

# **Edge Energy LLC**

**Weld County, Co (NAD 83)**

**Sec. 33 Twn 1N Rng 65W**

**Cherry Knolls 33-7\* - Slot 7**

**Hz**

**UWI:**

**WL:**

**Plan: #1**

## **Standard Planning Report**

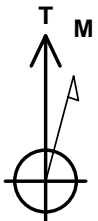
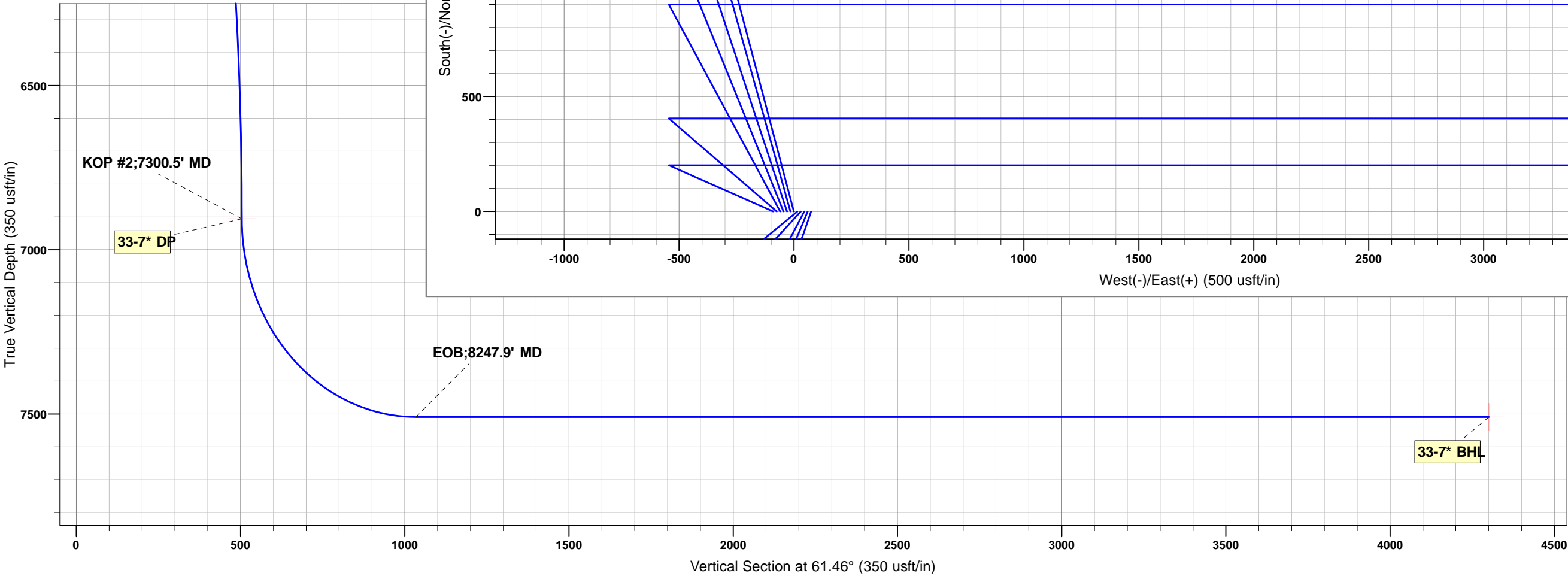
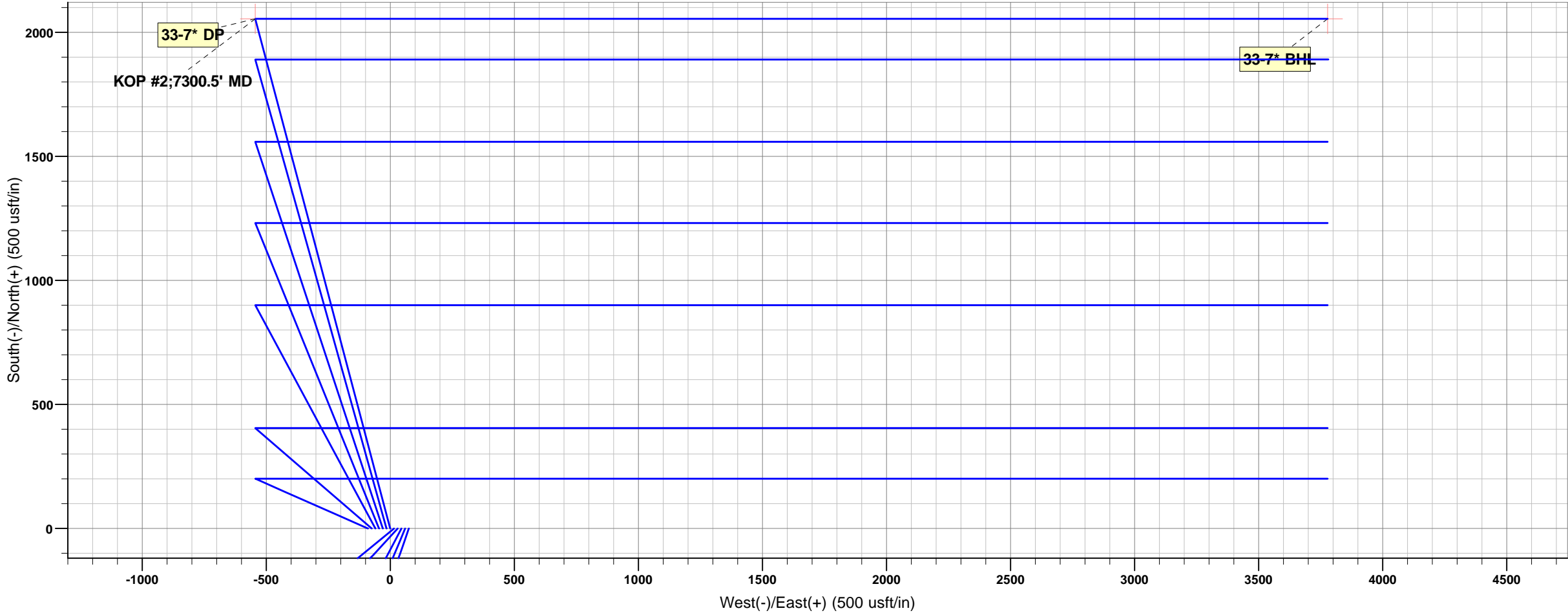
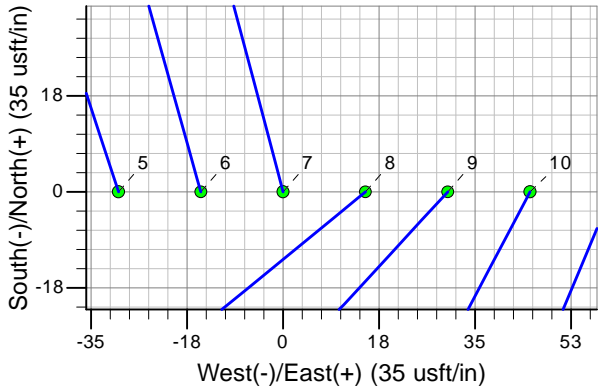
**07 December, 2016**

Project: Weld County, Co (NAD 83)  
Site: Sec. 33 Twn 1N Rng 65W  
Well: Cherry Knolls 33-7\*  
Wellbore: Hz  
Plan: #1

Reference Details - WELL CENTRE  
Geodetic System: US State Plane 1983  
Ellipsoid: GRS 1980  
Zone: Colorado Northern Zone  
Northing: 1246559.66  
Easting: 3231146.82  
Latitude: 40° 0' 26.06396 N  
Longitude: 104° 40' 29.38337 W  
Grid Convergence: 0.53° West  
Ground Elevation: 5099.0  
KB Elevation: RKB @ 5119.0usft (kb;20')

PLAN 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	650.0	0.00	0.00	650.0	0.0	0.0	0.00	0.00	0.0	
3	1778.8	22.58	345.17	1749.9	212.2	-56.2	2.00	345.17	52.0	
4	6171.7	22.58	345.17	5806.0	1842.6	-487.8	0.00	0.00	451.8	
5	7300.5	0.00	0.00	6905.9	2054.8	-544.0	2.00	180.00	503.8	33-7* DP
6	8247.9	90.00	90.00	7509.0	2054.8	59.1	9.50	90.00	1033.6	
7	11967.0	90.00	90.00	7509.0	2054.8	3778.2	0.00	0.00	4300.8	33-7* BHL



Azimuths to True North  
Magnetic North: 8.05°  
  
Magnetic Field  
Strength: 52360.2snT  
Dip Angle: 66.56°  
Date: 20/11/2016  
Model: IGRF201015

# Planning Report

<b>Database:</b>	WellPlan Services	<b>Local Co-ordinate Reference:</b>	Well Cherry Knolls 33-7* - Slot 7
<b>Company:</b>	Edge Energy LLC	<b>TVD Reference:</b>	RKB @ 5119.0usft (kb;20')
<b>Project:</b>	Weld County, Co (NAD 83)	<b>MD Reference:</b>	RKB @ 5119.0usft (kb;20')
<b>Site:</b>	Sec. 33 Twn 1N Rng 65W	<b>North Reference:</b>	True
<b>Well:</b>	Cherry Knolls 33-7*	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Hz		
<b>Design:</b>	#1		

<b>Project</b>	Weld County, Co (NAD 83)		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	Colorado Northern Zone		

Site		Sec. 33 Twn 1N Rng 65W			
Site Position:		Northing:	1,246,558.82 usft	Latitude:	40° 0' 26.06400 N
From:	Lat/Long	Easting:	3,231,056.83 usft	Longitude:	104° 40' 30.54000 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.53 °

Well	Cherry Knolls 33-7* - Slot 7					
Well Position	+N/-S	0.0 usft	Northing:	1,246,559.66 usft	Latitude:	40° 0' 26.06396 N
	+E/-W	90.0 usft	Easting:	3,231,146.82 usft	Longitude:	104° 40' 29.38337 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	0.0 usft	Ground Level:	5,099.0 usft

<b>Wellbore</b>	Hz				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF201015	20/11/2016	8.05	66.56	52,360

<b>Design</b>	#1			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>
	0.0	0.0	0.0	61.46

<b>Plan Sections</b>										
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	
650.0	0.00	0.00	650.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,778.8	22.58	345.17	1,749.9	212.2	-56.2	2.00	2.00	0.00	345.17	
6,171.7	22.58	345.17	5,806.0	1,842.6	-487.8	0.00	0.00	0.00	0.00	
7,300.5	0.00	0.00	6,905.9	2,054.8	-544.0	2.00	-2.00	0.00	180.00	33-7* DP
8,247.9	90.00	90.00	7,509.0	2,054.8	59.1	9.50	9.50	0.00	90.00	
11,967.0	90.00	90.00	7,509.0	2,054.8	3,778.2	0.00	0.00	0.00	0.00	33-7* BHL

# Planning Report

<b>Database:</b>	WellPlan Services	<b>Local Co-ordinate Reference:</b>	Well Cherry Knolls 33-7* - Slot 7
<b>Company:</b>	Edge Energy LLC	<b>TVD Reference:</b>	RKB @ 5119.0usft (kb;20')
<b>Project:</b>	Weld County, Co (NAD 83)	<b>MD Reference:</b>	RKB @ 5119.0usft (kb;20')
<b>Site:</b>	Sec. 33 Twn 1N Rng 65W	<b>North Reference:</b>	True
<b>Well:</b>	Cherry Knolls 33-7*	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	H2		
<b>Design:</b>	#1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea (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	-5,119.0	0.0	0.0	0.0	0.00	0.00	0.00
<b>KOP;650' MD</b>										
650.0	0.00	0.00	650.0	-4,469.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	1.00	345.17	700.0	-4,419.0	0.4	-0.1	0.1	2.00	2.00	0.00
800.0	3.00	345.17	799.9	-4,319.1	3.8	-1.0	0.9	2.00	2.00	0.00
900.0	5.00	345.17	899.7	-4,219.3	10.5	-2.8	2.6	2.00	2.00	0.00
1,000.0	7.00	345.17	999.1	-4,119.9	20.6	-5.5	5.1	2.00	2.00	0.00
1,100.0	9.00	345.17	1,098.2	-4,020.8	34.1	-9.0	8.4	2.00	2.00	0.00
1,200.0	11.00	345.17	1,196.6	-3,922.4	50.9	-13.5	12.5	2.00	2.00	0.00
1,300.0	13.00	345.17	1,294.4	-3,824.6	71.0	-18.8	17.4	2.00	2.00	0.00
1,400.0	15.00	345.17	1,391.5	-3,727.5	94.4	-25.0	23.1	2.00	2.00	0.00
1,500.0	17.00	345.17	1,487.6	-3,631.4	121.0	-32.0	29.7	2.00	2.00	0.00
1,600.0	19.00	345.17	1,582.7	-3,536.3	150.9	-39.9	37.0	2.00	2.00	0.00
1,700.0	21.00	345.17	1,676.6	-3,442.4	183.9	-48.7	45.1	2.00	2.00	0.00
1,778.8	22.58	345.17	1,749.9	-3,369.1	212.2	-56.2	52.0	2.00	2.00	0.00
1,800.0	22.58	345.17	1,769.4	-3,349.6	220.1	-58.3	54.0	0.00	0.00	0.00
1,900.0	22.58	345.17	1,861.7	-3,257.3	257.2	-68.1	63.1	0.00	0.00	0.00
2,000.0	22.58	345.17	1,954.1	-3,164.9	294.3	-77.9	72.2	0.00	0.00	0.00
2,100.0	22.58	345.17	2,046.4	-3,072.6	331.4	-87.7	81.3	0.00	0.00	0.00
2,200.0	22.58	345.17	2,138.7	-2,980.3	368.5	-97.6	90.4	0.00	0.00	0.00
2,300.0	22.58	345.17	2,231.1	-2,887.9	405.7	-107.4	99.5	0.00	0.00	0.00
2,400.0	22.58	345.17	2,323.4	-2,795.6	442.8	-117.2	108.6	0.00	0.00	0.00
2,500.0	22.58	345.17	2,415.7	-2,703.3	479.9	-127.0	117.7	0.00	0.00	0.00
2,600.0	22.58	345.17	2,508.1	-2,610.9	517.0	-136.9	126.8	0.00	0.00	0.00
2,700.0	22.58	345.17	2,600.4	-2,518.6	554.1	-146.7	135.9	0.00	0.00	0.00
2,800.0	22.58	345.17	2,692.8	-2,426.2	591.2	-156.5	145.0	0.00	0.00	0.00
2,900.0	22.58	345.17	2,785.1	-2,333.9	628.3	-166.3	154.1	0.00	0.00	0.00
3,000.0	22.58	345.17	2,877.4	-2,241.6	665.4	-176.2	163.2	0.00	0.00	0.00
3,100.0	22.58	345.17	2,969.8	-2,149.2	702.6	-186.0	172.3	0.00	0.00	0.00
3,200.0	22.58	345.17	3,062.1	-2,056.9	739.7	-195.8	181.4	0.00	0.00	0.00
3,300.0	22.58	345.17	3,154.4	-1,964.6	776.8	-205.7	190.5	0.00	0.00	0.00
3,400.0	22.58	345.17	3,246.8	-1,872.2	813.9	-215.5	199.6	0.00	0.00	0.00
3,500.0	22.58	345.17	3,339.1	-1,779.9	851.0	-225.3	208.7	0.00	0.00	0.00
3,600.0	22.58	345.17	3,431.4	-1,687.6	888.1	-235.1	217.8	0.00	0.00	0.00
3,700.0	22.58	345.17	3,523.8	-1,595.2	925.2	-245.0	226.9	0.00	0.00	0.00
3,800.0	22.58	345.17	3,616.1	-1,502.9	962.4	-254.8	236.0	0.00	0.00	0.00
3,900.0	22.58	345.17	3,708.5	-1,410.5	999.5	-264.6	245.1	0.00	0.00	0.00
4,000.0	22.58	345.17	3,800.8	-1,318.2	1,036.6	-274.4	254.2	0.00	0.00	0.00
4,100.0	22.58	345.17	3,893.1	-1,225.9	1,073.7	-284.3	263.3	0.00	0.00	0.00
4,200.0	22.58	345.17	3,985.5	-1,133.5	1,110.8	-294.1	272.4	0.00	0.00	0.00
4,300.0	22.58	345.17	4,077.8	-1,041.2	1,147.9	-303.9	281.5	0.00	0.00	0.00
4,400.0	22.58	345.17	4,170.1	-948.9	1,185.0	-313.7	290.6	0.00	0.00	0.00
4,500.0	22.58	345.17	4,262.5	-856.5	1,222.2	-323.6	299.7	0.00	0.00	0.00
4,600.0	22.58	345.17	4,354.8	-764.2	1,259.3	-333.4	308.8	0.00	0.00	0.00
4,700.0	22.58	345.17	4,447.2	-671.8	1,296.4	-343.2	317.9	0.00	0.00	0.00
4,800.0	22.58	345.17	4,539.5	-579.5	1,333.5	-353.0	327.0	0.00	0.00	0.00

# Planning Report

<b>Database:</b>	WellPlan Services	<b>Local Co-ordinate Reference:</b>	Well Cherry Knolls 33-7* - Slot 7
<b>Company:</b>	Edge Energy LLC	<b>TVD Reference:</b>	RKB @ 5119.0usft (kb;20')
<b>Project:</b>	Weld County, Co (NAD 83)	<b>MD Reference:</b>	RKB @ 5119.0usft (kb;20')
<b>Site:</b>	Sec. 33 Twn 1N Rng 65W	<b>North Reference:</b>	True
<b>Well:</b>	Cherry Knolls 33-7*	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	H2		
<b>Design:</b>	#1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,900.0	22.58	345.17	4,631.8	-487.2	1,370.6	-362.9	336.1	0.00	0.00	0.00
5,000.0	22.58	345.17	4,724.2	-394.8	1,407.7	-372.7	345.2	0.00	0.00	0.00
5,100.0	22.58	345.17	4,816.5	-302.5	1,444.8	-382.5	354.3	0.00	0.00	0.00
5,200.0	22.58	345.17	4,908.8	-210.2	1,481.9	-392.3	363.4	0.00	0.00	0.00
5,300.0	22.58	345.17	5,001.2	-117.8	1,519.1	-402.2	372.5	0.00	0.00	0.00
5,400.0	22.58	345.17	5,093.5	-25.5	1,556.2	-412.0	381.6	0.00	0.00	0.00
5,500.0	22.58	345.17	5,185.8	66.8	1,593.3	-421.8	390.7	0.00	0.00	0.00
5,600.0	22.58	345.17	5,278.2	159.2	1,630.4	-431.6	399.8	0.00	0.00	0.00
5,700.0	22.58	345.17	5,370.5	251.5	1,667.5	-441.5	408.9	0.00	0.00	0.00
5,800.0	22.58	345.17	5,462.9	343.9	1,704.6	-451.3	418.0	0.00	0.00	0.00
5,900.0	22.58	345.17	5,555.2	436.2	1,741.7	-461.1	427.1	0.00	0.00	0.00
6,000.0	22.58	345.17	5,647.5	528.5	1,778.9	-470.9	436.2	0.00	0.00	0.00
6,100.0	22.58	345.17	5,739.9	620.9	1,816.0	-480.8	445.3	0.00	0.00	0.00
6,171.7	22.58	345.17	5,806.0	687.0	1,842.6	-487.8	451.8	0.00	0.00	0.00
6,200.0	22.01	345.17	5,832.3	713.3	1,853.0	-490.6	454.3	2.00	-2.00	0.00
6,300.0	20.01	345.17	5,925.6	806.6	1,887.6	-499.7	462.8	2.00	-2.00	0.00
6,400.0	18.01	345.17	6,020.1	901.1	1,919.1	-508.1	470.6	2.00	-2.00	0.00
6,500.0	16.01	345.17	6,115.8	996.8	1,947.4	-515.6	477.5	2.00	-2.00	0.00
6,600.0	14.01	345.17	6,212.3	1,093.3	1,972.4	-522.2	483.6	2.00	-2.00	0.00
6,700.0	12.01	345.17	6,309.8	1,190.8	1,994.2	-528.0	489.0	2.00	-2.00	0.00
6,800.0	10.01	345.17	6,407.9	1,288.9	2,012.6	-532.8	493.5	2.00	-2.00	0.00
6,900.0	8.01	345.17	6,506.7	1,387.7	2,027.8	-536.8	497.2	2.00	-2.00	0.00
7,000.0	6.01	345.17	6,605.9	1,486.9	2,039.6	-540.0	500.1	2.00	-2.00	0.00
7,100.0	4.01	345.17	6,705.5	1,586.5	2,048.0	-542.2	502.2	2.00	-2.00	0.00
7,200.0	2.01	345.17	6,805.4	1,686.4	2,053.1	-543.5	503.4	2.00	-2.00	0.00
7,300.0	0.01	345.17	6,905.4	1,786.4	2,054.8	-544.0	503.8	2.00	-2.00	0.00
<b>KOP #2;7300.5' MD</b>										
7,300.5	0.00	345.17	6,905.9	1,786.9	2,054.8	-544.0	503.8	2.00	-2.00	0.00
7,400.0	9.45	90.00	7,004.9	1,885.9	2,054.8	-535.8	511.0	9.50	9.50	105.36
7,500.0	18.95	90.00	7,101.8	1,982.8	2,054.8	-511.3	532.5	9.50	9.50	0.00
7,600.0	28.45	90.00	7,193.2	2,074.2	2,054.8	-471.2	567.8	9.50	9.50	0.00
7,700.0	37.95	90.00	7,276.8	2,157.8	2,054.8	-416.5	615.9	9.50	9.50	0.00
7,800.0	47.45	90.00	7,350.2	2,231.2	2,054.8	-348.7	675.4	9.50	9.50	0.00
7,900.0	56.95	90.00	7,411.4	2,292.4	2,054.8	-269.8	744.7	9.50	9.50	0.00
8,000.0	66.45	90.00	7,458.8	2,339.8	2,054.8	-181.9	822.0	9.50	9.50	0.00
8,100.0	75.95	90.00	7,491.0	2,372.0	2,054.8	-87.3	905.0	9.50	9.50	0.00
8,200.0	85.45	90.00	7,507.1	2,388.1	2,054.8	11.3	991.6	9.50	9.50	0.00
<b>EOB;8247.9' MD</b>										
8,247.9	90.00	90.00	7,509.0	2,390.0	2,054.8	59.1	1,033.7	9.50	9.50	0.00
8,300.0	90.00	90.00	7,509.0	2,390.0	2,054.8	111.2	1,079.4	0.00	0.00	0.00
8,400.0	90.00	90.00	7,509.0	2,390.0	2,054.8	211.2	1,167.3	0.00	0.00	0.00
8,500.0	90.00	90.00	7,509.0	2,390.0	2,054.8	311.2	1,255.1	0.00	0.00	0.00
8,600.0	90.00	90.00	7,509.0	2,390.0	2,054.8	411.2	1,343.0	0.00	0.00	0.00
8,700.0	90.00	90.00	7,509.0	2,390.0	2,054.8	511.2	1,430.8	0.00	0.00	0.00
8,800.0	90.00	90.00	7,509.0	2,390.0	2,054.8	611.2	1,518.7	0.00	0.00	0.00
8,900.0	90.00	90.00	7,509.0	2,390.0	2,054.8	711.2	1,606.5	0.00	0.00	0.00

# Planning Report

<b>Database:</b>	WellPlan Services	<b>Local Co-ordinate Reference:</b>	Well Cherry Knolls 33-7* - Slot 7
<b>Company:</b>	Edge Energy LLC	<b>TVD Reference:</b>	RKB @ 5119.0usft (kb;20')
<b>Project:</b>	Weld County, Co (NAD 83)	<b>MD Reference:</b>	RKB @ 5119.0usft (kb;20')
<b>Site:</b>	Sec. 33 Twn 1N Rng 65W	<b>North Reference:</b>	True
<b>Well:</b>	Cherry Knolls 33-7*	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Hz		
<b>Design:</b>	#1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
9,000.0	90.00	90.00	7,509.0	2,390.0	2,054.8	811.2	1,694.4	0.00	0.00	0.00
9,100.0	90.00	90.00	7,509.0	2,390.0	2,054.8	911.2	1,782.2	0.00	0.00	0.00
9,200.0	90.00	90.00	7,509.0	2,390.0	2,054.8	1,011.2	1,870.1	0.00	0.00	0.00
9,300.0	90.00	90.00	7,509.0	2,390.0	2,054.8	1,111.2	1,957.9	0.00	0.00	0.00
9,400.0	90.00	90.00	7,509.0	2,390.0	2,054.8	1,211.2	2,045.8	0.00	0.00	0.00
9,500.0	90.00	90.00	7,509.0	2,390.0	2,054.8	1,311.2	2,133.6	0.00	0.00	0.00
9,600.0	90.00	90.00	7,509.0	2,390.0	2,054.8	1,411.2	2,221.5	0.00	0.00	0.00
9,700.0	90.00	90.00	7,509.0	2,390.0	2,054.8	1,511.2	2,309.3	0.00	0.00	0.00
9,800.0	90.00	90.00	7,509.0	2,390.0	2,054.8	1,611.2	2,397.2	0.00	0.00	0.00
9,900.0	90.00	90.00	7,509.0	2,390.0	2,054.8	1,711.2	2,485.0	0.00	0.00	0.00
10,000.0	90.00	90.00	7,509.0	2,390.0	2,054.8	1,811.2	2,572.9	0.00	0.00	0.00
10,100.0	90.00	90.00	7,509.0	2,390.0	2,054.8	1,911.2	2,660.7	0.00	0.00	0.00
10,200.0	90.00	90.00	7,509.0	2,390.0	2,054.8	2,011.2	2,748.6	0.00	0.00	0.00
10,300.0	90.00	90.00	7,509.0	2,390.0	2,054.8	2,111.2	2,836.4	0.00	0.00	0.00
10,400.0	90.00	90.00	7,509.0	2,390.0	2,054.8	2,211.2	2,924.3	0.00	0.00	0.00
10,500.0	90.00	90.00	7,509.0	2,390.0	2,054.8	2,311.2	3,012.1	0.00	0.00	0.00
10,600.0	90.00	90.00	7,509.0	2,390.0	2,054.8	2,411.2	3,099.9	0.00	0.00	0.00
10,700.0	90.00	90.00	7,509.0	2,390.0	2,054.8	2,511.2	3,187.8	0.00	0.00	0.00
10,800.0	90.00	90.00	7,509.0	2,390.0	2,054.8	2,611.2	3,275.6	0.00	0.00	0.00
10,900.0	90.00	90.00	7,509.0	2,390.0	2,054.8	2,711.2	3,363.5	0.00	0.00	0.00
11,000.0	90.00	90.00	7,509.0	2,390.0	2,054.8	2,811.2	3,451.3	0.00	0.00	0.00
11,100.0	90.00	90.00	7,509.0	2,390.0	2,054.8	2,911.2	3,539.2	0.00	0.00	0.00
11,200.0	90.00	90.00	7,509.0	2,390.0	2,054.8	3,011.2	3,627.0	0.00	0.00	0.00
11,300.0	90.00	90.00	7,509.0	2,390.0	2,054.8	3,111.2	3,714.9	0.00	0.00	0.00
11,400.0	90.00	90.00	7,509.0	2,390.0	2,054.8	3,211.2	3,802.7	0.00	0.00	0.00
11,500.0	90.00	90.00	7,509.0	2,390.0	2,054.8	3,311.2	3,890.6	0.00	0.00	0.00
11,600.0	90.00	90.00	7,509.0	2,390.0	2,054.8	3,411.2	3,978.4	0.00	0.00	0.00
11,700.0	90.00	90.00	7,509.0	2,390.0	2,054.8	3,511.2	4,066.3	0.00	0.00	0.00
11,800.0	90.00	90.00	7,509.0	2,390.0	2,054.8	3,611.2	4,154.1	0.00	0.00	0.00
11,900.0	90.00	90.00	7,509.0	2,390.0	2,054.8	3,711.2	4,242.0	0.00	0.00	0.00
TD at 11967' MD										
11,967.0	90.00	90.00	7,509.0	2,390.0	2,054.8	3,778.2	4,300.8	0.00	0.00	0.00

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude		Longitude
33-7* DP - hit/miss target - Shape - Point	0.00	0.00	6,905.9	2,054.8	-544.0	1,248,609.31	3,230,583.73	40° 0' 46.37082 N	104° 40' 36.37514 W	
33-7* BHL - plan hits target center - Point	0.00	0.00	7,509.0	2,054.8	3,778.2	1,248,649.52	3,234,905.74	40° 0' 46.36792 N	104° 39' 40.82400 W	

# Planning Report

<b>Database:</b>	WellPlan Services	<b>Local Co-ordinate Reference:</b>	Well Cherry Knolls 33-7* - Slot 7
<b>Company:</b>	Edge Energy LLC	<b>TVD Reference:</b>	RKB @ 5119.0usft (kb;20')
<b>Project:</b>	Weld County, Co (NAD 83)	<b>MD Reference:</b>	RKB @ 5119.0usft (kb;20')
<b>Site:</b>	Sec. 33 TwN 1N Rng 65W	<b>North Reference:</b>	True
<b>Well:</b>	Cherry Knolls 33-7*	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Hz		
<b>Design:</b>	#1		

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
650.0	650.0	0.0	0.0	KOP;650' MD
7,300.5	6,905.9	2,054.8	-544.0	KOP #2;7300.5' MD
8,247.9	7,509.0	2,054.8	59.1	EOB;8247.9' MD
11,967.0	7,509.0	2,054.8	3,778.2	TD at 11967' MD

# Anticollision Report

<b>Company:</b>	Edge Energy LLC	<b>Local Co-ordinate Reference:</b>	Well Cherry Knolls 33-7* - Slot 7
<b>Project:</b>	Weld County, Co (NAD 83)	<b>TVD Reference:</b>	RKB @ 5119.0usft (kb;20')
<b>Reference Site:</b>	Sec. 33 Twn 1N Rng 65W	<b>MD Reference:</b>	RKB @ 5119.0usft (kb;20')
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Cherry Knolls 33-7*	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	WellPlan Services
<b>Reference Design:</b>	#1	<b>Offset TVD Reference:</b>	Offset Datum

Reference	#1		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD Interval 50.0usft	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 100.0 usft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

<b>Survey Tool Program</b>	<b>Date</b>	06/12/2016		
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>
0.0	11,966.8	#1 (Hz)	MWD	MWD - Standard

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
NENE Sec. 15 Twn 1N Rng 65W						
Helzer 15-1 - Hz - #1						Out of range
Helzer 15-2 - Hz - #1						Out of range
Helzer 15-3 - Hz - #1						Out of range
Helzer 15-4 - Hz - #1						Out of range
Helzer 15-5 - Hz - #1						Out of range
Helzer 15-6 - Hz - #1						Out of range
Sec. 33 Twn 1N Rng 65W						
Cherry Knolls 33-1* - Hz - #1	1,013.5	1,017.6	87.0	82.7	20.121	CC
Cherry Knolls 33-1* - Hz - #1	1,050.0	1,053.7	87.1	82.6	19.347	ES
Cherry Knolls 33-1* - Hz - #1	1,250.0	1,250.6	95.6	90.0	17.269	SF
Cherry Knolls 33-10 - Hz - #1	748.3	756.3	41.8	38.7	13.732	CC
Cherry Knolls 33-10 - Hz - #1	750.0	758.1	41.8	38.7	13.697	ES
Cherry Knolls 33-10 - Hz - #1	850.0	857.0	45.0	41.5	12.805	SF
Cherry Knolls 33-11 - Hz - #1	749.5	757.7	57.3	54.3	18.819	CC
Cherry Knolls 33-11 - Hz - #1	750.0	758.2	57.3	54.3	18.805	ES
Cherry Knolls 33-11 - Hz - #1	900.0	906.0	63.7	59.9	16.979	SF
Cherry Knolls 33-12 - Hz - #1	749.0	757.4	72.7	69.7	23.895	CC
Cherry Knolls 33-12 - Hz - #1	750.0	758.4	72.7	69.7	23.860	ES
Cherry Knolls 33-12 - Hz - #1	950.0	954.5	83.3	79.3	20.809	SF
Cherry Knolls 33-2* - Hz - #1	981.8	985.1	72.5	68.3	17.387	CC
Cherry Knolls 33-2* - Hz - #1	1,000.0	1,003.1	72.5	68.3	17.046	ES
Cherry Knolls 33-2* - Hz - #1	1,200.0	1,200.6	79.8	74.6	15.192	SF
Cherry Knolls 33-3* - Hz - #1	632.3	635.3	60.0	57.4	23.262	CC
Cherry Knolls 33-3* - Hz - #1	700.0	702.5	60.1	57.2	20.867	ES
Cherry Knolls 33-3* - Hz - #1	1,650.0	1,644.7	93.3	84.3	10.406	SF
Cherry Knolls 33-4 - Hz - #1	805.1	806.5	44.6	41.3	13.321	CC
Cherry Knolls 33-4 - Hz - #1	900.0	901.0	44.8	41.1	11.872	ES
Cherry Knolls 33-4 - Hz - #1	1,650.0	1,648.8	64.4	55.3	7.096	SF
Cherry Knolls 33-5* - Hz - #1	633.0	634.0	30.0	27.4	11.637	CC
Cherry Knolls 33-5* - Hz - #1	900.0	900.2	30.6	26.9	8.109	ES
Cherry Knolls 33-5* - Hz - #1	1,850.0	1,847.4	43.9	32.2	3.740	SF
Cherry Knolls 33-6* - Hz - #1	893.4	893.1	14.7	10.9	3.918	CC
Cherry Knolls 33-6* - Hz - #1	2,300.0	2,300.6	24.5	8.0	1.489	Level 3, ES
Cherry Knolls 33-6* - Hz - #1	4,550.0	4,550.4	51.3	12.7	1.329	Level 3, SF
Cherry Knolls 33-8 - Hz - #1	650.0	655.0	15.0	12.3	5.632	CC
Cherry Knolls 33-8 - Hz - #1	700.0	705.0	15.1	12.2	5.235	ES

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



# Anticollision Report

<b>Company:</b>	Edge Energy LLC	<b>Local Co-ordinate Reference:</b>	Well Cherry Knolls 33-7* - Slot 7
<b>Project:</b>	Weld County, Co (NAD 83)	<b>TVD Reference:</b>	RKB @ 5119.0usft (kb;20')
<b>Reference Site:</b>	Sec. 33 Twn 1N Rng 65W	<b>MD Reference:</b>	RKB @ 5119.0usft (kb;20')
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Cherry Knolls 33-7*	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	WellPlan Services
<b>Reference Design:</b>	#1	<b>Offset TVD Reference:</b>	Offset Datum

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Sec. 33 Twn 1N Rng 65W						
Cherry Knolls 33-8 - Hz - #1	800.0	804.9	16.4	13.1	4.931	SF
Cherry Knolls 33-9 - Hz - #1	760.0	767.0	24.8	21.7	7.996	CC, ES
Cherry Knolls 33-9 - Hz - #1	800.0	806.7	25.4	22.2	7.748	SF

Offset Design													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
Reference														
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
0.0	0.0	5.0	5.0	0.0	0.0	-90.00	0.0	-90.0	90.0					
50.0	50.0	55.0	55.0	0.0	0.0	-90.00	0.0	-90.0	90.0	89.9	0.08	1,082.205		
100.0	100.0	105.0	105.0	0.1	0.1	-90.00	0.0	-90.0	90.0	89.8	0.19	471.078		
150.0	150.0	155.0	155.0	0.2	0.2	-90.00	0.0	-90.0	90.0	89.6	0.42	216.441		
200.0	200.0	205.0	205.0	0.3	0.3	-90.00	0.0	-90.0	90.0	89.4	0.64	140.497		
250.0	250.0	255.0	255.0	0.4	0.4	-90.00	0.0	-90.0	90.0	89.1	0.87	104.004		
300.0	300.0	305.0	305.0	0.5	0.6	-90.00	0.0	-90.0	90.0	88.9	1.09	82.560		
350.0	350.0	355.0	355.0	0.7	0.7	-90.00	0.0	-90.0	90.0	88.7	1.31	68.447		
400.0	400.0	405.0	405.0	0.8	0.8	-90.00	0.0	-90.0	90.0	88.5	1.54	58.455		
450.0	450.0	455.0	455.0	0.9	0.9	-90.00	0.0	-90.0	90.0	88.2	1.76	51.008		
500.0	500.0	505.0	505.0	1.0	1.0	-90.00	0.0	-90.0	90.0	88.0	1.99	45.245		
550.0	550.0	555.0	555.0	1.1	1.1	-90.00	0.0	-90.0	90.0	87.8	2.21	40.651		
600.0	600.0	605.0	605.0	1.2	1.2	-90.00	0.0	-90.0	90.0	87.6	2.44	36.905		
650.0	650.0	655.0	655.0	1.3	1.3	-90.00	0.0	-90.0	90.0	87.3	2.66	33.790		
700.0	700.0	705.0	705.0	1.4	1.4	-75.44	0.0	-90.0	89.9	87.0	2.89	31.128		
750.0	750.0	755.0	755.0	1.6	1.6	-76.26	0.0	-90.0	89.6	86.5	3.11	28.784		
800.0	799.9	804.9	804.9	1.7	1.7	-77.63	0.0	-90.0	89.1	85.7	3.34	26.704		
850.0	849.8	854.8	854.8	1.8	1.8	-79.57	0.0	-90.0	88.5	84.9	3.56	24.836		
900.0	899.7	904.7	904.7	1.9	1.9	-82.09	0.0	-90.0	87.8	84.1	3.79	23.185		
950.0	949.5	954.5	954.5	2.0	2.0	-85.20	0.0	-90.0	87.3	83.3	4.02	21.705		
1,000.0	999.1	1,004.1	1,004.1	2.1	2.1	-88.90	0.0	-90.0	87.0	82.8	4.26	20.441		
1,013.5	1,012.6	1,017.6	1,017.6	2.2	2.2	-90.00	0.0	-90.0	87.0	82.7	4.32	20.121	CC	
1,050.0	1,048.7	1,053.7	1,053.7	2.3	2.2	-93.16	0.0	-90.0	87.1	82.6	4.50	19.347	ES	
1,100.0	1,098.2	1,103.2	1,103.2	2.4	2.3	-97.91	0.0	-90.0	87.9	83.1	4.75	18.495		
1,150.0	1,147.5	1,152.5	1,152.5	2.6	2.5	-103.06	0.0	-90.0	89.4	84.4	5.01	17.837		
1,200.0	1,196.6	1,201.6	1,201.6	2.7	2.6	-108.47	0.0	-90.0	91.9	86.6	5.27	17.447		
1,250.0	1,245.6	1,250.6	1,250.6	2.9	2.7	-113.98	0.0	-90.0	95.6	90.0	5.53	17.269	SF	

# Anticollision Report

<b>Company:</b>	Edge Energy LLC	<b>Local Co-ordinate Reference:</b>	Well Cherry Knolls 33-7* - Slot 7
<b>Project:</b>	Weld County, Co (NAD 83)	<b>TVD Reference:</b>	RKB @ 5119.0usft (kb;20')
<b>Reference Site:</b>	Sec. 33 Twn 1N Rng 65W	<b>MD Reference:</b>	RKB @ 5119.0usft (kb;20')
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Cherry Knolls 33-7*	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	HZ	<b>Database:</b>	WellPlan Services
<b>Reference Design:</b>	#1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance				Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	7.0	7.0	0.0	0.0	90.00	0.0	45.0	45.0				
50.0	50.0	57.0	57.0	0.0	0.1	90.00	0.0	45.0	45.0	44.9	0.08	529.651	
100.0	100.0	107.0	107.0	0.1	0.1	90.00	0.0	45.0	45.0	44.8	0.20	230.124	
150.0	150.0	157.0	157.0	0.2	0.2	90.00	0.0	45.0	45.0	44.6	0.42	107.063	
200.0	200.0	207.0	207.0	0.3	0.3	90.00	0.0	45.0	45.0	44.4	0.65	69.759	
250.0	250.0	257.0	257.0	0.4	0.4	90.00	0.0	45.0	45.0	44.1	0.87	51.733	
300.0	300.0	307.0	307.0	0.5	0.6	90.00	0.0	45.0	45.0	43.9	1.09	41.111	
350.0	350.0	357.0	357.0	0.7	0.7	90.00	0.0	45.0	45.0	43.7	1.32	34.107	
400.0	400.0	407.0	407.0	0.8	0.8	90.00	0.0	45.0	45.0	43.5	1.54	29.142	
450.0	450.0	457.0	457.0	0.9	0.9	90.00	0.0	45.0	45.0	43.2	1.77	25.439	
500.0	500.0	507.1	507.1	1.0	1.0	90.01	0.0	45.0	45.0	43.0	1.99	22.589	
550.0	550.0	557.4	557.4	1.1	1.1	90.65	-0.5	44.7	44.7	42.5	2.20	20.293	
600.0	600.0	607.7	607.7	1.2	1.2	92.33	-1.8	44.1	44.1	41.7	2.42	18.251	
650.0	650.0	658.0	657.9	1.3	1.3	95.13	-3.9	43.0	43.2	40.5	2.62	16.446	
700.0	700.0	708.1	708.0	1.4	1.4	114.54	-6.7	41.5	42.2	39.4	2.83	14.901	
748.3	748.2	756.3	756.0	1.5	1.5	121.20	-10.1	39.7	41.8	38.7	3.04	13.732 CC	
750.0	750.0	758.1	757.7	1.6	1.5	121.48	-10.3	39.6	41.8	38.7	3.05	13.697 ES	
800.0	799.9	807.7	807.1	1.7	1.6	130.45	-14.6	37.3	42.5	39.2	3.27	12.980	
850.0	849.8	857.0	856.0	1.8	1.7	140.64	-19.7	34.6	45.0	41.5	3.51	12.805 SF	
900.0	899.7	905.8	904.4	1.9	1.9	150.85	-25.4	31.6	49.8	46.0	3.75	13.265	
950.0	949.5	954.1	952.2	2.0	2.0	160.07	-31.8	28.3	57.1	53.1	4.01	14.264	
1,000.0	999.1	1,001.9	999.3	2.1	2.1	167.78	-38.8	24.6	66.9	62.7	4.25	15.766	
1,050.0	1,048.7	1,049.0	1,045.6	2.3	2.3	173.98	-46.4	20.6	79.0	74.6	4.49	17.593	
1,100.0	1,098.2	1,095.4	1,091.1	2.4	2.5	178.86	-54.5	16.3	93.2	88.5	4.73	19.714	

# Anticollision Report

<b>Company:</b>	Edge Energy LLC	<b>Local Co-ordinate Reference:</b>	Well Cherry Knolls 33-7* - Slot 7
<b>Project:</b>	Weld County, Co (NAD 83)	<b>TVD Reference:</b>	RKB @ 5119.0usft (kb;20')
<b>Reference Site:</b>	Sec. 33 Twn 1N Rng 65W	<b>MD Reference:</b>	RKB @ 5119.0usft (kb;20')
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Cherry Knolls 33-7*	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	HZ	<b>Database:</b>	WellPlan Services
<b>Reference Design:</b>	#1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> Sec. 33 Twn 1N Rng 65W - Cherry Knolls 33-11 - HZ - #1												<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-MWD												<b>Offset Well Error:</b>	0.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	7.0	7.0	0.0	0.0	90.00	0.0	60.0	60.0				
50.0	50.0	57.0	57.0	0.0	0.1	90.00	0.0	60.0	60.0	59.9	0.08	706.201	
100.0	100.0	107.0	107.0	0.1	0.1	90.00	0.0	60.0	60.0	59.8	0.20	306.832	
150.0	150.0	157.0	157.0	0.2	0.2	90.00	0.0	60.0	60.0	59.6	0.42	142.751	
200.0	200.0	207.0	207.0	0.3	0.3	90.00	0.0	60.0	60.0	59.4	0.65	93.012	
250.0	250.0	257.0	257.0	0.4	0.4	90.00	0.0	60.0	60.0	59.1	0.87	68.978	
300.0	300.0	307.0	307.0	0.5	0.6	90.00	0.0	60.0	60.0	58.9	1.09	54.814	
350.0	350.0	357.0	357.0	0.7	0.7	90.00	0.0	60.0	60.0	58.7	1.32	45.476	
400.0	400.0	407.0	407.0	0.8	0.8	90.00	0.0	60.0	60.0	58.5	1.54	38.857	
450.0	450.0	457.0	457.0	0.9	0.9	90.00	0.0	60.0	60.0	58.2	1.77	33.919	
500.0	500.0	507.1	507.1	1.0	1.0	90.01	0.0	60.0	60.0	58.0	1.99	30.120	
550.0	550.0	557.5	557.5	1.1	1.1	90.51	-0.5	59.8	59.8	57.6	2.20	27.121	
600.0	600.0	607.8	607.8	1.2	1.2	91.81	-1.9	59.2	59.3	56.8	2.42	24.529	
650.0	650.0	658.1	658.0	1.3	1.3	93.95	-4.0	58.3	58.5	55.8	2.62	22.293	
700.0	700.0	708.3	708.1	1.4	1.4	112.22	-7.0	57.1	57.7	54.9	2.83	20.378	
749.5	749.5	757.7	757.4	1.6	1.5	117.30	-10.7	55.5	57.3	54.3	3.05	18.819 CC	
750.0	750.0	758.2	757.9	1.6	1.5	117.36	-10.7	55.5	57.3	54.3	3.05	18.805 ES	
800.0	799.9	807.9	807.3	1.7	1.6	124.03	-15.3	53.6	57.9	54.6	3.27	17.691	
850.0	849.8	857.2	856.2	1.8	1.7	131.86	-20.5	51.4	59.8	56.3	3.51	17.041	
900.0	899.7	906.0	904.6	1.9	1.9	140.22	-26.5	49.0	63.7	59.9	3.75	16.979 SF	
950.0	949.5	954.3	952.4	2.0	2.0	148.44	-33.2	46.2	69.8	65.8	4.00	17.432	
1,000.0	999.1	1,002.0	999.4	2.1	2.1	155.95	-40.5	43.1	78.4	74.1	4.25	18.445	
1,050.0	1,048.7	1,049.1	1,045.7	2.3	2.3	162.47	-48.4	39.8	89.4	84.9	4.50	19.845	

# Anticollision Report

<b>Company:</b>	Edge Energy LLC	<b>Local Co-ordinate Reference:</b>	Well Cherry Knolls 33-7* - Slot 7
<b>Project:</b>	Weld County, Co (NAD 83)	<b>TVD Reference:</b>	RKB @ 5119.0usft (kb;20')
<b>Reference Site:</b>	Sec. 33 Twn 1N Rng 65W	<b>MD Reference:</b>	RKB @ 5119.0usft (kb;20')
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Cherry Knolls 33-7*	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	HZ	<b>Database:</b>	WellPlan Services
<b>Reference Design:</b>	#1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Sec. 33 Twn 1N Rng 65W - Cherry Knolls 33-12 - Hz - #1		Offset Site Error:		0.0 usft	
Survey Program: 0-MWD														Offset Well Error:		0.0 usft	
Reference		Offset		Semi Major Axis			Distance							Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (")	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor					
0.0	0.0	7.0	7.0	0.0	0.0	90.00	0.0	75.0	75.0								
50.0	50.0	57.0	57.0	0.0	0.1	90.00	0.0	75.0	75.0	74.9	0.08	882.751					
100.0	100.0	107.0	107.0	0.1	0.1	90.00	0.0	75.0	75.0	74.8	0.20	383.540					
150.0	150.0	157.0	157.0	0.2	0.2	90.00	0.0	75.0	75.0	74.6	0.42	178.439					
200.0	200.0	207.0	207.0	0.3	0.3	90.00	0.0	75.0	75.0	74.4	0.65	116.265					
250.0	250.0	257.0	257.0	0.4	0.4	90.00	0.0	75.0	75.0	74.1	0.87	86.222					
300.0	300.0	307.0	307.0	0.5	0.6	90.00	0.0	75.0	75.0	73.9	1.09	68.518					
350.0	350.0	357.0	357.0	0.7	0.7	90.00	0.0	75.0	75.0	73.7	1.32	56.845					
400.0	400.0	407.0	407.0	0.8	0.8	90.00	0.0	75.0	75.0	73.5	1.54	48.571					
450.0	450.0	457.0	457.0	0.9	0.9	90.00	0.0	75.0	75.0	73.2	1.77	42.399					
500.0	500.0	507.1	507.1	1.0	1.0	90.01	0.0	75.0	75.0	73.0	1.99	37.651					
550.0	550.0	557.5	557.5	1.1	1.1	90.42	-0.5	74.8	74.8	72.6	2.20	33.943					
600.0	600.0	607.9	607.9	1.2	1.2	91.48	-1.9	74.3	74.4	71.9	2.42	30.787					
650.0	650.0	658.2	658.1	1.3	1.3	93.21	-4.1	73.6	73.7	71.1	2.62	28.101					
700.0	700.0	708.4	708.2	1.4	1.4	110.80	-7.2	72.5	73.0	70.2	2.83	25.801					
749.0	749.0	757.4	757.0	1.5	1.5	114.79	-10.9	71.2	72.7	69.7	3.04	23.895	CC				
750.0	750.0	758.4	758.0	1.6	1.5	114.88	-11.0	71.2	72.7	69.7	3.05	23.860	ES				
800.0	799.9	808.1	807.5	1.7	1.6	120.20	-15.6	69.6	73.2	69.9	3.27	22.381					
850.0	849.8	857.3	856.4	1.8	1.7	126.53	-21.0	67.7	74.8	71.3	3.51	21.325					
900.0	899.7	906.2	904.8	1.9	1.9	133.51	-27.1	65.5	78.1	74.3	3.75	20.829					
950.0	949.5	954.5	952.6	2.0	2.0	140.68	-34.0	63.2	83.3	79.3	4.00	20.809	SF				
1,000.0	999.1	1,002.2	999.6	2.1	2.1	147.61	-41.5	60.6	90.9	86.6	4.25	21.368					

# Anticollision Report

<b>Company:</b>	Edge Energy LLC	<b>Local Co-ordinate Reference:</b>	Well Cherry Knolls 33-7* - Slot 7
<b>Project:</b>	Weld County, Co (NAD 83)	<b>TVD Reference:</b>	RKB @ 5119.0usft (kb;20')
<b>Reference Site:</b>	Sec. 33 Twn 1N Rng 65W	<b>MD Reference:</b>	RKB @ 5119.0usft (kb;20')
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Cherry Knolls 33-7*	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	HZ	<b>Database:</b>	WellPlan Services
<b>Reference Design:</b>	#1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	4.0	4.0	0.0	0.0	-90.00	0.0	-75.0	75.0				
50.0	50.0	54.0	54.0	0.0	0.0	-90.00	0.0	-75.0	75.0	74.9	0.08	911.694	
100.0	100.0	104.0	104.0	0.1	0.1	-90.00	0.0	-75.0	75.0	74.8	0.19	397.238	
150.0	150.0	154.0	154.0	0.2	0.2	-90.00	0.0	-75.0	75.0	74.6	0.41	181.348	
200.0	200.0	204.0	204.0	0.3	0.3	-90.00	0.0	-75.0	75.0	74.4	0.64	117.493	
250.0	250.0	254.0	254.0	0.4	0.4	-90.00	0.0	-75.0	75.0	74.1	0.86	86.896	
300.0	300.0	304.0	304.0	0.5	0.5	-90.00	0.0	-75.0	75.0	73.9	1.09	68.942	
350.0	350.0	354.0	354.0	0.7	0.7	-90.00	0.0	-75.0	75.0	73.7	1.31	57.137	
400.0	400.0	404.0	404.0	0.8	0.8	-90.00	0.0	-75.0	75.0	73.5	1.54	48.784	
450.0	450.0	454.0	454.0	0.9	0.9	-90.00	0.0	-75.0	75.0	73.2	1.76	42.561	
500.0	500.0	504.0	504.0	1.0	1.0	-90.00	0.0	-75.0	75.0	73.0	1.99	37.747	
550.0	550.0	554.0	554.0	1.1	1.1	-90.00	0.0	-75.0	75.0	72.8	2.21	33.911	
600.0	600.0	604.0	604.0	1.2	1.2	-90.00	0.0	-75.0	75.0	72.6	2.44	30.782	
650.0	650.0	654.0	654.0	1.3	1.3	-90.00	0.0	-75.0	75.0	72.3	2.66	28.182	
700.0	700.0	704.0	704.0	1.4	1.4	-75.50	0.0	-75.0	74.9	72.0	2.89	25.953	
750.0	750.0	754.0	754.0	1.6	1.6	-76.48	0.0	-75.0	74.6	71.5	3.11	23.982	
800.0	799.9	803.9	803.9	1.7	1.7	-78.12	0.0	-75.0	74.1	70.8	3.33	22.227	
850.0	849.8	853.8	853.8	1.8	1.8	-80.46	0.0	-75.0	73.5	70.0	3.56	20.653	
900.0	899.7	903.7	903.7	1.9	1.9	-83.50	0.0	-75.0	73.0	69.2	3.79	19.272	
950.0	949.5	953.5	953.5	2.0	2.0	-87.25	0.0	-75.0	72.6	68.6	4.02	18.053	
981.8	981.1	985.1	985.1	2.1	2.1	-90.00	0.0	-75.0	72.5	68.3	4.17	17.387 CC	
1,000.0	999.1	1,003.1	1,003.1	2.1	2.1	-91.69	0.0	-75.0	72.5	68.3	4.26	17.046 ES	
1,050.0	1,048.7	1,052.7	1,052.7	2.3	2.2	-96.77	0.0	-75.0	73.0	68.5	4.50	16.221	
1,100.0	1,098.2	1,102.2	1,102.2	2.4	2.3	-102.35	0.0	-75.0	74.3	69.5	4.75	15.644	
1,150.0	1,147.5	1,151.5	1,151.5	2.6	2.5	-108.29	0.0	-75.0	76.5	71.5	5.00	15.281	
1,200.0	1,196.6	1,200.6	1,200.6	2.7	2.6	-114.36	0.0	-75.0	79.8	74.6	5.26	15.192 SF	
1,250.0	1,245.6	1,249.6	1,249.6	2.9	2.7	-120.35	0.0	-75.0	84.5	79.0	5.51	15.326	
1,300.0	1,294.4	1,298.4	1,298.4	3.1	2.8	-126.08	0.0	-75.0	90.5	84.8	5.76	15.720	
1,350.0	1,343.1	1,347.1	1,347.1	3.3	2.9	-131.41	0.0	-75.0	98.0	92.0	6.01	16.307	

# Anticollision Report

<b>Company:</b>	Edge Energy LLC	<b>Local Co-ordinate Reference:</b>	Well Cherry Knolls 33-7* - Slot 7
<b>Project:</b>	Weld County, Co (NAD 83)	<b>TVD Reference:</b>	RKB @ 5119.0usft (kb;20')
<b>Reference Site:</b>	Sec. 33 Twn 1N Rng 65W	<b>MD Reference:</b>	RKB @ 5119.0usft (kb;20')
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Cherry Knolls 33-7*	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	HZ	<b>Database:</b>	WellPlan Services
<b>Reference Design:</b>	#1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	3.0	3.0	0.0	0.0	-90.00	0.0	-60.0	60.0					
50.0	50.0	53.0	53.0	0.0	0.0	-90.00	0.0	-60.0	60.0	59.9	0.08	737.414		
100.0	100.0	103.0	103.0	0.1	0.1	-90.00	0.0	-60.0	60.0	59.8	0.19	321.619		
150.0	150.0	153.0	153.0	0.2	0.2	-90.00	0.0	-60.0	60.0	59.6	0.41	145.871		
200.0	200.0	203.0	203.0	0.3	0.3	-90.00	0.0	-60.0	60.0	59.4	0.64	94.327		
250.0	250.0	253.0	253.0	0.4	0.4	-90.00	0.0	-60.0	60.0	59.1	0.86	69.698		
300.0	300.0	303.0	303.0	0.5	0.5	-90.00	0.0	-60.0	60.0	58.9	1.09	55.268		
350.0	350.0	353.0	353.0	0.7	0.7	-90.00	0.0	-60.0	60.0	58.7	1.31	45.788		
400.0	400.0	403.0	403.0	0.8	0.8	-90.00	0.0	-60.0	60.0	58.5	1.54	39.084		
450.0	450.0	453.0	453.0	0.9	0.9	-90.00	0.0	-60.0	60.0	58.2	1.76	34.092		
500.0	500.0	503.0	503.0	1.0	1.0	-90.00	0.0	-60.0	60.0	58.0	1.98	30.232		
550.0	550.0	553.0	553.0	1.1	1.1	-90.00	0.0	-60.0	60.0	57.8	2.21	27.156		
600.0	600.0	603.0	603.0	1.2	1.2	-90.00	0.0	-60.0	60.0	57.6	2.43	24.649		
632.3	632.3	635.3	635.3	1.3	1.3	-90.00	0.0	-60.0	60.0	57.4	2.58	23.262 CC		
650.0	650.0	653.0	653.0	1.3	1.3	-90.00	0.0	-60.0	60.0	57.3	2.66	22.566		
700.0	700.0	702.5	702.5	1.4	1.4	-75.16	0.4	-60.2	60.1	57.2	2.88	20.867 ES		
750.0	750.0	752.0	752.0	1.6	1.6	-75.23	1.6	-60.9	60.4	57.3	3.10	19.476		
800.0	799.9	801.5	801.4	1.7	1.7	-75.37	3.5	-61.9	60.9	57.6	3.32	18.327		
850.0	849.8	851.0	850.8	1.8	1.8	-75.58	6.2	-63.3	61.6	58.0	3.55	17.349		
900.0	899.7	900.0	899.7	1.9	1.9	-75.85	9.6	-65.2	62.5	58.7	3.78	16.543		
950.0	949.5	950.0	949.4	2.0	2.0	-76.19	13.8	-67.4	63.5	59.5	4.02	15.812		
1,000.0	999.1	999.4	998.6	2.1	2.1	-76.57	18.7	-70.1	64.7	60.5	4.26	15.213		
1,050.0	1,048.7	1,048.9	1,047.6	2.3	2.3	-77.01	24.4	-73.1	66.2	61.7	4.52	14.644		
1,100.0	1,098.2	1,098.4	1,096.6	2.4	2.4	-77.48	30.8	-76.6	67.8	63.0	4.78	14.176		
1,150.0	1,147.5	1,147.8	1,145.3	2.6	2.6	-77.98	38.0	-80.4	69.6	64.5	5.08	13.713		
1,200.0	1,196.6	1,197.6	1,194.3	2.7	2.7	-78.62	45.8	-84.6	71.6	66.2	5.38	13.308		
1,250.0	1,245.6	1,247.5	1,243.4	2.9	2.9	-79.83	53.8	-88.9	73.4	67.7	5.71	12.849		
1,300.0	1,294.4	1,297.4	1,292.5	3.1	3.0	-81.64	61.7	-93.2	75.1	69.1	6.05	12.411		
1,350.0	1,343.1	1,347.3	1,341.5	3.3	3.2	-84.01	69.6	-97.4	76.8	70.4	6.43	11.946		
1,400.0	1,391.5	1,397.1	1,390.5	3.5	3.4	-86.89	77.5	-101.7	78.6	71.8	6.82	11.535		
1,450.0	1,439.6	1,446.8	1,439.4	3.7	3.6	-90.25	85.4	-105.9	80.6	73.4	7.24	11.139		
1,500.0	1,487.6	1,496.5	1,488.3	3.9	3.7	-94.02	93.3	-110.2	82.9	75.3	7.66	10.831		
1,550.0	1,535.3	1,546.0	1,537.0	4.2	3.9	-98.12	101.2	-114.4	85.7	77.6	8.10	10.582		
1,600.0	1,582.7	1,595.4	1,585.6	4.5	4.1	-102.46	109.0	-118.6	89.1	80.6	8.53	10.450		
1,650.0	1,629.8	1,644.7	1,634.1	4.8	4.3	-106.95	116.9	-122.8	93.3	84.3	8.96	10.406 SF		
1,700.0	1,676.6	1,693.9	1,682.4	5.1	4.5	-111.48	124.7	-127.0	98.3	88.9	9.36	10.494		

# Anticollision Report

<b>Company:</b>	Edge Energy LLC	<b>Local Co-ordinate Reference:</b>	Well Cherry Knolls 33-7* - Slot 7
<b>Project:</b>	Weld County, Co (NAD 83)	<b>TVD Reference:</b>	RKB @ 5119.0usft (kb;20')
<b>Reference Site:</b>	Sec. 33 Twn 1N Rng 65W	<b>MD Reference:</b>	RKB @ 5119.0usft (kb;20')
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Cherry Knolls 33-7*	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	WellPlan Services
<b>Reference Design:</b>	#1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	2.0	2.0	0.0	0.0	-90.00	0.0	-45.0	45.0					
50.0	50.0	52.0	52.0	0.0	0.0	-90.00	0.0	-45.0	45.0	44.9	0.08	559.240		
100.0	100.0	102.0	102.0	0.1	0.1	-90.00	0.0	-45.0	45.0	44.8	0.18	244.156		
150.0	150.0	152.0	152.0	0.2	0.2	-90.00	0.0	-45.0	45.0	44.6	0.41	110.004		
200.0	200.0	202.0	202.0	0.3	0.3	-90.00	0.0	-45.0	45.0	44.4	0.63	70.996		
250.0	250.0	252.0	252.0	0.4	0.4	-90.00	0.0	-45.0	45.0	44.1	0.86	52.411		
300.0	300.0	302.0	302.0	0.5	0.5	-90.00	0.0	-45.0	45.0	43.9	1.08	41.537		
350.0	350.0	352.0	352.0	0.7	0.7	-90.00	0.0	-45.0	45.0	43.7	1.31	34.400		
400.0	400.0	402.0	402.0	0.8	0.8	-90.00	0.0	-45.0	45.0	43.5	1.53	29.356		
450.0	450.0	452.0	452.0	0.9	0.9	-90.00	0.0	-45.0	45.0	43.2	1.76	25.602		
500.0	500.0	502.0	502.0	1.0	1.0	-90.00	0.0	-45.0	45.0	43.0	1.98	22.699		
550.0	550.0	552.0	552.0	1.1	1.1	-90.00	0.0	-45.0	45.0	42.8	2.21	20.388		
600.0	600.0	602.0	602.0	1.2	1.2	-90.00	0.0	-45.0	45.0	42.6	2.43	18.504		
650.0	650.0	652.0	652.0	1.3	1.3	-90.00	0.0	-45.0	45.0	42.3	2.66	16.938		
700.0	700.0	702.0	702.0	1.4	1.4	-75.71	0.0	-45.0	44.9	42.0	2.88	15.581		
750.0	750.0	751.8	751.8	1.6	1.6	-76.97	0.3	-45.1	44.7	41.6	3.10	14.398		
800.0	799.9	801.5	801.5	1.7	1.7	-78.29	1.4	-45.5	44.6	41.3	3.33	13.412		
805.1	805.0	806.5	806.5	1.7	1.7	-78.43	1.5	-45.6	44.6	41.3	3.35	13.321 CC		
850.0	849.8	851.2	851.2	1.8	1.8	-79.66	3.2	-46.3	44.7	41.1	3.55	12.575		
900.0	899.7	901.0	900.9	1.9	1.9	-81.05	5.9	-47.4	44.8	41.1	3.78	11.872 ES		
950.0	949.5	950.8	950.5	2.0	2.0	-82.46	9.4	-48.8	45.2	41.2	4.01	11.250		
1,000.0	999.1	1,000.6	1,000.1	2.1	2.1	-83.88	13.6	-50.5	45.6	41.4	4.25	10.726		
1,050.0	1,048.7	1,050.4	1,049.6	2.3	2.2	-85.29	18.7	-52.6	46.2	41.7	4.51	10.239		
1,100.0	1,098.2	1,100.2	1,099.0	2.4	2.4	-86.68	24.6	-55.0	46.9	42.2	4.77	9.831		
1,150.0	1,147.5	1,150.0	1,148.3	2.6	2.5	-88.04	31.3	-57.7	47.8	42.7	5.07	9.432		
1,200.0	1,196.6	1,200.0	1,197.6	2.7	2.7	-89.36	38.7	-60.7	48.8	43.4	5.36	9.099		
1,250.0	1,245.6	1,249.8	1,246.6	2.9	2.8	-90.64	47.0	-64.0	49.9	44.2	5.70	8.761		
1,300.0	1,294.4	1,299.6	1,295.5	3.1	3.0	-91.86	56.0	-67.7	51.2	45.1	6.03	8.479		
1,350.0	1,343.1	1,349.5	1,344.2	3.3	3.2	-93.02	65.9	-71.7	52.5	46.1	6.42	8.185		
1,400.0	1,391.5	1,399.5	1,392.8	3.5	3.3	-94.12	76.5	-76.0	54.1	47.2	6.81	7.942		
1,450.0	1,439.6	1,449.4	1,441.2	3.7	3.5	-95.30	87.8	-80.6	55.7	48.5	7.24	7.690		
1,500.0	1,487.6	1,499.3	1,489.6	3.9	3.8	-97.19	99.2	-85.2	57.5	49.8	7.68	7.481		
1,550.0	1,535.3	1,549.2	1,538.0	4.2	4.0	-99.78	110.5	-89.8	59.4	51.3	8.15	7.291		
1,600.0	1,582.7	1,599.0	1,586.3	4.5	4.2	-102.99	121.9	-94.4	61.7	53.1	8.61	7.168		
1,650.0	1,629.8	1,648.8	1,634.5	4.8	4.4	-106.69	133.2	-99.0	64.4	55.3	9.08	7.096 SF		
1,700.0	1,676.6	1,698.5	1,682.7	5.1	4.6	-110.74	144.5	-103.6	67.7	58.2	9.52	7.112		
1,750.0	1,723.2	1,748.0	1,730.7	5.4	4.9	-115.02	155.8	-108.1	71.6	61.7	9.94	7.204		
1,800.0	1,769.4	1,797.5	1,778.7	5.7	5.1	-119.37	167.1	-112.7	76.3	66.0	10.33	7.392		
1,850.0	1,815.6	1,846.9	1,826.6	6.1	5.3	-123.32	178.3	-117.3	81.5	70.8	10.69	7.622		
1,900.0	1,861.7	1,896.3	1,874.5	6.4	5.6	-126.80	189.6	-121.8	87.0	76.0	11.04	7.881		
1,950.0	1,907.9	1,945.8	1,922.4	6.7	5.8	-129.85	200.8	-126.4	92.8	81.4	11.38	8.157		
2,000.0	1,954.1	1,995.2	1,970.3	7.1	6.0	-132.54	212.1	-130.9	98.9	87.2	11.71	8.444		

# Anticollision Report

<b>Company:</b>	Edge Energy LLC	<b>Local Co-ordinate Reference:</b>	Well Cherry Knolls 33-7* - Slot 7
<b>Project:</b>	Weld County, Co (NAD 83)	<b>TVD Reference:</b>	RKB @ 5119.0usft (kb;20')
<b>Reference Site:</b>	Sec. 33 Twn 1N Rng 65W	<b>MD Reference:</b>	RKB @ 5119.0usft (kb;20')
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Cherry Knolls 33-7*	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	HZ	<b>Database:</b>	WellPlan Services
<b>Reference Design:</b>	#1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	1.0	1.0	0.0	0.0	-90.00	0.0	-30.0	30.0					
50.0	50.0	51.0	51.0	0.0	0.0	-90.00	0.0	-30.0	30.0	29.9	0.08	377.039		
100.0	100.0	101.0	101.0	0.1	0.1	-90.00	0.0	-30.0	30.0	29.8	0.18	164.780		
150.0	150.0	151.0	151.0	0.2	0.2	-90.00	0.0	-30.0	30.0	29.6	0.41	73.741		
200.0	200.0	201.0	201.0	0.3	0.3	-90.00	0.0	-30.0	30.0	29.4	0.63	47.499		
250.0	250.0	251.0	251.0	0.4	0.4	-90.00	0.0	-30.0	30.0	29.1	0.86	35.032		
300.0	300.0	301.0	301.0	0.5	0.5	-90.00	0.0	-30.0	30.0	28.9	1.08	27.749		
350.0	350.0	351.0	351.0	0.7	0.7	-90.00	0.0	-30.0	30.0	28.7	1.31	22.973		
400.0	400.0	401.0	401.0	0.8	0.8	-90.00	0.0	-30.0	30.0	28.5	1.53	19.599		
450.0	450.0	451.0	451.0	0.9	0.9	-90.00	0.0	-30.0	30.0	28.2	1.76	17.090		
500.0	500.0	501.0	501.0	1.0	1.0	-90.00	0.0	-30.0	30.0	28.0	1.98	15.150		
550.0	550.0	551.0	551.0	1.1	1.1	-90.00	0.0	-30.0	30.0	27.8	2.20	13.606		
600.0	600.0	601.0	601.0	1.2	1.2	-90.00	0.0	-30.0	30.0	27.6	2.43	12.347		
633.0	633.0	634.0	634.0	1.3	1.3	-90.00	0.0	-30.0	30.0	27.4	2.58	11.637 CC		
650.0	650.0	651.0	651.0	1.3	1.3	-90.00	0.0	-30.0	30.0	27.3	2.65	11.302		
700.0	700.0	700.8	700.8	1.4	1.4	-75.16	0.4	-30.1	30.0	27.2	2.88	10.435		
750.0	750.0	750.7	750.6	1.6	1.6	-75.17	1.7	-30.6	30.1	27.0	3.10	9.711		
800.0	799.9	800.5	800.4	1.7	1.7	-75.22	3.8	-31.2	30.2	26.9	3.32	9.099		
850.0	849.8	850.3	850.2	1.8	1.8	-75.30	6.7	-32.2	30.4	26.9	3.55	8.565		
900.0	899.7	900.2	899.9	1.9	1.9	-75.41	10.4	-33.4	30.6	26.9	3.78	8.109 ES		
950.0	949.5	950.0	949.5	2.0	2.0	-75.55	14.9	-34.9	30.9	26.9	4.02	7.690		
1,000.0	999.1	1,000.0	999.1	2.1	2.1	-75.72	20.3	-36.7	31.2	27.0	4.26	7.329		
1,050.0	1,048.7	1,049.7	1,048.4	2.3	2.3	-75.91	26.4	-38.7	31.6	27.1	4.53	6.982		
1,100.0	1,098.2	1,099.5	1,097.7	2.4	2.4	-76.13	33.4	-41.0	32.0	27.2	4.79	6.683		
1,150.0	1,147.5	1,149.3	1,146.8	2.6	2.6	-76.37	41.2	-43.6	32.5	27.4	5.09	6.382		
1,200.0	1,196.6	1,199.2	1,195.8	2.7	2.7	-76.63	49.8	-46.4	33.0	27.6	5.39	6.123		
1,250.0	1,245.6	1,249.0	1,244.7	2.9	2.9	-76.91	59.3	-49.5	33.6	27.9	5.74	5.856		
1,300.0	1,294.4	1,298.8	1,293.3	3.1	3.1	-77.20	69.5	-52.9	34.2	28.1	6.08	5.626		
1,350.0	1,343.1	1,348.7	1,341.8	3.3	3.3	-77.50	80.5	-56.5	34.9	28.4	6.48	5.386		
1,400.0	1,391.5	1,398.5	1,390.0	3.5	3.5	-77.82	92.3	-60.4	35.6	28.7	6.87	5.179		
1,450.0	1,439.6	1,448.3	1,438.0	3.7	3.7	-78.15	105.0	-64.6	36.4	29.0	7.33	4.963		
1,500.0	1,487.6	1,498.2	1,485.8	3.9	3.9	-78.48	118.4	-69.0	37.2	29.4	7.78	4.777		
1,550.0	1,535.3	1,548.1	1,533.5	4.2	4.2	-78.97	132.5	-73.7	38.0	29.7	8.29	4.584		
1,600.0	1,582.7	1,598.0	1,581.1	4.5	4.4	-80.55	146.8	-78.4	38.7	29.9	8.82	4.389		
1,650.0	1,629.8	1,648.0	1,628.8	4.8	4.7	-83.33	161.0	-83.1	39.4	30.0	9.41	4.182		
1,700.0	1,676.6	1,697.9	1,676.4	5.1	5.0	-87.25	175.2	-87.8	40.0	30.0	10.01	4.000		
1,750.0	1,723.2	1,747.8	1,724.0	5.4	5.3	-92.23	189.5	-92.4	40.9	30.3	10.63	3.850		
1,800.0	1,769.4	1,797.6	1,771.5	5.7	5.5	-98.03	203.7	-97.1	42.2	31.0	11.21	3.765		
1,850.0	1,815.6	1,847.4	1,819.0	6.1	5.8	-103.64	217.9	-101.8	43.9	32.2	11.75	3.740 SF		
1,900.0	1,861.7	1,897.2	1,866.5	6.4	6.1	-108.78	232.0	-106.5	46.0	33.8	12.22	3.767		
1,950.0	1,907.9	1,947.0	1,914.0	6.7	6.4	-113.43	246.2	-111.2	48.5	35.8	12.66	3.832		
2,000.0	1,954.1	1,996.8	1,961.5	7.1	6.7	-117.62	260.4	-115.8	51.2	38.2	13.05	3.926		
2,050.0	2,000.2	2,046.5	2,008.9	7.5	6.9	-121.36	274.6	-120.5	54.2	40.8	13.42	4.042		
2,100.0	2,046.4	2,096.3	2,056.4	7.8	7.2	-124.70	288.8	-125.2	57.4	43.7	13.76	4.174		
2,150.0	2,092.6	2,146.1	2,103.9	8.2	7.5	-127.69	303.0	-129.9	60.8	46.7	14.09	4.317		
2,200.0	2,138.7	2,195.9	2,151.4	8.5	7.8	-130.35	317.2	-134.6	64.3	49.9	14.40	4.467		
2,250.0	2,184.9	2,245.7	2,198.9	8.9	8.1	-132.73	331.4	-139.2	68.0	53.3	14.71	4.621		
2,300.0	2,231.1	2,295.5	2,246.4	9.3	8.4	-134.87	345.6	-143.9	71.7	56.7	15.01	4.778		
2,350.0	2,277.2	2,345.3	2,293.9	9.6	8.7	-136.80	359.8	-148.6	75.5	60.2	15.31	4.935		
2,400.0	2,323.4	2,395.1	2,341.4	10.0	9.0	-138.53	374.0	-153.3	79.5	63.9	15.61	5.091		
2,450.0	2,369.6	2,444.9	2,388.9	10.4	9.3	-140.11	388.2	-158.0	83.4	67.5	15.91	5.245		
2,500.0	2,415.7	2,494.7	2,436.4	10.7	9.6	-141.53	402.4	-162.6	87.5	71.3	16.21	5.397		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



## Anticollision Report

<b>Company:</b>	Edge Energy LLC	<b>Local Co-ordinate Reference:</b>	Well Cherry Knolls 33-7* - Slot 7
<b>Project:</b>	Weld County, Co (NAD 83)	<b>TVD Reference:</b>	RKB @ 5119.0usft (kb;20')
<b>Reference Site:</b>	Sec. 33 Twn 1N Rng 65W	<b>MD Reference:</b>	RKB @ 5119.0usft (kb;20')
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Cherry Knolls 33-7*	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	HZ	<b>Database:</b>	WellPlan Services
<b>Reference Design:</b>	#1	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b>		Sec. 33 Twn 1N Rng 65W - Cherry Knolls 33-5* - HZ - #1										<b>Offset Site Error:</b>	0.0 usft
Survey Program: 0-MWD												<b>Offset Well Error:</b>	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
2,550.0	2,461.9	2,544.5	2,483.9	11.1	9.9	-142.84	416.6	-167.3	91.6	75.1	16.51	5.545	
2,600.0	2,508.1	2,594.3	2,531.4	11.5	10.2	-144.03	430.8	-172.0	95.7	78.9	16.82	5.691	
2,650.0	2,554.3	2,644.0	2,578.9	11.8	10.5	-145.12	445.0	-176.7	99.9	82.7	17.12	5.832	

# Anticollision Report

<b>Company:</b>	Edge Energy LLC	<b>Local Co-ordinate Reference:</b>	Well Cherry Knolls 33-7* - Slot 7
<b>Project:</b>	Weld County, Co (NAD 83)	<b>TVD Reference:</b>	RKB @ 5119.0usft (kb;20')
<b>Reference Site:</b>	Sec. 33 Twn 1N Rng 65W	<b>MD Reference:</b>	RKB @ 5119.0usft (kb;20')
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Cherry Knolls 33-7*	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	HZ	<b>Database:</b>	WellPlan Services
<b>Reference Design:</b>	#1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design Sec. 33 Twn 1N Rng 65W - Cherry Knolls 33-6* - HZ - #1													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-90.00	0.0	-15.0	15.0					
50.0	50.0	50.0	50.0	0.0	0.0	-90.00	0.0	-15.0	15.0	14.9	0.08	190.674		
100.0	100.0	100.0	100.0	0.1	0.1	-90.00	0.0	-15.0	15.0	14.8	0.18	83.420		
150.0	150.0	150.0	150.0	0.2	0.2	-90.00	0.0	-15.0	15.0	14.6	0.40	37.076		
200.0	200.0	200.0	200.0	0.3	0.3	-90.00	0.0	-15.0	15.0	14.4	0.63	23.834		
250.0	250.0	250.0	250.0	0.4	0.4	-90.00	0.0	-15.0	15.0	14.1	0.85	17.562		
300.0	300.0	300.0	300.0	0.5	0.5	-90.00	0.0	-15.0	15.0	13.9	1.08	13.903		
350.0	350.0	350.0	350.0	0.7	0.7	-90.00	0.0	-15.0	15.0	13.7	1.30	11.506		
400.0	400.0	400.0	400.0	0.8	0.8	-90.00	0.0	-15.0	15.0	13.5	1.53	9.814		
450.0	450.0	450.0	450.0	0.9	0.9	-90.00	0.0	-15.0	15.0	13.2	1.75	8.556		
500.0	500.0	500.0	500.0	1.0	1.0	-90.00	0.0	-15.0	15.0	13.0	1.98	7.584		
550.0	550.0	550.0	550.0	1.1	1.1	-90.00	0.0	-15.0	15.0	12.8	2.20	6.810		
600.0	600.0	600.0	600.0	1.2	1.2	-90.00	0.0	-15.0	15.0	12.6	2.43	6.179		
650.0	650.0	650.0	650.0	1.3	1.3	-90.00	0.0	-15.0	15.0	12.3	2.65	5.656		
700.0	700.0	700.0	700.0	1.4	1.4	-76.53	0.1	-15.0	14.9	12.0	2.88	5.184		
750.0	750.0	749.9	749.9	1.6	1.6	-78.52	0.8	-15.2	14.8	11.7	3.10	4.778		
800.0	799.9	799.9	799.8	1.7	1.7	-80.54	2.4	-15.7	14.7	11.4	3.32	4.435		
850.0	849.8	849.8	849.7	1.8	1.8	-82.59	4.8	-16.4	14.7	11.1	3.55	4.139		
893.4	893.1	893.1	892.9	1.9	1.9	-84.38	7.6	-17.1	14.7	10.9	3.75	3.918 CC		
900.0	899.7	899.8	899.6	1.9	1.9	-84.65	8.1	-17.3	14.7	10.9	3.78	3.887		
950.0	949.5	949.8	949.4	2.0	2.0	-86.72	12.2	-18.4	14.7	10.7	4.02	3.659		
1,000.0	999.1	999.7	999.1	2.1	2.1	-88.79	17.2	-19.8	14.8	10.5	4.26	3.463		
1,050.0	1,048.7	1,049.7	1,048.7	2.3	2.3	-90.83	22.9	-21.4	14.8	10.3	4.53	3.278		
1,100.0	1,098.2	1,099.7	1,098.2	2.4	2.4	-92.85	29.6	-23.3	14.9	10.2	4.79	3.120		
1,150.0	1,147.5	1,149.7	1,147.6	2.6	2.5	-94.84	37.0	-25.4	15.1	10.0	5.09	2.965		
1,200.0	1,196.6	1,199.8	1,196.9	2.7	2.7	-96.78	45.3	-27.7	15.3	9.9	5.39	2.832		
1,250.0	1,245.6	1,249.8	1,246.0	2.9	2.8	-98.66	54.4	-30.2	15.5	9.7	5.73	2.699		
1,300.0	1,294.4	1,299.8	1,295.0	3.1	3.0	-100.48	64.3	-33.0	15.7	9.6	6.07	2.586		
1,350.0	1,343.1	1,349.9	1,343.8	3.3	3.2	-102.24	75.1	-36.0	16.0	9.5	6.46	2.471		
1,400.0	1,391.5	1,399.9	1,392.4	3.5	3.4	-103.93	86.7	-39.2	16.2	9.4	6.84	2.374		
1,450.0	1,439.6	1,450.0	1,440.8	3.7	3.6	-105.54	99.1	-42.7	16.5	9.3	7.27	2.276		
1,500.0	1,487.6	1,500.1	1,488.9	3.9	3.8	-107.07	112.3	-46.4	16.9	9.2	7.70	2.192		
1,550.0	1,535.3	1,550.2	1,536.8	4.2	4.1	-108.53	126.3	-50.3	17.2	9.1	8.18	2.107		
1,600.0	1,582.7	1,600.3	1,584.5	4.5	4.3	-109.92	141.1	-54.5	17.6	9.0	8.65	2.035		
1,650.0	1,629.8	1,650.4	1,631.9	4.8	4.6	-111.22	156.8	-58.9	18.0	8.8	9.17	1.962		
1,700.0	1,676.6	1,700.5	1,679.0	5.1	4.9	-112.45	173.2	-63.5	18.4	8.7	9.69	1.900		
1,750.0	1,723.2	1,750.6	1,725.8	5.4	5.2	-113.61	190.4	-68.3	18.8	8.6	10.25	1.838		
1,800.0	1,769.4	1,800.6	1,772.3	5.7	5.6	-114.78	208.3	-73.3	19.3	8.5	10.82	1.784		
1,850.0	1,815.6	1,850.6	1,818.7	6.1	5.9	-116.00	226.3	-78.3	19.8	8.4	11.40	1.736		
1,900.0	1,861.7	1,900.6	1,865.1	6.4	6.2	-117.16	244.2	-83.3	20.3	8.3	11.97	1.695		
1,950.0	1,907.9	1,950.6	1,911.5	6.7	6.6	-118.26	262.2	-88.4	20.8	8.2	12.54	1.657		
2,000.0	1,954.1	2,000.6	1,957.9	7.1	6.9	-119.31	280.2	-93.4	21.3	8.2	13.11	1.625		
2,050.0	2,000.2	2,050.6	2,004.3	7.5	7.2	-120.31	298.1	-98.4	21.8	8.1	13.67	1.595		
2,100.0	2,046.4	2,100.6	2,050.6	7.8	7.6	-121.27	316.1	-103.4	22.3	8.1	14.23	1.569		
2,150.0	2,092.6	2,150.6	2,097.0	8.2	7.9	-122.18	334.1	-108.5	22.9	8.1	14.79	1.546		
2,200.0	2,138.7	2,200.6	2,143.4	8.5	8.3	-123.05	352.0	-113.5	23.4	8.1	15.35	1.525		
2,250.0	2,184.9	2,250.6	2,189.8	8.9	8.6	-123.88	370.0	-118.5	23.9	8.0	15.90	1.506		
2,300.0	2,231.1	2,300.6	2,236.2	9.3	9.0	-124.67	388.0	-123.5	24.5	8.0	16.44	1.489 Level 3, ES		
2,350.0	2,277.2	2,350.6	2,282.6	9.6	9.4	-125.43	405.9	-128.6	25.0	8.0	16.98	1.474 Level 3		
2,400.0	2,323.4	2,400.6	2,328.9	10.0	9.7	-126.16	423.9	-133.6	25.6	8.1	17.52	1.460 Level 3		
2,450.0	2,369.6	2,450.6	2,375.3	10.4	10.1	-126.85	441.9	-138.6	26.1	8.1	18.06	1.448 Level 3		
2,500.0	2,415.7	2,500.6	2,421.7	10.7	10.4	-127.52	459.8	-143.6	26.7	8.1	18.59	1.436 Level 3		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Anticollision Report

<b>Company:</b>	Edge Energy LLC	<b>Local Co-ordinate Reference:</b>	Well Cherry Knolls 33-7* - Slot 7
<b>Project:</b>	Weld County, Co (NAD 83)	<b>TVD Reference:</b>	RKB @ 5119.0usft (kb;20')
<b>Reference Site:</b>	Sec. 33 Twn 1N Rng 65W	<b>MD Reference:</b>	RKB @ 5119.0usft (kb;20')
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Cherry Knolls 33-7*	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	HZ	<b>Database:</b>	WellPlan Services
<b>Reference Design:</b>	#1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
2,550.0	2,461.9	2,550.6	2,468.1	11.1	10.8	-128.16	477.8	-148.7	27.3	8.1	19.12	1.426	Level 3	
2,600.0	2,508.1	2,600.6	2,514.5	11.5	11.2	-128.77	495.8	-153.7	27.8	8.2	19.64	1.417	Level 3	
2,650.0	2,554.3	2,650.6	2,560.9	11.8	11.5	-129.36	513.7	-158.7	28.4	8.2	20.16	1.409	Level 3	
2,700.0	2,600.4	2,700.6	2,607.3	12.2	11.9	-129.93	531.7	-163.7	29.0	8.3	20.68	1.401	Level 3	
2,750.0	2,646.6	2,750.6	2,653.6	12.6	12.2	-130.47	549.7	-168.8	29.6	8.4	21.19	1.394	Level 3	
2,800.0	2,692.8	2,800.6	2,700.0	13.0	12.6	-130.99	567.6	-173.8	30.1	8.4	21.71	1.388	Level 3	
2,850.0	2,738.9	2,850.6	2,746.4	13.3	13.0	-131.49	585.6	-178.8	30.7	8.5	22.22	1.382	Level 3	
2,900.0	2,785.1	2,900.6	2,792.8	13.7	13.3	-131.98	603.6	-183.9	31.3	8.6	22.72	1.377	Level 3	
2,950.0	2,831.3	2,950.6	2,839.2	14.1	13.7	-132.44	621.5	-188.9	31.9	8.6	23.23	1.372	Level 3	
3,000.0	2,877.4	3,000.6	2,885.6	14.5	14.1	-132.89	639.5	-193.9	32.5	8.7	23.73	1.368	Level 3	
3,050.0	2,923.6	3,050.5	2,931.9	14.8	14.4	-133.33	657.5	-198.9	33.1	8.8	24.23	1.364	Level 3	
3,100.0	2,969.8	3,100.5	2,978.3	15.2	14.8	-133.74	675.4	-204.0	33.6	8.9	24.73	1.361	Level 3	
3,150.0	3,015.9	3,150.5	3,024.7	15.6	15.1	-134.15	693.4	-209.0	34.2	9.0	25.23	1.357	Level 3	
3,200.0	3,062.1	3,200.5	3,071.1	16.0	15.5	-134.54	711.4	-214.0	34.8	9.1	25.72	1.354	Level 3	
3,250.0	3,108.3	3,250.5	3,117.5	16.3	15.9	-134.92	729.3	-219.0	35.4	9.2	26.21	1.352	Level 3	
3,300.0	3,154.4	3,300.5	3,163.9	16.7	16.2	-135.28	747.3	-224.1	36.0	9.3	26.70	1.349	Level 3	
3,350.0	3,200.6	3,350.5	3,210.3	17.1	16.6	-135.63	765.3	-229.1	36.6	9.4	27.19	1.347	Level 3	
3,400.0	3,246.8	3,400.5	3,256.6	17.5	17.0	-135.97	783.2	-234.1	37.2	9.5	27.68	1.345	Level 3	
3,450.0	3,292.9	3,450.5	3,303.0	17.8	17.3	-136.30	801.2	-239.1	37.8	9.7	28.17	1.343	Level 3	
3,500.0	3,339.1	3,500.5	3,349.4	18.2	17.7	-136.62	819.2	-244.2	38.4	9.8	28.65	1.341	Level 3	
3,550.0	3,385.3	3,550.5	3,395.8	18.6	18.1	-136.93	837.1	-249.2	39.0	9.9	29.14	1.340	Level 3	
3,600.0	3,431.4	3,600.5	3,442.2	19.0	18.4	-137.23	855.1	-254.2	39.6	10.0	29.62	1.338	Level 3	
3,650.0	3,477.6	3,650.5	3,488.6	19.3	18.8	-137.53	873.1	-259.2	40.2	10.1	30.10	1.337	Level 3	
3,700.0	3,523.8	3,700.5	3,534.9	19.7	19.2	-137.81	891.0	-264.3	40.9	10.3	30.58	1.336	Level 3	
3,750.0	3,570.0	3,750.5	3,581.3	20.1	19.5	-138.08	909.0	-269.3	41.5	10.4	31.06	1.335	Level 3	
3,800.0	3,616.1	3,800.5	3,627.7	20.5	19.9	-138.35	927.0	-274.3	42.1	10.5	31.54	1.334	Level 3	
3,850.0	3,662.3	3,850.5	3,674.1	20.9	20.3	-138.61	944.9	-279.4	42.7	10.7	32.01	1.333	Level 3	
3,900.0	3,708.5	3,900.5	3,720.5	21.2	20.6	-138.86	962.9	-284.4	43.3	10.8	32.49	1.333	Level 3	
3,950.0	3,754.6	3,950.5	3,766.9	21.6	21.0	-139.11	980.9	-289.4	43.9	10.9	32.96	1.332	Level 3	
4,000.0	3,800.8	4,000.5	3,813.3	22.0	21.4	-139.34	998.8	-294.4	44.5	11.1	33.44	1.331	Level 3	
4,050.0	3,847.0	4,050.5	3,859.6	22.4	21.7	-139.57	1,016.8	-299.5	45.1	11.2	33.91	1.331	Level 3	
4,100.0	3,893.1	4,100.5	3,906.0	22.7	22.1	-139.80	1,034.8	-304.5	45.7	11.4	34.38	1.330	Level 3	
4,150.0	3,939.3	4,150.5	3,952.4	23.1	22.5	-140.02	1,052.7	-309.5	46.4	11.5	34.85	1.330	Level 3	
4,200.0	3,985.5	4,200.5	3,998.8	23.5	22.9	-140.23	1,070.7	-314.5	47.0	11.6	35.32	1.330	Level 3	
4,250.0	4,031.6	4,250.4	4,045.2	23.9	23.2	-140.44	1,088.6	-319.6	47.6	11.8	35.79	1.329	Level 3	
4,300.0	4,077.8	4,300.4	4,091.6	24.3	23.6	-140.64	1,106.6	-324.6	48.2	11.9	36.26	1.329	Level 3	
4,350.0	4,124.0	4,350.4	4,137.9	24.6	24.0	-140.84	1,124.6	-329.6	48.8	12.1	36.73	1.329	Level 3	
4,400.0	4,170.1	4,400.4	4,184.3	25.0	24.3	-141.03	1,142.5	-334.6	49.4	12.2	37.20	1.329	Level 3	
4,450.0	4,216.3	4,450.4	4,230.7	25.4	24.7	-141.22	1,160.5	-339.7	50.1	12.4	37.67	1.329	Level 3	
4,500.0	4,262.5	4,500.4	4,277.1	25.8	25.1	-141.41	1,178.5	-344.7	50.7	12.5	38.13	1.329	Level 3	
4,550.0	4,308.6	4,550.4	4,323.5	26.1	25.4	-141.58	1,196.4	-349.7	51.3	12.7	38.60	1.329	Level 3, SF	
4,600.0	4,354.8	4,600.4	4,369.9	26.5	25.8	-141.76	1,214.4	-354.7	51.9	12.8	39.07	1.329	Level 3	
4,650.0	4,401.0	4,650.4	4,416.3	26.9	26.2	-141.93	1,232.4	-359.8	52.5	13.0	39.53	1.329	Level 3	
4,700.0	4,447.2	4,700.4	4,462.6	27.3	26.5	-142.10	1,250.3	-364.8	53.2	13.2	39.99	1.329	Level 3	
4,750.0	4,493.3	4,750.4	4,509.0	27.7	26.9	-142.26	1,268.3	-369.8	53.8	13.3	40.46	1.329	Level 3	
4,800.0	4,539.5	4,800.4	4,555.4	28.0	27.3	-142.42	1,286.3	-374.9	54.4	13.5	40.92	1.329	Level 3	
4,850.0	4,585.7	4,850.4	4,601.8	28.4	27.6	-142.57	1,304.2	-379.9	55.0	13.6	41.39	1.329	Level 3	
4,900.0	4,631.8	4,900.4	4,648.2	28.8	28.0	-142.73	1,322.2	-384.9	55.6	13.8	41.85	1.330	Level 3	
4,950.0	4,678.0	4,950.4	4,694.6	29.2	28.4	-142.87	1,340.2	-389.9	56.3	14.0	42.31	1.330	Level 3	
5,000.0	4,724.2	5,000.4	4,741.0	29.6	28.8	-143.02	1,358.1	-395.0	56.9	14.1	42.77	1.330	Level 3	
5,050.0	4,770.3	5,050.4	4,787.3	29.9	29.1	-143.16	1,376.1	-400.0	57.5	14.3	43.24	1.330	Level 3	
5,100.0	4,816.5	5,100.4	4,833.7	30.3	29.5	-143.30	1,394.1	-405.0	58.1	14.4	43.70	1.330	Level 3	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Anticollision Report

<b>Company:</b>	Edge Energy LLC	<b>Local Co-ordinate Reference:</b>	Well Cherry Knolls 33-7* - Slot 7
<b>Project:</b>	Weld County, Co (NAD 83)	<b>TVD Reference:</b>	RKB @ 5119.0usft (kb;20')
<b>Reference Site:</b>	Sec. 33 Twn 1N Rng 65W	<b>MD Reference:</b>	RKB @ 5119.0usft (kb;20')
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Cherry Knolls 33-7*	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	HZ	<b>Database:</b>	WellPlan Services
<b>Reference Design:</b>	#1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,150.0	4,862.7	5,150.4	4,880.1	30.7	29.9	-143.44	1,412.0	-410.0	58.8	14.6	44.16	1.331 Level 3		
5,200.0	4,908.8	5,200.4	4,926.5	31.1	30.2	-143.57	1,430.0	-415.1	59.4	14.8	44.62	1.331 Level 3		
5,250.0	4,955.0	5,250.4	4,972.9	31.4	30.6	-143.70	1,448.0	-420.1	60.0	14.9	45.08	1.331 Level 3		
5,300.0	5,001.2	5,300.4	5,019.3	31.8	31.0	-143.83	1,465.9	-425.1	60.6	15.1	45.54	1.331 Level 3		
5,350.0	5,047.3	5,350.4	5,065.6	32.2	31.3	-143.95	1,483.9	-430.1	61.3	15.3	46.00	1.332 Level 3		
5,400.0	5,093.5	5,400.4	5,112.0	32.6	31.7	-144.08	1,501.9	-435.2	61.9	15.4	46.46	1.332 Level 3		
5,450.0	5,139.7	5,450.3	5,158.4	33.0	32.1	-144.20	1,519.8	-440.2	62.5	15.6	46.92	1.332 Level 3		
5,500.0	5,185.8	5,500.3	5,204.8	33.3	32.4	-144.31	1,537.8	-445.2	63.1	15.8	47.38	1.333 Level 3		
5,550.0	5,232.0	5,550.3	5,251.2	33.7	32.8	-144.43	1,555.8	-450.2	63.8	15.9	47.83	1.333 Level 3		
5,600.0	5,278.2	5,600.3	5,297.6	34.1	33.2	-144.54	1,573.7	-455.3	64.4	16.1	48.29	1.333 Level 3		
5,650.0	5,324.3	5,650.3	5,344.0	34.5	33.6	-144.65	1,591.7	-460.3	65.0	16.3	48.75	1.334 Level 3		
5,700.0	5,370.5	5,700.3	5,390.3	34.9	33.9	-144.76	1,609.7	-465.3	65.6	16.4	49.21	1.334 Level 3		
5,750.0	5,416.7	5,750.3	5,436.7	35.2	34.3	-144.87	1,627.6	-470.4	66.3	16.6	49.67	1.334 Level 3		
5,800.0	5,462.9	5,800.3	5,483.1	35.6	34.7	-144.97	1,645.6	-475.4	66.9	16.8	50.12	1.335 Level 3		
5,850.0	5,509.0	5,850.3	5,529.5	36.0	35.0	-145.08	1,663.6	-480.4	67.5	16.9	50.58	1.335 Level 3		
5,900.0	5,555.2	5,900.3	5,575.9	36.4	35.4	-145.18	1,681.5	-485.4	68.1	17.1	51.04	1.335 Level 3		
5,950.0	5,601.4	5,949.9	5,621.9	36.8	35.7	-145.32	1,699.3	-490.4	68.8	17.4	51.46	1.338 Level 3		
6,000.0	5,647.5	5,998.9	5,667.7	37.1	36.1	-145.78	1,716.2	-495.1	70.1	18.5	51.64	1.358 Level 3		
6,050.0	5,693.7	6,047.8	5,713.6	37.5	36.3	-146.61	1,732.3	-499.6	72.1	20.6	51.55	1.399 Level 3		
6,100.0	5,739.9	6,096.7	5,759.8	37.9	36.6	-147.74	1,747.7	-503.9	74.8	23.6	51.26	1.460 Level 3		
6,150.0	5,786.0	6,145.4	5,806.2	38.3	36.8	-149.12	1,762.2	-508.0	78.3	27.5	50.78	1.542		
6,200.0	5,832.3	6,194.1	5,852.6	38.6	37.0	-150.64	1,776.0	-511.8	82.5	32.3	50.20	1.643		
6,250.0	5,878.8	6,242.6	5,899.3	38.9	37.3	-152.06	1,788.9	-515.5	86.7	37.1	49.63	1.747		
6,300.0	5,925.6	6,291.0	5,946.0	39.2	37.5	-153.34	1,801.1	-518.9	90.9	41.8	49.14	1.850		
6,350.0	5,972.7	6,339.4	5,992.9	39.4	37.7	-154.51	1,812.5	-522.1	95.2	46.5	48.70	1.954		
6,400.0	6,020.1	6,387.7	6,040.0	39.7	37.8	-155.58	1,823.1	-525.0	99.4	51.1	48.32	2.058		

# Anticollision Report

<b>Company:</b>	Edge Energy LLC	<b>Local Co-ordinate Reference:</b>	Well Cherry Knolls 33-7* - Slot 7
<b>Project:</b>	Weld County, Co (NAD 83)	<b>TVD Reference:</b>	RKB @ 5119.0usft (kb;20')
<b>Reference Site:</b>	Sec. 33 Twn 1N Rng 65W	<b>MD Reference:</b>	RKB @ 5119.0usft (kb;20')
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Cherry Knolls 33-7*	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	HZ	<b>Database:</b>	WellPlan Services
<b>Reference Design:</b>	#1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance				Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	5.0	5.0	0.0	0.0	90.00	0.0	15.0	15.0				
50.0	50.0	55.0	55.0	0.0	0.0	90.00	0.0	15.0	15.0	14.9	0.08	180.368	
100.0	100.0	105.0	105.0	0.1	0.1	90.00	0.0	15.0	15.0	14.8	0.19	78.513	
150.0	150.0	155.0	155.0	0.2	0.2	90.00	0.0	15.0	15.0	14.6	0.42	36.074	
200.0	200.0	205.0	205.0	0.3	0.3	90.00	0.0	15.0	15.0	14.4	0.64	23.416	
250.0	250.0	255.0	255.0	0.4	0.4	90.00	0.0	15.0	15.0	14.1	0.87	17.334	
300.0	300.0	305.0	305.0	0.5	0.6	90.00	0.0	15.0	15.0	13.9	1.09	13.760	
350.0	350.0	355.0	355.0	0.7	0.7	90.00	0.0	15.0	15.0	13.7	1.31	11.408	
400.0	400.0	405.0	405.0	0.8	0.8	90.00	0.0	15.0	15.0	13.5	1.54	9.742	
450.0	450.0	455.0	455.0	0.9	0.9	90.00	0.0	15.0	15.0	13.2	1.76	8.501	
500.0	500.0	505.0	505.0	1.0	1.0	90.00	0.0	15.0	15.0	13.0	1.99	7.541	
550.0	550.0	555.0	555.0	1.1	1.1	90.00	0.0	15.0	15.0	12.8	2.21	6.775	
600.0	600.0	605.0	605.0	1.2	1.2	90.00	0.0	15.0	15.0	12.6	2.44	6.151	
650.0	650.0	655.0	655.0	1.3	1.3	90.00	0.0	15.0	15.0	12.3	2.66	5.632 CC	
700.0	700.0	705.0	705.0	1.4	1.4	106.43	0.0	15.0	15.1	12.2	2.89	5.235 ES	
750.0	750.0	755.0	755.0	1.6	1.6	111.05	0.0	15.0	15.5	12.4	3.11	4.993	
800.0	799.9	804.9	804.9	1.7	1.7	118.14	0.0	15.0	16.4	13.1	3.34	4.931 SF	
850.0	849.8	854.8	854.8	1.8	1.8	126.66	0.0	15.0	18.1	14.5	3.56	5.079	
900.0	899.7	904.7	904.7	1.9	1.9	135.36	0.0	15.0	20.7	16.9	3.79	5.461	
950.0	949.5	954.5	954.5	2.0	2.0	143.26	0.0	15.0	24.3	20.3	4.01	6.061	
1,000.0	999.1	1,004.1	1,004.1	2.1	2.1	149.90	0.0	15.0	29.1	24.8	4.24	6.863	
1,050.0	1,048.7	1,053.7	1,053.7	2.3	2.2	156.05	-0.3	14.6	34.9	30.4	4.45	7.840	
1,100.0	1,098.2	1,103.0	1,103.0	2.4	2.3	161.96	-1.2	13.6	41.9	37.2	4.66	8.994	
1,150.0	1,147.5	1,152.0	1,151.9	2.6	2.4	167.33	-2.6	11.9	50.2	45.4	4.86	10.330	
1,200.0	1,196.6	1,200.6	1,200.4	2.7	2.5	172.04	-4.5	9.6	60.0	54.9	5.06	11.840	
1,250.0	1,245.6	1,248.7	1,248.4	2.9	2.6	176.11	-6.8	6.7	71.1	65.8	5.28	13.479	
1,300.0	1,294.4	1,296.4	1,295.9	3.1	2.7	179.60	-9.7	3.2	83.7	78.2	5.49	15.257	
1,350.0	1,343.1	1,343.5	1,342.7	3.3	2.8	-177.41	-13.1	-0.9	97.7	92.0	5.71	17.117	

# Anticollision Report

<b>Company:</b>	Edge Energy LLC	<b>Local Co-ordinate Reference:</b>	Well Cherry Knolls 33-7* - Slot 7
<b>Project:</b>	Weld County, Co (NAD 83)	<b>TVD Reference:</b>	RKB @ 5119.0usft (kb;20')
<b>Reference Site:</b>	Sec. 33 Twn 1N Rng 65W	<b>MD Reference:</b>	RKB @ 5119.0usft (kb;20')
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Cherry Knolls 33-7*	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	HZ	<b>Database:</b>	WellPlan Services
<b>Reference Design:</b>	#1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	6.0	6.0	0.0	0.0	90.00	0.0	30.0	30.0				
50.0	50.0	56.0	56.0	0.0	0.1	90.00	0.0	30.0	30.0	29.9	0.08	356.877	
100.0	100.0	106.0	106.0	0.1	0.1	90.00	0.0	30.0	30.0	29.8	0.19	155.200	
150.0	150.0	156.0	156.0	0.2	0.2	90.00	0.0	30.0	30.0	29.6	0.42	71.759	
200.0	200.0	206.0	206.0	0.3	0.3	90.00	0.0	30.0	30.0	29.4	0.64	46.669	
250.0	250.0	256.0	256.0	0.4	0.4	90.00	0.0	30.0	30.0	29.1	0.87	34.578	
300.0	300.0	306.0	306.0	0.5	0.6	90.00	0.0	30.0	30.0	28.9	1.09	27.463	
350.0	350.0	356.0	356.0	0.7	0.7	90.00	0.0	30.0	30.0	28.7	1.32	22.777	
400.0	400.0	406.0	406.0	0.8	0.8	90.00	0.0	30.0	30.0	28.5	1.54	19.457	
450.0	450.0	456.0	456.0	0.9	0.9	90.00	0.0	30.0	30.0	28.2	1.77	16.981	
500.0	500.0	506.0	506.0	1.0	1.0	90.01	0.0	30.0	30.0	28.0	1.99	15.072	
550.0	550.0	556.4	556.4	1.1	1.1	90.79	-0.4	29.6	29.6	27.4	2.20	13.444	
600.0	600.0	606.7	606.7	1.2	1.2	92.92	-1.5	28.7	28.7	26.3	2.42	11.874	
650.0	650.0	657.0	656.9	1.3	1.3	96.66	-3.2	27.1	27.3	24.7	2.63	10.388	
700.0	700.0	707.1	706.9	1.4	1.4	118.16	-5.5	24.9	25.7	22.9	2.84	9.078	
750.0	750.0	757.0	756.7	1.6	1.5	129.03	-8.5	22.2	24.8	21.8	3.06	8.123	
760.0	760.0	767.0	766.6	1.6	1.5	131.67	-9.1	21.6	24.8	21.7	3.10	7.996 CC, ES	
800.0	799.9	806.7	806.1	1.7	1.6	143.37	-12.1	18.9	25.4	22.2	3.28	7.748 SF	
850.0	849.8	856.1	855.1	1.8	1.7	158.58	-16.2	15.0	28.5	25.0	3.53	8.080	
900.0	899.7	905.0	903.7	1.9	1.9	171.72	-21.0	10.6	34.3	30.6	3.77	9.117	
950.0	949.5	953.5	951.6	2.0	2.0	-178.35	-26.3	5.7	42.8	38.8	4.02	10.662	
1,000.0	999.1	1,001.5	999.0	2.1	2.2	-171.23	-32.2	0.3	53.5	49.3	4.25	12.580	
1,050.0	1,048.7	1,049.7	1,046.4	2.3	2.3	-166.37	-38.4	-5.4	65.8	61.3	4.50	14.643	
1,100.0	1,098.2	1,097.7	1,093.7	2.4	2.5	-163.19	-44.5	-11.0	79.3	74.6	4.74	16.745	
1,150.0	1,147.5	1,145.5	1,140.8	2.6	2.7	-161.07	-50.6	-16.6	93.7	88.7	4.98	18.825	

## Anticollision Report

<b>Company:</b>	Edge Energy LLC	<b>Local Co-ordinate Reference:</b>	Well Cherry Knolls 33-7* - Slot 7
<b>Project:</b>	Weld County, Co (NAD 83)	<b>TVD Reference:</b>	RKB @ 5119.0usft (kb;20')
<b>Reference Site:</b>	Sec. 33 Twn 1N Rng 65W	<b>MD Reference:</b>	RKB @ 5119.0usft (kb;20')
<b>Site Error:</b>	0.0 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Cherry Knolls 33-7*	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	Hz	<b>Database:</b>	WellPlan Services
<b>Reference Design:</b>	#1	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to RKB @ 5119.0usft (kb;20')

Offset Depths are relative to Offset Datum

Central Meridian is 105° 30' 0.00000 W

Coordinates are relative to: Cherry Knolls 33-7\* - Slot 7

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.53°

