

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Latitude: 40° 36' 46.796 N
Longitude: 104° 45' 28.465 W
Grid Convergence: 0.48° West
Ground Elevation: 5001.0
KB Elevation: Well @ 5016.0usft

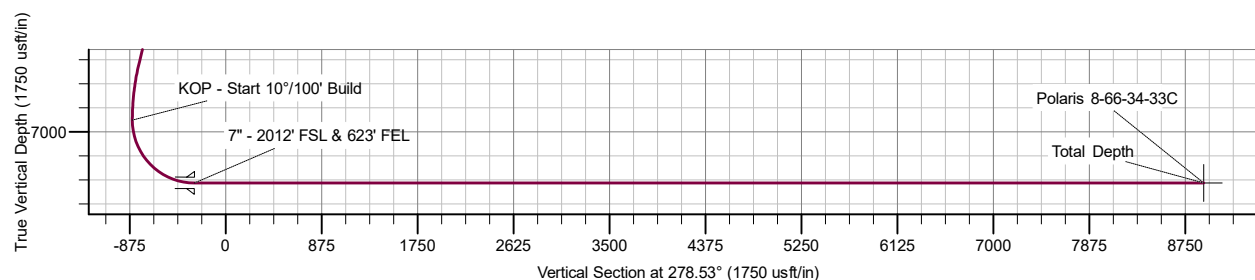
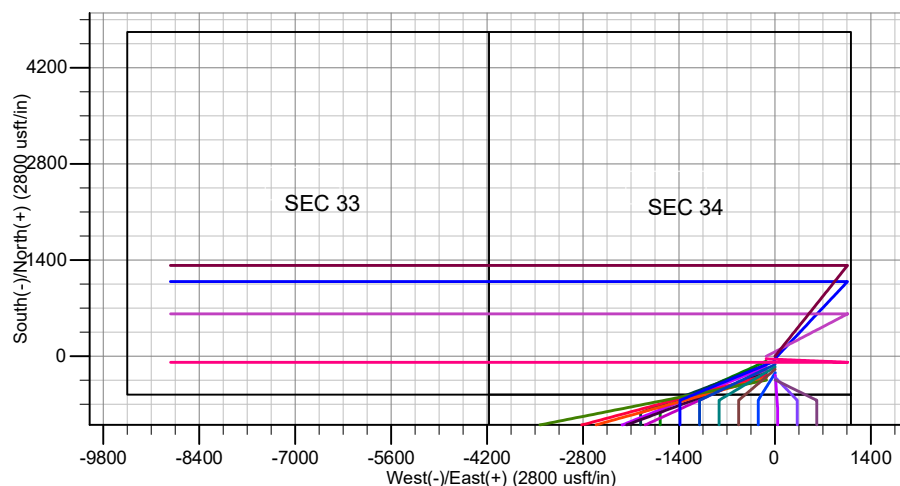
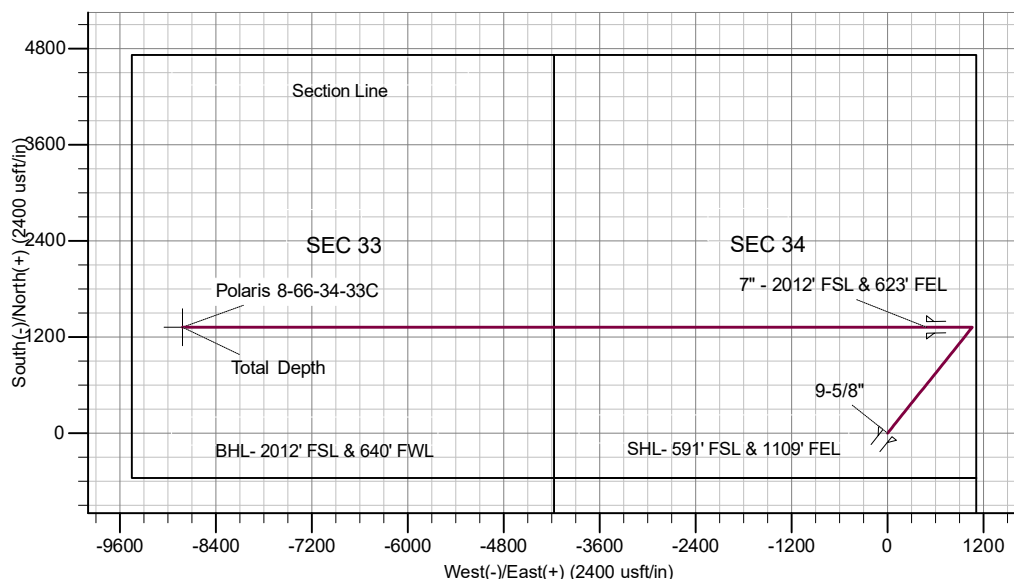


RPM Consulting, Inc.
1600 Broadway, Suite 1510
Denver, CO 80013
303-595-7625

CASING DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSEct
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0
1500.0	0.00	0.00	1500.0	0.0	0.0	0.00	0.00	0.0
2752.4	0.00	0.00	2752.4	0.0	0.0	0.00	0.00	0.0
3252.4	25.00	38.70	3236.7	83.8	67.1	5.00	38.70	-54.0
6752.3	25.00	38.70	6408.7	1238.2	991.9	0.00	0.00	-797.3
7252.3	0.00	0.00	6893.0	1322.0	1059.0	5.00	180.00	-851.2
8152.3	90.00	270.00	7466.0	1322.0	486.0	10.00	270.00	-284.6
8216.3	90.00	270.00	7466.0	1322.0	422.1	0.00	0.00	-221.4
17457.3	90.00	270.00	7466.0	1322.6	-8818.9	0.00	0.00	8917.5

TVD	MD	Name
1500.0	1500.0	Surface
7466.0	8152.3	Intermediate



Enerplus Resources (USA) Corporation

**Weld County, CO
SEC 34, T8N-R66W
Polaris 8-66-34-33C**

Hz

Plan: Plan 1

Standard Planning Report

08 January, 2018

Planning Report

Database:	EDM Server Database	Local Co-ordinate Reference:	Well Polaris 8-66-34-33C
Company:	Enerplus Resources (USA) Corporation	TVD Reference:	Well @ 5016.0usft
Project:	Weld County, CO	MD Reference:	Well @ 5016.0usft
Site:	SEC 34, T8N-R66W	North Reference:	True
Well:	Polaris 8-66-34-33C	Survey Calculation Method:	Minimum Curvature
Wellbore:	Hz		
Design:	Plan 1		

Project	Weld County, CO		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site		SEC 34, T8N-R66W			
Site Position:		Northing:	1,466,670.78 usft	Latitude:	40° 36' 43.362 N
From:	Lat/Long	Easting:	3,205,908.72 usft	Longitude:	104° 45' 30.060 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.48 °

Well		Polaris 8-66-34-33C				
Well Position	+N/-S	347.6 usft	Northing:	1,467,019.35 usft	Latitude:	40° 36' 46.796 N
	+E/-W	123.0 usft	Easting:	3,206,028.80 usft	Longitude:	104° 45' 28.465 W
Position Uncertainty		0.0 usft	Wellhead Elevation:		Ground Level:	5,001.0 usft

Wellbore	Hz				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	1/5/2018	8.17	67.01	52,438.57383110

Design	Plan 1			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	278.53

Plan Survey Tool Program	Date	1/8/2018		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	17,457.3 Plan 1 (Hz)	MWD	
			Geolink MWD	

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	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	
2,752.4	0.00	0.00	2,752.4	0.0	0.0	0.00	0.00	0.00	0.00	
3,252.4	25.00	38.70	3,236.7	83.8	67.1	5.00	5.00	0.00	38.70	
6,752.3	25.00	38.70	6,408.7	1,238.2	991.9	0.00	0.00	0.00	0.00	
7,252.3	0.00	0.00	6,893.0	1,322.0	1,059.0	5.00	-5.00	0.00	180.00	
8,152.3	90.00	270.00	7,466.0	1,322.0	486.0	10.00	10.00	0.00	270.00	
8,216.3	90.00	270.00	7,466.0	1,322.0	422.1	0.00	0.00	0.00	0.00	
17,457.3	90.00	270.00	7,466.0	1,322.6	-8,818.9	0.00	0.00	0.00	0.00	Polaris 8-66-34-33C

Planning Report

Database:	EDM Server Database	Local Co-ordinate Reference:	Well Polaris 8-66-34-33C
Company:	Enerplus Resources (USA) Corporation	TVD Reference:	Well @ 5016.0usft
Project:	Weld County, CO	MD Reference:	Well @ 5016.0usft
Site:	SEC 34, T8N-R66W	North Reference:	True
Well:	Polaris 8-66-34-33C	Survey Calculation Method:	Minimum Curvature
Wellbore:	Hz		
Design:	Plan 1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	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
9-5/8" - Surface									
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,752.4	0.00	0.00	2,752.4	0.0	0.0	0.0	0.00	0.00	0.00
Begin Nudge									
2,800.0	2.38	38.70	2,800.0	0.8	0.6	-0.5	5.00	5.00	0.00
2,900.0	7.38	38.70	2,899.6	7.4	5.9	-4.8	5.00	5.00	0.00
3,000.0	12.38	38.70	2,998.1	20.8	16.7	-13.4	5.00	5.00	0.00
3,100.0	17.38	38.70	3,094.7	40.8	32.7	-26.3	5.00	5.00	0.00
3,200.0	22.38	38.70	3,188.7	67.4	54.0	-43.4	5.00	5.00	0.00
3,252.4	25.00	38.70	3,236.7	83.8	67.1	-54.0	5.00	5.00	0.00
3,300.0	25.00	38.70	3,279.8	99.5	79.7	-64.1	0.00	0.00	0.00
3,400.0	25.00	38.70	3,370.5	132.5	106.1	-85.3	0.00	0.00	0.00
3,500.0	25.00	38.70	3,461.1	165.5	132.5	-106.5	0.00	0.00	0.00
3,600.0	25.00	38.70	3,551.7	198.4	159.0	-127.8	0.00	0.00	0.00
3,700.0	25.00	38.70	3,642.3	231.4	185.4	-149.0	0.00	0.00	0.00
3,800.0	25.00	38.70	3,733.0	264.4	211.8	-170.2	0.00	0.00	0.00
3,900.0	25.00	38.70	3,823.6	297.4	238.2	-191.5	0.00	0.00	0.00
4,000.0	25.00	38.70	3,914.2	330.4	264.7	-212.7	0.00	0.00	0.00
4,100.0	25.00	38.70	4,004.9	363.4	291.1	-234.0	0.00	0.00	0.00
4,200.0	25.00	38.70	4,095.5	396.3	317.5	-255.2	0.00	0.00	0.00
4,300.0	25.00	38.70	4,186.1	429.3	343.9	-276.4	0.00	0.00	0.00
4,400.0	25.00	38.70	4,276.8	462.3	370.3	-297.7	0.00	0.00	0.00
4,500.0	25.00	38.70	4,367.4	495.3	396.8	-318.9	0.00	0.00	0.00
4,600.0	25.00	38.70	4,458.0	528.3	423.2	-340.2	0.00	0.00	0.00
4,700.0	25.00	38.70	4,548.7	561.3	449.6	-361.4	0.00	0.00	0.00
4,800.0	25.00	38.70	4,639.3	594.2	476.0	-382.6	0.00	0.00	0.00

Planning Report

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Company:	Enerplus Resources (USA) Corporation	TVD Reference:	Well @ 5016.0usft
Project:	Weld County, CO	MD Reference:	Well @ 5016.0usft
Site:	SEC 34, T8N-R66W	North Reference:	True
Well:	Polaris 8-66-34-33C	Survey Calculation Method:	Minimum Curvature
Wellbore:	Hz		
Design:	Plan 1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,900.0	25.00	38.70	4,729.9	627.2	502.4	-403.9	0.00	0.00	0.00
5,000.0	25.00	38.70	4,820.5	660.2	528.9	-425.1	0.00	0.00	0.00
5,100.0	25.00	38.70	4,911.2	693.2	555.3	-446.3	0.00	0.00	0.00
5,200.0	25.00	38.70	5,001.8	726.2	581.7	-467.6	0.00	0.00	0.00
5,300.0	25.00	38.70	5,092.4	759.2	608.1	-488.8	0.00	0.00	0.00
5,400.0	25.00	38.70	5,183.1	792.2	634.6	-510.1	0.00	0.00	0.00
5,500.0	25.00	38.70	5,273.7	825.1	661.0	-531.3	0.00	0.00	0.00
5,600.0	25.00	38.70	5,364.3	858.1	687.4	-552.5	0.00	0.00	0.00
5,700.0	25.00	38.70	5,455.0	891.1	713.8	-573.8	0.00	0.00	0.00
5,800.0	25.00	38.70	5,545.6	924.1	740.2	-595.0	0.00	0.00	0.00
5,900.0	25.00	38.70	5,636.2	957.1	766.7	-616.2	0.00	0.00	0.00
6,000.0	25.00	38.70	5,726.9	990.1	793.1	-637.5	0.00	0.00	0.00
6,100.0	25.00	38.70	5,817.5	1,023.0	819.5	-658.7	0.00	0.00	0.00
6,200.0	25.00	38.70	5,908.1	1,056.0	845.9	-680.0	0.00	0.00	0.00
6,300.0	25.00	38.70	5,998.7	1,089.0	872.4	-701.2	0.00	0.00	0.00
6,400.0	25.00	38.70	6,089.4	1,122.0	898.8	-722.4	0.00	0.00	0.00
6,500.0	25.00	38.70	6,180.0	1,155.0	925.2	-743.7	0.00	0.00	0.00
6,600.0	25.00	38.70	6,270.6	1,188.0	951.6	-764.9	0.00	0.00	0.00
6,700.0	25.00	38.70	6,361.3	1,220.9	978.0	-786.1	0.00	0.00	0.00
6,752.3	25.00	38.70	6,408.7	1,238.2	991.9	-797.3	0.00	0.00	0.00
6,800.0	22.62	38.70	6,452.3	1,253.2	1,003.9	-806.9	5.00	-5.00	0.00
6,900.0	17.62	38.70	6,546.2	1,280.1	1,025.4	-824.2	5.00	-5.00	0.00
7,000.0	12.62	38.70	6,642.7	1,300.4	1,041.7	-837.3	5.00	-5.00	0.00
7,100.0	7.62	38.70	6,741.1	1,314.1	1,052.7	-846.1	5.00	-5.00	0.00
7,200.0	2.62	38.70	6,840.7	1,321.1	1,058.3	-850.6	5.00	-5.00	0.00
7,252.3	0.00	38.70	6,893.0	1,322.0	1,059.0	-851.2	5.00	-5.00	0.00
KOP - Start 10°/100' Build									
7,300.0	4.77	270.00	6,940.6	1,322.0	1,057.0	-849.3	9.99	9.99	-269.80
7,400.0	14.77	270.00	7,039.0	1,322.0	1,040.1	-832.5	10.00	10.00	0.00
7,500.0	24.77	270.00	7,133.0	1,322.0	1,006.3	-799.1	10.00	10.00	0.00
7,600.0	34.77	270.00	7,219.7	1,322.0	956.7	-750.1	10.00	10.00	0.00
7,700.0	44.77	270.00	7,296.5	1,322.0	892.8	-686.9	10.00	10.00	0.00
7,800.0	54.77	270.00	7,361.0	1,322.0	816.6	-611.5	10.00	10.00	0.00
7,900.0	64.77	270.00	7,411.3	1,322.0	730.3	-526.2	10.00	10.00	0.00
8,000.0	74.77	270.00	7,445.8	1,322.0	636.6	-433.5	10.00	10.00	0.00
8,100.0	84.77	270.00	7,463.6	1,322.0	538.3	-336.3	10.00	10.00	0.00
8,152.3	90.00	270.00	7,466.0	1,322.0	486.1	-284.6	10.00	10.00	0.00
7" - 2012' FSL & 623' FEL - Intermediate									
8,200.0	90.00	270.00	7,466.0	1,322.0	438.4	-237.5	0.01	0.01	0.00
8,216.3	90.00	270.00	7,466.0	1,322.0	422.1	-221.4	0.00	0.00	0.00
8,300.0	90.00	270.00	7,466.0	1,322.0	338.4	-138.6	0.00	0.00	0.00
8,400.0	90.00	270.00	7,466.0	1,322.0	238.4	-39.7	0.00	0.00	0.00
8,500.0	90.00	270.00	7,466.0	1,322.0	138.4	59.2	0.00	0.00	0.00
8,600.0	90.00	270.00	7,466.0	1,322.0	38.4	158.1	0.00	0.00	0.00
8,700.0	90.00	270.00	7,466.0	1,322.0	-61.6	257.0	0.00	0.00	0.00
8,800.0	90.00	270.00	7,466.0	1,322.0	-161.6	355.9	0.00	0.00	0.00
8,900.0	90.00	270.00	7,466.0	1,322.0	-261.6	454.8	0.00	0.00	0.00
9,000.0	90.00	270.00	7,466.0	1,322.0	-361.6	553.7	0.00	0.00	0.00
9,100.0	90.00	270.00	7,466.0	1,322.0	-461.6	652.6	0.00	0.00	0.00
9,200.0	90.00	270.00	7,466.0	1,322.0	-561.6	751.5	0.00	0.00	0.00
9,300.0	90.00	270.00	7,466.0	1,322.0	-661.6	850.4	0.00	0.00	0.00
9,400.0	90.00	270.00	7,466.0	1,322.0	-761.6	949.3	0.00	0.00	0.00
9,500.0	90.00	270.00	7,466.0	1,322.0	-861.6	1,048.2	0.00	0.00	0.00
9,600.0	90.00	270.00	7,466.0	1,322.0	-961.6	1,147.0	0.00	0.00	0.00

Planning Report

Database:	EDM Server Database	Local Co-ordinate Reference:	Well Polaris 8-66-34-33C
Company:	Enerplus Resources (USA) Corporation	TVD Reference:	Well @ 5016.0usft
Project:	Weld County, CO	MD Reference:	Well @ 5016.0usft
Site:	SEC 34, T8N-R66W	North Reference:	True
Well:	Polaris 8-66-34-33C	Survey Calculation Method:	Minimum Curvature
Wellbore:	Hz		
Design:	Plan 1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
9,700.0	90.00	270.00	7,466.0	1,322.0	-1,061.6	1,245.9	0.00	0.00	0.00	
9,800.0	90.00	270.00	7,466.0	1,322.0	-1,161.6	1,344.8	0.00	0.00	0.00	
9,900.0	90.00	270.00	7,466.0	1,322.0	-1,261.6	1,443.7	0.00	0.00	0.00	
10,000.0	90.00	270.00	7,466.0	1,322.0	-1,361.6	1,542.6	0.00	0.00	0.00	
10,100.0	90.00	270.00	7,466.0	1,322.0	-1,461.6	1,641.5	0.00	0.00	0.00	
10,200.0	90.00	270.00	7,466.0	1,322.0	-1,561.6	1,740.4	0.00	0.00	0.00	
10,300.0	90.00	270.00	7,466.0	1,322.0	-1,661.6	1,839.3	0.00	0.00	0.00	
10,400.0	90.00	270.00	7,466.0	1,322.0	-1,761.6	1,938.2	0.00	0.00	0.00	
10,500.0	90.00	270.00	7,466.0	1,322.0	-1,861.6	2,037.1	0.00	0.00	0.00	
10,600.0	90.00	270.00	7,466.0	1,322.0	-1,961.6	2,136.0	0.00	0.00	0.00	
10,700.0	90.00	270.00	7,466.0	1,322.0	-2,061.6	2,234.9	0.00	0.00	0.00	
10,800.0	90.00	270.00	7,466.0	1,322.0	-2,161.6	2,333.8	0.00	0.00	0.00	
10,900.0	90.00	270.00	7,466.0	1,322.0	-2,261.6	2,432.7	0.00	0.00	0.00	
11,000.0	90.00	270.00	7,466.0	1,322.0	-2,361.6	2,531.6	0.00	0.00	0.00	
11,100.0	90.00	270.00	7,466.0	1,322.0	-2,461.6	2,630.5	0.00	0.00	0.00	
11,200.0	90.00	270.00	7,466.0	1,322.0	-2,561.6	2,729.4	0.00	0.00	0.00	
11,300.0	90.00	270.00	7,466.0	1,322.0	-2,661.6	2,828.2	0.00	0.00	0.00	
11,400.0	90.00	270.00	7,466.0	1,322.0	-2,761.6	2,927.1	0.00	0.00	0.00	
11,500.0	90.00	270.00	7,466.0	1,322.0	-2,861.6	3,026.0	0.00	0.00	0.00	
11,600.0	90.00	270.00	7,466.0	1,322.0	-2,961.6	3,124.9	0.00	0.00	0.00	
11,700.0	90.00	270.00	7,466.0	1,322.0	-3,061.6	3,223.8	0.00	0.00	0.00	
11,800.0	90.00	270.00	7,466.0	1,322.0	-3,161.6	3,322.7	0.00	0.00	0.00	
11,900.0	90.00	270.00	7,466.0	1,322.0	-3,261.6	3,421.6	0.00	0.00	0.00	
12,000.0	90.00	270.00	7,466.0	1,322.0	-3,361.6	3,520.5	0.00	0.00	0.00	
12,100.0	90.00	270.00	7,466.0	1,322.0	-3,461.6	3,619.4	0.00	0.00	0.00	
12,200.0	90.00	270.00	7,466.0	1,322.0	-3,561.6	3,718.3	0.00	0.00	0.00	
12,300.0	90.00	270.00	7,466.0	1,322.0	-3,661.6	3,817.2	0.00	0.00	0.00	
12,400.0	90.00	270.00	7,466.0	1,322.0	-3,761.6	3,916.1	0.00	0.00	0.00	
12,500.0	90.00	270.00	7,466.0	1,322.0	-3,861.6	4,015.0	0.00	0.00	0.00	
12,600.0	90.00	270.00	7,466.0	1,322.0	-3,961.6	4,113.9	0.00	0.00	0.00	
12,700.0	90.00	270.00	7,466.0	1,322.0	-4,061.6	4,212.8	0.00	0.00	0.00	
12,800.0	90.00	270.00	7,466.0	1,322.0	-4,161.6	4,311.7	0.00	0.00	0.00	
12,900.0	90.00	270.00	7,466.0	1,322.0	-4,261.6	4,410.6	0.00	0.00	0.00	
13,000.0	90.00	270.00	7,466.0	1,322.0	-4,361.6	4,509.4	0.00	0.00	0.00	
13,100.0	90.00	270.00	7,466.0	1,322.0	-4,461.6	4,608.3	0.00	0.00	0.00	
13,200.0	90.00	270.00	7,466.0	1,322.0	-4,561.6	4,707.2	0.00	0.00	0.00	
13,300.0	90.00	270.00	7,466.0	1,322.0	-4,661.6	4,806.1	0.00	0.00	0.00	
13,400.0	90.00	270.00	7,466.0	1,322.0	-4,761.6	4,905.0	0.00	0.00	0.00	
13,500.0	90.00	270.00	7,466.0	1,322.0	-4,861.6	5,003.9	0.00	0.00	0.00	
13,600.0	90.00	270.00	7,466.0	1,322.0	-4,961.6	5,102.8	0.00	0.00	0.00	
13,700.0	90.00	270.00	7,466.0	1,322.0	-5,061.6	5,201.7	0.00	0.00	0.00	
13,800.0	90.00	270.00	7,466.0	1,322.0	-5,161.6	5,300.6	0.00	0.00	0.00	
13,900.0	90.00	270.00	7,466.0	1,322.0	-5,261.6	5,399.5	0.00	0.00	0.00	
14,000.0	90.00	270.00	7,466.0	1,322.0	-5,361.6	5,498.4	0.00	0.00	0.00	
14,100.0	90.00	270.00	7,466.0	1,322.0	-5,461.6	5,597.3	0.00	0.00	0.00	
14,200.0	90.00	270.00	7,466.0	1,322.0	-5,561.6	5,696.2	0.00	0.00	0.00	
14,300.0	90.00	270.00	7,466.0	1,322.0	-5,661.6	5,795.1	0.00	0.00	0.00	
14,400.0	90.00	270.00	7,466.0	1,322.0	-5,761.6	5,894.0	0.00	0.00	0.00	
14,500.0	90.00	270.00	7,466.0	1,322.0	-5,861.6	5,992.9	0.00	0.00	0.00	
14,600.0	90.00	270.00	7,466.0	1,322.0	-5,961.6	6,091.7	0.00	0.00	0.00	
14,700.0	90.00	270.00	7,466.0	1,322.0	-6,061.6	6,190.6	0.00	0.00	0.00	
14,800.0	90.00	270.00	7,466.0	1,322.0	-6,161.6	6,289.5	0.00	0.00	0.00	
14,900.0	90.00	270.00	7,466.0	1,322.0	-6,261.6	6,388.4	0.00	0.00	0.00	
15,000.0	90.00	270.00	7,466.0	1,322.0	-6,361.6	6,487.3	0.00	0.00	0.00	

Planning Report

Database:	EDM Server Database	Local Co-ordinate Reference:	Well Polaris 8-66-34-33C
Company:	Enerplus Resources (USA) Corporation	TVD Reference:	Well @ 5016.0usft
Project:	Weld County, CO	MD Reference:	Well @ 5016.0usft
Site:	SEC 34, T8N-R66W	North Reference:	True
Well:	Polaris 8-66-34-33C	Survey Calculation Method:	Minimum Curvature
Wellbore:	Hz		
Design:	Plan 1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
15,100.0	90.00	270.00	7,466.0	1,322.0	-6,461.6	6,586.2	0.00	0.00	0.00	
15,200.0	90.00	270.00	7,466.0	1,322.0	-6,561.6	6,685.1	0.00	0.00	0.00	
15,300.0	90.00	270.00	7,466.0	1,322.0	-6,661.6	6,784.0	0.00	0.00	0.00	
15,400.0	90.00	270.00	7,466.0	1,322.0	-6,761.6	6,882.9	0.00	0.00	0.00	
15,500.0	90.00	270.00	7,466.0	1,322.0	-6,861.6	6,981.8	0.00	0.00	0.00	
15,600.0	90.00	270.00	7,466.0	1,322.0	-6,961.6	7,080.7	0.00	0.00	0.00	
15,700.0	90.00	270.00	7,466.0	1,322.0	-7,061.6	7,179.6	0.00	0.00	0.00	
15,800.0	90.00	270.00	7,466.0	1,322.0	-7,161.6	7,278.5	0.00	0.00	0.00	
15,900.0	90.00	270.00	7,466.0	1,322.0	-7,261.6	7,377.4	0.00	0.00	0.00	
16,000.0	90.00	270.00	7,466.0	1,322.0	-7,361.6	7,476.3	0.00	0.00	0.00	
16,100.0	90.00	270.00	7,466.0	1,322.0	-7,461.6	7,575.2	0.00	0.00	0.00	
16,200.0	90.00	270.00	7,466.0	1,322.0	-7,561.6	7,674.1	0.00	0.00	0.00	
16,300.0	90.00	270.00	7,466.0	1,322.0	-7,661.6	7,772.9	0.00	0.00	0.00	
16,400.0	90.00	270.00	7,466.0	1,322.0	-7,761.6	7,871.8	0.00	0.00	0.00	
16,500.0	90.00	270.00	7,466.0	1,322.0	-7,861.6	7,970.7	0.00	0.00	0.00	
16,600.0	90.00	270.00	7,466.0	1,322.0	-7,961.6	8,069.6	0.00	0.00	0.00	
16,700.0	90.00	270.00	7,466.0	1,322.0	-8,061.6	8,168.5	0.00	0.00	0.00	
16,800.0	90.00	270.00	7,466.0	1,322.0	-8,161.6	8,267.4	0.00	0.00	0.00	
16,900.0	90.00	270.00	7,466.0	1,322.0	-8,261.6	8,366.3	0.00	0.00	0.00	
17,000.0	90.00	270.00	7,466.0	1,322.0	-8,361.6	8,465.2	0.00	0.00	0.00	
17,100.0	90.00	270.00	7,466.0	1,322.0	-8,461.6	8,564.1	0.00	0.00	0.00	
17,200.0	90.00	270.00	7,466.0	1,322.0	-8,561.6	8,663.0	0.00	0.00	0.00	
17,300.0	90.00	270.00	7,466.0	1,322.0	-8,661.6	8,761.9	0.00	0.00	0.00	
17,400.0	90.00	270.00	7,466.0	1,322.0	-8,761.6	8,860.8	0.00	0.00	0.00	
17,457.3	90.00	270.00	7,466.0	1,322.6	-8,818.9	8,917.5	0.00	0.00	0.00	
Total Depth - Polaris 8-66-34-33C										

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
Polaris 8-66-34-33C	0.00	0.00	7,466.0	1,322.6	-8,818.9	1,468,268.10	3,197,199.15	40° 36' 59.850 N	104° 47' 22.823 W
- plan hits target center									
- Point									

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
1,500.0	1,500.0	Surface	9-5/8	9-5/8	
8,152.3	7,466.0	Intermediate	7	7	

Planning Report

Database:	EDM Server Database	Local Co-ordinate Reference:	Well Polaris 8-66-34-33C
Company:	Enerplus Resources (USA) Corporation	TVD Reference:	Well @ 5016.0usft
Project:	Weld County, CO	MD Reference:	Well @ 5016.0usft
Site:	SEC 34, T8N-R66W	North Reference:	True
Well:	Polaris 8-66-34-33C	Survey Calculation Method:	Minimum Curvature
Wellbore:	Hz		
Design:	Plan 1		

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
1,500.0	1,500.0	0.0	0.0	9-5/8"
2,752.4	2,752.4	0.0	0.0	Begin Nudge
7,252.3	6,893.0	1,322.0	1,059.0	KOP - Start 10°/100' Build
8,152.3	7,466.0	1,322.0	486.1	7" - 2012' FSL & 623' FEL
17,457.3	7,466.0	1,322.6	-8,818.9	Total Depth