.5	1,115.6	1,321.7	0.00	0.00	0.00
4,800.0	18.44	122.78	4,584.9	-735.6	1,142.2	1,353.2	0.00	0.00	0.00
4,900.0	18.44	122.78	4,679.7	-752.8	1,168.8	1,384.7	0.00	0.00	0.00
5,000.0	18.44	122.78	4,774.6	-769.9	1,195.3	1,416.3	0.00	0.00	0.00
5,100.0	18.44	122.78	4,869.4	-787.0	1,221.9	1,447.8	0.00	0.00	0.00
5,200.0	18.44	122.78	4,964.3	-804.1	1,248.5	1,479.3	0.00	0.00	0.00
5,300.0	18.44	122.78	5,059.2	-821.3	1,275.1	1,510.8	0.00	0.00	0.00
5,400.0	18.44	122.78	5,154.0	-838.4	1,301.7	1,542.3	0.00	0.00	0.00
5,500.0	18.44	122.78	5,248.9	-855.5	1,328.3	1,573.8	0.00	0.00	0.00
5,600.0	18.44	122.78	5,343.8	-872.7	1,354.9	1,605.3	0.00	0.00	0.00
5,672.9	18.44	122.78	5,412.9	-885.1	1,374.3	1,628.2	0.00	0.00	0.00
5,700.0	17.63	122.78	5,438.7	-889.7	1,381.3	1,636.6	3.00	-3.00	0.00
5,800.0	14.63	122.78	5,534.8	-904.7	1,404.7	1,664.3	3.00	-3.00	0.00
5,900.0	11.63	122.78	5,632.1	-917.0	1,423.8	1,686.9	3.00	-3.00	0.00
6,000.0	8.63	122.78	5,730.6	-926.5	1,438.5	1,704.4	3.00	-3.00	0.00
6,094.2	5.80	122.78	5,824.0	-932.9	1,448.5	1,716.2	3.00	-3.00	0.00
OHIO_CREEK.MBL									
6,100.0	5.63	122.78	5,829.8	-933.2	1,449.0	1,716.7	3.00	-3.00	0.00
6,200.0	2.63	122.78	5,929.5	-937.1	1,455.0	1,723.9	3.00	-3.00	0.00
6,287.5	0.00	0.00	6,017.0	-938.2	1,456.7	1,725.9	3.00	-3.00	0.00
6,300.0	0.12	250.00	6,029.5	-938.2	1,456.7	1,725.9	1.00	1.00	0.00
6,337.5	0.50	250.00	6,067.0	-938.3	1,456.5	1,725.8	1.00	1.00	0.00
WILLIAMS_FORK.MBL									
6,387.5	1.00	250.00	6,117.0	-938.5	1,455.9	1,725.4	1.00	1.00	0.00
TOP_GAS.MBL									
6,400.0	1.12	250.00	6,129.5	-938.6	1,455.7	1,725.3	1.00	1.00	0.00
6,500.0	2.12	250.00	6,229.4	-939.6	1,453.0	1,723.8	1.00	1.00	0.00
6,600.0	3.12	250.00	6,329.3	-941.1	1,448.7	1,721.4	1.00	1.00	0.00
6,619.1	3.32	250.00	6,348.4	-941.5	1,447.7	1,720.8	1.00	1.00	0.00
6,700.0	3.32	250.00	6,429.2	-943.1	1,443.3	1,718.3	0.00	0.00	0.00
6,800.0	3.32	250.00	6,529.0	-945.1	1,437.9	1,715.2	0.00	0.00	0.00
6,900.0	3.32	250.00	6,628.8	-947.1	1,432.4	1,712.2	0.00	0.00	0.00
7,000.0	3.32	250.00	6,728.7	-949.0	1,427.0	1,709.1	0.00	0.00	0.00
7,100.0	3.32	250.00	6,828.5	-951.0	1,421.5	1,706.0	0.00	0.00	0.00
7,200.0	3.32	250.00	6,928.3	-953.0	1,416.1	1,702.9	0.00	0.00	0.00
7,300.0	3.32	250.00	7,028.2	-955.0	1,410.7	1,699.9	0.00	0.00	0.00
7,400.0	3.32	250.00	7,128.0	-957.0	1,405.2	1,696.8	0.00	0.00	0.00
7,500.0	3.32	250.00	7,227.8	-958.9	1,399.8	1,693.7	0.00	0.00	0.00
7,600.0	3.32	250.00	7,327.7	-960.9	1,394.4	1,690.6	0.00	0.00	0.00
7,700.0	3.32	250.00	7,427.5	-962.9	1,388.9	1,687.5	0.00	0.00	0.00
7,800.0	3.32	250.00	7,527.3	-964.9	1,383.5	1,684.5	0.00	0.00	0.00
7,900.0	3.32	250.00	7,627.2	-966.8	1,378.1	1,681.4	0.00	0.00	0.00
8,000.0	3.32	250.00	7,727.0	-968.8	1,372.6	1,678.3	0.00	0.00	0.00
8,100.0	3.32	250.00	7,826.8	-970.8	1,367.2	1,675.2	0.00	0.00	0.00
8,200.0	3.32	250.00	7,926.7	-972.8	1,361.8	1,672.2	0.00	0.00	0.00
8,300.0	3.32	250.00	8,026.5	-974.8	1,356.3	1,669.1	0.00	0.00	0.00
8,400.0	3.32	250.00	8,126.3	-976.7	1,350.9	1,666.0	0.00	0.00	0.00
8,500.0	3.32	250.00	8,226.2	-978.7	1,345.5	1,662.9	0.00	0.00	0.00
8,600.0	3.32	250.00	8,326.0	-980.7	1,340.0	1,659.8	0.00	0.00	0.00

Database:	US_EDM	Local Co-ordinate Reference:	Well NPR 14A-14 596
Company:	Caerus Oil and Gas LLC	TVD Reference:	WELL @ 6453.0ft (Original Well Elev)
Project:	SEC.15-T5S-R96W	MD Reference:	WELL @ 6453.0ft (Original Well Elev)
Site:	NPR H15 596 North Pad Sec.15-T5S-R96W	North Reference:	True
Well:	NPR 14A-14 596	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (12-01-17)		

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)
8,700.0	3.32	250.00	8,425.8	-982.7	1,334.6	1,656.8	0.00	0.00	0.00
8,786.3	3.32	250.00	8,512.0	-984.4	1,329.9	1,654.1	0.00	0.00	0.00
CAMEO.MBL									
8,800.0	3.32	250.00	8,525.6	-984.6	1,329.2	1,653.7	0.00	0.00	0.00
8,900.0	3.32	250.00	8,625.5	-986.6	1,323.7	1,650.6	0.00	0.00	0.00
9,000.0	3.32	250.00	8,725.3	-988.6	1,318.3	1,647.5	0.00	0.00	0.00
9,100.0	3.32	250.00	8,825.1	-990.6	1,312.8	1,644.5	0.00	0.00	0.00
9,200.0	3.32	250.00	8,925.0	-992.6	1,307.4	1,641.4	0.00	0.00	0.00
9,300.0	3.32	250.00	9,024.8	-994.5	1,302.0	1,638.3	0.00	0.00	0.00
9,400.0	3.32	250.00	9,124.6	-996.5	1,296.5	1,635.2	0.00	0.00	0.00
9,407.4	3.32	250.00	9,132.0	-996.7	1,296.1	1,635.0	0.00	0.00	0.00
ROLLINS.MBL									
9,500.0	3.32	250.00	9,224.5	-998.5	1,291.1	1,632.2	0.00	0.00	0.00
9,583.7	3.32	250.00	9,308.0	-1,000.1	1,286.6	1,629.6	0.00	0.00	0.00
TD.MBL - BHL 1902'FSL, 1232'FWL, SEC.14									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
SHL 2365'FNL, 53'FEL, - plan hits target center - Point	0.00	0.00	1.0	0.0	0.0	14,398,947.09	2,444,331.84	39.615866	-108.145626
BHL 1902'FSL, 1232'FW - plan hits target center - Ellipse (radii L200.0 W100.0 on 250.00 azi)	0.00	0.00	9,308.0	-1,000.1	1,286.6	14,397,988.01	2,445,649.98	39.613120	-108.141060

Casing Points				
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
2,602.3	2,500.0	9 5/8"	9-5/8	12-1/4

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,040.1	1,018.0	WASATCH.NPC		0.00	
3,570.0	3,418.0	WASATCH_G.NPC		0.00	
4,019.1	3,844.0	FORT_UNION.NPC		0.00	
6,094.2	5,824.0	OHIO_CREEK.MBL		0.00	
6,337.5	6,067.0	WILLIAMS_FORK.MBL		0.00	
6,387.5	6,117.0	TOP_GAS.MBL		0.00	
8,786.3	8,512.0	CAMEO.MBL		0.00	
9,407.4	9,132.0	ROLLINS.MBL		0.00	
9,583.7	9,308.0	TD.MBL		0.00	

<b>Database:</b>	US_EDM	<b>Local Co-ordinate Reference:</b>	Well NPR 14A-14 596
<b>Company:</b>	Caerus Oil and Gas LLC	<b>TVD Reference:</b>	WELL @ 6453.0ft (Original Well Elev)
<b>Project:</b>	SEC.15-T5S-R96W	<b>MD Reference:</b>	WELL @ 6453.0ft (Original Well Elev)
<b>Site:</b>	NPR H15 596 North Pad Sec.15-T5S-R96W	<b>North Reference:</b>	True
<b>Well:</b>	NPR 14A-14 596	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 (12-01-17)		