

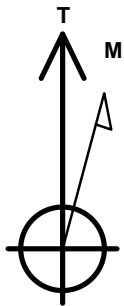
Caerus Oil and Gas LLC

Well Name: **Riggs 35-761-0662XAH**

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 1436868.29 3369113.62 40.525018 -104.172188
 RKB - 30' WELL @ 4799.0ft (RKB - 30')

WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
SHL 250'FSL, 1468'FEL, SEC.35	1.0	0.0	0.0	Point
BHL 460'FSL, 1610'FEL, SEC.11	6109.0	-10282.9	-32.0	Point
LPL 460'FNL, 1610'FEL, SEC.2	6243.0	-710.4	-134.0	Point



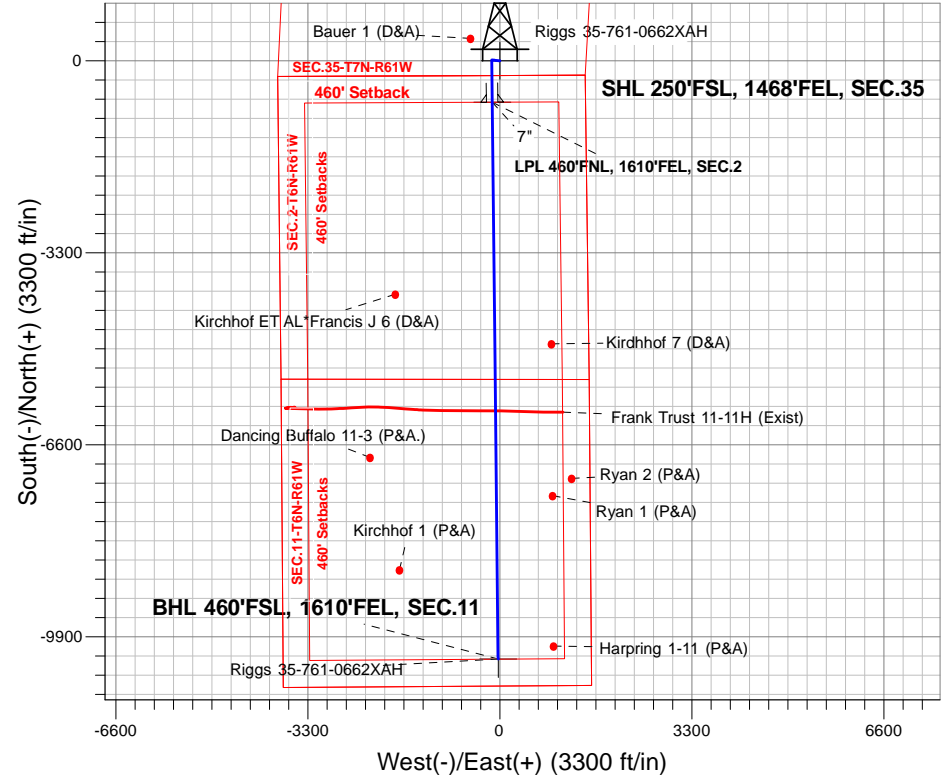
Azimuths to True North
 Magnetic North: 7.83°

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 35-761-0662XAH
 Plan #1 (9-29-16)
 11:22, October 04 2016

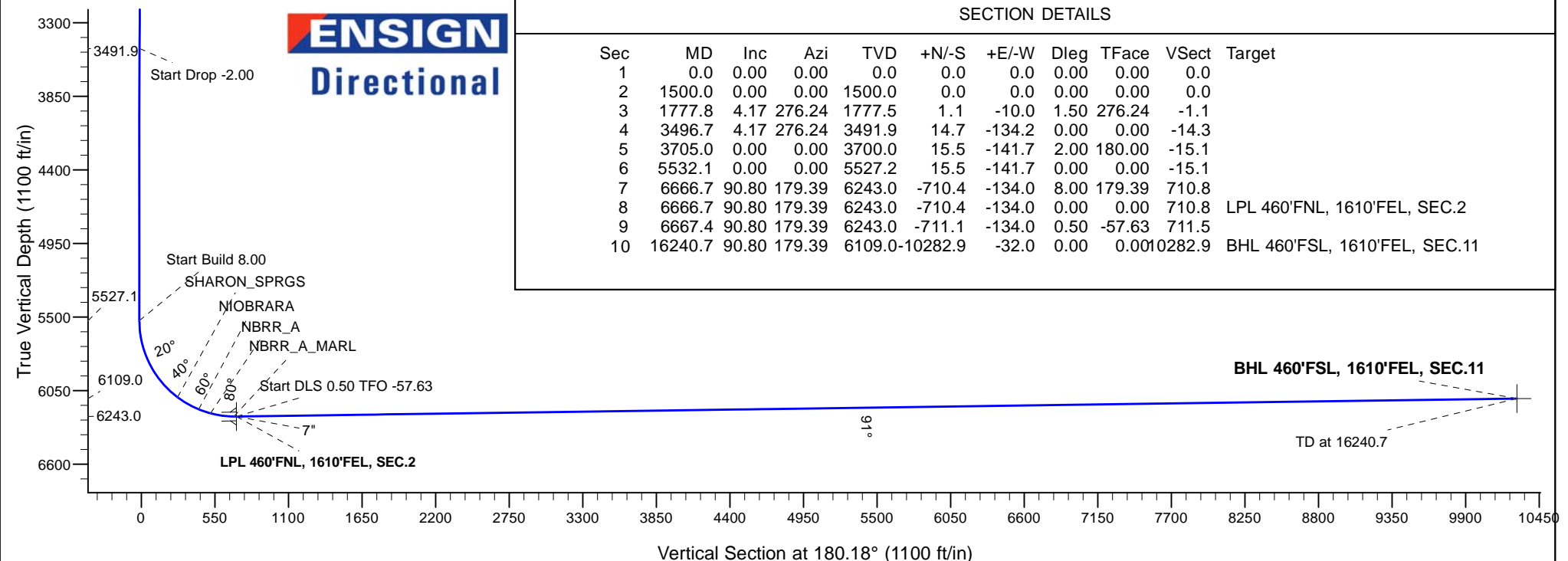
ANNOTATIONS

TVD	MD	Annotation
1500.0	1500.0	KOP - Start Build 1.50
3491.9	3496.7	Start Drop -2.00
5527.1	5532.1	Start Build 8.00
6243.0	6666.7	Start DLS 0.50 TFO -57.63
6243.0	6667.4	Start 9573.2 hold at 6667.4 MD
6109.0	16240.7	TD at 16240.7



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	1500.0	0.00	0.00	1500.0	0.0	0.0	0.00	0.00	0.0	
3	1777.8	4.17	276.24	1777.5	1.1	-10.0	1.50	276.24	-1.1	
4	3496.7	4.17	276.24	3491.9	14.7	-134.2	0.00	0.00	-14.3	
5	3705.0	0.00	0.00	3700.0	15.5	-141.7	2.00	180.00	-15.1	
6	5532.1	0.00	0.00	5527.2	15.5	-141.7	0.00	0.00	-15.1	
7	6666.7	90.80	179.39	6243.0	-710.4	-134.0	8.00	179.39	710.8	
8	6666.7	90.80	179.39	6243.0	-710.4	-134.0	0.00	0.00	710.8	LPL 460'FNL, 1610'FEL, SEC.2
9	6667.4	90.80	179.39	6243.0	-711.1	-134.0	0.50	-57.63	711.5	
10	16240.7	90.80	179.39	6109.0-10282.9	-32.0	0.00	0.00	10282.9		BHL 460'FSL, 1610'FEL, SEC.11





Caerus Oil and Gas LLC

SEC.35-T7N-R61W

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

Riggs 35-761-0662XAH

Wellbore #1

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

Standard Planning Report

04 October, 2016

Database:	US_EDM	Local Co-ordinate Reference:	Well Riggs 35-761-0662XAH
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 35-761-0662XAH	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 35-761-0662XAH					
Well Position	+N/-S	0.3 ft	Northing:	1,436,868.29 usft	Latitude:	40.525018
	+E/-W	89.8 ft	Easting:	3,369,113.62 usft	Longitude:	-104.172188
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	180.18

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	
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,777.8	4.17	276.24	1,777.5	1.1	-10.0	1.50	1.50	0.00	276.24	
3,496.7	4.17	276.24	3,491.9	14.7	-134.2	0.00	0.00	0.00	0.00	
3,705.0	0.00	0.00	3,700.0	15.5	-141.7	2.00	-2.00	0.00	180.00	
5,532.1	0.00	0.00	5,527.2	15.5	-141.7	0.00	0.00	0.00	0.00	
6,666.7	90.80	179.39	6,243.0	-710.4	-134.0	8.00	8.00	0.00	179.39	
6,666.7	90.80	179.39	6,243.0	-710.4	-134.0	0.00	0.00	0.00	0.00	LPL 460'FNL, 1610'FI
6,667.4	90.80	179.39	6,243.0	-711.1	-134.0	0.50	0.27	-0.42	-57.63	
16,240.7	90.80	179.39	6,109.0	-10,282.9	-32.0	0.00	0.00	0.00	0.00	BHL 460'FSL, 1610'FI

Database:	US_EDM	Local Co-ordinate Reference:	Well Riggs 35-761-0662XAH
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 35-761-0662XAH	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
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
KOP - Start Build 1.50									
1,600.0	1.50	276.24	1,600.0	0.1	-1.3	-0.1	1.50	1.50	0.00
1,700.0	3.00	276.24	1,699.9	0.6	-5.2	-0.6	1.50	1.50	0.00
1,777.8	4.17	276.24	1,777.5	1.1	-10.0	-1.1	1.50	1.50	0.00
1,800.0	4.17	276.24	1,799.7	1.3	-11.6	-1.2	0.00	0.00	0.00
1,900.0	4.17	276.24	1,899.4	2.1	-18.9	-2.0	0.00	0.00	0.00
2,000.0	4.17	276.24	1,999.2	2.9	-26.1	-2.8	0.00	0.00	0.00
2,100.0	4.17	276.24	2,098.9	3.6	-33.3	-3.5	0.00	0.00	0.00
2,200.0	4.17	276.24	2,198.6	4.4	-40.5	-4.3	0.00	0.00	0.00
2,300.0	4.17	276.24	2,298.4	5.2	-47.8	-5.1	0.00	0.00	0.00
2,400.0	4.17	276.24	2,398.1	6.0	-55.0	-5.8	0.00	0.00	0.00
2,500.0	4.17	276.24	2,497.8	6.8	-62.2	-6.6	0.00	0.00	0.00
2,600.0	4.17	276.24	2,597.6	7.6	-69.4	-7.4	0.00	0.00	0.00
2,700.0	4.17	276.24	2,697.3	8.4	-76.6	-8.1	0.00	0.00	0.00
2,800.0	4.17	276.24	2,797.1	9.2	-83.9	-8.9	0.00	0.00	0.00
2,900.0	4.17	276.24	2,896.8	10.0	-91.1	-9.7	0.00	0.00	0.00
3,000.0	4.17	276.24	2,996.5	10.8	-98.3	-10.4	0.00	0.00	0.00
3,100.0	4.17	276.24	3,096.3	11.5	-105.5	-11.2	0.00	0.00	0.00
3,193.0	4.17	276.24	3,189.0	12.3	-112.2	-11.9	0.00	0.00	0.00
RICHARD_SD									
3,200.0	4.17	276.24	3,196.0	12.3	-112.7	-12.0	0.00	0.00	0.00
3,300.0	4.17	276.24	3,295.7	13.1	-120.0	-12.8	0.00	0.00	0.00
3,400.0	4.17	276.24	3,395.5	13.9	-127.2	-13.5	0.00	0.00	0.00
3,496.7	4.17	276.24	3,491.9	14.7	-134.2	-14.3	0.00	0.00	0.00
Start Drop -2.00									
3,500.0	4.10	276.24	3,495.2	14.7	-134.4	-14.3	2.03	-2.03	0.00
3,600.0	2.10	276.24	3,595.1	15.3	-139.8	-14.9	2.00	-2.00	0.00
3,700.0	0.10	276.24	3,695.0	15.5	-141.7	-15.1	2.00	-2.00	0.00
3,705.0	0.00	0.00	3,700.0	15.5	-141.7	-15.1	2.00	-2.00	0.00
3,800.0	0.00	0.00	3,795.0	15.5	-141.7	-15.1	0.00	0.00	0.00
3,900.0	0.00	0.00	3,895.0	15.5	-141.7	-15.1	0.00	0.00	0.00
4,000.0	0.00	0.00	3,995.0	15.5	-141.7	-15.1	0.00	0.00	0.00
4,100.0	0.00	0.00	4,095.0	15.5	-141.7	-15.1	0.00	0.00	0.00
4,200.0	0.00	0.00	4,195.0	15.5	-141.7	-15.1	0.00	0.00	0.00
4,300.0	0.00	0.00	4,295.0	15.5	-141.7	-15.1	0.00	0.00	0.00
4,400.0	0.00	0.00	4,395.0	15.5	-141.7	-15.1	0.00	0.00	0.00
4,500.0	0.00	0.00	4,495.0	15.5	-141.7	-15.1	0.00	0.00	0.00

Database:	US_EDM	Local Co-ordinate Reference:	Well Riggs 35-761-0662XAH
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 35-761-0662XAH	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	4,595.0	15.5	-141.7	-15.1	0.00	0.00	0.00
4,700.0	0.00	0.00	4,695.0	15.5	-141.7	-15.1	0.00	0.00	0.00
4,800.0	0.00	0.00	4,795.0	15.5	-141.7	-15.1	0.00	0.00	0.00
4,900.0	0.00	0.00	4,895.0	15.5	-141.7	-15.1	0.00	0.00	0.00
5,000.0	0.00	0.00	4,995.0	15.5	-141.7	-15.1	0.00	0.00	0.00
5,100.0	0.00	0.00	5,095.0	15.5	-141.7	-15.1	0.00	0.00	0.00
5,200.0	0.00	0.00	5,195.0	15.5	-141.7	-15.1	0.00	0.00	0.00
5,300.0	0.00	0.00	5,295.0	15.5	-141.7	-15.1	0.00	0.00	0.00
5,400.0	0.00	0.00	5,395.0	15.5	-141.7	-15.1	0.00	0.00	0.00
5,500.0	0.00	0.00	5,495.0	15.5	-141.7	-15.1	0.00	0.00	0.00
5,532.1	0.00	0.00	5,527.1	15.5	-141.7	-15.1	0.00	0.00	0.00
Start Build 8.00									
5,600.0	5.43	179.39	5,594.9	12.3	-141.7	-11.8	8.00	8.00	0.00
5,700.0	13.43	179.39	5,693.5	-4.1	-141.5	4.5	8.00	8.00	0.00
5,800.0	21.44	179.39	5,788.8	-34.0	-141.2	34.5	8.00	8.00	0.00
5,900.0	29.44	179.39	5,879.1	-76.9	-140.7	77.4	8.00	8.00	0.00
6,000.0	37.44	179.39	5,962.4	-132.0	-140.1	132.4	8.00	8.00	0.00
6,100.0	45.45	179.39	6,037.3	-198.1	-139.4	198.6	8.00	8.00	0.00
6,194.5	53.01	179.39	6,099.0	-269.7	-138.7	270.1	8.00	8.00	0.00
SHARON_SPRGS									
6,200.0	53.45	179.39	6,102.3	-274.1	-138.6	274.5	8.00	8.00	0.00
6,300.0	61.45	179.39	6,156.0	-358.3	-137.7	358.7	8.00	8.00	0.00
6,376.7	67.59	179.39	6,189.0	-427.4	-137.0	427.9	8.00	8.00	0.00
NIOBRARA									
6,400.0	69.46	179.39	6,197.5	-449.2	-136.8	449.6	8.00	8.00	0.00
6,470.5	75.10	179.39	6,219.0	-516.3	-136.1	516.7	8.00	8.00	0.00
NBRR_A									
6,500.0	77.46	179.39	6,226.0	-544.9	-135.8	545.4	8.00	8.00	0.00
6,600.0	85.46	179.39	6,240.8	-643.7	-134.7	644.2	8.00	8.00	0.00
6,646.6	89.20	179.39	6,243.0	-690.3	-134.2	690.7	8.00	8.00	0.00
NBRR_A_MARL									
6,666.7	90.80	179.39	6,243.0	-710.4	-134.0	710.8	7.99	7.99	0.00
Start DLS 0.50 TFO -57.63									
6,667.4	90.80	179.39	6,243.0	-711.1	-134.0	711.5	0.49	0.26	-0.41
Start 9573.2 hold at 6667.4 MD									
6,700.0	90.80	179.39	6,242.5	-743.7	-133.6	744.1	0.00	0.00	0.00
6,800.0	90.80	179.39	6,241.1	-843.7	-132.6	844.1	0.00	0.00	0.00
6,900.0	90.80	179.39	6,239.7	-943.7	-131.5	944.1	0.00	0.00	0.00
7,000.0	90.80	179.39	6,238.3	-1,043.6	-130.5	1,044.0	0.00	0.00	0.00
7,100.0	90.80	179.39	6,236.9	-1,143.6	-129.4	1,144.0	0.00	0.00	0.00
7,200.0	90.80	179.39	6,235.5	-1,243.6	-128.3	1,244.0	0.00	0.00	0.00
7,300.0	90.80	179.39	6,234.1	-1,343.6	-127.3	1,344.0	0.00	0.00	0.00
7,400.0	90.80	179.39	6,232.7	-1,443.6	-126.2	1,444.0	0.00	0.00	0.00
7,500.0	90.80	179.39	6,231.3	-1,543.6	-125.1	1,543.9	0.00	0.00	0.00
7,600.0	90.80	179.39	6,229.9	-1,643.5	-124.1	1,643.9	0.00	0.00	0.00
7,700.0	90.80	179.39	6,228.5	-1,743.5	-123.0	1,743.9	0.00	0.00	0.00
7,800.0	90.80	179.39	6,227.1	-1,843.5	-121.9	1,843.9	0.00	0.00	0.00
7,900.0	90.80	179.39	6,225.7	-1,943.5	-120.9	1,943.9	0.00	0.00	0.00
8,000.0	90.80	179.39	6,224.3	-2,043.5	-119.8	2,043.8	0.00	0.00	0.00
8,100.0	90.80	179.39	6,222.9	-2,143.5	-118.7	2,143.8	0.00	0.00	0.00
8,200.0	90.80	179.39	6,221.5	-2,243.4	-117.7	2,243.8	0.00	0.00	0.00
8,300.0	90.80	179.39	6,220.1	-2,343.4	-116.6	2,343.8	0.00	0.00	0.00
8,400.0	90.80	179.39	6,218.7	-2,443.4	-115.5	2,443.8	0.00	0.00	0.00

Database:	US_EDM	Local Co-ordinate Reference:	Well Riggs 35-761-0662XAH
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 35-761-0662XAH	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)
8,500.0	90.80	179.39	6,217.3	-2,543.4	-114.5	2,543.7	0.00	0.00	0.00
8,600.0	90.80	179.39	6,215.9	-2,643.4	-113.4	2,643.7	0.00	0.00	0.00
8,700.0	90.80	179.39	6,214.5	-2,743.4	-112.3	2,743.7	0.00	0.00	0.00
8,800.0	90.80	179.39	6,213.1	-2,843.4	-111.3	2,843.7	0.00	0.00	0.00
8,900.0	90.80	179.39	6,211.7	-2,943.3	-110.2	2,943.7	0.00	0.00	0.00
9,000.0	90.80	179.39	6,210.3	-3,043.3	-109.1	3,043.7	0.00	0.00	0.00
9,100.0	90.80	179.39	6,208.9	-3,143.3	-108.1	3,143.6	0.00	0.00	0.00
9,200.0	90.80	179.39	6,207.5	-3,243.3	-107.0	3,243.6	0.00	0.00	0.00
9,300.0	90.80	179.39	6,206.1	-3,343.3	-105.9	3,343.6	0.00	0.00	0.00
9,400.0	90.80	179.39	6,204.7	-3,443.3	-104.9	3,443.6	0.00	0.00	0.00
9,500.0	90.80	179.39	6,203.3	-3,543.2	-103.8	3,543.6	0.00	0.00	0.00
9,600.0	90.80	179.39	6,201.9	-3,643.2	-102.7	3,643.5	0.00	0.00	0.00
9,700.0	90.80	179.39	6,200.5	-3,743.2	-101.7	3,743.5	0.00	0.00	0.00
9,800.0	90.80	179.39	6,199.1	-3,843.2	-100.6	3,843.5	0.00	0.00	0.00
9,900.0	90.80	179.39	6,197.7	-3,943.2	-99.5	3,943.5	0.00	0.00	0.00
10,000.0	90.80	179.39	6,196.3	-4,043.2	-98.5	4,043.5	0.00	0.00	0.00
10,100.0	90.80	179.39	6,194.9	-4,143.2	-97.4	4,143.4	0.00	0.00	0.00
10,200.0	90.80	179.39	6,193.5	-4,243.1	-96.4	4,243.4	0.00	0.00	0.00
10,300.0	90.80	179.39	6,192.1	-4,343.1	-95.3	4,343.4	0.00	0.00	0.00
10,400.0	90.80	179.39	6,190.7	-4,443.1	-94.2	4,443.4	0.00	0.00	0.00
10,500.0	90.80	179.39	6,189.3	-4,543.1	-93.2	4,543.4	0.00	0.00	0.00
10,600.0	90.80	179.39	6,187.9	-4,643.1	-92.1	4,643.3	0.00	0.00	0.00
10,700.0	90.80	179.39	6,186.5	-4,743.1	-91.0	4,743.3	0.00	0.00	0.00
10,800.0	90.80	179.39	6,185.1	-4,843.0	-90.0	4,843.3	0.00	0.00	0.00
10,900.0	90.80	179.39	6,183.7	-4,943.0	-88.9	4,943.3	0.00	0.00	0.00
11,000.0	90.80	179.39	6,182.3	-5,043.0	-87.8	5,043.3	0.00	0.00	0.00
11,100.0	90.80	179.39	6,181.0	-5,143.0	-86.8	5,143.2	0.00	0.00	0.00
11,200.0	90.80	179.39	6,179.6	-5,243.0	-85.7	5,243.2	0.00	0.00	0.00
11,300.0	90.80	179.39	6,178.2	-5,343.0	-84.6	5,343.2	0.00	0.00	0.00
11,400.0	90.80	179.39	6,176.8	-5,443.0	-83.6	5,443.2	0.00	0.00	0.00
11,500.0	90.80	179.39	6,175.4	-5,542.9	-82.5	5,543.2	0.00	0.00	0.00
11,600.0	90.80	179.39	6,174.0	-5,642.9	-81.4	5,643.1	0.00	0.00	0.00
11,700.0	90.80	179.39	6,172.6	-5,742.9	-80.4	5,743.1	0.00	0.00	0.00
11,800.0	90.80	179.39	6,171.2	-5,842.9	-79.3	5,843.1	0.00	0.00	0.00
11,900.0	90.80	179.39	6,169.8	-5,942.9	-78.2	5,943.1	0.00	0.00	0.00
12,000.0	90.80	179.39	6,168.4	-6,042.9	-77.2	6,043.1	0.00	0.00	0.00
12,100.0	90.80	179.39	6,167.0	-6,142.8	-76.1	6,143.1	0.00	0.00	0.00
12,200.0	90.80	179.39	6,165.6	-6,242.8	-75.0	6,243.0	0.00	0.00	0.00
12,300.0	90.80	179.39	6,164.2	-6,342.8	-74.0	6,343.0	0.00	0.00	0.00
12,400.0	90.80	179.39	6,162.8	-6,442.8	-72.9	6,443.0	0.00	0.00	0.00
12,500.0	90.80	179.39	6,161.4	-6,542.8	-71.8	6,543.0	0.00	0.00	0.00
12,600.0	90.80	179.39	6,160.0	-6,642.8	-70.8	6,643.0	0.00	0.00	0.00
12,700.0	90.80	179.39	6,158.6	-6,742.8	-69.7	6,742.9	0.00	0.00	0.00
12,800.0	90.80	179.39	6,157.2	-6,842.7	-68.6	6,842.9	0.00	0.00	0.00
12,900.0	90.80	179.39	6,155.8	-6,942.7	-67.6	6,942.9	0.00	0.00	0.00
13,000.0	90.80	179.39	6,154.4	-7,042.7	-66.5	7,042.9	0.00	0.00	0.00
13,100.0	90.80	179.39	6,153.0	-7,142.7	-65.5	7,142.9	0.00	0.00	0.00
13,200.0	90.80	179.39	6,151.6	-7,242.7	-64.4	7,242.8	0.00	0.00	0.00
13,300.0	90.80	179.39	6,150.2	-7,342.7	-63.3	7,342.8	0.00	0.00	0.00
13,400.0	90.80	179.39	6,148.8	-7,442.6	-62.3	7,442.8	0.00	0.00	0.00
13,500.0	90.80	179.39	6,147.4	-7,542.6	-61.2	7,542.8	0.00	0.00	0.00
13,600.0	90.80	179.39	6,146.0	-7,642.6	-60.1	7,642.8	0.00	0.00	0.00
13,700.0	90.80	179.39	6,144.6	-7,742.6	-59.1	7,742.7	0.00	0.00	0.00
13,800.0	90.80	179.39	6,143.2	-7,842.6	-58.0	7,842.7	0.00	0.00	0.00

Database:	US_EDM	Local Co-ordinate Reference:	Well Riggs 35-761-0662XAH
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 35-761-0662XAH	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)	
13,900.0	90.80	179.39	6,141.8	-7,942.6	-56.9	7,942.7	0.00	0.00	0.00	
14,000.0	90.80	179.39	6,140.4	-8,042.6	-55.9	8,042.7	0.00	0.00	0.00	
14,100.0	90.80	179.39	6,139.0	-8,142.5	-54.8	8,142.7	0.00	0.00	0.00	
14,200.0	90.80	179.39	6,137.6	-8,242.5	-53.7	8,242.6	0.00	0.00	0.00	
14,300.0	90.80	179.39	6,136.2	-8,342.5	-52.7	8,342.6	0.00	0.00	0.00	
14,400.0	90.80	179.39	6,134.8	-8,442.5	-51.6	8,442.6	0.00	0.00	0.00	
14,500.0	90.80	179.39	6,133.4	-8,542.5	-50.5	8,542.6	0.00	0.00	0.00	
14,600.0	90.80	179.39	6,132.0	-8,642.5	-49.5	8,642.6	0.00	0.00	0.00	
14,700.0	90.80	179.39	6,130.6	-8,742.4	-48.4	8,742.6	0.00	0.00	0.00	
14,800.0	90.80	179.39	6,129.2	-8,842.4	-47.3	8,842.5	0.00	0.00	0.00	
14,900.0	90.80	179.39	6,127.8	-8,942.4	-46.3	8,942.5	0.00	0.00	0.00	
15,000.0	90.80	179.39	6,126.4	-9,042.4	-45.2	9,042.5	0.00	0.00	0.00	
15,100.0	90.80	179.39	6,125.0	-9,142.4	-44.1	9,142.5	0.00	0.00	0.00	
15,200.0	90.80	179.39	6,123.6	-9,242.4	-43.1	9,242.5	0.00	0.00	0.00	
15,300.0	90.80	179.39	6,122.2	-9,342.4	-42.0	9,342.4	0.00	0.00	0.00	
15,400.0	90.80	179.39	6,120.8	-9,442.3	-40.9	9,442.4	0.00	0.00	0.00	
15,500.0	90.80	179.39	6,119.4	-9,542.3	-39.9	9,542.4	0.00	0.00	0.00	
15,600.0	90.80	179.39	6,118.0	-9,642.3	-38.8	9,642.4	0.00	0.00	0.00	
15,700.0	90.80	179.39	6,116.6	-9,742.3	-37.7	9,742.4	0.00	0.00	0.00	
15,800.0	90.80	179.39	6,115.2	-9,842.3	-36.7	9,842.3	0.00	0.00	0.00	
15,900.0	90.80	179.39	6,113.8	-9,942.3	-35.6	9,942.3	0.00	0.00	0.00	
16,000.0	90.80	179.39	6,112.4	-10,042.2	-34.5	10,042.3	0.00	0.00	0.00	
16,100.0	90.80	179.39	6,111.0	-10,142.2	-33.5	10,142.3	0.00	0.00	0.00	
16,200.0	90.80	179.39	6,109.6	-10,242.2	-32.4	10,242.3	0.00	0.00	0.00	
16,240.7	90.80	179.39	6,109.0	-10,282.9	-32.0	10,282.9	0.00	0.00	0.00	
TD at 16240.7										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
SHL 250'FSL, 1468'FEL - hit/miss target - Shape - Point	0.00	0.00	1.0	0.0	0.0	1,436,868.32	3,369,113.62	40.525018	-104.172188	
BHL 460'FSL, 1610'FEL - plan hits target center - Point	0.00	0.00	6,109.0	-10,282.9	-32.0	1,426,586.44	3,369,235.60	40.496793	-104.172303	
LPL 460'FNL, 1610'FEL, - plan hits target center - Point	0.00	0.00	6,243.0	-710.4	-134.0	1,436,155.99	3,368,990.27	40.523068	-104.172670	

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
6,666.7	6,243.0	7"	7	8-3/4	

Database:	US_EDM	Local Co-ordinate Reference:	Well Riggs 35-761-0662XAH
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 35-761-0662XAH	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 (°)
3,193.0	3,189.0	RICHARD_SD		0.00	
6,194.5	6,099.0	SHARON_SPRGS		0.00	
6,376.7	6,189.0	NIOBRARA		0.00	
6,470.5	6,219.0	NBRR_A		0.00	
6,646.6	6,243.0	NBRR_A_MARL		0.00	

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
1,500.0	1,500.0	0.0	0.0	KOP - Start Build 1.50
3,496.7	3,491.9	14.7	-134.2	Start Drop -2.00
5,532.1	5,527.1	15.5	-141.7	Start Build 8.00
6,666.7	6,243.0	-710.4	-134.0	Start DLS 0.50 TFO -57.63
6,667.4	6,243.0	-711.1	-134.0	Start 9573.2 hold at 6667.4 MD
16,240.7	6,109.0	-10,282.9	-32.0	TD at 16240.7