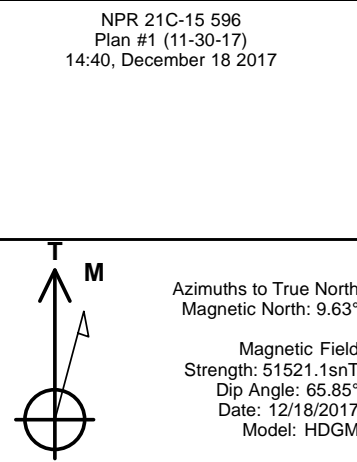
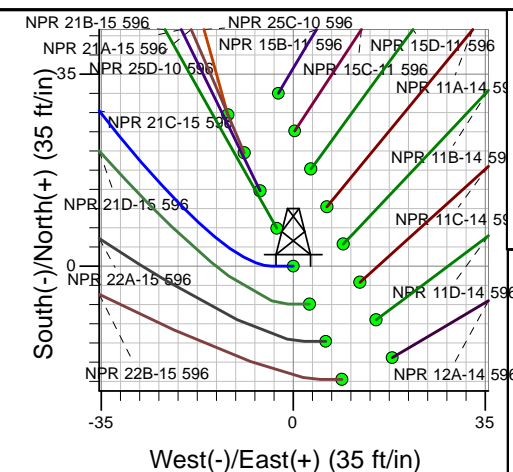
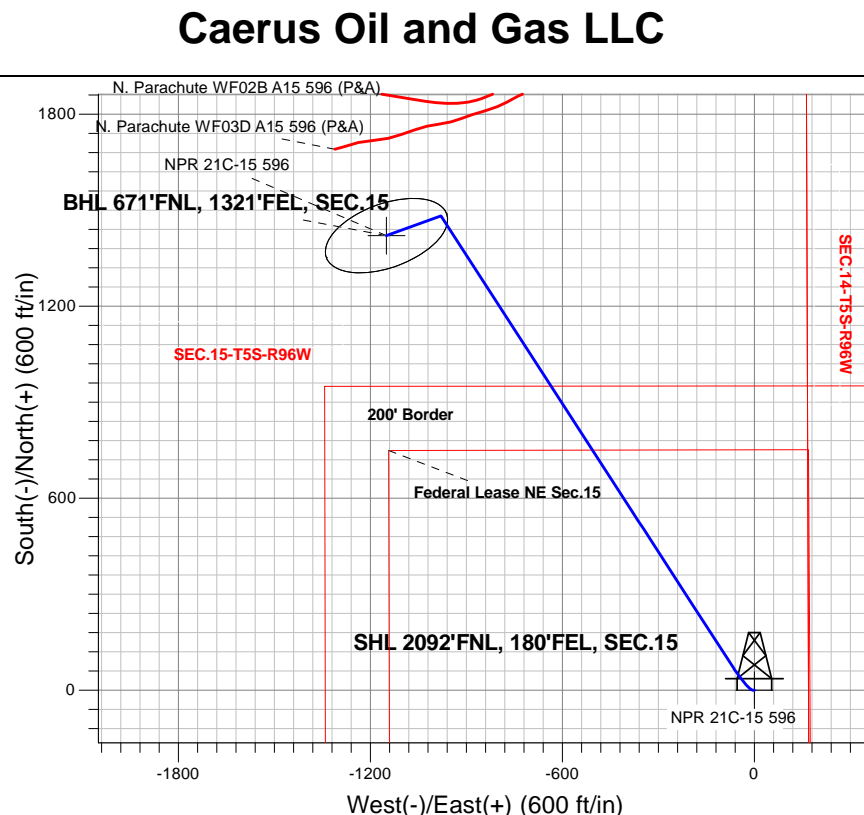
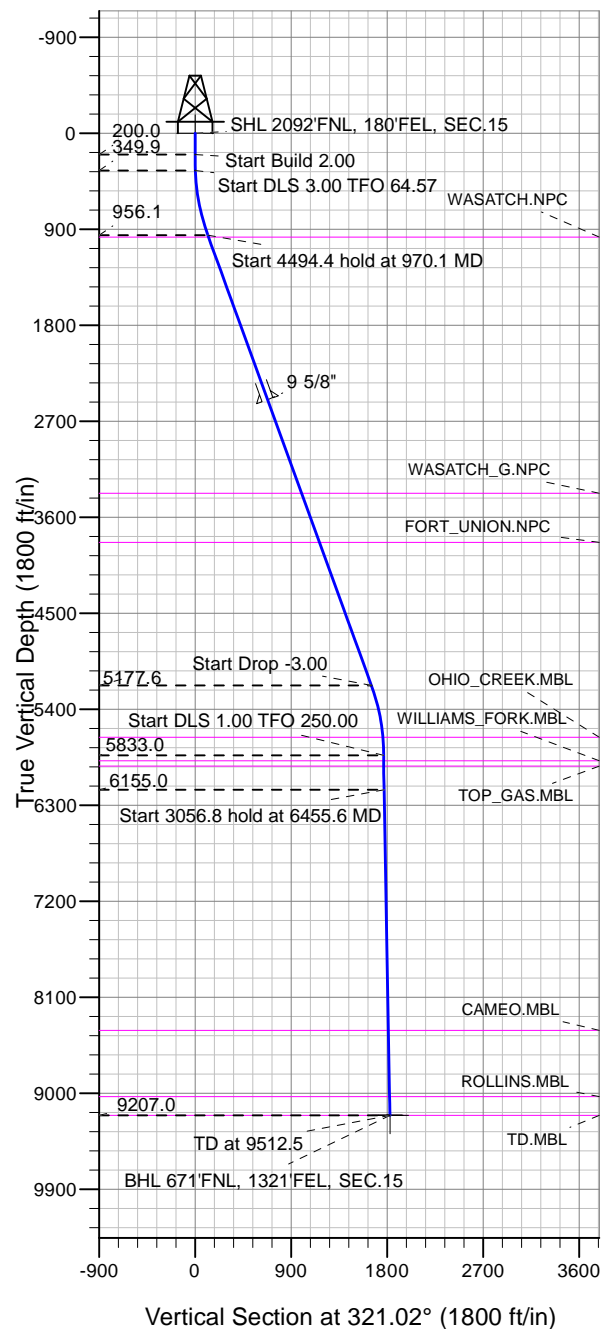


Well Name: **NPR 21C-15 596**
 Surface Location: NPR H15 596 South Pad Sec.15-T5S-R96W
 NAD 1927 - Western US , Universal Transverse Mercator (US Survey Feet)
 Zone 12N (114 W to 108 W)
 Ground Elevation: 6429.0
 +N/-S+E/-W Northing Easting Latitude Longitude Slot
 0.0 0.0 14399215.38 2444194.47 39.616614 -108.146083
 Original Well Elev WELL @ 6453.0ft (Original Well Elev)



DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
SHL 2092'FNL, 180'FEL, SEC.15	1.0	0.0	0.0	39.616614	-108.146083	Point
BHL 671'FNL, 1321'FEL, SEC.15	9207.0	1420.4	-1149.3	39.620513	-108.150162	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	350.0	3.00	270.00	349.9	0.0	-3.9	2.00	270.00	2.5	
4	970.1	20.07	327.10	956.1	90.1	-78.6	3.00	64.57	119.5	
5	5464.5	20.07	327.10	5177.6	1384.9	-916.4	0.00	0.00	1653.1	
6	6133.5	0.00	0.00	5833.0	1482.3	-979.4	3.00	180.00	1768.4	
7	6455.6	3.22	250.00	6155.0	1479.2	-987.9	1.00	250.00	1771.3	
8	9512.5	3.22	250.00	9207.0	1420.4	-1149.3	0.00	0.00	1827.2	BHL 671'FNL, 1321'FEL, SEC.15



Caerus Oil and Gas LLC

SEC.15-T5S-R96W

NPR H15 596 South Pad Sec.15-T5S-R96W

NPR 21C-15 596

Wellbore #1

Plan: Plan #1 (11-30-17)

Standard Planning Report

18 December, 2017

Database:	US_EDM	Local Co-ordinate Reference:	Well NPR 21C-15 596
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 South Pad Sec.15-T5S-R96W	North Reference:	True
Well:	NPR 21C-15 596	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (11-30-17)		

Project	SEC.15-T5S-R96W, Garfield County, CO		
Map System:	Universal Transverse Mercator (US Survey Feet)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 - Western US		Using Well Reference Point
Map Zone:	Zone 12N (114 W to 108 W)		Using geodetic scale factor

Site	NPR H15 596 South Pad Sec.15-T5S-R96W				
Site Position:		Northing:	14,399,246.79 usft	Latitude:	39.616700
From:	Lat/Long	Easting:	2,444,190.74 usft	Longitude:	-108.146093
Position Uncertainty:	0.0 ft	Slot Radius:	13-3/16 "	Grid Convergence:	1.82

Well	NPR 21C-15 596					
Well Position	+N/-S	-31.5 ft	Northing:	14,399,215.38 usft	Latitude:	39.616614
	+E/-W	2.7 ft	Easting:	2,444,194.48 usft	Longitude:	-108.146083
Position Uncertainty		0.0 ft	Wellhead Elevation:	0.0 ft	Ground Level:	6,429.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	12/18/2017	9.63	65.85	51,521

Design	Plan #1 (11-30-17)			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	321.02

Plan Sections										
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	
350.0	3.00	270.00	349.9	0.0	-3.9	2.00	2.00	0.00	270.00	
970.1	20.07	327.10	956.1	90.1	-78.6	3.00	2.75	9.21	64.57	
5,464.5	20.07	327.10	5,177.6	1,384.9	-916.4	0.00	0.00	0.00	0.00	
6,133.5	0.00	0.00	5,833.0	1,482.3	-979.4	3.00	-3.00	0.00	180.00	
6,455.6	3.22	250.00	6,155.0	1,479.2	-987.9	1.00	1.00	-34.14	250.00	
9,512.5	3.22	250.00	9,207.0	1,420.4	-1,149.3	0.00	0.00	0.00	0.00	BHL 671'FNL, 1321'F

Database:	US_EDM	Local Co-ordinate Reference:	Well NPR 21C-15 596
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 South Pad Sec.15-T5S-R96W	North Reference:	True
Well:	NPR 21C-15 596	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (11-30-17)		

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 2092'FNL, 180'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	2.00	270.00	300.0	0.0	-1.7	1.1	2.00	2.00	0.00
350.0	3.00	270.00	349.9	0.0	-3.9	2.5	2.00	2.00	0.00
400.0	3.89	290.41	399.8	0.6	-6.8	4.8	3.00	1.78	40.81
500.0	6.39	309.54	499.4	5.3	-14.3	13.1	3.00	2.50	19.14
600.0	9.19	317.54	598.5	14.8	-24.0	26.6	3.00	2.80	8.00
700.0	12.09	321.78	696.8	28.9	-35.9	45.0	3.00	2.90	4.24
800.0	15.03	324.39	794.0	47.7	-49.9	68.4	3.00	2.94	2.61
900.0	17.99	326.16	889.8	71.0	-66.0	96.8	3.00	2.96	1.77
970.1	20.07	327.10	956.1	90.1	-78.6	119.5	3.00	2.97	1.34
990.2	20.07	327.10	975.0	95.9	-82.4	126.4	0.00	0.00	0.00
WASATCH.NPC									
1,000.0	20.07	327.10	984.2	98.7	-84.2	129.7	0.00	0.00	0.00
1,100.0	20.07	327.10	1,078.1	127.5	-102.8	163.8	0.00	0.00	0.00
1,200.0	20.07	327.10	1,172.1	156.4	-121.5	197.9	0.00	0.00	0.00
1,300.0	20.07	327.10	1,266.0	185.2	-140.1	232.1	0.00	0.00	0.00
1,400.0	20.07	327.10	1,359.9	214.0	-158.7	266.2	0.00	0.00	0.00
1,500.0	20.07	327.10	1,453.8	242.8	-177.4	300.3	0.00	0.00	0.00
1,600.0	20.07	327.10	1,547.8	271.6	-196.0	334.4	0.00	0.00	0.00
1,700.0	20.07	327.10	1,641.7	300.4	-214.7	368.6	0.00	0.00	0.00
1,800.0	20.07	327.10	1,735.6	329.2	-233.3	402.7	0.00	0.00	0.00
1,900.0	20.07	327.10	1,829.6	358.0	-251.9	436.8	0.00	0.00	0.00
2,000.0	20.07	327.10	1,923.5	386.8	-270.6	470.9	0.00	0.00	0.00
2,100.0	20.07	327.10	2,017.4	415.6	-289.2	505.0	0.00	0.00	0.00
2,200.0	20.07	327.10	2,111.3	444.4	-307.9	539.2	0.00	0.00	0.00
2,300.0	20.07	327.10	2,205.3	473.3	-326.5	573.3	0.00	0.00	0.00
2,400.0	20.07	327.10	2,299.2	502.1	-345.2	607.4	0.00	0.00	0.00
2,500.0	20.07	327.10	2,393.1	530.9	-363.8	641.5	0.00	0.00	0.00
2,600.0	20.07	327.10	2,487.1	559.7	-382.4	675.7	0.00	0.00	0.00
2,613.8	20.07	327.10	2,500.0	563.7	-385.0	680.4	0.00	0.00	0.00
9 5/8"									
2,700.0	20.07	327.10	2,581.0	588.5	-401.1	709.8	0.00	0.00	0.00
2,800.0	20.07	327.10	2,674.9	617.3	-419.7	743.9	0.00	0.00	0.00
2,900.0	20.07	327.10	2,768.8	646.1	-438.4	778.0	0.00	0.00	0.00
3,000.0	20.07	327.10	2,862.8	674.9	-457.0	812.1	0.00	0.00	0.00
3,100.0	20.07	327.10	2,956.7	703.7	-475.6	846.3	0.00	0.00	0.00
3,200.0	20.07	327.10	3,050.6	732.5	-494.3	880.4	0.00	0.00	0.00
3,300.0	20.07	327.10	3,144.6	761.4	-512.9	914.5	0.00	0.00	0.00
3,400.0	20.07	327.10	3,238.5	790.2	-531.6	948.6	0.00	0.00	0.00
3,500.0	20.07	327.10	3,332.4	819.0	-550.2	982.7	0.00	0.00	0.00
3,545.3	20.07	327.10	3,375.0	832.0	-558.7	998.2	0.00	0.00	0.00
WASATCH_G.NPC									
3,600.0	20.07	327.10	3,426.3	847.8	-568.8	1,016.9	0.00	0.00	0.00
3,700.0	20.07	327.10	3,520.3	876.6	-587.5	1,051.0	0.00	0.00	0.00
3,800.0	20.07	327.10	3,614.2	905.4	-606.1	1,085.1	0.00	0.00	0.00
3,900.0	20.07	327.10	3,708.1	934.2	-624.8	1,119.2	0.00	0.00	0.00
4,000.0	20.07	327.10	3,802.0	963.0	-643.4	1,153.4	0.00	0.00	0.00
4,037.2	20.07	327.10	3,837.0	973.7	-650.3	1,166.1	0.00	0.00	0.00
FORT_UNION.NPC									
4,100.0	20.07	327.10	3,896.0	991.8	-662.0	1,187.5	0.00	0.00	0.00

Database:	US_EDM	Local Co-ordinate Reference:	Well NPR 21C-15 596
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 South Pad Sec.15-T5S-R96W	North Reference:	True
Well:	NPR 21C-15 596	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (11-30-17)		

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)
4,200.0	20.07	327.10	3,989.9	1,020.6	-680.7	1,221.6	0.00	0.00	0.00
4,300.0	20.07	327.10	4,083.8	1,049.4	-699.3	1,255.7	0.00	0.00	0.00
4,400.0	20.07	327.10	4,177.8	1,078.3	-718.0	1,289.8	0.00	0.00	0.00
4,500.0	20.07	327.10	4,271.7	1,107.1	-736.6	1,324.0	0.00	0.00	0.00
4,600.0	20.07	327.10	4,365.6	1,135.9	-755.3	1,358.1	0.00	0.00	0.00
4,700.0	20.07	327.10	4,459.5	1,164.7	-773.9	1,392.2	0.00	0.00	0.00
4,800.0	20.07	327.10	4,553.5	1,193.5	-792.5	1,426.3	0.00	0.00	0.00
4,900.0	20.07	327.10	4,647.4	1,222.3	-811.2	1,460.5	0.00	0.00	0.00
5,000.0	20.07	327.10	4,741.3	1,251.1	-829.8	1,494.6	0.00	0.00	0.00
5,100.0	20.07	327.10	4,835.3	1,279.9	-848.5	1,528.7	0.00	0.00	0.00
5,200.0	20.07	327.10	4,929.2	1,308.7	-867.1	1,562.8	0.00	0.00	0.00
5,300.0	20.07	327.10	5,023.1	1,337.5	-885.7	1,596.9	0.00	0.00	0.00
5,400.0	20.07	327.10	5,117.0	1,366.4	-904.4	1,631.1	0.00	0.00	0.00
5,464.5	20.07	327.10	5,177.6	1,384.9	-916.4	1,653.1	0.00	0.00	0.00
5,500.0	19.00	327.10	5,211.1	1,394.9	-922.9	1,664.9	3.00	-3.00	0.00
5,600.0	16.00	327.10	5,306.4	1,420.2	-939.2	1,694.8	3.00	-3.00	0.00
5,700.0	13.00	327.10	5,403.2	1,441.2	-952.8	1,719.7	3.00	-3.00	0.00
5,800.0	10.00	327.10	5,501.2	1,457.9	-963.6	1,739.5	3.00	-3.00	0.00
5,900.0	7.00	327.10	5,600.1	1,470.3	-971.7	1,754.2	3.00	-3.00	0.00
5,963.2	5.11	327.10	5,663.0	1,475.9	-975.3	1,760.8	3.00	-3.00	0.00
OHIO_CREEK.MBL									
6,000.0	4.00	327.10	5,699.6	1,478.4	-976.9	1,763.8	3.00	-3.00	0.00
6,100.0	1.00	327.10	5,799.5	1,482.1	-979.2	1,768.1	3.00	-3.00	0.00
6,133.5	0.00	0.00	5,833.0	1,482.3	-979.4	1,768.4	3.00	-3.00	0.00
6,183.5	0.50	250.00	5,883.0	1,482.2	-979.6	1,768.5	1.00	1.00	0.00
WILLIAMS_FORK.MBL									
6,200.0	0.67	250.00	5,899.5	1,482.2	-979.8	1,768.5	1.00	1.00	0.00
6,233.5	1.00	250.00	5,933.0	1,482.0	-980.2	1,768.7	1.00	1.00	0.00
TOP_GAS.MBL									
6,300.0	1.67	250.00	5,999.5	1,481.5	-981.7	1,769.2	1.00	1.00	0.00
6,400.0	2.67	250.00	6,099.4	1,480.2	-985.2	1,770.4	1.00	1.00	0.00
6,455.6	3.22	250.00	6,155.0	1,479.2	-987.9	1,771.3	1.00	1.00	0.00
6,500.0	3.22	250.00	6,199.3	1,478.3	-990.3	1,772.1	0.00	0.00	0.00
6,600.0	3.22	250.00	6,299.1	1,476.4	-995.5	1,774.0	0.00	0.00	0.00
6,700.0	3.22	250.00	6,399.0	1,474.5	-1,000.8	1,775.8	0.00	0.00	0.00
6,800.0	3.22	250.00	6,498.8	1,472.6	-1,006.1	1,777.6	0.00	0.00	0.00
6,900.0	3.22	250.00	6,598.7	1,470.7	-1,011.4	1,779.5	0.00	0.00	0.00
7,000.0	3.22	250.00	6,698.5	1,468.7	-1,016.7	1,781.3	0.00	0.00	0.00
7,100.0	3.22	250.00	6,798.3	1,466.8	-1,021.9	1,783.1	0.00	0.00	0.00
7,200.0	3.22	250.00	6,898.2	1,464.9	-1,027.2	1,784.9	0.00	0.00	0.00
7,300.0	3.22	250.00	6,998.0	1,463.0	-1,032.5	1,786.8	0.00	0.00	0.00
7,400.0	3.22	250.00	7,097.9	1,461.0	-1,037.8	1,788.6	0.00	0.00	0.00
7,500.0	3.22	250.00	7,197.7	1,459.1	-1,043.1	1,790.4	0.00	0.00	0.00
7,600.0	3.22	250.00	7,297.6	1,457.2	-1,048.3	1,792.2	0.00	0.00	0.00
7,700.0	3.22	250.00	7,397.4	1,455.3	-1,053.6	1,794.1	0.00	0.00	0.00
7,800.0	3.22	250.00	7,497.2	1,453.4	-1,058.9	1,795.9	0.00	0.00	0.00
7,900.0	3.22	250.00	7,597.1	1,451.4	-1,064.2	1,797.7	0.00	0.00	0.00
8,000.0	3.22	250.00	7,696.9	1,449.5	-1,069.5	1,799.6	0.00	0.00	0.00
8,100.0	3.22	250.00	7,796.8	1,447.6	-1,074.7	1,801.4	0.00	0.00	0.00
8,200.0	3.22	250.00	7,896.6	1,445.7	-1,080.0	1,803.2	0.00	0.00	0.00
8,300.0	3.22	250.00	7,996.4	1,443.7	-1,085.3	1,805.0	0.00	0.00	0.00
8,400.0	3.22	250.00	8,096.3	1,441.8	-1,090.6	1,806.9	0.00	0.00	0.00
8,500.0	3.22	250.00	8,196.1	1,439.9	-1,095.9	1,808.7	0.00	0.00	0.00

Database:	US_EDM	Local Co-ordinate Reference:	Well NPR 21C-15 596
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 South Pad Sec.15-T5S-R96W	North Reference:	True
Well:	NPR 21C-15 596	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (11-30-17)		

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)
8,600.0	3.22	250.00	8,296.0	1,438.0	-1,101.2	1,810.5	0.00	0.00	0.00
8,700.0	3.22	250.00	8,395.8	1,436.1	-1,106.4	1,812.3	0.00	0.00	0.00
8,715.2	3.22	250.00	8,411.0	1,435.8	-1,107.2	1,812.6	0.00	0.00	0.00
CAMEO.MBL									
8,800.0	3.22	250.00	8,495.7	1,434.1	-1,111.7	1,814.2	0.00	0.00	0.00
8,900.0	3.22	250.00	8,595.5	1,432.2	-1,117.0	1,816.0	0.00	0.00	0.00
9,000.0	3.22	250.00	8,695.3	1,430.3	-1,122.3	1,817.8	0.00	0.00	0.00
9,100.0	3.22	250.00	8,795.2	1,428.4	-1,127.6	1,819.7	0.00	0.00	0.00
9,200.0	3.22	250.00	8,895.0	1,426.4	-1,132.8	1,821.5	0.00	0.00	0.00
9,300.0	3.22	250.00	8,994.9	1,424.5	-1,138.1	1,823.3	0.00	0.00	0.00
9,336.2	3.22	250.00	9,031.0	1,423.8	-1,140.0	1,824.0	0.00	0.00	0.00
ROLLINS.MBL									
9,400.0	3.22	250.00	9,094.7	1,422.6	-1,143.4	1,825.1	0.00	0.00	0.00
9,500.0	3.22	250.00	9,194.6	1,420.7	-1,148.7	1,827.0	0.00	0.00	0.00
9,512.5	3.22	250.00	9,207.0	1,420.4	-1,149.3	1,827.2	0.00	0.00	0.00
TD.MBL - BHL 671'FNL, 1321'FEL, SEC.15									

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 2092'FNL, 180'FEL	0.00	0.00	1.0	0.0	0.0	14,399,215.38	2,444,194.48	39.616614	-108.146083
- plan hits target center									
- Point									
BHL 671'FNL, 1321'FEL	0.00	0.00	9,207.0	1,420.4	-1,149.3	14,400,599.05	2,443,000.18	39.620513	-108.150163
- plan hits target center									
- Ellipse (radii L200.0 W100.0 on 250.00 azi)									

Casing Points				
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
2,613.8	2,500.0	9 5/8"	9-5/8	12-1/4

Database:	US_EDM	Local Co-ordinate Reference:	Well NPR 21C-15 596
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 South Pad Sec.15-T5S-R96W	North Reference:	True
Well:	NPR 21C-15 596	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (11-30-17)		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
990.2	975.0	WASATCH.NPC		0.00		
3,545.3	3,375.0	WASATCH_G.NPC		0.00		
4,037.2	3,837.0	FORT_UNION.NPC		0.00		
5,963.2	5,663.0	OHIO_CREEK.MBL		0.00		
6,183.5	5,883.0	WILLIAMS_FORK.MBL		0.00		
6,233.5	5,933.0	TOP_GAS.MBL		0.00		
8,715.2	8,411.0	CAMEO.MBL		0.00		
9,336.2	9,031.0	ROLLINS.MBL		0.00		
9,512.5	9,207.0	TD.MBL		0.00		