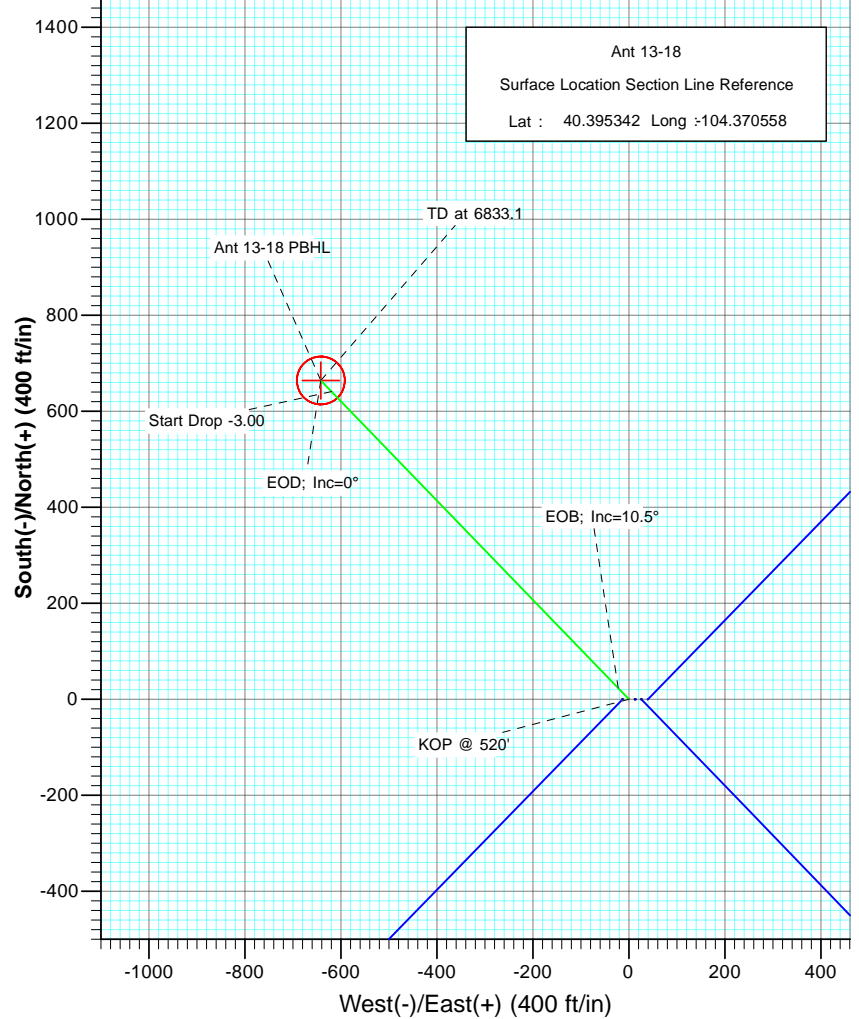


SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	520.0	0.00	0.00	520.0	0.0	0.0	0.00	0.00	0.0	
3	870.7	10.52	315.98	868.7	23.1	-22.3	3.00	315.98	32.1	
4	5577.4	10.52	315.98	5496.3	641.1	-619.5	0.00	0.00	891.5	
5	5928.1	0.00	0.00	5845.0	664.2	-641.8	3.00	180.00	923.7	
6	6833.1	0.00	0.00	6750.0	664.2	-641.8	0.00	0.00	923.7	Ant 13-18 PBHL



FORMATION TOP DETAILS

TVDPath	MDPath	Formation
6245.0	6328.1	Top of Niobrara



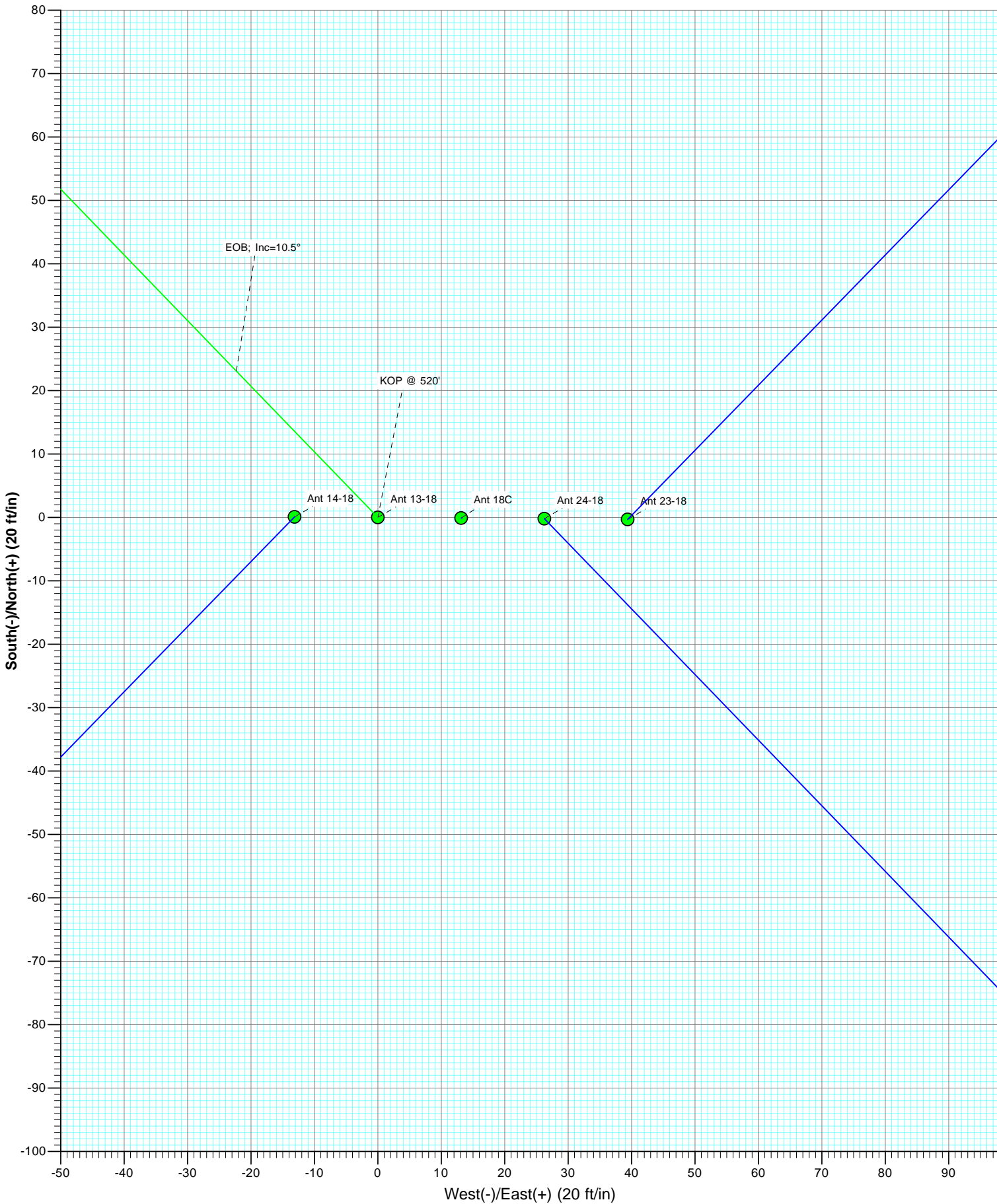
Azimuths to True North
Magnetic North: 8.79°

Magnetic Field
Strength: 53281.1nT
Dip Angle: 67.15°
Date: 6/8/2010
Model: IGRF2010

Plan #1
Ant 13-18

WELL @ 4615.0ft (Original Well Elev)
North American Datum 1983
Well Ant 13-18, True North

Type	Target	Azimuth	Origin	Type	N/S	E/W	From
TD	No Target (Freehand)	315.98	Slot		0.0	0.0	0.0
Name	TVD	+N/-S	+E/-W	Latitude	Longitude		
Ant 13-18 PBHL	6750.0	664.2	-641.8	40.397165	-104.372863		



Cathedral Energy Services

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well Ant 13-18
Company:	Bonanza Creek Energy Operating Company, LLC	TVD Reference:	WELL @ 4615.0ft (Original Well Elev)
Project:	Weld County	MD Reference:	WELL @ 4615.0ft (Original Well Elev)
Site:	Ant	North Reference:	True
Well:	Ant 13-18	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

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

Site		Ant			
Site Position:		Northing:	1,388,869.66 ft	Latitude:	40.395342
From:	Lat/Long	Easting:	3,314,567.85 ft	Longitude:	-104.370605
Position Uncertainty:	0.0 ft	Slot Radius:	0.000 in	Grid Convergence:	0.73 °

Well	Ant 13-18					
Well Position	+N/-S	0.0 ft	Northing:	1,388,869.73 ft	Latitude:	40.395342
	+E/-W	0.0 ft	Easting:	3,314,580.97 ft	Longitude:	-104.370558
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,605.0 ft

Wellbore	DD				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	IGRF2010	6/8/2010	8.79	67.15	53,281

Design	Plan #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(ft)	(ft)	(ft)	(°)
	0.0	0.0	0.0	315.98

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
520.0	0.00	0.00	520.0	0.0	0.0	0.00	0.00	0.00	0.00	
870.7	10.52	315.98	868.7	23.1	-22.3	3.00	3.00	0.00	315.98	
5,577.4	10.52	315.98	5,496.3	641.1	-619.5	0.00	0.00	0.00	0.00	
5,928.1	0.00	0.00	5,845.0	664.2	-641.8	3.00	-3.00	0.00	180.00	
6,833.1	0.00	0.00	6,750.0	664.2	-641.8	0.00	0.00	0.00	0.00	Ant 13-18 PBHL

Cathedral Energy Services

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well Ant 13-18
Company:	Bonanza Creek Energy Operating Company, LLC	TVD Reference:	WELL @ 4615.0ft (Original Well Elev)
Project:	Weld County	MD Reference:	WELL @ 4615.0ft (Original Well Elev)
Site:	Ant	North Reference:	True
Well:	Ant 13-18	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	
520.0	0.00	0.00	520.0	0.0	0.0	0.0	0.00	0.00	KOP @ 520'
600.0	2.40	315.98	600.0	1.2	-1.2	1.7	3.00	3.00	
700.0	5.40	315.98	699.7	6.1	-5.9	8.5	3.00	3.00	
800.0	8.40	315.98	799.0	14.7	-14.2	20.5	3.00	3.00	
870.7	10.52	315.98	868.7	23.1	-22.3	32.1	3.00	3.00	EOB; Inc=10.5°
900.0	10.52	315.98	897.5	26.9	-26.0	37.5	0.00	0.00	
1,000.0	10.52	315.98	995.9	40.1	-38.7	55.7	0.00	0.00	
1,100.0	10.52	315.98	1,094.2	53.2	-51.4	74.0	0.00	0.00	
1,200.0	10.52	315.98	1,192.5	66.3	-64.1	92.2	0.00	0.00	
1,300.0	10.52	315.98	1,290.8	79.5	-76.8	110.5	0.00	0.00	
1,400.0	10.52	315.98	1,389.1	92.6	-89.5	128.8	0.00	0.00	
1,500.0	10.52	315.98	1,487.5	105.7	-102.2	147.0	0.00	0.00	
1,600.0	10.52	315.98	1,585.8	118.9	-114.8	165.3	0.00	0.00	
1,700.0	10.52	315.98	1,684.1	132.0	-127.5	183.5	0.00	0.00	
1,800.0	10.52	315.98	1,782.4	145.1	-140.2	201.8	0.00	0.00	
1,900.0	10.52	315.98	1,880.7	158.3	-152.9	220.1	0.00	0.00	
2,000.0	10.52	315.98	1,979.0	171.4	-165.6	238.3	0.00	0.00	
2,100.0	10.52	315.98	2,077.4	184.5	-178.3	256.6	0.00	0.00	
2,200.0	10.52	315.98	2,175.7	197.6	-191.0	274.8	0.00	0.00	
2,300.0	10.52	315.98	2,274.0	210.8	-203.7	293.1	0.00	0.00	
2,400.0	10.52	315.98	2,372.3	223.9	-216.4	311.4	0.00	0.00	
2,500.0	10.52	315.98	2,470.6	237.0	-229.0	329.6	0.00	0.00	
2,600.0	10.52	315.98	2,569.0	250.2	-241.7	347.9	0.00	0.00	
2,700.0	10.52	315.98	2,667.3	263.3	-254.4	366.1	0.00	0.00	
2,800.0	10.52	315.98	2,765.6	276.4	-267.1	384.4	0.00	0.00	
2,900.0	10.52	315.98	2,863.9	289.6	-279.8	402.7	0.00	0.00	
3,000.0	10.52	315.98	2,962.2	302.7	-292.5	420.9	0.00	0.00	
3,100.0	10.52	315.98	3,060.6	315.8	-305.2	439.2	0.00	0.00	
3,200.0	10.52	315.98	3,158.9	329.0	-317.9	457.4	0.00	0.00	
3,300.0	10.52	315.98	3,257.2	342.1	-330.5	475.7	0.00	0.00	
3,400.0	10.52	315.98	3,355.5	355.2	-343.2	494.0	0.00	0.00	
3,500.0	10.52	315.98	3,453.8	368.4	-355.9	512.2	0.00	0.00	
3,600.0	10.52	315.98	3,552.1	381.5	-368.6	530.5	0.00	0.00	
3,700.0	10.52	315.98	3,650.5	394.6	-381.3	548.7	0.00	0.00	
3,800.0	10.52	315.98	3,748.8	407.7	-394.0	567.0	0.00	0.00	
3,900.0	10.52	315.98	3,847.1	420.9	-406.7	585.3	0.00	0.00	
4,000.0	10.52	315.98	3,945.4	434.0	-419.4	603.5	0.00	0.00	
4,100.0	10.52	315.98	4,043.7	447.1	-432.1	621.8	0.00	0.00	
4,200.0	10.52	315.98	4,142.1	460.3	-444.7	640.0	0.00	0.00	
4,300.0	10.52	315.98	4,240.4	473.4	-457.4	658.3	0.00	0.00	
4,400.0	10.52	315.98	4,338.7	486.5	-470.1	676.6	0.00	0.00	
4,500.0	10.52	315.98	4,437.0	499.7	-482.8	694.8	0.00	0.00	
4,600.0	10.52	315.98	4,535.3	512.8	-495.5	713.1	0.00	0.00	
4,700.0	10.52	315.98	4,633.7	525.9	-508.2	731.3	0.00	0.00	
4,800.0	10.52	315.98	4,732.0	539.1	-520.9	749.6	0.00	0.00	
4,900.0	10.52	315.98	4,830.3	552.2	-533.6	767.9	0.00	0.00	

Cathedral Energy Services

Planning Report

Database: EDM 5000.1 US Multi Users DB
Company: Bonanza Creek Energy Operating Company, LLC
Project: Weld County
Site: Ant
Well: Ant 13-18
Wellbore: DD
Design: Plan #1

Local Co-ordinate Reference: Well Ant 13-18
TVD Reference: WELL @ 4615.0ft (Original Well Elev)
MD Reference: WELL @ 4615.0ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
5,000.0	10.52	315.98	4,928.6	565.3	-546.3	786.1	0.00	0.00	
5,100.0	10.52	315.98	5,026.9	578.5	-558.9	804.4	0.00	0.00	
5,200.0	10.52	315.98	5,125.2	591.6	-571.6	822.6	0.00	0.00	
5,300.0	10.52	315.98	5,223.6	604.7	-584.3	840.9	0.00	0.00	
5,400.0	10.52	315.98	5,321.9	617.8	-597.0	859.2	0.00	0.00	
5,500.0	10.52	315.98	5,420.2	631.0	-609.7	877.4	0.00	0.00	
5,577.4	10.52	315.98	5,496.3	641.1	-619.5	891.5	0.00	0.00	Start Drop -3.00
5,600.0	9.84	315.98	5,518.5	644.0	-622.3	895.5	3.00	-3.00	
5,700.0	6.84	315.98	5,617.5	654.4	-632.4	910.1	3.00	-3.00	
5,800.0	3.84	315.98	5,717.0	661.1	-638.8	919.4	3.00	-3.00	
5,900.0	0.84	315.98	5,816.9	664.1	-641.7	923.4	3.00	-3.00	
5,928.1	0.00	0.00	5,845.0	664.2	-641.8	923.7	3.00	-3.00	EOD; Inc=0°
6,000.0	0.00	0.00	5,916.9	664.2	-641.8	923.7	0.00	0.00	
6,100.0	0.00	0.00	6,016.9	664.2	-641.8	923.7	0.00	0.00	
6,200.0	0.00	0.00	6,116.9	664.2	-641.8	923.7	0.00	0.00	
6,300.0	0.00	0.00	6,216.9	664.2	-641.8	923.7	0.00	0.00	
6,328.1	0.00	0.00	6,245.0	664.2	-641.8	923.7	0.00	0.00	Top of Niobrara
6,400.0	0.00	0.00	6,316.9	664.2	-641.8	923.7	0.00	0.00	
6,500.0	0.00	0.00	6,416.9	664.2	-641.8	923.7	0.00	0.00	
6,600.0	0.00	0.00	6,516.9	664.2	-641.8	923.7	0.00	0.00	
6,700.0	0.00	0.00	6,616.9	664.2	-641.8	923.7	0.00	0.00	
6,800.0	0.00	0.00	6,716.9	664.2	-641.8	923.7	0.00	0.00	
6,833.1	0.00	0.00	6,750.0	664.2	-641.8	923.7	0.00	0.00	TD at 6833.1 - Ant 13-18 PBHL

Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
Ant 13-18 PBHL - plan hits target center - Point	0.00	0.00	6,750.0	664.2	-641.8	1,389,525.73	3,313,930.74	40.397165	-104.372863

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
6,328.1	6,245.0	Top of Niobrara		0.00	

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	+E/-W (ft)	Comment
520.0	520.0	0.0	0.0	KOP @ 520'
870.7	868.7	23.1	-22.3	EOB; Inc=10.5°
5,577.4	5,496.3	641.1	-619.5	Start Drop -3.00
5,928.1	5,845.0	664.2	-641.8	EOD; Inc=0°
6,833.1	6,750.0	664.2	-641.8	TD at 6833.1

Bonanza Creek Energy Operating Company, LLC

Weld County

Ant

Ant 13-18

DD

Plan #1

Anticollision Report

08 June, 2010

Cathedral Energy Services

Anticollision Report

Company:	Bonanza Creek Energy Operating Company, LLC	Local Co-ordinate Reference:	Well Ant 13-18
Project:	Weld County	TVD Reference:	WELL @ 4615.0ft (Original Well Elev)
Reference Site:	Ant	MD Reference:	WELL @ 4615.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Ant 13-18	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Reference	Plan #1		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD Interval 100.0ft	Error Model:	Systematic Ellipse
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 100.0ft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma		

Survey Tool Program		Date	6/8/2010		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0.0	6,833.1	Plan #1 (DD)	MWD	MWD	

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Ant						
Ant 14-18 - DD - Plan #1	0.0	0.0	13.1			
Ant 14-18 - DD - Plan #1	550.8	550.6	12.9	12.9	10,000.000	CC, ES
Ant 18C - DD - Plan #1	0.0	0.0	13.1			
Ant 18C - DD - Plan #1	500.0	500.0	13.1	13.1	10,000.000	CC, ES
Ant 23-18 - DD - Plan #1	0.0	0.0	39.4			
Ant 23-18 - DD - Plan #1	500.0	500.0	39.4	39.4	10,000.000	CC, ES
Ant 24-18 - DD - Plan #1	0.0	0.0	26.3			
Ant 24-18 - DD - Plan #1	500.0	500.0	26.3	26.3	10,000.000	CC, ES

Cathedral Energy Services

Anticollision Report

Company:	Bonanza Creek Energy Operating Company, LLC	Local Co-ordinate Reference:	Well Ant 13-18
Project:	Weld County	TVD Reference:	WELL @ 4615.0ft (Original Well Elev)
Reference Site:	Ant	MD Reference:	WELL @ 4615.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Ant 13-18	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design Ant - Ant 14-18 - DD - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning			
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)						
0.0	0.0	0.0	0.0	0.0	0.0	-89.58	0.1	-13.1	13.1					
100.0	100.0	100.0	100.0	0.0	0.0	-89.58	0.1	-13.1	13.1	13.1	0.00	N/A		
200.0	200.0	200.0	200.0	0.0	0.0	-89.58	0.1	-13.1	13.1	13.1	0.00	N/A		
300.0	300.0	300.0	300.0	0.0	0.0	-89.58	0.1	-13.1	13.1	13.1	0.00	N/A		
400.0	400.0	400.0	400.0	0.0	0.0	-89.58	0.1	-13.1	13.1	13.1	0.00	N/A		
500.0	500.0	500.0	500.0	0.0	0.0	-89.58	0.1	-13.1	13.1	13.1	0.00	N/A		
550.8	550.8	550.6	550.6	0.0	0.0	-48.05	-0.1	-13.3	12.9	12.9	0.00	N/A CC, ES		
600.0	600.0	599.5	599.5	0.0	0.0	-55.86	-1.1	-14.3	13.3	13.3	0.00	N/A		
700.0	699.7	698.3	698.1	0.0	0.0	-88.00	-5.9	-18.9	17.8	17.8	0.00	N/A		
800.0	799.0	795.7	794.7	0.0	0.0	-110.87	-14.1	-27.0	31.8	31.8	0.00	N/A		
900.0	897.5	891.4	889.1	0.0	0.0	-121.14	-25.6	-38.1	54.6	54.6	0.00	N/A		
1,000.0	995.9	988.0	984.1	0.0	0.0	-125.80	-38.1	-50.3	79.9	79.9	0.00	N/A		

Cathedral Energy Services

Anticollision Report

Company:	Bonanza Creek Energy Operating Company, LLC	Local Co-ordinate Reference:	Well Ant 13-18
Project:	Weld County	TVD Reference:	WELL @ 4615.0ft (Original Well Elev)
Reference Site:	Ant	MD Reference:	WELL @ 4615.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Ant 13-18	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Ant - Ant 18C - DD - Plan #1		Offset Site Error:		0.0 ft	
Survey Program: 0-MWD														Offset Well Error:		0.0 ft	
Reference		Offset		Semi Major Axis			Distance										
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Total Uncertainty Axis	Separation Factor	Warning				
Depth (ft)	Depth (ft)	Depth (ft)	Depth (ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)							
0.0	0.0	0.0	0.0	0.0	0.0	90.42	-0.1	13.1	13.1								
100.0	100.0	100.0	100.0	0.0	0.0	90.42	-0.1	13.1	13.1	13.1	0.00	N/A					
200.0	200.0	200.0	200.0	0.0	0.0	90.42	-0.1	13.1	13.1	13.1	0.00	N/A					
300.0	300.0	300.0	300.0	0.0	0.0	90.42	-0.1	13.1	13.1	13.1	0.00	N/A					
400.0	400.0	400.0	400.0	0.0	0.0	90.42	-0.1	13.1	13.1	13.1	0.00	N/A					
500.0	500.0	500.0	500.0	0.0	0.0	90.42	-0.1	13.1	13.1	13.1	0.00	N/A	CC, ES				
600.0	600.0	600.0	600.0	0.0	0.0	139.20	-0.1	13.1	14.4	14.4	0.00	N/A					
700.0	699.7	699.7	699.7	0.0	0.0	151.95	-0.1	13.1	20.0	20.0	0.00	N/A					
800.0	799.0	799.0	799.0	0.0	0.0	162.30	-0.1	13.1	31.1	31.1	0.00	N/A					
900.0	897.5	897.5	897.5	0.0	0.0	168.45	-0.1	13.1	47.6	47.6	0.00	N/A					
1,000.0	995.9	995.9	995.9	0.0	0.0	171.65	-0.1	13.1	65.6	65.6	0.00	N/A					
1,100.0	1,094.2	1,094.2	1,094.2	0.0	0.0	173.46	-0.1	13.1	83.7	83.7	0.00	N/A					

Cathedral Energy Services

Anticollision Report

Company:	Bonanza Creek Energy Operating Company, LLC	Local Co-ordinate Reference:	Well Ant 13-18
Project:	Weld County	TVD Reference:	WELL @ 4615.0ft (Original Well Elev)
Reference Site:	Ant	MD Reference:	WELL @ 4615.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Ant 13-18	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Ant - Ant 23-18 - DD - Plan #1		Offset Site Error:		0.0 ft	
Survey Program: 0-MWD														Offset Well Error:		0.0 ft	
Reference		Offset		Semi Major Axis			Distance										
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Total Uncertainty Axis	Separation Factor	Warning				
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)							
0.0	0.0	0.0	0.0	0.0	0.0	90.44	-0.3	39.4	39.4								
100.0	100.0	100.0	100.0	0.0	0.0	90.44	-0.3	39.4	39.4	39.4	0.00	N/A					
200.0	200.0	200.0	200.0	0.0	0.0	90.44	-0.3	39.4	39.4	39.4	0.00	N/A					
300.0	300.0	300.0	300.0	0.0	0.0	90.44	-0.3	39.4	39.4	39.4	0.00	N/A					
400.0	400.0	400.0	400.0	0.0	0.0	90.44	-0.3	39.4	39.4	39.4	0.00	N/A					
500.0	500.0	500.0	500.0	0.0	0.0	90.44	-0.3	39.4	39.4	39.4	0.00	N/A	CC, ES				
600.0	600.0	598.8	598.8	0.0	0.0	134.42	0.9	40.5	41.7	41.7	0.00	N/A					
700.0	699.7	696.7	696.5	0.0	0.0	134.26	5.5	45.1	51.1	51.1	0.00	N/A					
800.0	799.0	793.3	792.3	0.0	0.0	134.01	13.7	53.0	67.6	67.6	0.00	N/A					
900.0	897.5	888.5	886.2	0.0	0.0	133.81	25.0	64.0	90.8	90.8	0.00	N/A					

Cathedral Energy Services

Anticollision Report

Company:	Bonanza Creek Energy Operating Company, LLC	Local Co-ordinate Reference:	Well Ant 13-18
Project:	Weld County	TVD Reference:	WELL @ 4615.0ft (Original Well Elev)
Reference Site:	Ant	MD Reference:	WELL @ 4615.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Ant 13-18	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design Ant - Ant 24-18 - DD - Plan #1													Offset Site Error: 0.0 ft
Survey Program: 0-MWD													Offset Well Error: 0.0 ft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	90.43	-0.2	26.3	26.3				
100.0	100.0	100.0	100.0	0.0	0.0	90.43	-0.2	26.3	26.3	26.3	0.00	N/A	
200.0	200.0	200.0	200.0	0.0	0.0	90.43	-0.2	26.3	26.3	26.3	0.00	N/A	
300.0	300.0	300.0	300.0	0.0	0.0	90.43	-0.2	26.3	26.3	26.3	0.00	N/A	
400.0	400.0	400.0	400.0	0.0	0.0	90.43	-0.2	26.3	26.3	26.3	0.00	N/A	
500.0	500.0	500.0	500.0	0.0	0.0	90.43	-0.2	26.3	26.3	26.3	0.00	N/A CC, ES	
600.0	600.0	599.1	599.1	0.0	0.0	139.10	-1.4	27.4	28.7	28.7	0.00	N/A	
700.0	699.7	696.7	696.5	0.0	0.0	151.53	-6.1	31.9	39.9	39.9	0.00	N/A	
800.0	799.0	791.6	790.7	0.0	0.0	161.59	-14.1	39.6	61.7	61.7	0.00	N/A	
900.0	897.5	883.0	880.8	0.0	0.0	167.65	-24.9	50.1	93.6	93.6	0.00	N/A	

Cathedral Energy Services

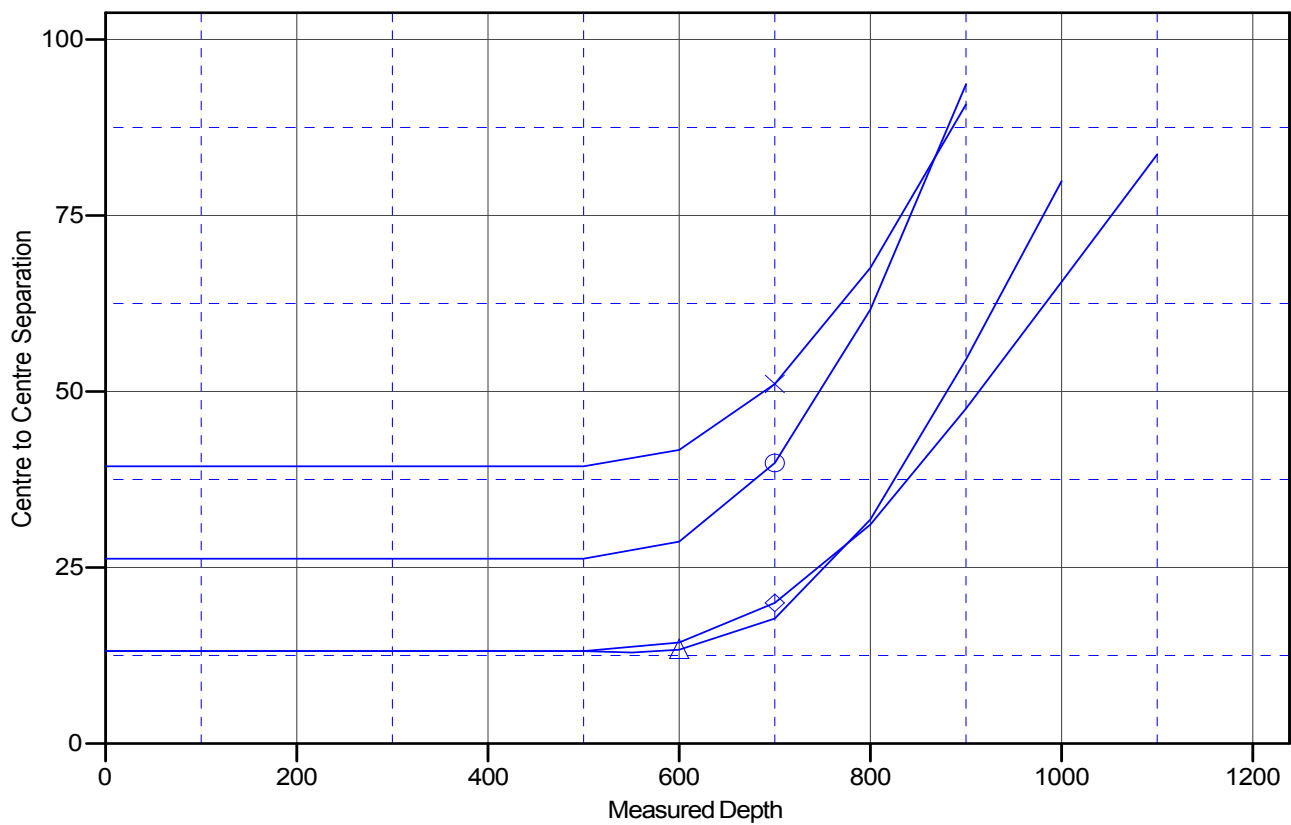
Anticollision Report

Company:	Bonanza Creek Energy Operating Company, LLC	Local Co-ordinate Reference:	Well Ant 13-18
Project:	Weld County	TVD Reference:	WELL @ 4615.0ft (Original Well Elev)
Reference Site:	Ant	MD Reference:	WELL @ 4615.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Ant 13-18	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 4615.0ft (Original Well Elev)
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000 °

Coordinates are relative to: Ant 13-18
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.73°

Ladder Plot



LEGEND

- Ant 24-18, DD, Plan #1 V0
- ✕ Ant 23-18, DD, Plan #1 V0
- ◆ Ant 18C, DD, Plan #1 V0
- ▲ Ant 14-18, DD, Plan #1 V0