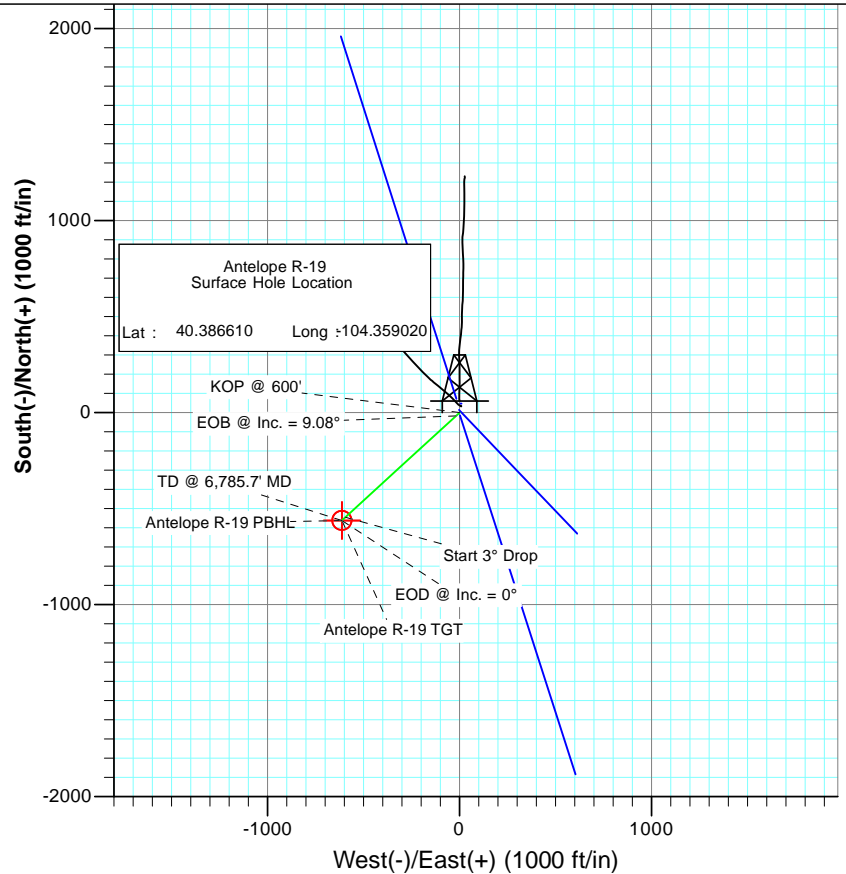
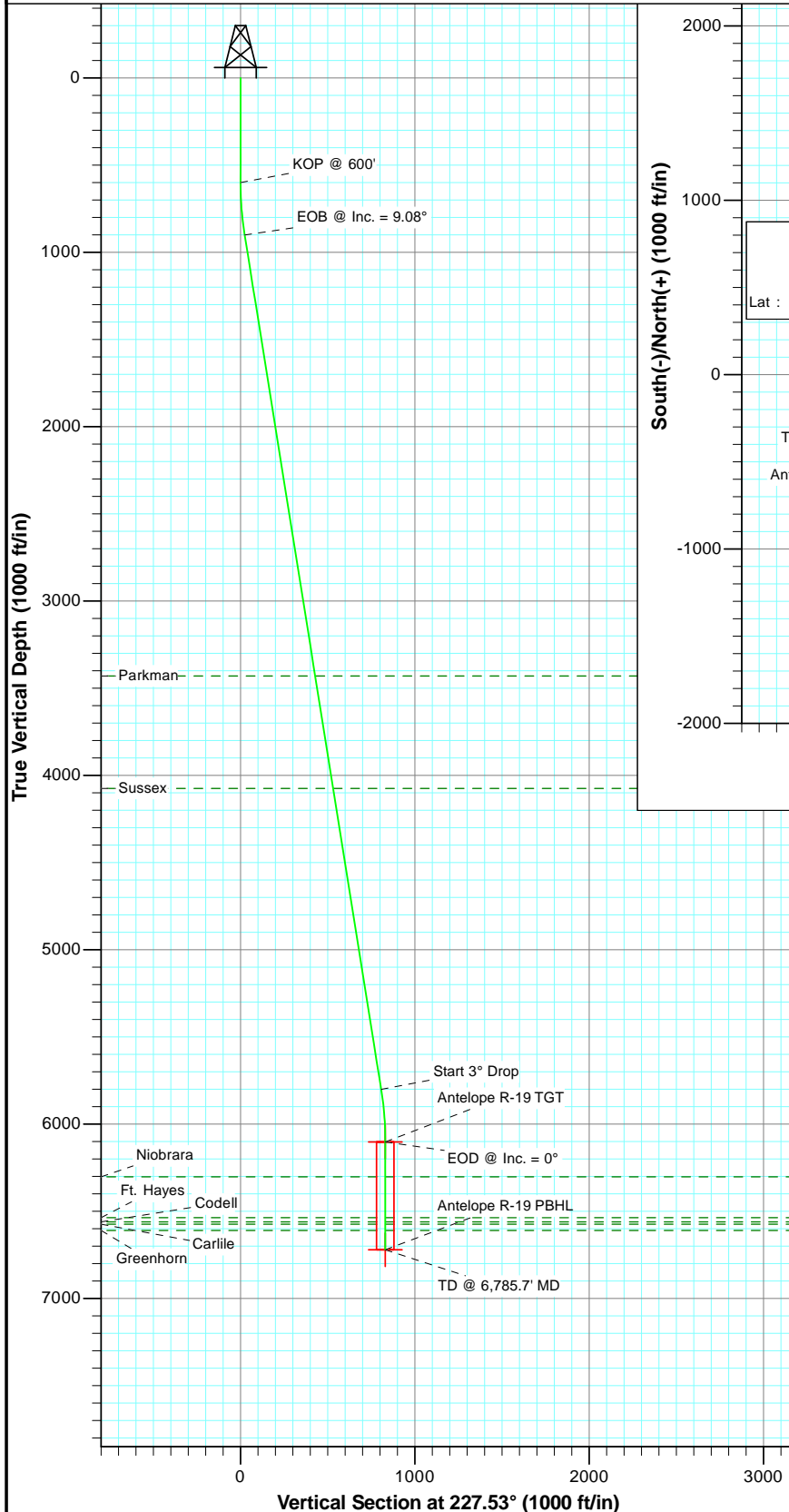


SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	600.0	0.00	0.00	600.0	0.0	0.0	0.00	0.00	0.0	
3	902.6	9.08	227.53	901.3	-16.2	-17.6	3.00	227.53	23.9	
4	5865.1	9.08	227.53	5801.7	-544.8	-595.2	0.00	0.00	806.9	
5	6167.7	0.00	0.00	6103.0	-561.0	-612.9	3.00	180.00	830.9	Antelope R-19 TGT
6	6785.7	0.00	0.00	6721.0	-561.0	-612.9	0.00	0.00	830.9	Antelope R-19 PBHL



FORMATION TOP DETAILS

TVDPath	MDPath	Formation
3430.0	3463.3	Parkman
4075.0	4116.5	Sussex
6303.0	6367.7	Niobrara
6537.0	6601.7	Ft. Hayes
6561.0	6625.7	Codell
6574.0	6638.7	Carlile
6610.0	6674.7	Greenhorn



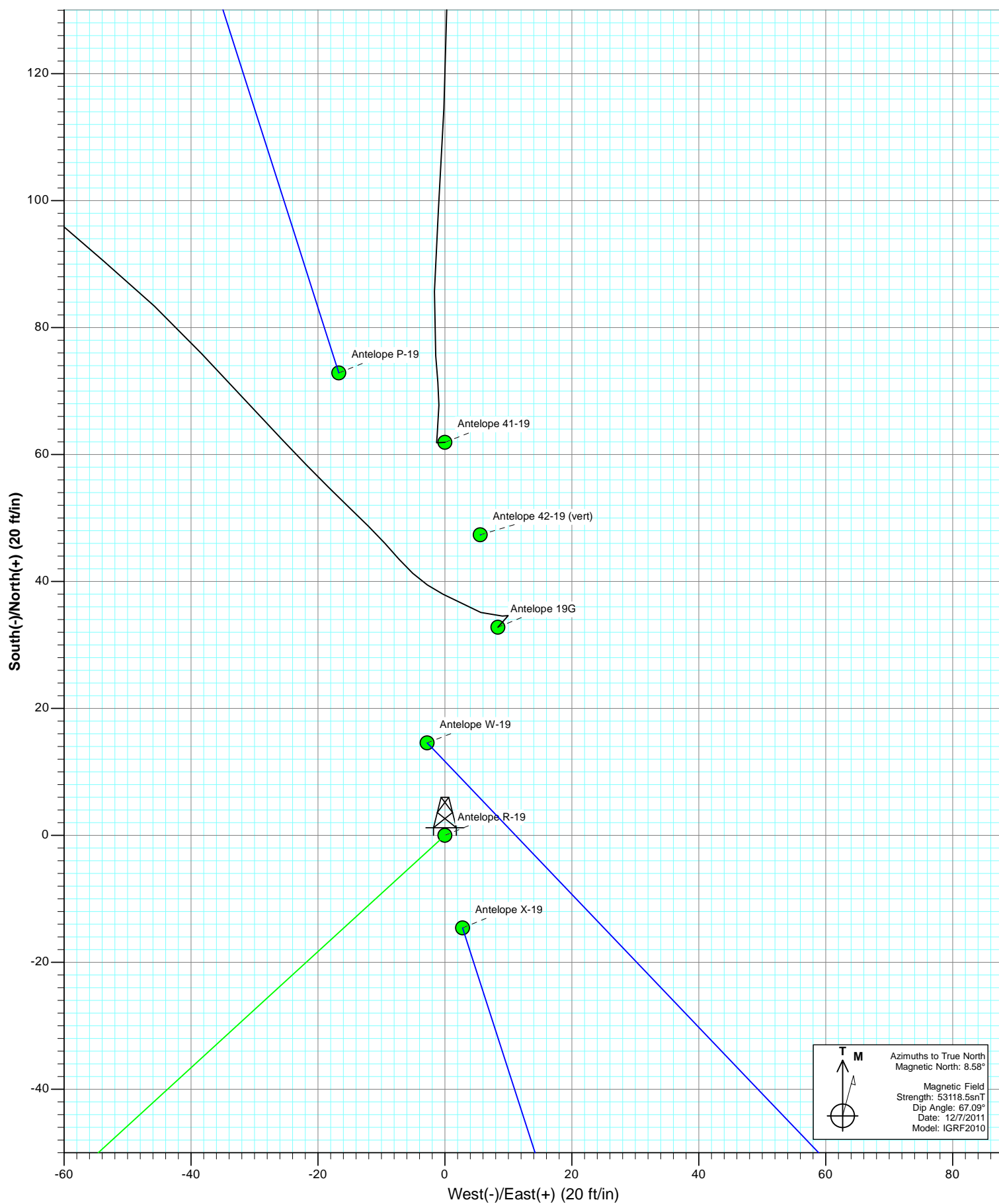
Azimuths to True North
Magnetic North: 8.58°

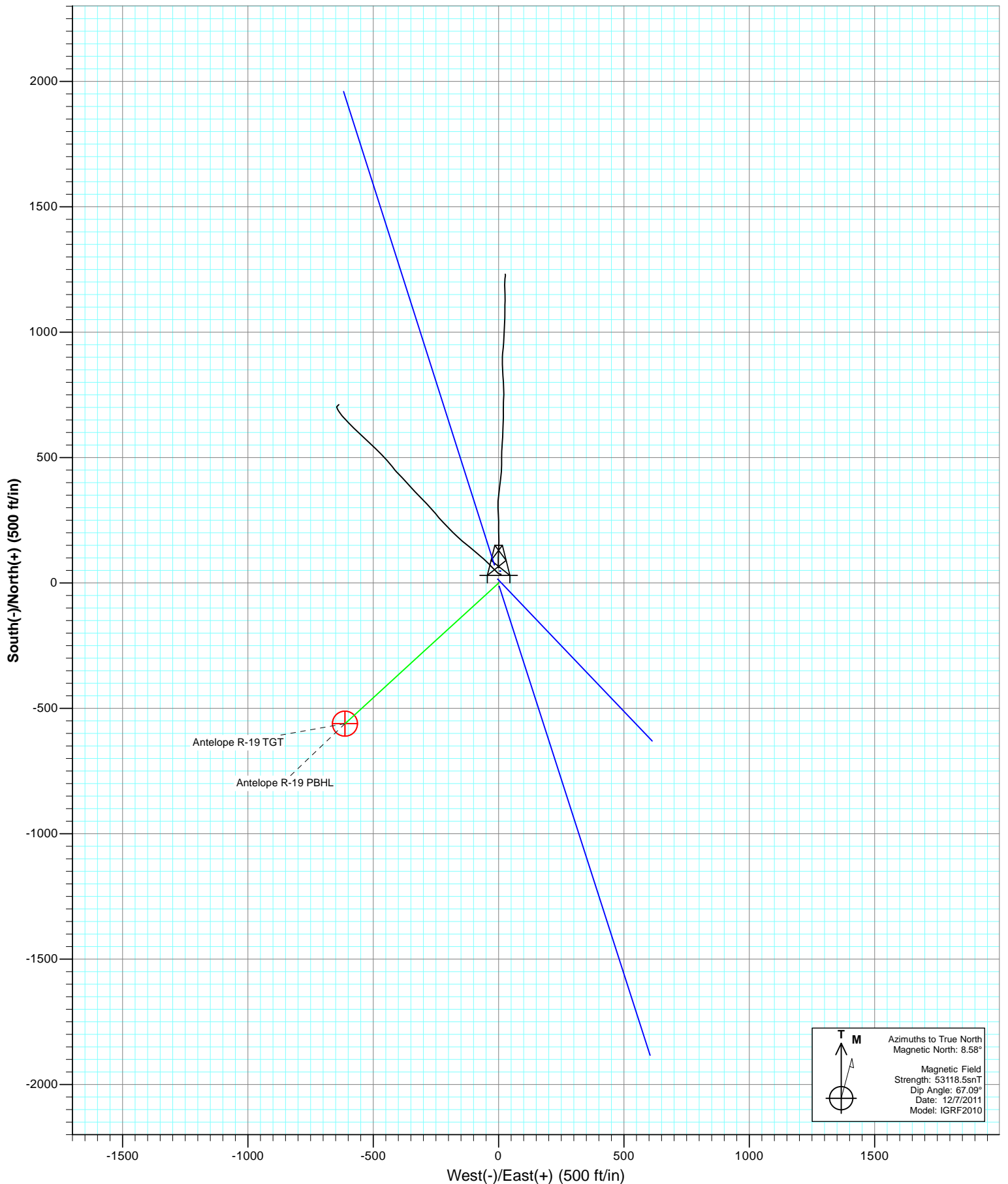
Magnetic Field
Strength: 53118.5nT
Dip Angle: 67.09°
Date: 12/7/2011
Model: IGRF2010

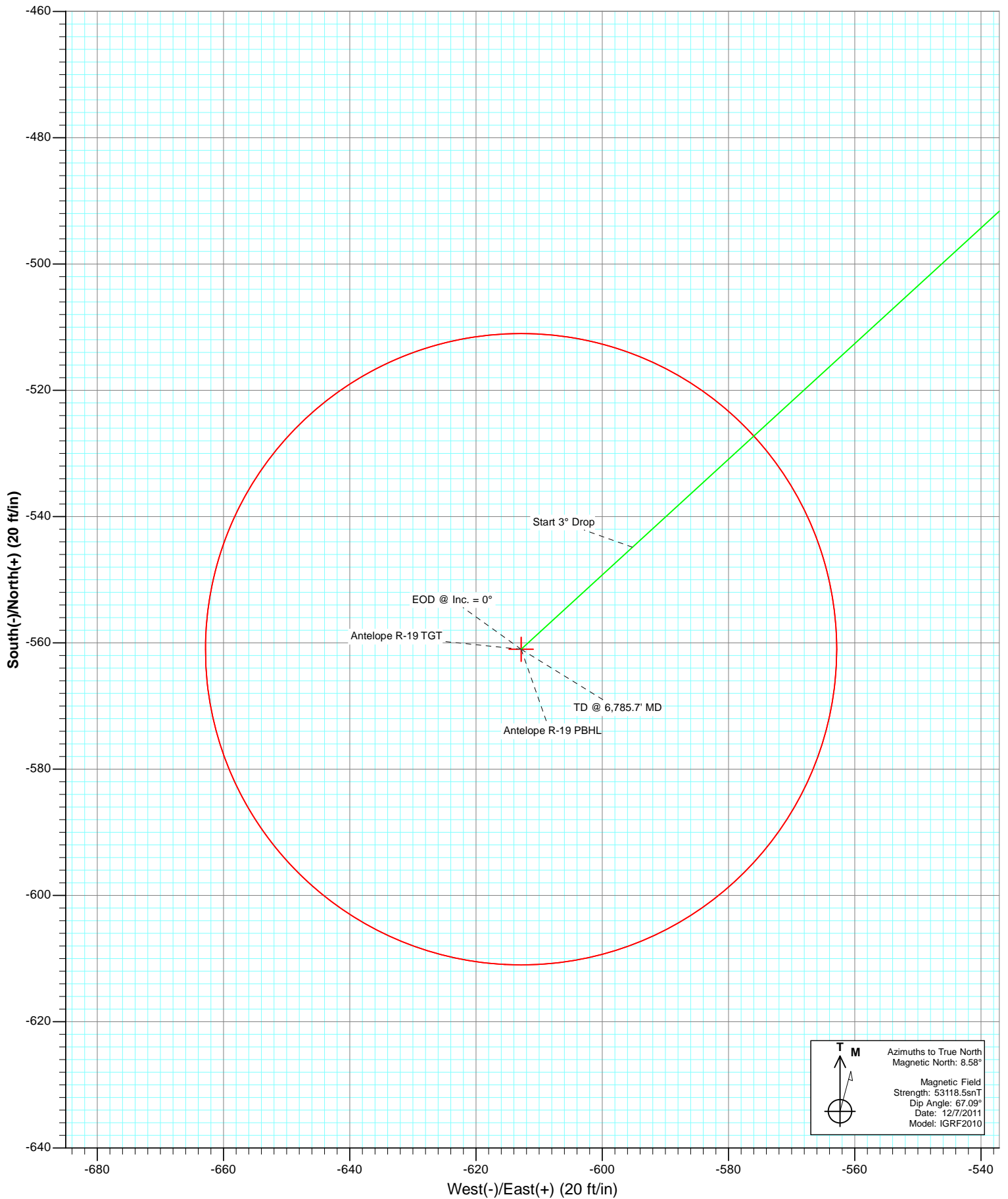
Plan #1
Antelope R-19
125XXX; SC

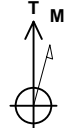
KBE @ 4655.0ft (Original Well Elev)
North American Datum 1983
Well Antelope R-19, True North

Type	Target	Azimuth	Origin	Type	N/S	E/W	From	TVD
TD	No Target (Freehand)	227.53	Slot		0.0	0.0		0.0
Name		TVD	+N/-S	+E/-W	Latitude	Longitude		
Antelope R-19 TGT		6103.0	-561.0	-612.9	40.385070	-104.361220		
Antelope R-19 PBHL		6721.0	-561.0	-612.9	40.385070	-104.361220		








 Azimuths to True North
 Magnetic North: 8.58°
 Magnetic Field
 Strength: 53118.5nT
 Dip Angle: 67.09°
 Date: 12/7/2011
 Model: IGRF2010

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Antelope R-19
Company:	Bonanza Creek Energy Operating Company, LLC	TVD Reference:	KBE @ 4655.0ft (Original Well Elev)
Project:	Weld County	MD Reference:	KBE @ 4655.0ft (Original Well Elev)
Site:	Antelope 42-19 Pad	North Reference:	True
Well:	Antelope R-19	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
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		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 R-19					
Well Position	+N/-S	0.0 ft	Northing:	1,385,730.01 ft	Latitude:	40.386610
	+E/-W	0.0 ft	Easting:	3,317,835.38 ft	Longitude:	-104.359020
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,645.0 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	IGRF2010	12/7/2011	8.58	67.09	53,119

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	227.53

Plan Sections										
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Dogleg	Build	Turn	TFO	Target
Depth	(°)	(°)	Depth	(ft)	(ft)	Rate	Rate	Rate	(°)	
(ft)			(ft)			(°/100ft)	(°/100ft)	(°/100ft)		
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
600.0	0.00	0.00	600.0	0.0	0.0	0.00	0.00	0.00	0.00	
902.6	9.08	227.53	901.3	-16.2	-17.6	3.00	3.00	0.00	227.53	
5,865.1	9.08	227.53	5,801.7	-544.8	-595.2	0.00	0.00	0.00	0.00	
6,167.7	0.00	0.00	6,103.0	-561.0	-612.9	3.00	-3.00	0.00	180.00	Antelope R-19 TGT
6,785.7	0.00	0.00	6,721.0	-561.0	-612.9	0.00	0.00	0.00	0.00	Antelope R-19 PBHL

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Antelope R-19
Company:	Bonanza Creek Energy Operating Company, LLC	TVD Reference:	KBE @ 4655.0ft (Original Well Elev)
Project:	Weld County	MD Reference:	KBE @ 4655.0ft (Original Well Elev)
Site:	Antelope 42-19 Pad	North Reference:	True
Well:	Antelope R-19	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
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	
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	KOP @ 600'
700.0	3.00	227.53	700.0	-1.8	-1.9	2.6	3.00	3.00	
800.0	6.00	227.53	799.6	-7.1	-7.7	10.5	3.00	3.00	
902.6	9.08	227.53	901.3	-16.2	-17.6	23.9	3.00	3.00	EOB @ Inc. = 9°
1,000.0	9.08	227.53	997.5	-26.5	-29.0	39.3	0.00	0.00	
1,100.0	9.08	227.53	1,096.3	-37.2	-40.6	55.1	0.00	0.00	
1,200.0	9.08	227.53	1,195.0	-47.8	-52.3	70.8	0.00	0.00	
1,300.0	9.08	227.53	1,293.8	-58.5	-63.9	86.6	0.00	0.00	
1,400.0	9.08	227.53	1,392.5	-69.1	-75.5	102.4	0.00	0.00	
1,500.0	9.08	227.53	1,491.3	-79.8	-87.2	118.2	0.00	0.00	
1,600.0	9.08	227.53	1,590.0	-90.5	-98.8	134.0	0.00	0.00	
1,700.0	9.08	227.53	1,688.7	-101.1	-110.5	149.7	0.00	0.00	
1,800.0	9.08	227.53	1,787.5	-111.8	-122.1	165.5	0.00	0.00	
1,900.0	9.08	227.53	1,886.2	-122.4	-133.7	181.3	0.00	0.00	
2,000.0	9.08	227.53	1,985.0	-133.1	-145.4	197.1	0.00	0.00	
2,100.0	9.08	227.53	2,083.7	-143.7	-157.0	212.9	0.00	0.00	
2,200.0	9.08	227.53	2,182.5	-154.4	-168.6	228.6	0.00	0.00	
2,300.0	9.08	227.53	2,281.2	-165.0	-180.3	244.4	0.00	0.00	
2,400.0	9.08	227.53	2,380.0	-175.7	-191.9	260.2	0.00	0.00	
2,500.0	9.08	227.53	2,478.7	-186.3	-203.6	276.0	0.00	0.00	
2,600.0	9.08	227.53	2,577.5	-197.0	-215.2	291.7	0.00	0.00	
2,700.0	9.08	227.53	2,676.2	-207.6	-226.8	307.5	0.00	0.00	
2,800.0	9.08	227.53	2,775.0	-218.3	-238.5	323.3	0.00	0.00	
2,900.0	9.08	227.53	2,873.7	-229.0	-250.1	339.1	0.00	0.00	
3,000.0	9.08	227.53	2,972.5	-239.6	-261.8	354.9	0.00	0.00	
3,100.0	9.08	227.53	3,071.2	-250.3	-273.4	370.6	0.00	0.00	
3,200.0	9.08	227.53	3,170.0	-260.9	-285.0	386.4	0.00	0.00	
3,300.0	9.08	227.53	3,268.7	-271.6	-296.7	402.2	0.00	0.00	
3,400.0	9.08	227.53	3,367.5	-282.2	-308.3	418.0	0.00	0.00	
3,463.3	9.08	227.53	3,430.0	-289.0	-315.7	428.0	0.00	0.00	Parkman
3,500.0	9.08	227.53	3,466.2	-292.9	-319.9	433.8	0.00	0.00	
3,600.0	9.08	227.53	3,564.9	-303.5	-331.6	449.5	0.00	0.00	
3,700.0	9.08	227.53	3,663.7	-314.2	-343.2	465.3	0.00	0.00	
3,800.0	9.08	227.53	3,762.4	-324.8	-354.9	481.1	0.00	0.00	
3,900.0	9.08	227.53	3,861.2	-335.5	-366.5	496.9	0.00	0.00	
4,000.0	9.08	227.53	3,959.9	-346.1	-378.1	512.6	0.00	0.00	
4,100.0	9.08	227.53	4,058.7	-356.8	-389.8	528.4	0.00	0.00	
4,116.5	9.08	227.53	4,075.0	-358.6	-391.7	531.0	0.00	0.00	Sussex
4,200.0	9.08	227.53	4,157.4	-367.5	-401.4	544.2	0.00	0.00	
4,300.0	9.08	227.53	4,256.2	-378.1	-413.1	560.0	0.00	0.00	
4,400.0	9.08	227.53	4,354.9	-388.8	-424.7	575.8	0.00	0.00	
4,500.0	9.08	227.53	4,453.7	-399.4	-436.3	591.5	0.00	0.00	
4,600.0	9.08	227.53	4,552.4	-410.1	-448.0	607.3	0.00	0.00	
4,700.0	9.08	227.53	4,651.2	-420.7	-459.6	623.1	0.00	0.00	
4,800.0	9.08	227.53	4,749.9	-431.4	-471.3	638.9	0.00	0.00	
4,900.0	9.08	227.53	4,848.7	-442.0	-482.9	654.7	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Antelope R-19
Company:	Bonanza Creek Energy Operating Company, LLC	TVD Reference:	KBE @ 4655.0ft (Original Well Elev)
Project:	Weld County	MD Reference:	KBE @ 4655.0ft (Original Well Elev)
Site:	Antelope 42-19 Pad	North Reference:	True
Well:	Antelope R-19	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
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
5,000.0	9.08	227.53	4,947.4	-452.7	-494.5	670.4	0.00	0.00	
5,100.0	9.08	227.53	5,046.2	-463.3	-506.2	686.2	0.00	0.00	
5,200.0	9.08	227.53	5,144.9	-474.0	-517.8	702.0	0.00	0.00	
5,300.0	9.08	227.53	5,243.7	-484.6	-529.4	717.8	0.00	0.00	
5,400.0	9.08	227.53	5,342.4	-495.3	-541.1	733.5	0.00	0.00	
5,500.0	9.08	227.53	5,441.1	-506.0	-552.7	749.3	0.00	0.00	
5,600.0	9.08	227.53	5,539.9	-516.6	-564.4	765.1	0.00	0.00	
5,700.0	9.08	227.53	5,638.6	-527.3	-576.0	780.9	0.00	0.00	
5,800.0	9.08	227.53	5,737.4	-537.9	-587.6	796.7	0.00	0.00	
5,865.1	9.08	227.53	5,801.7	-544.8	-595.2	806.9	0.00	0.00	Start 3° Drop
5,900.0	8.03	227.53	5,836.2	-548.4	-599.0	812.1	3.00	-3.00	
6,000.0	5.03	227.53	5,935.5	-556.0	-607.4	823.5	3.00	-3.00	
6,100.0	2.03	227.53	6,035.3	-560.2	-612.0	829.7	3.00	-3.00	
6,167.7	0.00	0.00	6,103.0	-561.0	-612.9	830.9	3.00	-3.00	EOD @ Inc. = 0°
6,200.0	0.00	0.00	6,135.3	-561.0	-612.9	830.9	0.00	0.00	
6,300.0	0.00	0.00	6,235.3	-561.0	-612.9	830.9	0.00	0.00	
6,367.7	0.00	0.00	6,303.0	-561.0	-612.9	830.9	0.00	0.00	Niobrara
6,400.0	0.00	0.00	6,335.3	-561.0	-612.9	830.9	0.00	0.00	
6,500.0	0.00	0.00	6,435.3	-561.0	-612.9	830.9	0.00	0.00	
6,600.0	0.00	0.00	6,535.3	-561.0	-612.9	830.9	0.00	0.00	
6,601.7	0.00	0.00	6,537.0	-561.0	-612.9	830.9	0.00	0.00	Ft. Hayes
6,625.7	0.00	0.00	6,561.0	-561.0	-612.9	830.9	0.00	0.00	Codell
6,638.7	0.00	0.00	6,574.0	-561.0	-612.9	830.9	0.00	0.00	Carlile
6,674.7	0.00	0.00	6,610.0	-561.0	-612.9	830.9	0.00	0.00	Greenhorn
6,700.0	0.00	0.00	6,635.3	-561.0	-612.9	830.9	0.00	0.00	
6,785.7	0.00	0.00	6,721.0	-561.0	-612.9	830.9	0.00	0.00	TD @ 6,785.7' MD

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 R-19 TGT	0.00	0.00	6,103.0	-561.0	-612.9	1,385,161.17	3,317,229.79	40.385070	-104.361220
- plan hits target center									
- Point									
Antelope R-19 PBHL	0.00	0.00	6,721.0	-561.0	-612.9	1,385,161.17	3,317,229.79	40.385070	-104.361220
- plan hits target center									
- Circle (radius 50.0)									

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Antelope R-19
Company:	Bonanza Creek Energy Operating Company, LLC	TVD Reference:	KBE @ 4655.0ft (Original Well Elev)
Project:	Weld County	MD Reference:	KBE @ 4655.0ft (Original Well Elev)
Site:	Antelope 42-19 Pad	North Reference:	True
Well:	Antelope R-19	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
3,463.3	3,430.0	Parkman				
4,116.5	4,075.0	Sussex				
6,367.7	6,303.0	Niobrara				
6,601.7	6,537.0	Ft. Hayes				
6,625.7	6,561.0	Codell				
6,638.7	6,574.0	Carlile				
6,674.7	6,610.0	Greenhorn				

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
600.0	600.0	0.0	0.0	KOP @ 600'
902.6	901.3	-16.2	-17.6	EOB @ Inc. = 9°
5,865.1	5,801.7	-544.8	-595.2	Start 3° Drop
6,167.7	6,103.0	-561.0	-612.9	EOD @ Inc. = 0°
6,785.7	6,721.0	-561.0	-612.9	TD @ 6,785.7' MD

Bonanza Creek Energy Operating Company, LLC

Weld County

Antelope 42-19 Pad

Antelope R-19

OH

Plan #1

Anticollision Report

07 December, 2011

Cathedral Energy Services

Anticollision Report

Company:	Bonanza Creek Energy Operating Company, LLC	Local Co-ordinate Reference:	Well Antelope R-19
Project:	Weld County	TVD Reference:	KBE @ 4655.0ft (Original Well Elev)
Reference Site:	Antelope 42-19 Pad	MD Reference:	KBE @ 4655.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Antelope R-19	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 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 500.0ft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma		

Survey Tool Program	Date	12/7/2011		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.0	6,785.7	Plan #1 (OH)	MWD	Geolink 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						
Antelope 42-19 Pad						
Antelope 19G - DD - DD	0.0	6.0	33.8			
Antelope 41-19 - DD - DD	0.0	6.0	61.9			
Antelope 41-19 - DD - DD	500.0	506.0	61.9	61.9	10,000.000	CC, ES
Antelope 42-19 (vert) - DD - Plan #1	0.0	6.0	47.7			
Antelope 42-19 (vert) - DD - Plan #1	600.0	606.0	47.7	47.7	10,000.000	CC, ES
Antelope P-19 - OH - Plan #1	0.0	27.0	74.8			
Antelope P-19 - OH - Plan #1	554.3	581.3	74.8	74.8	10,000.000	CC, ES
Antelope W-19 - OH - Plan #1	0.0	25.0	14.8			
Antelope W-19 - OH - Plan #1	699.5	725.1	13.5	13.5	10,000.000	CC, ES
Antelope X-19 - OH - Plan #1	0.0	25.0	14.8			
Antelope X-19 - OH - Plan #1	555.6	580.6	14.8	14.8	10,000.000	CC, ES

Cathedral Energy Services

Anticollision Report

Company:	Bonanza Creek Energy Operating Company, LLC	Local Co-ordinate Reference:	Well Antelope R-19
Project:	Weld County	TVD Reference:	KBE @ 4655.0ft (Original Well Elev)
Reference Site:	Antelope 42-19 Pad	MD Reference:	KBE @ 4655.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Antelope R-19	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design Antelope 42-19 Pad - Antelope 19G - DD - DD												Offset Site Error: 0.0 ft	
Survey Program: 467-MWD												Offset Well Error: 0.0 ft	
Reference		Offset		Semi Major Axis			Distance						Warning
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	
0.0	0.0	6.0	6.0	0.0	0.0	14.30	32.8	8.4	33.8				
100.0	100.0	105.9	105.9	0.2	0.2	14.40	32.9	8.4	33.9	33.9	0.00	N/A	
200.0	200.0	205.9	205.9	0.3	0.4	14.66	33.1	8.7	34.3	34.3	0.00	N/A	
300.0	300.0	305.8	305.8	0.5	0.5	15.08	33.6	9.0	34.8	34.8	0.00	N/A	
400.0	400.0	405.7	405.7	0.7	0.7	15.64	34.2	9.6	35.5	35.5	0.00	N/A	
500.0	500.0	506.0	506.0	0.9	0.9	15.98	34.8	10.0	36.2	36.2	0.00	N/A	
600.0	600.0	606.1	606.1	1.0	1.0	12.56	34.5	7.7	35.3	35.3	0.00	N/A	
603.6	603.6	609.7	609.6	1.0	1.0	144.83	34.5	7.6	35.3	35.3	0.00	N/A	
700.0	700.0	705.3	705.1	1.2	1.2	139.69	36.4	3.0	38.5	38.5	0.00	N/A	
800.0	799.6	803.6	803.0	1.4	1.4	136.18	40.6	-4.3	47.9	47.9	0.00	N/A	
900.0	898.8	900.7	899.6	1.6	1.6	136.96	48.0	-11.4	64.4	64.4	0.00	N/A	
1,000.0	997.5	996.6	994.6	1.9	1.9	136.80	57.6	-21.1	85.0	85.0	0.00	N/A	
1,100.0	1,096.3	1,090.8	1,087.2	2.2	2.2	135.35	70.0	-32.9	108.6	108.6	0.00	N/A	
1,200.0	1,195.0	1,187.0	1,181.1	2.5	2.6	133.16	85.0	-47.5	134.4	134.4	0.00	N/A	
1,300.0	1,293.8	1,284.1	1,275.6	2.8	2.9	130.93	99.4	-64.2	159.7	159.7	0.00	N/A	
1,400.0	1,392.5	1,381.0	1,370.0	3.1	3.3	129.37	113.8	-80.8	185.2	185.2	0.00	N/A	
1,500.0	1,491.3	1,478.1	1,464.6	3.4	3.7	128.22	128.0	-97.2	210.5	210.5	0.00	N/A	
1,600.0	1,590.0	1,576.0	1,560.1	3.7	4.1	127.37	142.0	-113.6	235.6	235.6	0.00	N/A	
1,700.0	1,688.7	1,672.8	1,654.5	4.0	4.5	126.48	155.3	-130.6	260.4	260.4	0.00	N/A	
1,800.0	1,787.5	1,771.0	1,750.3	4.4	4.9	125.88	168.9	-147.2	285.1	285.1	0.00	N/A	
1,900.0	1,886.2	1,865.4	1,842.7	4.7	5.3	125.75	182.1	-161.3	309.8	309.8	0.00	N/A	
2,000.0	1,985.0	1,960.6	1,935.6	5.0	5.7	125.51	196.2	-176.4	335.3	335.3	0.00	N/A	
2,100.0	2,083.7	2,049.0	2,021.7	5.3	6.1	125.24	210.1	-190.9	361.9	361.9	0.00	N/A	
2,200.0	2,182.5	2,146.8	2,116.7	5.6	6.5	125.02	227.1	-206.8	390.0	390.0	0.00	N/A	
2,300.0	2,281.2	2,247.8	2,215.1	6.0	6.9	124.92	243.4	-222.5	416.9	416.9	0.00	N/A	
2,400.0	2,380.0	2,343.7	2,308.8	6.3	7.3	124.95	258.5	-236.4	443.2	443.2	0.00	N/A	
2,500.0	2,478.7	2,435.8	2,398.9	6.6	7.7	125.10	273.6	-249.0	470.0	470.0	0.00	N/A	
2,600.0	2,577.5	2,530.6	2,491.2	6.9	8.1	125.15	289.7	-262.7	497.6	497.6	0.00	N/A	

Cathedral Energy Services

Anticollision Report

Company:	Bonanza Creek Energy Operating Company, LLC	Local Co-ordinate Reference:	Well Antelope R-19
Project:	Weld County	TVD Reference:	KBE @ 4655.0ft (Original Well Elev)
Reference Site:	Antelope 42-19 Pad	MD Reference:	KBE @ 4655.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Antelope R-19	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design Antelope 42-19 Pad - Antelope 41-19 - DD - DD													Offset Site Error: 0.0 ft
Survey Program: 504-MWD													Offset Well Error: 0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning
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	
0.0	0.0	6.0	6.0	0.0	0.0	0.00	61.9	0.0	61.9				
100.0	100.0	106.0	106.0	0.2	0.2	-0.05	61.9	-0.1	61.9	61.9	0.00	N/A	
200.0	200.0	206.0	206.0	0.3	0.4	-0.20	61.9	-0.2	61.9	61.9	0.00	N/A	
300.0	300.0	306.0	306.0	0.5	0.5	-0.45	61.9	-0.5	61.9	61.9	0.00	N/A	
400.0	400.0	406.0	406.0	0.7	0.7	-0.79	61.9	-0.9	61.9	61.9	0.00	N/A	
479.0	479.0	485.0	485.0	0.8	0.8	-1.13	61.9	-1.2	61.9	61.9	0.00	N/A	
500.0	500.0	506.0	506.0	0.9	0.9	-1.23	61.9	-1.3	61.9	61.9	0.00	N/A CC, ES	
600.0	600.0	603.9	603.8	1.0	1.0	-1.02	63.4	-1.1	63.5	63.5	0.00	N/A	
700.0	700.0	700.3	700.1	1.2	1.2	133.01	69.2	-1.0	71.2	71.2	0.00	N/A	
800.0	799.6	797.0	796.3	1.4	1.4	135.92	78.4	-1.6	86.2	86.2	0.00	N/A	
900.0	898.8	891.0	889.7	1.6	1.7	139.83	90.0	-1.5	108.1	108.1	0.00	N/A	
1,000.0	997.5	982.1	979.5	1.9	1.9	143.34	104.4	-0.7	136.1	136.1	0.00	N/A	
1,100.0	1,096.3	1,071.8	1,067.5	2.2	2.2	145.41	122.1	0.2	168.0	168.0	0.00	N/A	
1,200.0	1,195.0	1,160.3	1,153.8	2.5	2.6	146.45	142.0	0.4	202.6	202.6	0.00	N/A	
1,300.0	1,293.8	1,246.6	1,237.2	2.8	2.9	146.98	164.2	0.7	240.1	240.1	0.00	N/A	
1,400.0	1,392.5	1,335.4	1,322.4	3.1	3.4	147.19	189.0	0.6	279.7	279.7	0.00	N/A	
1,500.0	1,491.3	1,428.6	1,411.8	3.4	3.8	147.31	215.3	0.4	319.4	319.4	0.00	N/A	
1,600.0	1,590.0	1,523.8	1,503.4	3.7	4.3	147.44	241.4	0.1	358.4	358.4	0.00	N/A	
1,700.0	1,688.7	1,624.7	1,600.7	4.0	4.7	147.54	267.8	-0.6	396.3	396.3	0.00	N/A	
1,800.0	1,787.5	1,720.8	1,693.9	4.4	5.1	147.57	291.3	-2.1	432.2	432.2	0.00	N/A	
1,900.0	1,886.2	1,814.0	1,784.3	4.7	5.6	147.75	313.8	-2.5	468.2	468.2	0.00	N/A	

Cathedral Energy Services

Anticollision Report

Company:	Bonanza Creek Energy Operating Company, LLC	Local Co-ordinate Reference:	Well Antelope R-19
Project:	Weld County	TVD Reference:	KBE @ 4655.0ft (Original Well Elev)
Reference Site:	Antelope 42-19 Pad	MD Reference:	KBE @ 4655.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Antelope R-19	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design Antelope 42-19 Pad - Antelope 42-19 (vert) - 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	6.0	6.0	0.0	0.0	6.71	47.4	5.6	47.7					
100.0	100.0	106.0	106.0	0.2	0.2	6.71	47.4	5.6	47.7	47.7	0.00	N/A		
200.0	200.0	206.0	206.0	0.3	0.3	6.71	47.4	5.6	47.7	47.7	0.00	N/A		
300.0	300.0	306.0	306.0	0.5	0.5	6.71	47.4	5.6	47.7	47.7	0.00	N/A		
400.0	400.0	406.0	406.0	0.7	0.7	6.71	47.4	5.6	47.7	47.7	0.00	N/A		
500.0	500.0	506.0	506.0	0.9	0.9	6.71	47.4	5.6	47.7	47.7	0.00	N/A		
600.0	600.0	606.0	606.0	1.0	1.0	6.71	47.4	5.6	47.7	47.7	0.00	N/A CC, ES		
700.0	700.0	706.0	706.0	1.2	1.2	141.12	47.4	5.6	49.7	49.7	0.00	N/A		
800.0	799.6	805.6	805.6	1.4	1.4	146.05	47.4	5.6	56.0	56.0	0.00	N/A		
900.0	898.8	904.8	904.8	1.6	1.6	152.10	47.4	5.6	67.3	67.3	0.00	N/A		
1,000.0	997.5	1,003.5	1,003.5	1.9	1.7	157.28	47.4	5.6	81.6	81.6	0.00	N/A		
1,100.0	1,096.3	1,102.3	1,102.3	2.2	1.9	160.90	47.4	5.6	96.3	96.3	0.00	N/A		
1,200.0	1,195.0	1,201.0	1,201.0	2.5	2.1	163.55	47.4	5.6	111.4	111.4	0.00	N/A		
1,300.0	1,293.8	1,299.8	1,299.8	2.8	2.3	165.58	47.4	5.6	126.6	126.6	0.00	N/A		
1,400.0	1,392.5	1,398.5	1,398.5	3.1	2.4	167.16	47.4	5.6	142.0	142.0	0.00	N/A		
1,500.0	1,491.3	1,497.3	1,497.3	3.4	2.6	168.44	47.4	5.6	157.4	157.4	0.00	N/A		
1,600.0	1,590.0	1,596.0	1,596.0	3.7	2.8	169.48	47.4	5.6	172.9	172.9	0.00	N/A		
1,700.0	1,688.7	1,694.7	1,694.7	4.0	2.9	170.36	47.4	5.6	188.4	188.4	0.00	N/A		
1,800.0	1,787.5	1,793.5	1,793.5	4.4	3.1	171.10	47.4	5.6	204.0	204.0	0.00	N/A		
1,900.0	1,886.2	1,892.2	1,892.2	4.7	3.3	171.74	47.4	5.6	219.6	219.6	0.00	N/A		
2,000.0	1,985.0	1,991.0	1,991.0	5.0	3.5	172.29	47.4	5.6	235.2	235.2	0.00	N/A		
2,100.0	2,083.7	2,089.7	2,089.7	5.3	3.6	172.77	47.4	5.6	250.9	250.9	0.00	N/A		
2,200.0	2,182.5	2,188.5	2,188.5	5.6	3.8	173.20	47.4	5.6	266.5	266.5	0.00	N/A		
2,300.0	2,281.2	2,287.2	2,287.2	6.0	4.0	173.58	47.4	5.6	282.2	282.2	0.00	N/A		
2,400.0	2,380.0	2,386.0	2,386.0	6.3	4.1	173.92	47.4	5.6	297.9	297.9	0.00	N/A		
2,500.0	2,478.7	2,484.7	2,484.7	6.6	4.3	174.22	47.4	5.6	313.6	313.6	0.00	N/A		
2,600.0	2,577.5	2,583.5	2,583.5	6.9	4.5	174.50	47.4	5.6	329.3	329.3	0.00	N/A		
2,700.0	2,676.2	2,682.2	2,682.2	7.3	4.7	174.75	47.4	5.6	345.0	345.0	0.00	N/A		
2,800.0	2,775.0	2,781.0	2,781.0	7.6	4.8	174.98	47.4	5.6	360.7	360.7	0.00	N/A		
2,900.0	2,873.7	2,879.7	2,879.7	7.9	5.0	175.19	47.4	5.6	376.5	376.5	0.00	N/A		
3,000.0	2,972.5	2,978.5	2,978.5	8.2	5.2	175.38	47.4	5.6	392.2	392.2	0.00	N/A		
3,100.0	3,071.2	3,077.2	3,077.2	8.6	5.4	175.56	47.4	5.6	407.9	407.9	0.00	N/A		
3,200.0	3,170.0	3,176.0	3,176.0	8.9	5.5	175.73	47.4	5.6	423.7	423.7	0.00	N/A		
3,300.0	3,268.7	3,274.7	3,274.7	9.2	5.7	175.88	47.4	5.6	439.4	439.4	0.00	N/A		
3,400.0	3,367.5	3,373.5	3,373.5	9.5	5.9	176.02	47.4	5.6	455.1	455.1	0.00	N/A		
3,500.0	3,466.2	3,472.2	3,472.2	9.9	6.0	176.16	47.4	5.6	470.9	470.9	0.00	N/A		
3,600.0	3,564.9	3,570.9	3,570.9	10.2	6.2	176.28	47.4	5.6	486.6	486.6	0.00	N/A		

Cathedral Energy Services

Anticollision Report

Company:	Bonanza Creek Energy Operating Company, LLC	Local Co-ordinate Reference:	Well Antelope R-19
Project:	Weld County	TVD Reference:	KBE @ 4655.0ft (Original Well Elev)
Reference Site:	Antelope 42-19 Pad	MD Reference:	KBE @ 4655.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Antelope R-19	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design Antelope 42-19 Pad - Antelope P-19 - OH - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance				Total	Separation	Warning	
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)	Uncertainty Axis	Factor		
0.0	0.0	27.0	27.0	0.0	0.0	-12.92	72.9	-16.7	74.8					
100.0	100.0	127.0	127.0	0.2	0.2	-12.92	72.9	-16.7	74.8	74.8	0.00	N/A		
200.0	200.0	227.0	227.0	0.3	0.4	-12.92	72.9	-16.7	74.8	74.8	0.00	N/A		
300.0	300.0	327.0	327.0	0.5	0.6	-12.92	72.9	-16.7	74.8	74.8	0.00	N/A		
400.0	400.0	427.0	427.0	0.7	0.7	-12.92	72.9	-16.7	74.8	74.8	0.00	N/A		
500.0	500.0	527.0	527.0	0.9	0.9	-12.92	72.9	-16.7	74.8	74.8	0.00	N/A		
554.3	554.3	581.3	581.3	1.0	1.0	-12.92	72.9	-16.7	74.8	74.8	0.00	N/A CC, ES		
600.0	600.0	626.0	626.0	1.0	1.1	-12.93	73.0	-16.8	74.9	74.9	0.00	N/A		
700.0	700.0	722.0	721.9	1.2	1.3	120.75	76.6	-17.9	80.1	80.1	0.00	N/A		
800.0	799.6	816.7	816.2	1.4	1.4	123.86	84.6	-20.4	93.1	93.1	0.00	N/A		
900.0	898.8	909.3	907.9	1.6	1.7	127.45	96.7	-24.3	114.2	114.2	0.00	N/A		
1,000.0	997.5	1,000.0	997.1	1.9	2.0	130.58	112.6	-29.4	141.8	141.8	0.00	N/A		
1,100.0	1,096.3	1,087.0	1,081.7	2.2	2.3	132.20	131.7	-35.5	174.0	174.0	0.00	N/A		
1,200.0	1,195.0	1,172.1	1,163.6	2.5	2.7	132.94	153.9	-42.5	210.2	210.2	0.00	N/A		
1,300.0	1,293.8	1,254.4	1,241.6	2.8	3.1	133.15	178.6	-50.4	250.3	250.3	0.00	N/A		
1,400.0	1,392.5	1,333.7	1,315.8	3.1	3.6	133.05	205.5	-59.0	294.0	294.0	0.00	N/A		
1,500.0	1,491.3	1,419.0	1,394.6	3.4	4.1	132.80	236.7	-69.0	340.3	340.3	0.00	N/A		
1,600.0	1,590.0	1,507.6	1,476.3	3.7	4.7	132.59	269.2	-79.3	386.7	386.7	0.00	N/A		
1,700.0	1,688.7	1,596.2	1,558.0	4.0	5.3	132.43	301.8	-89.7	433.1	433.1	0.00	N/A		
1,800.0	1,787.5	1,684.7	1,639.8	4.4	5.9	132.30	334.3	-100.1	479.6	479.6	0.00	N/A		

Cathedral Energy Services

Anticollision Report

Company:	Bonanza Creek Energy Operating Company, LLC	Local Co-ordinate Reference:	Well Antelope R-19
Project:	Weld County	TVD Reference:	KBE @ 4655.0ft (Original Well Elev)
Reference Site:	Antelope 42-19 Pad	MD Reference:	KBE @ 4655.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Antelope R-19	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design Antelope 42-19 Pad - Antelope W-19 - OH - Plan #1												Offset Site Error: 0.0 ft	
Survey Program: 0-MWD												Offset Well Error: 0.0 ft	
Reference		Offset		Semi Major Axis			Distance						Warning
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	
0.0	0.0	25.0	25.0	0.0	0.0	-10.82	14.6	-2.8	14.8				
100.0	100.0	125.0	125.0	0.2	0.2	-10.82	14.6	-2.8	14.8	14.8	0.00	N/A	
200.0	200.0	225.0	225.0	0.3	0.4	-10.82	14.6	-2.8	14.8	14.8	0.00	N/A	
300.0	300.0	325.0	325.0	0.5	0.5	-10.82	14.6	-2.8	14.8	14.8	0.00	N/A	
400.0	400.0	425.0	425.0	0.7	0.7	-10.82	14.6	-2.8	14.8	14.8	0.00	N/A	
500.0	500.0	525.0	525.0	0.9	0.9	-10.82	14.6	-2.8	14.8	14.8	0.00	N/A	
600.0	600.0	625.2	625.2	1.0	1.1	-10.47	14.5	-2.7	14.7	14.7	0.00	N/A	
699.5	699.4	725.1	725.0	1.2	1.3	140.82	11.6	0.0	13.5	13.5	0.00	N/A CC, ES	
700.0	700.0	725.6	725.5	1.2	1.3	141.01	11.6	0.1	13.5	13.5	0.00	N/A	
800.0	799.6	825.0	824.5	1.4	1.5	-178.10	5.0	6.4	18.5	18.5	0.00	N/A	
900.0	898.8	922.7	921.2	1.6	1.7	-154.89	-5.1	16.0	35.1	35.1	0.00	N/A	
1,000.0	997.5	1,020.0	1,017.0	1.9	2.0	-146.32	-17.0	27.4	57.4	57.4	0.00	N/A	
1,100.0	1,096.3	1,117.2	1,112.9	2.2	2.3	-142.56	-28.9	38.7	80.2	80.2	0.00	N/A	
1,200.0	1,195.0	1,214.5	1,208.8	2.5	2.6	-140.48	-40.8	50.1	103.2	103.2	0.00	N/A	
1,300.0	1,293.8	1,311.8	1,304.6	2.8	2.9	-139.15	-52.7	61.4	126.3	126.3	0.00	N/A	
1,400.0	1,392.5	1,409.0	1,400.5	3.1	3.2	-138.23	-64.6	72.8	149.4	149.4	0.00	N/A	
1,500.0	1,491.3	1,506.3	1,496.4	3.4	3.5	-137.56	-76.5	84.2	172.5	172.5	0.00	N/A	
1,600.0	1,590.0	1,603.6	1,592.2	3.7	3.8	-137.05	-88.4	95.5	195.7	195.7	0.00	N/A	
1,700.0	1,688.7	1,700.8	1,688.1	4.0	4.2	-136.65	-100.3	106.9	218.9	218.9	0.00	N/A	
1,800.0	1,787.5	1,798.1	1,784.0	4.4	4.5	-136.32	-112.2	118.3	242.0	242.0	0.00	N/A	
1,900.0	1,886.2	1,895.4	1,879.8	4.7	4.8	-136.05	-124.1	129.6	265.2	265.2	0.00	N/A	
2,000.0	1,985.0	1,992.6	1,975.7	5.0	5.1	-135.82	-136.0	141.0	288.4	288.4	0.00	N/A	
2,100.0	2,083.7	2,089.9	2,071.6	5.3	5.5	-135.63	-147.9	152.3	311.6	311.6	0.00	N/A	
2,200.0	2,182.5	2,187.2	2,167.4	5.6	5.8	-135.47	-159.8	163.7	334.8	334.8	0.00	N/A	
2,300.0	2,281.2	2,284.4	2,263.3	6.0	6.1	-135.32	-171.7	175.1	358.0	358.0	0.00	N/A	
2,400.0	2,380.0	2,381.7	2,359.2	6.3	6.5	-135.19	-183.6	186.4	381.2	381.2	0.00	N/A	
2,500.0	2,478.7	2,479.0	2,455.0	6.6	6.8	-135.08	-195.5	197.8	404.4	404.4	0.00	N/A	
2,600.0	2,577.5	2,576.2	2,550.9	6.9	7.1	-134.98	-207.4	209.1	427.6	427.6	0.00	N/A	
2,700.0	2,676.2	2,673.5	2,646.8	7.3	7.4	-134.89	-219.3	220.5	450.8	450.8	0.00	N/A	
2,800.0	2,775.0	2,770.8	2,742.6	7.6	7.8	-134.81	-231.2	231.9	474.0	474.0	0.00	N/A	
2,900.0	2,873.7	2,868.1	2,838.5	7.9	8.1	-134.74	-243.1	243.2	497.2	497.2	0.00	N/A	

Cathedral Energy Services

Anticollision Report

Company:	Bonanza Creek Energy Operating Company, LLC	Local Co-ordinate Reference:	Well Antelope R-19
Project:	Weld County	TVD Reference:	KBE @ 4655.0ft (Original Well Elev)
Reference Site:	Antelope 42-19 Pad	MD Reference:	KBE @ 4655.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Antelope R-19	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design Antelope 42-19 Pad - Antelope X-19 - OH - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance					Separation Factor	Warning	
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			
0.0	0.0	25.0	25.0	0.0	0.0	169.18	-14.6	2.8	14.8					
100.0	100.0	125.0	125.0	0.2	0.2	169.18	-14.6	2.8	14.8	14.8	0.00	N/A		
200.0	200.0	225.0	225.0	0.3	0.4	169.18	-14.6	2.8	14.8	14.8	0.00	N/A		
300.0	300.0	325.0	325.0	0.5	0.5	169.18	-14.6	2.8	14.8	14.8	0.00	N/A		
400.0	400.0	425.0	425.0	0.7	0.7	169.18	-14.6	2.8	14.8	14.8	0.00	N/A		
500.0	500.0	525.0	525.0	0.9	0.9	169.18	-14.6	2.8	14.8	14.8	0.00	N/A		
555.6	555.6	580.6	580.6	1.0	1.0	169.18	-14.6	2.8	14.8	14.8	0.00	N/A CC, ES		
600.0	600.0	624.8	624.8	1.0	1.1	169.10	-14.7	2.8	15.0	15.0	0.00	N/A		
700.0	700.0	723.9	723.8	1.2	1.3	-67.06	-18.4	4.0	17.7	17.7	0.00	N/A		
800.0	799.6	822.4	821.9	1.4	1.5	-83.03	-26.9	6.8	24.7	24.7	0.00	N/A		
900.0	898.8	919.9	918.4	1.6	1.7	-95.72	-40.0	11.0	37.6	37.6	0.00	N/A		
1,000.0	997.5	1,016.2	1,012.9	1.9	2.0	-101.59	-57.6	16.6	56.0	56.0	0.00	N/A		
1,100.0	1,096.3	1,111.0	1,104.9	2.2	2.4	-102.25	-79.2	23.6	78.5	78.5	0.00	N/A		
1,200.0	1,195.0	1,203.9	1,193.9	2.5	2.8	-101.01	-104.7	31.8	104.8	104.8	0.00	N/A		
1,300.0	1,293.8	1,294.6	1,279.3	2.8	3.4	-99.12	-133.5	41.1	134.9	134.9	0.00	N/A		
1,400.0	1,392.5	1,385.3	1,363.5	3.1	3.9	-97.10	-165.8	51.5	168.5	168.5	0.00	N/A		
1,500.0	1,491.3	1,479.1	1,450.2	3.4	4.5	-95.58	-199.8	62.4	202.9	202.9	0.00	N/A		
1,600.0	1,590.0	1,572.9	1,536.9	3.7	5.1	-94.50	-233.9	73.4	237.3	237.3	0.00	N/A		
1,700.0	1,688.7	1,666.7	1,623.6	4.0	5.8	-93.70	-267.9	84.4	271.9	271.9	0.00	N/A		
1,800.0	1,787.5	1,760.4	1,710.3	4.4	6.4	-93.07	-302.0	95.3	306.4	306.4	0.00	N/A		
1,900.0	1,886.2	1,854.2	1,797.0	4.7	7.0	-92.57	-336.0	106.3	341.0	341.0	0.00	N/A		
2,000.0	1,985.0	1,948.0	1,883.7	5.0	7.7	-92.17	-370.1	117.3	375.6	375.6	0.00	N/A		
2,100.0	2,083.7	2,041.8	1,970.4	5.3	8.3	-91.83	-404.1	128.2	410.3	410.3	0.00	N/A		
2,200.0	2,182.5	2,135.6	2,057.1	5.6	8.9	-91.55	-438.2	139.2	444.9	444.9	0.00	N/A		
2,300.0	2,281.2	2,229.4	2,143.8	6.0	9.6	-91.30	-472.2	150.2	479.5	479.5	0.00	N/A		

Cathedral Energy Services

Anticollision Report

Company:	Bonanza Creek Energy Operating Company, LLC	Local Co-ordinate Reference:	Well Antelope R-19
Project:	Weld County	TVD Reference:	KBE @ 4655.0ft (Original Well Elev)
Reference Site:	Antelope 42-19 Pad	MD Reference:	KBE @ 4655.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Antelope R-19	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to KBE @ 4655.0ft (Original Well Elev)

Offset Depths are relative to Offset Datum

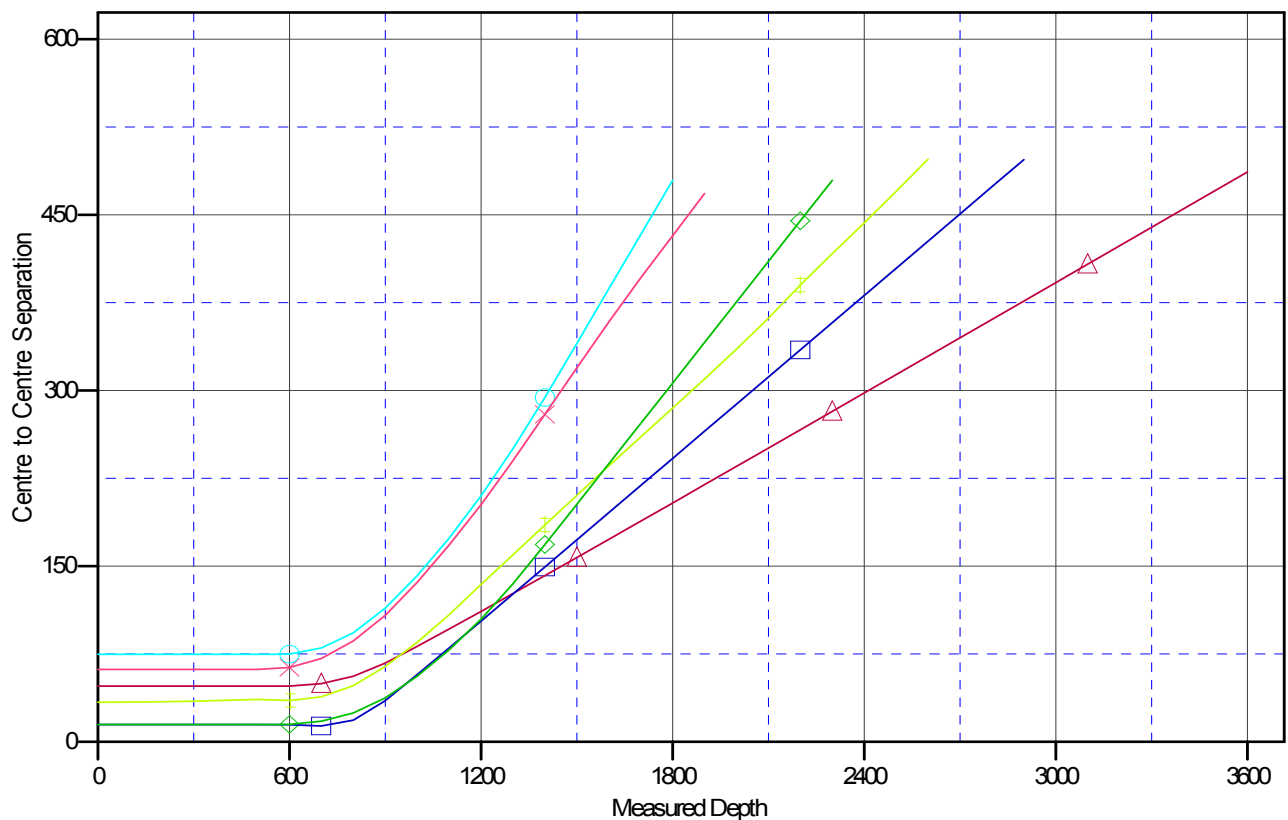
Central Meridian is -105.500000 °

Coordinates are relative to: Antelope R-19

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.74°

Ladder Plot



LEGEND

- Antelope 41-19, DD, DD V0
- Antelope 42-19 (vert), DD, Plan #1 V0
- Antelope W-19, OH, Plan #1 V0
- Antelope 19G, DD, DD V0
- Antelope P-19, OH, Plan #1 V0
- Antelope X-19, OH, Plan #1 V0