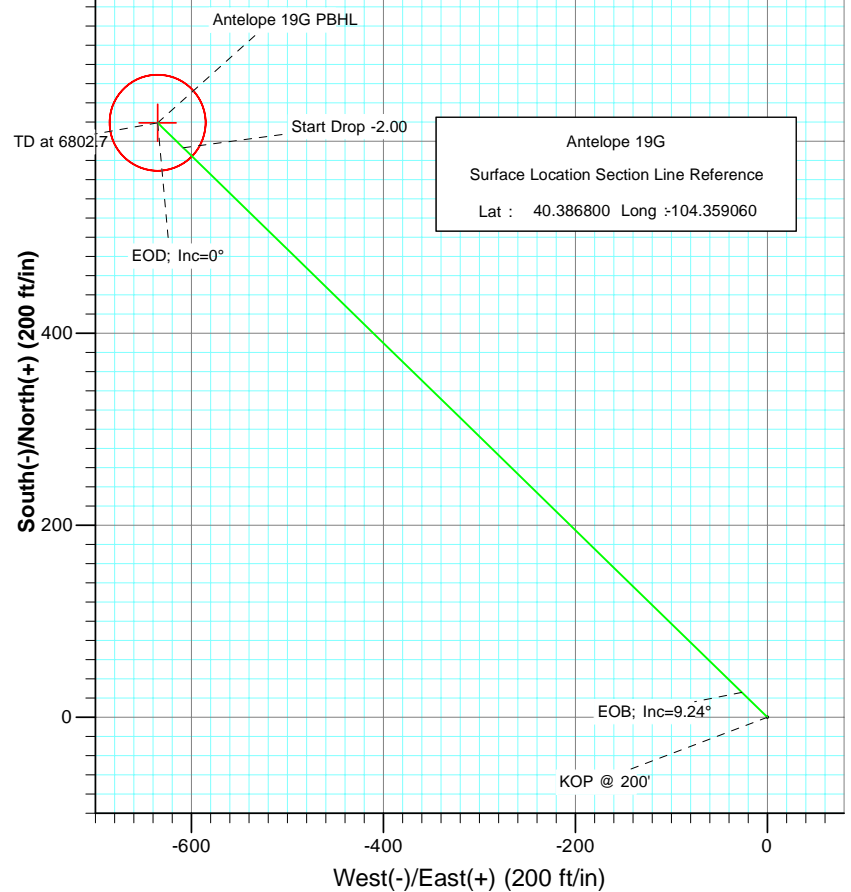


SECTION DETAILS

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	200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.0	
3	662.0	9.24	314.28	660.0	26.0	-26.6	2.00	314.28	37.2	
4	5723.7	9.24	314.28	5656.0	593.4	-608.5	0.00	0.00	849.9	
5	6185.7	0.00	0.00	6116.0	619.3	-635.1	2.00	180.00	887.1	
6	6802.7	0.00	0.00	6733.0	619.3	-635.1	0.00	0.00	887.1	Antelope 19G PBHL



FORMATION TOP DETAILS

TVDP	MD	Formation
3429.0	3467.4	Parkman Ss:
4077.0	4123.9	Sussex Ss:
6316.0	6385.7	Niobrara:
6550.0	6619.7	Ft. Hays Ls:
6573.0	6642.7	Codell Ss:



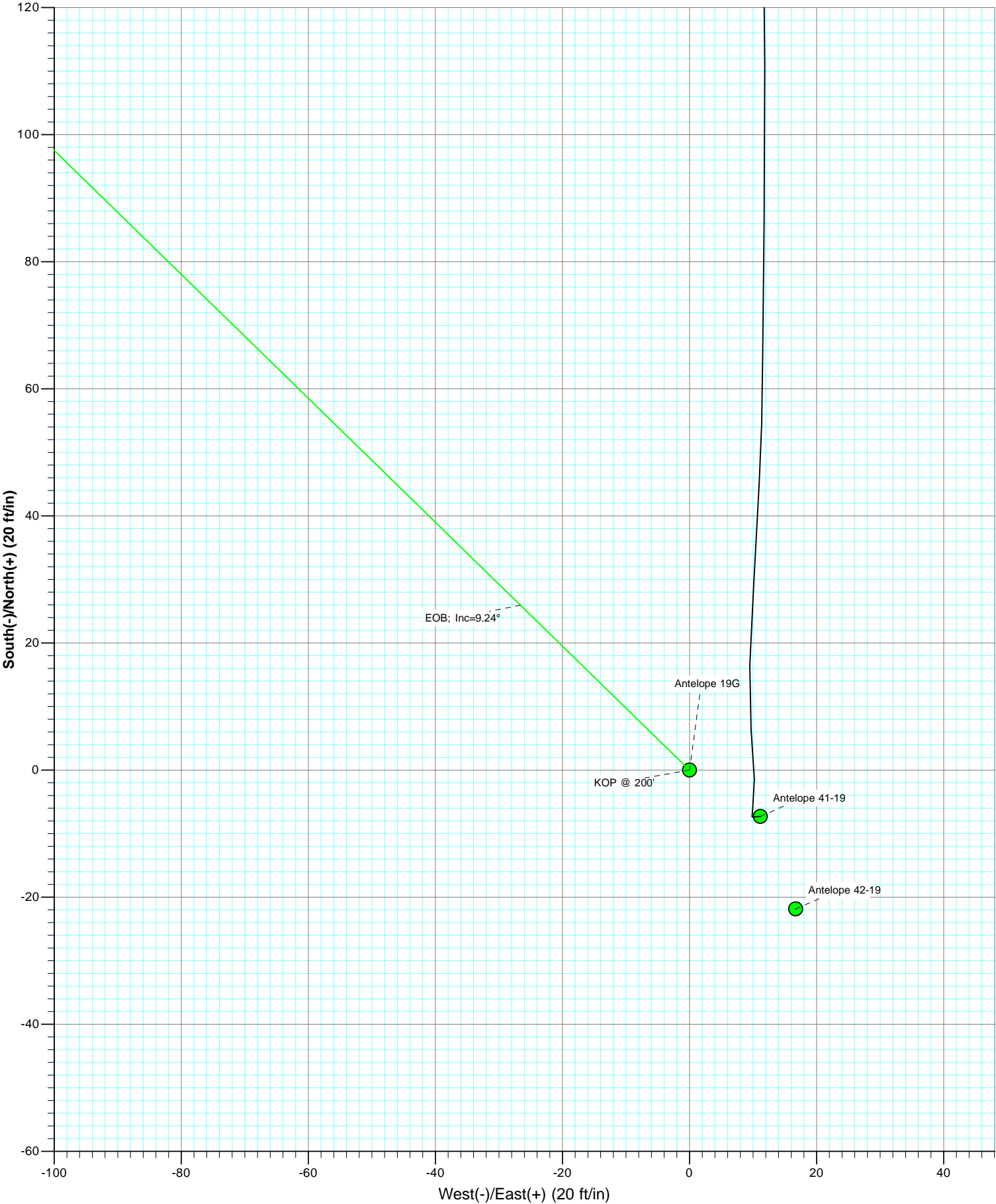
Azimuths to True North
Magnetic North: 8.72°

Magnetic Field
Strength: 53230.9nT
Dip Angle: 67.13°
Date: 11/15/2010
Model: IGRF2010

Plan #2
Antelope 19G

WELL @ 4661.0ft (Original Well Elev)
North American Datum 1983
Well Antelope 19G, True North

Type	Target	Azimuth	Origin	Type	N/S	E/W	From	TVD
TD	No Target (Freehand)	314.28	Slot		0.0	0.0		0.0
Name	Antelope 19G PBHL	TVD	+N/-S	+E/-W	Latitude	Longitude		
		6733.0	619.3	-635.1	40.388500	-104.361340		



Cathedral Energy Services

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well Antelope 19G
Company:	Bonanza Creek Energy Operating Company, LLC	TVD Reference:	WELL @ 4661.0ft (Original Well Elev)
Project:	Weld County	MD Reference:	WELL @ 4661.0ft (Original Well Elev)
Site:	Antelope 42-19 Pad	North Reference:	True
Well:	Antelope 19G	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #2		

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		Antelope 42-19 Pad			
Site Position:		Northing:	1,385,777.44 ft	Latitude:	40.386740
From:	Lat/Long	Easting:	3,317,840.34 ft	Longitude:	-104.359000
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	0.74 °

Well	Antelope 19G					
Well Position	+N/-S	0.0 ft	Northing:	1,385,799.07 ft	Latitude:	40.386800
	+E/-W	0.0 ft	Easting:	3,317,823.34 ft	Longitude:	-104.359060
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,651.0 ft

Wellbore	DD				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	IGRF2010	11/15/2010	8.72	67.13	53,231

Design	Plan #2				
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	314.28	

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	
200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.00	0.00	
662.0	9.24	314.28	660.0	26.0	-26.6	2.00	2.00	0.00	314.28	
5,723.7	9.24	314.28	5,656.0	593.4	-608.5	0.00	0.00	0.00	0.00	
6,185.7	0.00	0.00	6,116.0	619.3	-635.1	2.00	-2.00	0.00	180.00	
6,802.7	0.00	0.00	6,733.0	619.3	-635.1	0.00	0.00	0.00	0.00	Antelope 19G PBHL

Cathedral Energy Services

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well Antelope 19G
Company:	Bonanza Creek Energy Operating Company, LLC	TVD Reference:	WELL @ 4661.0ft (Original Well Elev)
Project:	Weld County	MD Reference:	WELL @ 4661.0ft (Original Well Elev)
Site:	Antelope 42-19 Pad	North Reference:	True
Well:	Antelope 19G	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #2		

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	KOP @ 200'
300.0	2.00	314.28	300.0	1.2	-1.2	1.7	2.00	2.00	
400.0	4.00	314.28	399.8	4.9	-5.0	7.0	2.00	2.00	
500.0	6.00	314.28	499.5	11.0	-11.2	15.7	2.00	2.00	
600.0	8.00	314.28	598.7	19.5	-20.0	27.9	2.00	2.00	
662.0	9.24	314.28	660.0	26.0	-26.6	37.2	2.00	2.00	EOB; Inc=9.24°
700.0	9.24	314.28	697.5	30.2	-31.0	43.3	0.00	0.00	
800.0	9.24	314.28	796.2	41.4	-42.5	59.3	0.00	0.00	
900.0	9.24	314.28	894.9	52.6	-54.0	75.4	0.00	0.00	
1,000.0	9.24	314.28	993.6	63.8	-65.5	91.4	0.00	0.00	
1,100.0	9.24	314.28	1,092.3	75.1	-77.0	107.5	0.00	0.00	
1,200.0	9.24	314.28	1,191.0	86.3	-88.5	123.6	0.00	0.00	
1,300.0	9.24	314.28	1,289.7	97.5	-100.0	139.6	0.00	0.00	
1,400.0	9.24	314.28	1,388.4	108.7	-111.5	155.7	0.00	0.00	
1,500.0	9.24	314.28	1,487.1	119.9	-122.9	171.7	0.00	0.00	
1,600.0	9.24	314.28	1,585.8	131.1	-134.4	187.8	0.00	0.00	
1,700.0	9.24	314.28	1,684.5	142.3	-145.9	203.8	0.00	0.00	
1,800.0	9.24	314.28	1,783.2	153.5	-157.4	219.9	0.00	0.00	
1,900.0	9.24	314.28	1,881.9	164.7	-168.9	236.0	0.00	0.00	
2,000.0	9.24	314.28	1,980.6	175.9	-180.4	252.0	0.00	0.00	
2,100.0	9.24	314.28	2,079.3	187.2	-191.9	268.1	0.00	0.00	
2,200.0	9.24	314.28	2,178.0	198.4	-203.4	284.1	0.00	0.00	
2,300.0	9.24	314.28	2,276.7	209.6	-214.9	300.2	0.00	0.00	
2,400.0	9.24	314.28	2,375.4	220.8	-226.4	316.2	0.00	0.00	
2,500.0	9.24	314.28	2,474.2	232.0	-237.9	332.3	0.00	0.00	
2,600.0	9.24	314.28	2,572.9	243.2	-249.4	348.4	0.00	0.00	
2,700.0	9.24	314.28	2,671.6	254.4	-260.9	364.4	0.00	0.00	
2,800.0	9.24	314.28	2,770.3	265.6	-272.4	380.5	0.00	0.00	
2,900.0	9.24	314.28	2,869.0	276.8	-283.9	396.5	0.00	0.00	
3,000.0	9.24	314.28	2,967.7	288.0	-295.4	412.6	0.00	0.00	
3,100.0	9.24	314.28	3,066.4	299.3	-306.9	428.6	0.00	0.00	
3,200.0	9.24	314.28	3,165.1	310.5	-318.4	444.7	0.00	0.00	
3,300.0	9.24	314.28	3,263.8	321.7	-329.9	460.8	0.00	0.00	
3,400.0	9.24	314.28	3,362.5	332.9	-341.4	476.8	0.00	0.00	
3,467.4	9.24	314.28	3,429.0	340.4	-349.1	487.6	0.00	0.00	Parkman Ss:
3,500.0	9.24	314.28	3,461.2	344.1	-352.9	492.9	0.00	0.00	
3,600.0	9.24	314.28	3,559.9	355.3	-364.4	508.9	0.00	0.00	
3,700.0	9.24	314.28	3,658.6	366.5	-375.9	525.0	0.00	0.00	
3,800.0	9.24	314.28	3,757.3	377.7	-387.4	541.0	0.00	0.00	
3,900.0	9.24	314.28	3,856.0	388.9	-398.9	557.1	0.00	0.00	
4,000.0	9.24	314.28	3,954.7	400.1	-410.3	573.1	0.00	0.00	
4,100.0	9.24	314.28	4,053.4	411.4	-421.8	589.2	0.00	0.00	
4,123.9	9.24	314.28	4,077.0	414.0	-424.6	593.0	0.00	0.00	Sussex Ss:
4,200.0	9.24	314.28	4,152.1	422.6	-433.3	605.3	0.00	0.00	
4,300.0	9.24	314.28	4,250.8	433.8	-444.8	621.3	0.00	0.00	
4,400.0	9.24	314.28	4,349.5	445.0	-456.3	637.4	0.00	0.00	
4,500.0	9.24	314.28	4,448.2	456.2	-467.8	653.4	0.00	0.00	
4,600.0	9.24	314.28	4,546.9	467.4	-479.3	669.5	0.00	0.00	
4,700.0	9.24	314.28	4,645.6	478.6	-490.8	685.5	0.00	0.00	
4,800.0	9.24	314.28	4,744.3	489.8	-502.3	701.6	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well Antelope 19G
Company:	Bonanza Creek Energy Operating Company, LLC	TVD Reference:	WELL @ 4661.0ft (Original Well Elev)
Project:	Weld County	MD Reference:	WELL @ 4661.0ft (Original Well Elev)
Site:	Antelope 42-19 Pad	North Reference:	True
Well:	Antelope 19G	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #2		

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
4,900.0	9.24	314.28	4,843.0	501.0	-513.8	717.7	0.00	0.00	
5,000.0	9.24	314.28	4,941.7	512.2	-525.3	733.7	0.00	0.00	
5,100.0	9.24	314.28	5,040.4	523.5	-536.8	749.8	0.00	0.00	
5,200.0	9.24	314.28	5,139.1	534.7	-548.3	765.8	0.00	0.00	
5,300.0	9.24	314.28	5,237.8	545.9	-559.8	781.9	0.00	0.00	
5,400.0	9.24	314.28	5,336.5	557.1	-571.3	797.9	0.00	0.00	
5,500.0	9.24	314.28	5,435.2	568.3	-582.8	814.0	0.00	0.00	
5,600.0	9.24	314.28	5,533.9	579.5	-594.3	830.1	0.00	0.00	
5,700.0	9.24	314.28	5,632.6	590.7	-605.8	846.1	0.00	0.00	
5,723.7	9.24	314.28	5,656.0	593.4	-608.5	849.9	0.00	0.00	Start Drop -2.00
5,800.0	7.71	314.28	5,731.5	601.2	-616.6	861.2	2.00	-2.00	
5,900.0	5.71	314.28	5,830.8	609.4	-624.9	872.9	2.00	-2.00	
6,000.0	3.71	314.28	5,930.5	615.1	-630.8	881.1	2.00	-2.00	
6,100.0	1.71	314.28	6,030.3	618.4	-634.2	885.8	2.00	-2.00	
6,185.7	0.00	0.00	6,116.0	619.3	-635.1	887.1	2.00	-2.00	EOD; Inc=0°
6,200.0	0.00	0.00	6,130.3	619.3	-635.1	887.1	0.00	0.00	
6,300.0	0.00	0.00	6,230.3	619.3	-635.1	887.1	0.00	0.00	
6,385.7	0.00	0.00	6,316.0	619.3	-635.1	887.1	0.00	0.00	Niobrara:
6,400.0	0.00	0.00	6,330.3	619.3	-635.1	887.1	0.00	0.00	
6,500.0	0.00	0.00	6,430.3	619.3	-635.1	887.1	0.00	0.00	
6,600.0	0.00	0.00	6,530.3	619.3	-635.1	887.1	0.00	0.00	
6,619.7	0.00	0.00	6,550.0	619.3	-635.1	887.1	0.00	0.00	Ft. Hays Ls:
6,642.7	0.00	0.00	6,573.0	619.3	-635.1	887.1	0.00	0.00	Codell Ss:
6,700.0	0.00	0.00	6,630.3	619.3	-635.1	887.1	0.00	0.00	
6,800.0	0.00	0.00	6,730.3	619.3	-635.1	887.1	0.00	0.00	
6,802.7	0.00	0.00	6,733.0	619.3	-635.1	887.1	0.00	0.00	TD at 6802.7 - Antelope 19G PBHL

Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- hit/miss target									
- Shape									
Antelope 19G PBHL	0.00	0.00	6,733.0	619.3	-635.1	1,386,410.17	3,317,180.32	40.388500	-104.361340
- plan hits target center									
- Circle (radius 50.0)									

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,467.4	3,429.0	Parkman Ss:			
4,123.9	4,077.0	Sussex Ss:			
6,385.7	6,316.0	Niobrara:			
6,619.7	6,550.0	Ft. Hays Ls:			
6,642.7	6,573.0	Codell Ss:			

Cathedral Energy Services

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well Antelope 19G
Company:	Bonanza Creek Energy Operating Company, LLC	TVD Reference:	WELL @ 4661.0ft (Original Well Elev)
Project:	Weld County	MD Reference:	WELL @ 4661.0ft (Original Well Elev)
Site:	Antelope 42-19 Pad	North Reference:	True
Well:	Antelope 19G	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #2		

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
200.0	200.0	0.0	0.0	KOP @ 200'
662.0	660.0	26.0	-26.6	EOB; Inc=9.24°
5,723.7	5,656.0	593.4	-608.5	Start Drop -2.00
6,185.7	6,116.0	619.3	-635.1	EOD; Inc=0°
6,802.7	6,733.0	619.3	-635.1	TD at 6802.7