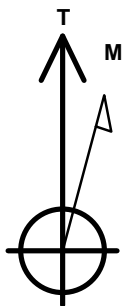


Caerus Oil and Gas LLC

Well Name: **Riggs 35-761-0662XBH**
 Surface Location: Riggs OP 35-761 Pad Sec.35-T7N-R61W
 North American Datum 1983 , US State Plane 1983, Colorado Northern Zone
 Ground Elevation: 4769.0
 +N/-S +E/-W Northing Easting Latitude Longitude Slot
 0.0 0.0 1436868.07 3369098.89 40.525018 -104.172241
 RKB - 30' WELL @ 4799.0ft (RKB - 30')

WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
SHL 250'FSL, 1483'FEL, SEC.35	1.0	0.0	0.0	Point
BHL 460'FSL, 1768'FEL, SEC.11	6204.0	-10284.0	-175.2	Point
LPL 460'FNL, 1768'FEL, SEC.2	6344.0	-711.1	-277.2	Point



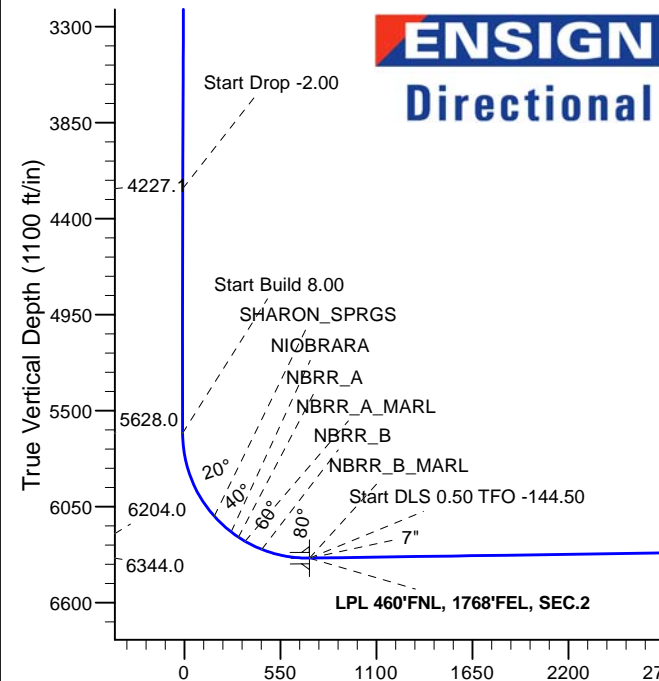
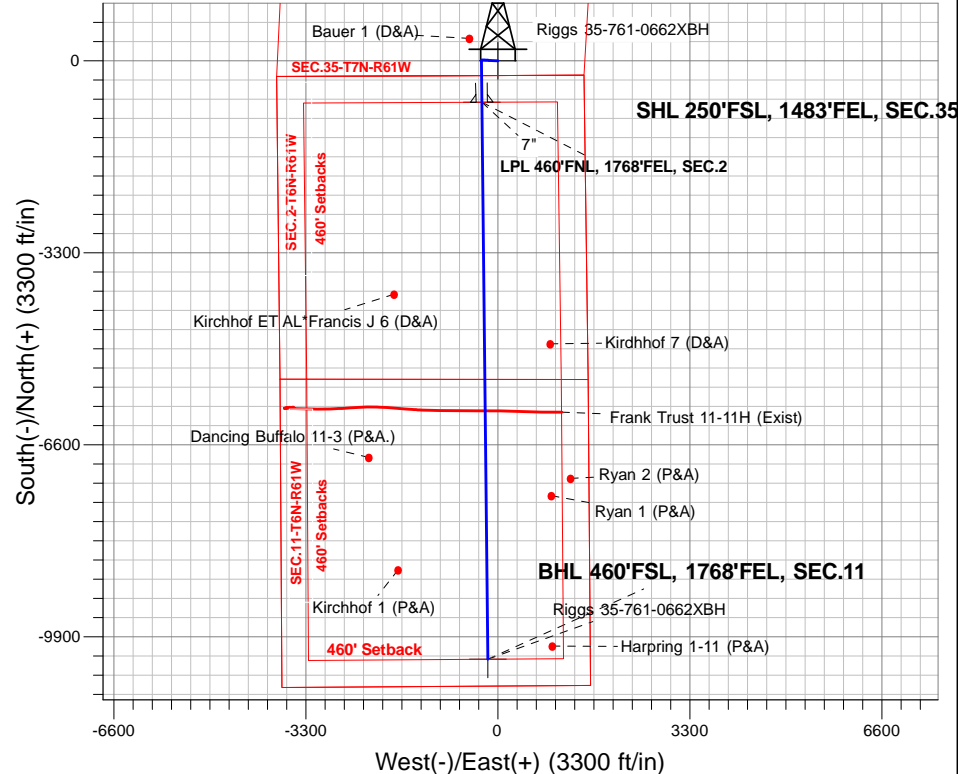
Azimuths to True North
 Magnetic North: 7.83°

Magnetic Field
 Strength: 52697.1snT
 Dip Angle: 67.06°
 Date: 10/4/2016
 Model: IGRF2010

Riggs OP 35-761 Pad Sec.35-T7N-R61W
 Riggs 35-761-0662XBH
 Plan #1 (9-29-16)
 11:08, October 04 2016

ANNOTATIONS

TVD	MD	Annotation
1200.0	1200.0	KOP - Start Build 1.50
4227.0	4239.8	Start Drop -2.00
5627.9	5641.1	Start Build 8.00
6344.0	6776.5	Start DLS 0.50 TFO -144.50
6344.0	6777.1	Start 9573.9 hold at 6777.1 MD
6204.0	16350.9	TD at 16350.9



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	1200.0	0.00	0.00	1200.0	0.0	0.0	0.00	0.00	0.0	
3	1564.5	5.47	273.11	1564.0	0.9	-17.4	1.50	273.11	-0.6	
4	4239.8	5.47	273.11	4227.0	14.8	-271.9	0.00	0.00	-10.2	
5	4513.1	0.00	0.00	4500.0	15.5	-284.9	2.00	180.00	-10.6	
6	5641.1	0.00	0.00	5627.9	15.5	-284.9	0.00	0.00	-10.6	
7	6776.5	90.84	179.39	6344.0	-711.1	-277.2	8.00	179.39	715.7	
8	6776.5	90.84	179.39	6344.0	-711.1	-277.2	0.00	0.00	715.7	LPL 460'FNL, 1768'FEL, SEC.2
9	6777.1	90.84	179.39	6344.0	-711.7	-277.2	0.50	-144.50	716.3	
10	16350.9	90.84	179.39	6204.0	-10284.0	-175.2	0.00	0.00	10285.5	BHL 460'FSL, 1768'FEL, SEC.11

BHL 460'FSL, 1768'FEL, SEC.11

TD at 16350.9

Vertical Section at 180.98° (1100 ft/in)



Caerus Oil and Gas LLC

SEC.35-T7N-R61W

Riggs OP 35-761 Pad Sec.35-T7N-R61W

Riggs 35-761-0662XBH

Wellbore #1

Plan: Plan #1 (9-29-16)

Standard Planning Report

04 October, 2016

Database:	US_EDM	Local Co-ordinate Reference:	Well Riggs 35-761-0662XBH
Company:	Caerus Oil and Gas LLC	TVD Reference:	WELL @ 4799.0ft (RKB - 30')
Project:	SEC.35-T7N-R61W	MD Reference:	WELL @ 4799.0ft (RKB - 30')
Site:	Riggs OP 35-761 Pad Sec.35-T7N-R61W	North Reference:	True
Well:	Riggs 35-761-0662XBH	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (9-29-16)		

Project	SEC.35-T7N-R61W, Weld County, CO		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		Using Well Reference Point
Map Zone:	Colorado Northern Zone		Using geodetic scale factor

Site	Riggs OP 35-761 Pad Sec.35-T7N-R61W				
Site Position:		Northing:	1,436,866.61 usft	Latitude:	40.525017
From:	Lat/Long	Easting:	3,369,023.84 usft	Longitude:	-104.172511
Position Uncertainty:	0.0 ft	Slot Radius:	13-3/16 "	Grid Convergence:	0.86

Well	Riggs 35-761-0662XBH					
Well Position	+N/-S	0.3 ft	Northing:	1,436,868.08 usft	Latitude:	40.525018
	+E/-W	75.1 ft	Easting:	3,369,098.88 usft	Longitude:	-104.172241
Position Uncertainty		0.0 ft	Wellhead Elevation:	0.0 ft	Ground Level:	4,769.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	10/4/2016	7.83	67.06	52,697

Design	Plan #1 (9-29-16)			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	180.98

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	
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,564.5	5.47	273.11	1,564.0	0.9	-17.4	1.50	1.50	0.00	273.11	
4,239.8	5.47	273.11	4,227.0	14.8	-271.9	0.00	0.00	0.00	0.00	
4,513.1	0.00	0.00	4,500.0	15.5	-284.9	2.00	-2.00	0.00	180.00	
5,641.1	0.00	0.00	5,627.9	15.5	-284.9	0.00	0.00	0.00	0.00	
6,776.5	90.84	179.39	6,344.0	-711.1	-277.2	8.00	8.00	0.00	179.39	
6,776.5	90.84	179.39	6,344.0	-711.1	-277.2	0.00	0.00	0.00	0.00	LPL 460'FNL, 1768'FI
6,777.1	90.84	179.39	6,344.0	-711.7	-277.2	0.50	-0.41	-0.29	-144.50	
16,350.9	90.84	179.39	6,204.0	-10,284.0	-175.2	0.00	0.00	0.00	0.00	BHL 460'FSL, 1768'FI

Database:	US_EDM	Local Co-ordinate Reference:	Well Riggs 35-761-0662XBH
Company:	Caerus Oil and Gas LLC	TVD Reference:	WELL @ 4799.0ft (RKB - 30')
Project:	SEC.35-T7N-R61W	MD Reference:	WELL @ 4799.0ft (RKB - 30')
Site:	Riggs OP 35-761 Pad Sec.35-T7N-R61W	North Reference:	True
Well:	Riggs 35-761-0662XBH	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (9-29-16)		

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
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	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
KOP - Start Build 1.50									
1,300.0	1.50	273.11	1,300.0	0.1	-1.3	0.0	1.50	1.50	0.00
1,400.0	3.00	273.11	1,399.9	0.3	-5.2	-0.2	1.50	1.50	0.00
1,500.0	4.50	273.11	1,499.7	0.6	-11.8	-0.4	1.50	1.50	0.00
1,564.5	5.47	273.11	1,564.0	0.9	-17.4	-0.6	1.50	1.50	0.00
1,600.0	5.47	273.11	1,599.3	1.1	-20.7	-0.8	0.00	0.00	0.00
1,700.0	5.47	273.11	1,698.8	1.6	-30.2	-1.1	0.00	0.00	0.00
1,800.0	5.47	273.11	1,798.4	2.2	-39.8	-1.5	0.00	0.00	0.00
1,900.0	5.47	273.11	1,897.9	2.7	-49.3	-1.8	0.00	0.00	0.00
2,000.0	5.47	273.11	1,997.5	3.2	-58.8	-2.2	0.00	0.00	0.00
2,100.0	5.47	273.11	2,097.0	3.7	-68.3	-2.6	0.00	0.00	0.00
2,200.0	5.47	273.11	2,196.6	4.2	-77.8	-2.9	0.00	0.00	0.00
2,300.0	5.47	273.11	2,296.1	4.8	-87.3	-3.3	0.00	0.00	0.00
2,400.0	5.47	273.11	2,395.6	5.3	-96.8	-3.6	0.00	0.00	0.00
2,500.0	5.47	273.11	2,495.2	5.8	-106.4	-4.0	0.00	0.00	0.00
2,600.0	5.47	273.11	2,594.7	6.3	-115.9	-4.3	0.00	0.00	0.00
2,700.0	5.47	273.11	2,694.3	6.8	-125.4	-4.7	0.00	0.00	0.00
2,800.0	5.47	273.11	2,793.8	7.3	-134.9	-5.0	0.00	0.00	0.00
2,900.0	5.47	273.11	2,893.4	7.9	-144.4	-5.4	0.00	0.00	0.00
3,000.0	5.47	273.11	2,992.9	8.4	-153.9	-5.8	0.00	0.00	0.00
3,100.0	5.47	273.11	3,092.5	8.9	-163.4	-6.1	0.00	0.00	0.00
3,197.0	5.47	273.11	3,189.0	9.4	-172.7	-6.5	0.00	0.00	0.00
RICHARD_SD									
3,200.0	5.47	273.11	3,192.0	9.4	-173.0	-6.5	0.00	0.00	0.00
3,300.0	5.47	273.11	3,291.6	9.9	-182.5	-6.8	0.00	0.00	0.00
3,400.0	5.47	273.11	3,391.1	10.4	-192.0	-7.2	0.00	0.00	0.00
3,500.0	5.47	273.11	3,490.6	11.0	-201.5	-7.5	0.00	0.00	0.00
3,600.0	5.47	273.11	3,590.2	11.5	-211.0	-7.9	0.00	0.00	0.00
3,700.0	5.47	273.11	3,689.7	12.0	-220.5	-8.2	0.00	0.00	0.00
3,800.0	5.47	273.11	3,789.3	12.5	-230.0	-8.6	0.00	0.00	0.00
3,900.0	5.47	273.11	3,888.8	13.0	-239.6	-9.0	0.00	0.00	0.00
4,000.0	5.47	273.11	3,988.4	13.6	-249.1	-9.3	0.00	0.00	0.00
4,100.0	5.47	273.11	4,087.9	14.1	-258.6	-9.7	0.00	0.00	0.00
4,200.0	5.47	273.11	4,187.5	14.6	-268.1	-10.0	0.00	0.00	0.00
4,239.8	5.47	273.11	4,227.1	14.8	-271.9	-10.2	0.00	0.00	0.00
Start Drop -2.00									
4,300.0	4.26	273.11	4,287.1	15.1	-277.0	-10.3	2.00	-2.00	0.00
4,400.0	2.26	273.11	4,386.9	15.4	-282.7	-10.6	2.00	-2.00	0.00
4,500.0	0.26	273.11	4,486.9	15.5	-284.9	-10.6	2.00	-2.00	0.00
4,513.1	0.00	0.00	4,500.0	15.5	-284.9	-10.6	2.00	-2.00	0.00

Database:	US_EDM	Local Co-ordinate Reference:	Well Riggs 35-761-0662XBH
Company:	Caerus Oil and Gas LLC	TVD Reference:	WELL @ 4799.0ft (RKB - 30')
Project:	SEC.35-T7N-R61W	MD Reference:	WELL @ 4799.0ft (RKB - 30')
Site:	Riggs OP 35-761 Pad Sec.35-T7N-R61W	North Reference:	True
Well:	Riggs 35-761-0662XBH	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (9-29-16)		

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	0.00	0.00	4,586.9	15.5	-284.9	-10.6	0.00	0.00	0.00
4,700.0	0.00	0.00	4,686.9	15.5	-284.9	-10.6	0.00	0.00	0.00
4,800.0	0.00	0.00	4,786.9	15.5	-284.9	-10.6	0.00	0.00	0.00
4,900.0	0.00	0.00	4,886.9	15.5	-284.9	-10.6	0.00	0.00	0.00
5,000.0	0.00	0.00	4,986.9	15.5	-284.9	-10.6	0.00	0.00	0.00
5,100.0	0.00	0.00	5,086.9	15.5	-284.9	-10.6	0.00	0.00	0.00
5,200.0	0.00	0.00	5,186.9	15.5	-284.9	-10.6	0.00	0.00	0.00
5,300.0	0.00	0.00	5,286.9	15.5	-284.9	-10.6	0.00	0.00	0.00
5,400.0	0.00	0.00	5,386.9	15.5	-284.9	-10.6	0.00	0.00	0.00
5,500.0	0.00	0.00	5,486.9	15.5	-284.9	-10.6	0.00	0.00	0.00
5,600.0	0.00	0.00	5,586.9	15.5	-284.9	-10.6	0.00	0.00	0.00
5,641.1	0.00	0.00	5,628.0	15.5	-284.9	-10.6	0.00	0.00	0.00
Start Build 8.00									
5,700.0	4.71	179.39	5,686.8	13.1	-284.9	-8.2	8.00	8.00	0.00
5,800.0	12.71	179.39	5,785.6	-2.1	-284.7	6.9	8.00	8.00	0.00
5,900.0	20.72	179.39	5,881.3	-30.8	-284.4	35.6	8.00	8.00	0.00
6,000.0	28.72	179.39	5,972.0	-72.6	-284.0	77.4	8.00	8.00	0.00
6,100.0	36.72	179.39	6,056.1	-126.6	-283.4	131.4	8.00	8.00	0.00
6,161.8	41.66	179.39	6,104.0	-165.6	-283.0	170.4	8.00	8.00	0.00
SHARON_SPRGS									
6,200.0	44.72	179.39	6,131.8	-191.7	-282.7	196.5	8.00	8.00	0.00
6,293.9	52.23	179.39	6,194.0	-262.0	-282.0	266.7	8.00	8.00	0.00
NIOBRARA									
6,300.0	52.72	179.39	6,197.7	-266.8	-281.9	271.6	8.00	8.00	0.00
6,345.3	56.34	179.39	6,224.0	-303.7	-281.5	308.4	8.00	8.00	0.00
NBRR_A									
6,390.8	59.98	179.39	6,248.0	-342.3	-281.1	347.1	8.00	8.00	0.00
NBRR_A_MARL									
6,400.0	60.72	179.39	6,252.6	-350.4	-281.0	355.1	8.00	8.00	0.00
6,496.6	68.45	179.39	6,294.0	-437.5	-280.1	442.2	8.00	8.00	0.00
NBRR_B									
6,500.0	68.72	179.39	6,295.2	-440.7	-280.1	445.4	8.00	8.00	0.00
6,600.0	76.72	179.39	6,324.9	-536.1	-279.0	540.8	8.00	8.00	0.00
6,700.0	84.72	179.39	6,341.0	-634.7	-278.0	639.4	8.00	8.00	0.00
6,776.5	90.84	179.39	6,344.0	-711.1	-277.2	715.8	8.00	8.00	0.00
Start DLS 0.50 TFO -144.50 - NBRR_B_MARL									
6,777.1	90.84	179.39	6,344.0	-711.7	-277.2	716.3	0.93	-0.89	-0.27
Start 9573.9 hold at 6777.1 MD									
6,800.0	90.84	179.39	6,343.7	-734.6	-276.9	739.2	0.00	0.00	0.00
6,900.0	90.84	179.39	6,342.2	-834.6	-275.9	839.2	0.00	0.00	0.00
7,000.0	90.84	179.39	6,340.7	-934.6	-274.8	939.1	0.00	0.00	0.00
7,100.0	90.84	179.39	6,339.3	-1,034.6	-273.7	1,039.1	0.00	0.00	0.00
7,200.0	90.84	179.39	6,337.8	-1,134.5	-272.7	1,139.0	0.00	0.00	0.00
7,300.0	90.84	179.39	6,336.3	-1,234.5	-271.6	1,239.0	0.00	0.00	0.00
7,400.0	90.84	179.39	6,334.9	-1,334.5	-270.5	1,338.9	0.00	0.00	0.00
7,500.0	90.84	179.39	6,333.4	-1,434.5	-269.5	1,438.9	0.00	0.00	0.00
7,600.0	90.84	179.39	6,332.0	-1,534.5	-268.4	1,538.8	0.00	0.00	0.00
7,700.0	90.84	179.39	6,330.5	-1,634.5	-267.3	1,638.8	0.00	0.00	0.00
7,800.0	90.84	179.39	6,329.0	-1,734.4	-266.3	1,738.7	0.00	0.00	0.00
7,900.0	90.84	179.39	6,327.6	-1,834.4	-265.2	1,838.7	0.00	0.00	0.00
8,000.0	90.84	179.39	6,326.1	-1,934.4	-264.2	1,938.6	0.00	0.00	0.00
8,100.0	90.84	179.39	6,324.6	-2,034.4	-263.1	2,038.6	0.00	0.00	0.00
8,200.0	90.84	179.39	6,323.2	-2,134.4	-262.0	2,138.5	0.00	0.00	0.00

Database:	US_EDM	Local Co-ordinate Reference:	Well Riggs 35-761-0662XBH
Company:	Caerus Oil and Gas LLC	TVD Reference:	WELL @ 4799.0ft (RKB - 30')
Project:	SEC.35-T7N-R61W	MD Reference:	WELL @ 4799.0ft (RKB - 30')
Site:	Riggs OP 35-761 Pad Sec.35-T7N-R61W	North Reference:	True
Well:	Riggs 35-761-0662XBH	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (9-29-16)		

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)
8,300.0	90.84	179.39	6,321.7	-2,234.4	-261.0	2,238.5	0.00	0.00	0.00
8,400.0	90.84	179.39	6,320.3	-2,334.3	-259.9	2,338.4	0.00	0.00	0.00
8,500.0	90.84	179.39	6,318.8	-2,434.3	-258.8	2,438.4	0.00	0.00	0.00
8,600.0	90.84	179.39	6,317.3	-2,534.3	-257.8	2,538.3	0.00	0.00	0.00
8,700.0	90.84	179.39	6,315.9	-2,634.3	-256.7	2,638.3	0.00	0.00	0.00
8,800.0	90.84	179.39	6,314.4	-2,734.3	-255.6	2,738.2	0.00	0.00	0.00
8,900.0	90.84	179.39	6,312.9	-2,834.3	-254.6	2,838.2	0.00	0.00	0.00
9,000.0	90.84	179.39	6,311.5	-2,934.2	-253.5	2,938.1	0.00	0.00	0.00
9,100.0	90.84	179.39	6,310.0	-3,034.2	-252.4	3,038.1	0.00	0.00	0.00
9,200.0	90.84	179.39	6,308.6	-3,134.2	-251.4	3,138.0	0.00	0.00	0.00
9,300.0	90.84	179.39	6,307.1	-3,234.2	-250.3	3,238.0	0.00	0.00	0.00
9,400.0	90.84	179.39	6,305.6	-3,334.2	-249.2	3,337.9	0.00	0.00	0.00
9,500.0	90.84	179.39	6,304.2	-3,434.2	-248.2	3,437.9	0.00	0.00	0.00
9,600.0	90.84	179.39	6,302.7	-3,534.1	-247.1	3,537.8	0.00	0.00	0.00
9,700.0	90.84	179.39	6,301.3	-3,634.1	-246.0	3,637.8	0.00	0.00	0.00
9,800.0	90.84	179.39	6,299.8	-3,734.1	-245.0	3,737.7	0.00	0.00	0.00
9,900.0	90.84	179.39	6,298.3	-3,834.1	-243.9	3,837.7	0.00	0.00	0.00
10,000.0	90.84	179.39	6,296.9	-3,934.1	-242.9	3,937.6	0.00	0.00	0.00
10,100.0	90.84	179.39	6,295.4	-4,034.1	-241.8	4,037.6	0.00	0.00	0.00
10,200.0	90.84	179.39	6,293.9	-4,134.0	-240.7	4,137.6	0.00	0.00	0.00
10,300.0	90.84	179.39	6,292.5	-4,234.0	-239.7	4,237.5	0.00	0.00	0.00
10,400.0	90.84	179.39	6,291.0	-4,334.0	-238.6	4,337.5	0.00	0.00	0.00
10,500.0	90.84	179.39	6,289.6	-4,434.0	-237.5	4,437.4	0.00	0.00	0.00
10,600.0	90.84	179.39	6,288.1	-4,534.0	-236.5	4,537.4	0.00	0.00	0.00
10,700.0	90.84	179.39	6,286.6	-4,634.0	-235.4	4,637.3	0.00	0.00	0.00
10,800.0	90.84	179.39	6,285.2	-4,734.0	-234.3	4,737.3	0.00	0.00	0.00
10,900.0	90.84	179.39	6,283.7	-4,833.9	-233.3	4,837.2	0.00	0.00	0.00
11,000.0	90.84	179.39	6,282.2	-4,933.9	-232.2	4,937.2	0.00	0.00	0.00
11,100.0	90.84	179.39	6,280.8	-5,033.9	-231.1	5,037.1	0.00	0.00	0.00
11,200.0	90.84	179.39	6,279.3	-5,133.9	-230.1	5,137.1	0.00	0.00	0.00
11,300.0	90.84	179.39	6,277.9	-5,233.9	-229.0	5,237.0	0.00	0.00	0.00
11,400.0	90.84	179.39	6,276.4	-5,333.9	-227.9	5,337.0	0.00	0.00	0.00
11,500.0	90.84	179.39	6,274.9	-5,433.8	-226.9	5,436.9	0.00	0.00	0.00
11,600.0	90.84	179.39	6,273.5	-5,533.8	-225.8	5,536.9	0.00	0.00	0.00
11,700.0	90.84	179.39	6,272.0	-5,633.8	-224.7	5,636.8	0.00	0.00	0.00
11,800.0	90.84	179.39	6,270.5	-5,733.8	-223.7	5,736.8	0.00	0.00	0.00
11,900.0	90.84	179.39	6,269.1	-5,833.8	-222.6	5,836.7	0.00	0.00	0.00
12,000.0	90.84	179.39	6,267.6	-5,933.8	-221.6	5,936.7	0.00	0.00	0.00
12,100.0	90.84	179.39	6,266.2	-6,033.7	-220.5	6,036.6	0.00	0.00	0.00
12,200.0	90.84	179.39	6,264.7	-6,133.7	-219.4	6,136.6	0.00	0.00	0.00
12,300.0	90.84	179.39	6,263.2	-6,233.7	-218.4	6,236.5	0.00	0.00	0.00
12,400.0	90.84	179.39	6,261.8	-6,333.7	-217.3	6,336.5	0.00	0.00	0.00
12,500.0	90.84	179.39	6,260.3	-6,433.7	-216.2	6,436.4	0.00	0.00	0.00
12,600.0	90.84	179.39	6,258.8	-6,533.7	-215.2	6,536.4	0.00	0.00	0.00
12,700.0	90.84	179.39	6,257.4	-6,633.6	-214.1	6,636.3	0.00	0.00	0.00
12,800.0	90.84	179.39	6,255.9	-6,733.6	-213.0	6,736.3	0.00	0.00	0.00
12,900.0	90.84	179.39	6,254.5	-6,833.6	-212.0	6,836.2	0.00	0.00	0.00
13,000.0	90.84	179.39	6,253.0	-6,933.6	-210.9	6,936.2	0.00	0.00	0.00
13,100.0	90.84	179.39	6,251.5	-7,033.6	-209.8	7,036.1	0.00	0.00	0.00
13,200.0	90.84	179.39	6,250.1	-7,133.6	-208.8	7,136.1	0.00	0.00	0.00
13,300.0	90.84	179.39	6,248.6	-7,233.5	-207.7	7,236.0	0.00	0.00	0.00
13,400.0	90.84	179.39	6,247.1	-7,333.5	-206.6	7,336.0	0.00	0.00	0.00
13,500.0	90.84	179.39	6,245.7	-7,433.5	-205.6	7,435.9	0.00	0.00	0.00
13,600.0	90.84	179.39	6,244.2	-7,533.5	-204.5	7,535.9	0.00	0.00	0.00

Database:	US_EDM	Local Co-ordinate Reference:	Well Riggs 35-761-0662XBH
Company:	Caerus Oil and Gas LLC	TVD Reference:	WELL @ 4799.0ft (RKB - 30')
Project:	SEC.35-T7N-R61W	MD Reference:	WELL @ 4799.0ft (RKB - 30')
Site:	Riggs OP 35-761 Pad Sec.35-T7N-R61W	North Reference:	True
Well:	Riggs 35-761-0662XBH	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (9-29-16)		

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)	
13,700.0	90.84	179.39	6,242.8	-7,633.5	-203.4	7,635.8	0.00	0.00	0.00	
13,800.0	90.84	179.39	6,241.3	-7,733.5	-202.4	7,735.8	0.00	0.00	0.00	
13,900.0	90.84	179.39	6,239.8	-7,833.4	-201.3	7,835.7	0.00	0.00	0.00	
14,000.0	90.84	179.39	6,238.4	-7,933.4	-200.3	7,935.7	0.00	0.00	0.00	
14,100.0	90.84	179.39	6,236.9	-8,033.4	-199.2	8,035.6	0.00	0.00	0.00	
14,200.0	90.84	179.39	6,235.5	-8,133.4	-198.1	8,135.6	0.00	0.00	0.00	
14,300.0	90.84	179.39	6,234.0	-8,233.4	-197.1	8,235.5	0.00	0.00	0.00	
14,400.0	90.84	179.39	6,232.5	-8,333.4	-196.0	8,335.5	0.00	0.00	0.00	
14,500.0	90.84	179.39	6,231.1	-8,433.3	-194.9	8,435.4	0.00	0.00	0.00	
14,600.0	90.84	179.39	6,229.6	-8,533.3	-193.9	8,535.4	0.00	0.00	0.00	
14,700.0	90.84	179.39	6,228.1	-8,633.3	-192.8	8,635.3	0.00	0.00	0.00	
14,800.0	90.84	179.39	6,226.7	-8,733.3	-191.7	8,735.3	0.00	0.00	0.00	
14,900.0	90.84	179.39	6,225.2	-8,833.3	-190.7	8,835.2	0.00	0.00	0.00	
15,000.0	90.84	179.39	6,223.8	-8,933.3	-189.6	8,935.2	0.00	0.00	0.00	
15,100.0	90.84	179.39	6,222.3	-9,033.2	-188.5	9,035.1	0.00	0.00	0.00	
15,200.0	90.84	179.39	6,220.8	-9,133.2	-187.5	9,135.1	0.00	0.00	0.00	
15,300.0	90.84	179.39	6,219.4	-9,233.2	-186.4	9,235.1	0.00	0.00	0.00	
15,400.0	90.84	179.39	6,217.9	-9,333.2	-185.3	9,335.0	0.00	0.00	0.00	
15,500.0	90.84	179.39	6,216.4	-9,433.2	-184.3	9,435.0	0.00	0.00	0.00	
15,600.0	90.84	179.39	6,215.0	-9,533.2	-183.2	9,534.9	0.00	0.00	0.00	
15,700.0	90.84	179.39	6,213.5	-9,633.1	-182.1	9,634.9	0.00	0.00	0.00	
15,800.0	90.84	179.39	6,212.1	-9,733.1	-181.1	9,734.8	0.00	0.00	0.00	
15,900.0	90.84	179.39	6,210.6	-9,833.1	-180.0	9,834.8	0.00	0.00	0.00	
16,000.0	90.84	179.39	6,209.1	-9,933.1	-179.0	9,934.7	0.00	0.00	0.00	
16,100.0	90.84	179.39	6,207.7	-10,033.1	-177.9	10,034.7	0.00	0.00	0.00	
16,200.0	90.84	179.39	6,206.2	-10,133.1	-176.8	10,134.6	0.00	0.00	0.00	
16,300.0	90.84	179.39	6,204.7	-10,233.1	-175.8	10,234.6	0.00	0.00	0.00	
16,350.9	90.84	179.39	6,204.0	-10,283.9	-175.2	10,285.4	0.00	0.00	0.00	
TD at 16350.9										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude		
- hit/miss target										
- Shape								Longitude		
SHL 250'FSL, 1483'FEL	0.00	0.00	1.0	0.0	0.0	1,436,868.10	3,369,098.88	40.525018		
- plan hits target center										
- Point										
BHL 460'FSL, 1768'FEL	0.00	0.00	6,204.0	-10,284.0	-175.2	1,426,582.98	3,369,077.67	40.496790		
- plan hits target center										
- Point										
LPL 460'FNL, 1768'FEL,	0.00	0.00	6,344.0	-711.1	-277.2	1,436,152.90	3,368,832.39	40.523066		
- plan hits target center										
- Point										

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name		Casing Diameter (")	Hole Diameter (")
6,776.5	6,344.0	7"		7	8-3/4

Database:	US_EDM	Local Co-ordinate Reference:	Well Riggs 35-761-0662XBH
Company:	Caerus Oil and Gas LLC	TVD Reference:	WELL @ 4799.0ft (RKB - 30')
Project:	SEC.35-T7N-R61W	MD Reference:	WELL @ 4799.0ft (RKB - 30')
Site:	Riggs OP 35-761 Pad Sec.35-T7N-R61W	North Reference:	True
Well:	Riggs 35-761-0662XBH	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 (9-29-16)		

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,197.0	3,189.0	RICHARD_SD		0.00	
6,161.8	6,104.0	SHARON_SPRGS		0.00	
6,293.9	6,194.0	NIOBRARA		0.00	
6,345.3	6,224.0	NBRR_A		0.00	
6,390.8	6,248.0	NBRR_A_MARL		0.00	
6,496.6	6,294.0	NBRR_B		0.00	
6,776.5	6,344.0	NBRR_B_MARL		0.00	

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
1,200.0	1,200.0	0.0	0.0	KOP - Start Build 1.50	
4,239.8	4,227.0	0.9	-17.4	Start Drop -2.00	
5,641.1	5,627.9	14.8	-271.9	Start Build 8.00	
6,776.5	6,344.0	15.5	-284.9	Start DLS 0.50 TFO -144.50	
6,777.1	6,344.0	15.5	-284.9	Start 9573.9 hold at 6777.1 MD	
16,350.9	6,204.0	-711.1	-277.2	TD at 16350.9	