



Project: Weld County, CO
Site: SEC 28, T8N-R67W
Well: Old Ale 8-67-28-27N
Wellbore: Hz
Design: Plan 1

Reference Details

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Latitude: 40° 37' 41.646 N
Longitude: 104° 54' 15.833 W
Grid Convergence: 0.38° West
Ground Elevation: 5177.0
KB Elevation: Well @ 5203.0usft

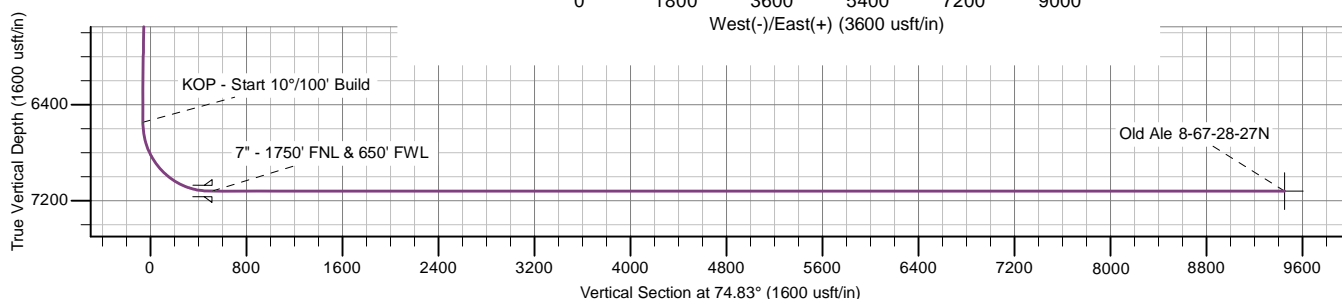
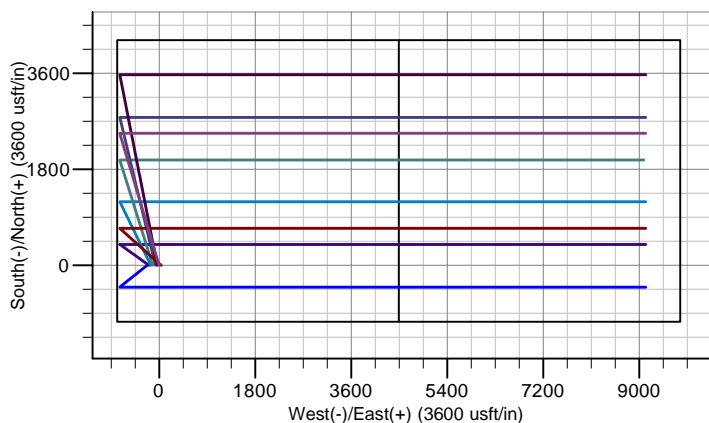
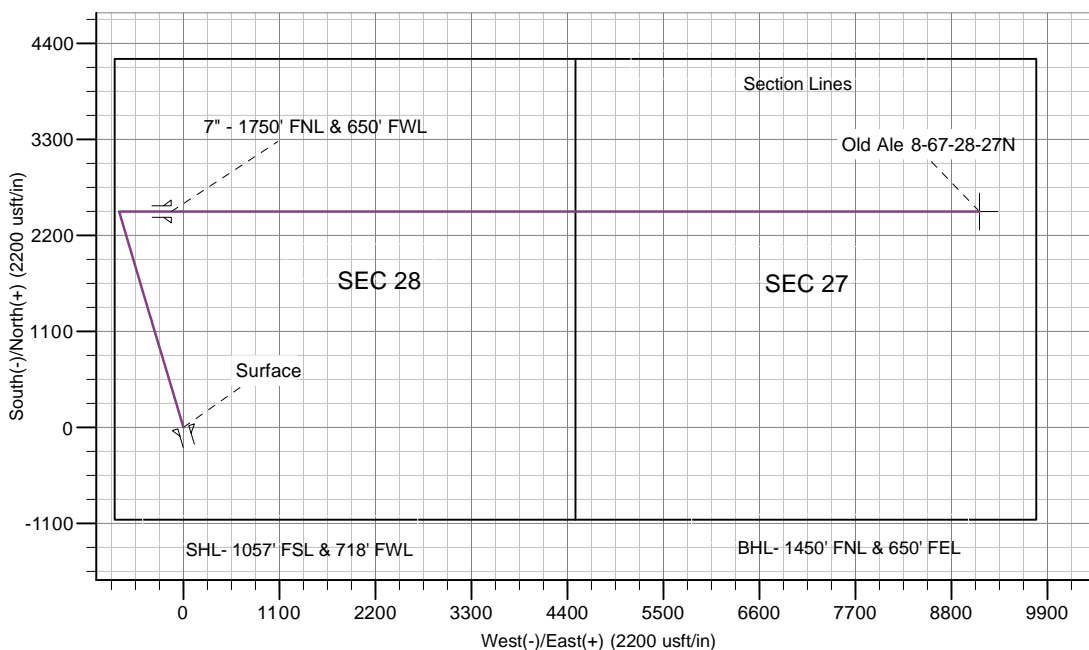


RPM Consulting, Inc.
1600 Broadway, Suite 1510
Denver, CO 80013
303-595-7625

SECTION DETAILS

CASING DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	TVD	MD	Name
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	1500.0	1500.0	Surface
1500.0	0.00	0.00	1500.0	0.0	0.0	0.00	0.00	0.0	7120.0	8250.0	Intermediate
2258.4	0.00	0.00	2258.4	0.0	0.0	0.00	0.00	0.0			
2841.8	35.00	343.39	2806.1	165.5	-49.4	6.00	343.39	-4.3			
6739.8	35.00	343.39	5999.3	2308.0	-688.6	0.00	0.00	-60.5			
7323.2	0.00	0.00	6547.0	2473.5	-738.0	6.00	180.00	-64.8			
8223.2	90.00	90.00	7120.0	2473.5	-165.0	10.00	90.00	488.2			
8254.2	90.00	90.00	7120.0	2473.5	-134.0	0.01	-94.82	518.1			
17510.2	90.00	90.00	7120.0	2474.0	9122.0	0.00	0.00	9451.5			



Enerplus Resources (USA) Corporation

**Weld County, CO
SEC 28, T8N-R67W
Old Ale 8-67-28-27N**

Hz

Plan: Plan 1

Standard Planning Report

20 January, 2017

Planning Report

Database:	EDM	Local Co-ordinate Reference:	Well Old Ale 8-67-28-27N
Company:	Enerplus Resources (USA) Corporation	TVD Reference:	Well @ 5203.0usft
Project:	Weld County, CO	MD Reference:	Well @ 5203.0usft
Site:	SEC 28, T8N-R67W	North Reference:	True
Well:	Old Ale 8-67-28-27N	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 28, T8N-R67W			
Site Position:		Northing:	1,472,262.06 usft	Latitude:	40° 37' 41.650 N
From:	Lat/Long	Easting:	3,165,096.77 usft	Longitude:	104° 54' 18.749 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.38 °

Well	Old Ale 8-67-28-27N					
Well Position	+N/-S	-0.4 usft	Northing:	1,472,263.19 usft	Latitude:	40° 37' 41.646 N
	+E/-W	224.8 usft	Easting:	3,165,321.61 usft	Longitude:	104° 54' 15.833 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	0.0 usft	Ground Level:	5,177.0 usft

Wellbore	Hz				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	1/19/2017	8.20	67.02	52,643

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	74.83

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	
2,258.4	0.00	0.00	2,258.4	0.0	0.0	0.00	0.00	0.00	0.00	
2,841.8	35.00	343.39	2,806.1	165.5	-49.4	6.00	6.00	0.00	343.39	
6,739.8	35.00	343.39	5,999.3	2,308.0	-688.6	0.00	0.00	0.00	0.00	
7,323.2	0.00	0.00	6,547.0	2,473.5	-738.0	6.00	-6.00	0.00	180.00	
8,223.2	90.00	90.00	7,120.0	2,473.5	-165.0	10.00	10.00	0.00	90.00	
8,254.2	90.00	90.00	7,120.0	2,473.5	-134.0	0.01	0.00	-0.01	-94.82	
17,510.2	90.00	90.00	7,120.0	2,474.0	9,122.0	0.00	0.00	0.00	0.00	Old Ale 8-67-28-27N

Planning Report

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Company:	Enerplus Resources (USA) Corporation	TVD Reference:	Well @ 5203.0usft
Project:	Weld County, CO	MD Reference:	Well @ 5203.0usft
Site:	SEC 28, T8N-R67W	North Reference:	True
Well:	Old Ale 8-67-28-27N	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
2,258.4	0.00	0.00	2,258.4	0.0	0.0	0.0	0.00	0.00	0.00
Begin Nudge									
2,300.0	2.49	343.39	2,300.0	0.9	-0.3	0.0	6.00	6.00	0.00
2,400.0	8.49	343.39	2,399.5	10.0	-3.0	-0.3	6.00	6.00	0.00
2,500.0	14.49	343.39	2,497.4	29.1	-8.7	-0.8	6.00	6.00	0.00
2,600.0	20.49	343.39	2,592.8	57.9	-17.3	-1.5	6.00	6.00	0.00
2,700.0	26.49	343.39	2,684.4	96.1	-28.7	-2.5	6.00	6.00	0.00
2,800.0	32.49	343.39	2,771.4	143.3	-42.7	-3.8	6.00	6.00	0.00
2,841.8	35.00	343.39	2,806.1	165.5	-49.4	-4.3	6.00	6.00	0.00
2,900.0	35.00	343.39	2,853.9	197.5	-58.9	-5.2	0.00	0.00	0.00
3,000.0	35.00	343.39	2,935.8	252.5	-75.3	-6.6	0.00	0.00	0.00
3,100.0	35.00	343.39	3,017.7	307.4	-91.7	-8.1	0.00	0.00	0.00
3,200.0	35.00	343.39	3,099.6	362.4	-108.1	-9.5	0.00	0.00	0.00
3,300.0	35.00	343.39	3,181.5	417.4	-124.5	-10.9	0.00	0.00	0.00
3,400.0	35.00	343.39	3,263.4	472.3	-140.9	-12.4	0.00	0.00	0.00
3,500.0	35.00	343.39	3,345.3	527.3	-157.3	-13.8	0.00	0.00	0.00
3,600.0	35.00	343.39	3,427.3	582.2	-173.7	-15.3	0.00	0.00	0.00
3,700.0	35.00	343.39	3,509.2	637.2	-190.1	-16.7	0.00	0.00	0.00
3,800.0	35.00	343.39	3,591.1	692.2	-206.5	-18.1	0.00	0.00	0.00
3,900.0	35.00	343.39	3,673.0	747.1	-222.9	-19.6	0.00	0.00	0.00
4,000.0	35.00	343.39	3,754.9	802.1	-239.3	-21.0	0.00	0.00	0.00
4,100.0	35.00	343.39	3,836.8	857.1	-255.7	-22.5	0.00	0.00	0.00
4,200.0	35.00	343.39	3,918.8	912.0	-272.1	-23.9	0.00	0.00	0.00
4,300.0	35.00	343.39	4,000.7	967.0	-288.5	-25.3	0.00	0.00	0.00
4,400.0	35.00	343.39	4,082.6	1,022.0	-304.9	-26.8	0.00	0.00	0.00
4,500.0	35.00	343.39	4,164.5	1,076.9	-321.3	-28.2	0.00	0.00	0.00
4,600.0	35.00	343.39	4,246.4	1,131.9	-337.7	-29.7	0.00	0.00	0.00
4,700.0	35.00	343.39	4,328.3	1,186.8	-354.1	-31.1	0.00	0.00	0.00
4,800.0	35.00	343.39	4,410.2	1,241.8	-370.5	-32.5	0.00	0.00	0.00
4,900.0	35.00	343.39	4,492.2	1,296.8	-386.9	-34.0	0.00	0.00	0.00

Planning Report

Database:	EDM	Local Co-ordinate Reference:	Well Old Ale 8-67-28-27N
Company:	Enerplus Resources (USA) Corporation	TVD Reference:	Well @ 5203.0usft
Project:	Weld County, CO	MD Reference:	Well @ 5203.0usft
Site:	SEC 28, T8N-R67W	North Reference:	True
Well:	Old Ale 8-67-28-27N	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)	
5,000.0	35.00	343.39	4,574.1	1,351.7	-403.3	-35.4	0.00	0.00	0.00	
5,100.0	35.00	343.39	4,656.0	1,406.7	-419.7	-36.9	0.00	0.00	0.00	
5,200.0	35.00	343.39	4,737.9	1,461.7	-436.1	-38.3	0.00	0.00	0.00	
5,300.0	35.00	343.39	4,819.8	1,516.6	-452.5	-39.7	0.00	0.00	0.00	
5,400.0	35.00	343.39	4,901.7	1,571.6	-468.9	-41.2	0.00	0.00	0.00	
5,500.0	35.00	343.39	4,983.7	1,626.6	-485.3	-42.6	0.00	0.00	0.00	
5,600.0	35.00	343.39	5,065.6	1,681.5	-501.7	-44.1	0.00	0.00	0.00	
5,700.0	35.00	343.39	5,147.5	1,736.5	-518.1	-45.5	0.00	0.00	0.00	
5,800.0	35.00	343.39	5,229.4	1,791.4	-534.5	-46.9	0.00	0.00	0.00	
5,900.0	35.00	343.39	5,311.3	1,846.4	-550.9	-48.4	0.00	0.00	0.00	
6,000.0	35.00	343.39	5,393.2	1,901.4	-567.3	-49.8	0.00	0.00	0.00	
6,100.0	35.00	343.39	5,475.1	1,956.3	-583.7	-51.3	0.00	0.00	0.00	
6,200.0	35.00	343.39	5,557.1	2,011.3	-600.1	-52.7	0.00	0.00	0.00	
6,300.0	35.00	343.39	5,639.0	2,066.3	-616.5	-54.1	0.00	0.00	0.00	
6,400.0	35.00	343.39	5,720.9	2,121.2	-632.9	-55.6	0.00	0.00	0.00	
6,500.0	35.00	343.39	5,802.8	2,176.2	-649.3	-57.0	0.00	0.00	0.00	
6,600.0	35.00	343.39	5,884.7	2,231.1	-665.7	-58.5	0.00	0.00	0.00	
6,700.0	35.00	343.39	5,966.6	2,286.1	-682.1	-59.9	0.00	0.00	0.00	
6,739.8	35.00	343.39	5,999.3	2,308.0	-688.6	-60.5	0.00	0.00	0.00	
6,800.0	31.39	343.39	6,049.6	2,339.6	-698.0	-61.3	6.00	-6.00	0.00	
6,900.0	25.39	343.39	6,137.5	2,385.1	-711.6	-62.5	6.00	-6.00	0.00	
7,000.0	19.39	343.39	6,230.0	2,421.6	-722.5	-63.5	6.00	-6.00	0.00	
7,100.0	13.39	343.39	6,325.8	2,448.6	-730.6	-64.2	6.00	-6.00	0.00	
7,200.0	7.39	343.39	6,424.2	2,465.9	-735.7	-64.6	6.00	-6.00	0.00	
7,300.0	1.39	343.39	6,523.8	2,473.2	-737.9	-64.8	6.00	-6.00	0.00	
7,323.2	0.00	0.00	6,547.0	2,473.5	-738.0	-64.8	5.99	-5.99	0.00	
KOP - Start 10°/100' Build										
7,400.0	7.68	90.00	6,623.6	2,473.5	-732.9	-59.9	10.00	10.00	0.00	
7,500.0	17.68	90.00	6,721.0	2,473.5	-710.9	-38.7	10.00	10.00	0.00	
7,600.0	27.68	90.00	6,813.2	2,473.5	-672.4	-1.5	10.00	10.00	0.00	
7,700.0	37.68	90.00	6,897.2	2,473.5	-618.5	50.5	10.00	10.00	0.00	
7,800.0	47.68	90.00	6,970.7	2,473.5	-550.8	115.9	10.00	10.00	0.00	
7,900.0	57.68	90.00	7,031.2	2,473.5	-471.4	192.5	10.00	10.00	0.00	
8,000.0	67.68	90.00	7,077.0	2,473.5	-382.6	278.2	10.00	10.00	0.00	
8,100.0	77.68	90.00	7,106.8	2,473.5	-287.3	370.2	10.00	10.00	0.00	
8,200.0	87.68	90.00	7,119.5	2,473.5	-188.2	465.8	10.00	10.00	0.00	
8,223.2	90.00	90.00	7,120.0	2,473.5	-165.0	488.2	10.00	10.00	0.00	
8,250.0	90.00	90.00	7,120.0	2,473.5	-138.2	514.1	0.01	0.00	-0.01	
7" - 1750' FNL & 650' FWL - Intermediate										
8,254.2	90.00	90.00	7,120.0	2,473.5	-134.0	518.1	0.01	0.00	-0.01	
8,300.0	90.00	90.00	7,120.0	2,473.5	-88.2	562.3	0.00	0.00	0.00	
8,400.0	90.00	90.00	7,120.0	2,473.5	11.8	658.8	0.00	0.00	0.00	
8,500.0	90.00	90.00	7,120.0	2,473.5	111.8	755.3	0.00	0.00	0.00	
8,600.0	90.00	90.00	7,120.0	2,473.5	211.8	851.9	0.00	0.00	0.00	
8,700.0	90.00	90.00	7,120.0	2,473.5	311.8	948.4	0.00	0.00	0.00	
8,800.0	90.00	90.00	7,120.0	2,473.5	411.8	1,044.9	0.00	0.00	0.00	
8,900.0	90.00	90.00	7,120.0	2,473.5	511.8	1,141.4	0.00	0.00	0.00	
9,000.0	90.00	90.00	7,120.0	2,473.5	611.8	1,237.9	0.00	0.00	0.00	
9,100.0	90.00	90.00	7,120.0	2,473.5	711.8	1,334.4	0.00	0.00	0.00	
9,200.0	90.00	90.00	7,120.0	2,473.6	811.8	1,430.9	0.00	0.00	0.00	
9,300.0	90.00	90.00	7,120.0	2,473.6	911.8	1,527.5	0.00	0.00	0.00	
9,400.0	90.00	90.00	7,120.0	2,473.6	1,011.8	1,624.0	0.00	0.00	0.00	
9,500.0	90.00	90.00	7,120.0	2,473.6	1,111.8	1,720.5	0.00	0.00	0.00	
9,600.0	90.00	90.00	7,120.0	2,473.6	1,211.8	1,817.0	0.00	0.00	0.00	

Planning Report

Database:	EDM	Local Co-ordinate Reference:	Well Old Ale 8-67-28-27N
Company:	Enerplus Resources (USA) Corporation	TVD Reference:	Well @ 5203.0usft
Project:	Weld County, CO	MD Reference:	Well @ 5203.0usft
Site:	SEC 28, T8N-R67W	North Reference:	True
Well:	Old Ale 8-67-28-27N	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	90.00	7,120.0	2,473.6	1,311.8	1,913.5	0.00	0.00	0.00	
9,800.0	90.00	90.00	7,120.0	2,473.6	1,411.8	2,010.0	0.00	0.00	0.00	
9,900.0	90.00	90.00	7,120.0	2,473.6	1,511.8	2,106.5	0.00	0.00	0.00	
10,000.0	90.00	90.00	7,120.0	2,473.6	1,611.8	2,203.1	0.00	0.00	0.00	
10,100.0	90.00	90.00	7,120.0	2,473.6	1,711.8	2,299.6	0.00	0.00	0.00	
10,200.0	90.00	90.00	7,120.0	2,473.6	1,811.8	2,396.1	0.00	0.00	0.00	
10,300.0	90.00	90.00	7,120.0	2,473.6	1,911.8	2,492.6	0.00	0.00	0.00	
10,400.0	90.00	90.00	7,120.0	2,473.6	2,011.8	2,589.1	0.00	0.00	0.00	
10,500.0	90.00	90.00	7,120.0	2,473.6	2,111.8	2,685.6	0.00	0.00	0.00	
10,600.0	90.00	90.00	7,120.0	2,473.6	2,211.8	2,782.2	0.00	0.00	0.00	
10,700.0	90.00	90.00	7,120.0	2,473.6	2,311.8	2,878.7	0.00	0.00	0.00	
10,800.0	90.00	90.00	7,120.0	2,473.6	2,411.8	2,975.2	0.00	0.00	0.00	
10,900.0	90.00	90.00	7,120.0	2,473.6	2,511.8	3,071.7	0.00	0.00	0.00	
11,000.0	90.00	90.00	7,120.0	2,473.6	2,611.8	3,168.2	0.00	0.00	0.00	
11,100.0	90.00	90.00	7,120.0	2,473.7	2,711.8	3,264.7	0.00	0.00	0.00	
11,200.0	90.00	90.00	7,120.0	2,473.7	2,811.8	3,361.2	0.00	0.00	0.00	
11,300.0	90.00	90.00	7,120.0	2,473.7	2,911.8	3,457.8	0.00	0.00	0.00	
11,400.0	90.00	90.00	7,120.0	2,473.7	3,011.8	3,554.3	0.00	0.00	0.00	
11,500.0	90.00	90.00	7,120.0	2,473.7	3,111.8	3,650.8	0.00	0.00	0.00	
11,600.0	90.00	90.00	7,120.0	2,473.7	3,211.8	3,747.3	0.00	0.00	0.00	
11,700.0	90.00	90.00	7,120.0	2,473.7	3,311.8	3,843.8	0.00	0.00	0.00	
11,800.0	90.00	90.00	7,120.0	2,473.7	3,411.8	3,940.3	0.00	0.00	0.00	
11,900.0	90.00	90.00	7,120.0	2,473.7	3,511.8	4,036.8	0.00	0.00	0.00	
12,000.0	90.00	90.00	7,120.0	2,473.7	3,611.8	4,133.4	0.00	0.00	0.00	
12,100.0	90.00	90.00	7,120.0	2,473.7	3,711.8	4,229.9	0.00	0.00	0.00	
12,200.0	90.00	90.00	7,120.0	2,473.7	3,811.8	4,326.4	0.00	0.00	0.00	
12,300.0	90.00	90.00	7,120.0	2,473.7	3,911.8	4,422.9	0.00	0.00	0.00	
12,400.0	90.00	90.00	7,120.0	2,473.7	4,011.8	4,519.4	0.00	0.00	0.00	
12,500.0	90.00	90.00	7,120.0	2,473.7	4,111.8	4,615.9	0.00	0.00	0.00	
12,600.0	90.00	90.00	7,120.0	2,473.7	4,211.8	4,712.4	0.00	0.00	0.00	
12,700.0	90.00	90.00	7,120.0	2,473.7	4,311.8	4,809.0	0.00	0.00	0.00	
12,800.0	90.00	90.00	7,120.0	2,473.7	4,411.8	4,905.5	0.00	0.00	0.00	
12,900.0	90.00	90.00	7,120.0	2,473.8	4,511.8	5,002.0	0.00	0.00	0.00	
13,000.0	90.00	90.00	7,120.0	2,473.8	4,611.8	5,098.5	0.00	0.00	0.00	
13,100.0	90.00	90.00	7,120.0	2,473.8	4,711.8	5,195.0	0.00	0.00	0.00	
13,200.0	90.00	90.00	7,120.0	2,473.8	4,811.8	5,291.5	0.00	0.00	0.00	
13,300.0	90.00	90.00	7,120.0	2,473.8	4,911.8	5,388.1	0.00	0.00	0.00	
13,400.0	90.00	90.00	7,120.0	2,473.8	5,011.8	5,484.6	0.00	0.00	0.00	
13,500.0	90.00	90.00	7,120.0	2,473.8	5,111.8	5,581.1	0.00	0.00	0.00	
13,600.0	90.00	90.00	7,120.0	2,473.8	5,211.8	5,677.6	0.00	0.00	0.00	
13,700.0	90.00	90.00	7,120.0	2,473.8	5,311.8	5,774.1	0.00	0.00	0.00	
13,800.0	90.00	90.00	7,120.0	2,473.8	5,411.8	5,870.6	0.00	0.00	0.00	
13,900.0	90.00	90.00	7,120.0	2,473.8	5,511.8	5,967.1	0.00	0.00	0.00	
14,000.0	90.00	90.00	7,120.0	2,473.8	5,611.8	6,063.7	0.00	0.00	0.00	
14,100.0	90.00	90.00	7,120.0	2,473.8	5,711.8	6,160.2	0.00	0.00	0.00	
14,200.0	90.00	90.00	7,120.0	2,473.8	5,811.8	6,256.7	0.00	0.00	0.00	
14,300.0	90.00	90.00	7,120.0	2,473.8	5,911.8	6,353.2	0.00	0.00	0.00	
14,400.0	90.00	90.00	7,120.0	2,473.8	6,011.8	6,449.7	0.00	0.00	0.00	
14,500.0	90.00	90.00	7,120.0	2,473.8	6,111.8	6,546.2	0.00	0.00	0.00	
14,600.0	90.00	90.00	7,120.0	2,473.8	6,211.8	6,642.7	0.00	0.00	0.00	
14,700.0	90.00	90.00	7,120.0	2,473.8	6,311.8	6,739.3	0.00	0.00	0.00	
14,800.0	90.00	90.00	7,120.0	2,473.9	6,411.8	6,835.8	0.00	0.00	0.00	
14,900.0	90.00	90.00	7,120.0	2,473.9	6,511.8	6,932.3	0.00	0.00	0.00	
15,000.0	90.00	90.00	7,120.0	2,473.9	6,611.8	7,028.8	0.00	0.00	0.00	

Planning Report

Database:	EDM	Local Co-ordinate Reference:	Well Old Ale 8-67-28-27N
Company:	Enerplus Resources (USA) Corporation	TVD Reference:	Well @ 5203.0usft
Project:	Weld County, CO	MD Reference:	Well @ 5203.0usft
Site:	SEC 28, T8N-R67W	North Reference:	True
Well:	Old Ale 8-67-28-27N	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	90.00	7,120.0	2,473.9	6,711.8	7,125.3	0.00	0.00	0.00	
15,200.0	90.00	90.00	7,120.0	2,473.9	6,811.8	7,221.8	0.00	0.00	0.00	
15,300.0	90.00	90.00	7,120.0	2,473.9	6,911.8	7,318.3	0.00	0.00	0.00	
15,400.0	90.00	90.00	7,120.0	2,473.9	7,011.8	7,414.9	0.00	0.00	0.00	
15,500.0	90.00	90.00	7,120.0	2,473.9	7,111.8	7,511.4	0.00	0.00	0.00	
15,600.0	90.00	90.00	7,120.0	2,473.9	7,211.8	7,607.9	0.00	0.00	0.00	
15,700.0	90.00	90.00	7,120.0	2,473.9	7,311.8	7,704.4	0.00	0.00	0.00	
15,800.0	90.00	90.00	7,120.0	2,473.9	7,411.8	7,800.9	0.00	0.00	0.00	
15,900.0	90.00	90.00	7,120.0	2,473.9	7,511.8	7,897.4	0.00	0.00	0.00	
16,000.0	90.00	90.00	7,120.0	2,473.9	7,611.8	7,994.0	0.00	0.00	0.00	
16,100.0	90.00	90.00	7,120.0	2,473.9	7,711.8	8,090.5	0.00	0.00	0.00	
16,200.0	90.00	90.00	7,120.0	2,473.9	7,811.8	8,187.0	0.00	0.00	0.00	
16,300.0	90.00	90.00	7,120.0	2,473.9	7,911.8	8,283.5	0.00	0.00	0.00	
16,400.0	90.00	90.00	7,120.0	2,473.9	8,011.8	8,380.0	0.00	0.00	0.00	
16,500.0	90.00	90.00	7,120.0	2,473.9	8,111.8	8,476.5	0.00	0.00	0.00	
16,600.0	90.00	90.00	7,120.0	2,474.0	8,211.8	8,573.0	0.00	0.00	0.00	
16,700.0	90.00	90.00	7,120.0	2,474.0	8,311.8	8,669.6	0.00	0.00	0.00	
16,800.0	90.00	90.00	7,120.0	2,474.0	8,411.8	8,766.1	0.00	0.00	0.00	
16,900.0	90.00	90.00	7,120.0	2,474.0	8,511.8	8,862.6	0.00	0.00	0.00	
17,000.0	90.00	90.00	7,120.0	2,474.0	8,611.8	8,959.1	0.00	0.00	0.00	
17,100.0	90.00	90.00	7,120.0	2,474.0	8,711.8	9,055.6	0.00	0.00	0.00	
17,200.0	90.00	90.00	7,120.0	2,474.0	8,811.8	9,152.1	0.00	0.00	0.00	
17,300.0	90.00	90.00	7,120.0	2,474.0	8,911.8	9,248.6	0.00	0.00	0.00	
17,400.0	90.00	90.00	7,120.0	2,474.0	9,011.8	9,345.2	0.00	0.00	0.00	
17,500.0	90.00	90.00	7,120.0	2,474.0	9,111.8	9,441.7	0.00	0.00	0.00	
17,510.2	90.00	90.00	7,120.0	2,474.0	9,122.0	9,451.5	0.00	0.00	0.00	
Total Depth - Old Ale 8-67-28-27N										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
Old Ale 8-67-28-27N	0.00	0.00	7,120.0	2,474.0	9,122.0	1,474,798.41	3,174,426.78	40° 38' 6.076 N	104° 52' 17.512 W	
- hit/miss target										
- Shape										
- 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	
8,250.0	7,120.0	Intermediate	7	7	

Planning Report

Database:	EDM	Local Co-ordinate Reference:	Well Old Ale 8-67-28-27N
Company:	Enerplus Resources (USA) Corporation	TVD Reference:	Well @ 5203.0usft
Project:	Weld County, CO	MD Reference:	Well @ 5203.0usft
Site:	SEC 28, T8N-R67W	North Reference:	True
Well:	Old Ale 8-67-28-27N	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"
2,258.4	2,258.4	0.0	0.0	Begin Nudge
7,323.2	6,547.0	2,473.5	-738.0	KOP - Start 10°/100' Build
8,250.0	7,120.0	2,473.5	-138.2	7" - 1750' FNL & 650' FWL
17,510.2	7,120.0	2,474.0	9,122.0	Total Depth