

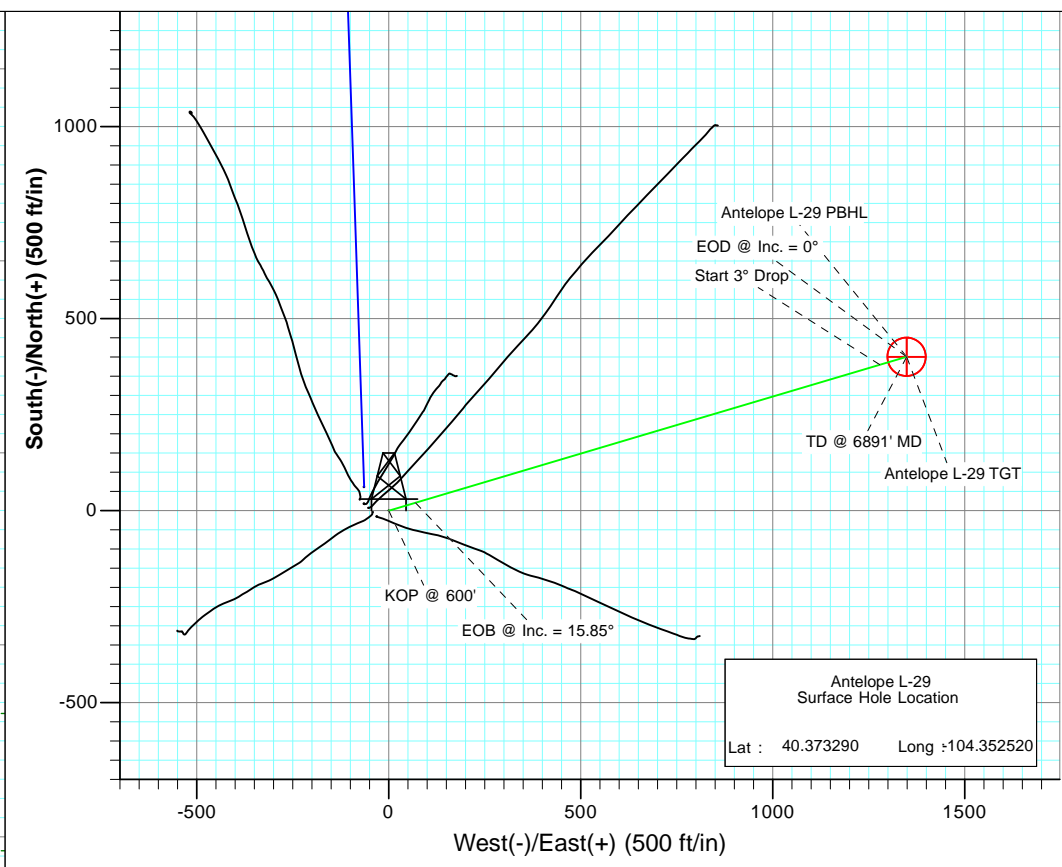
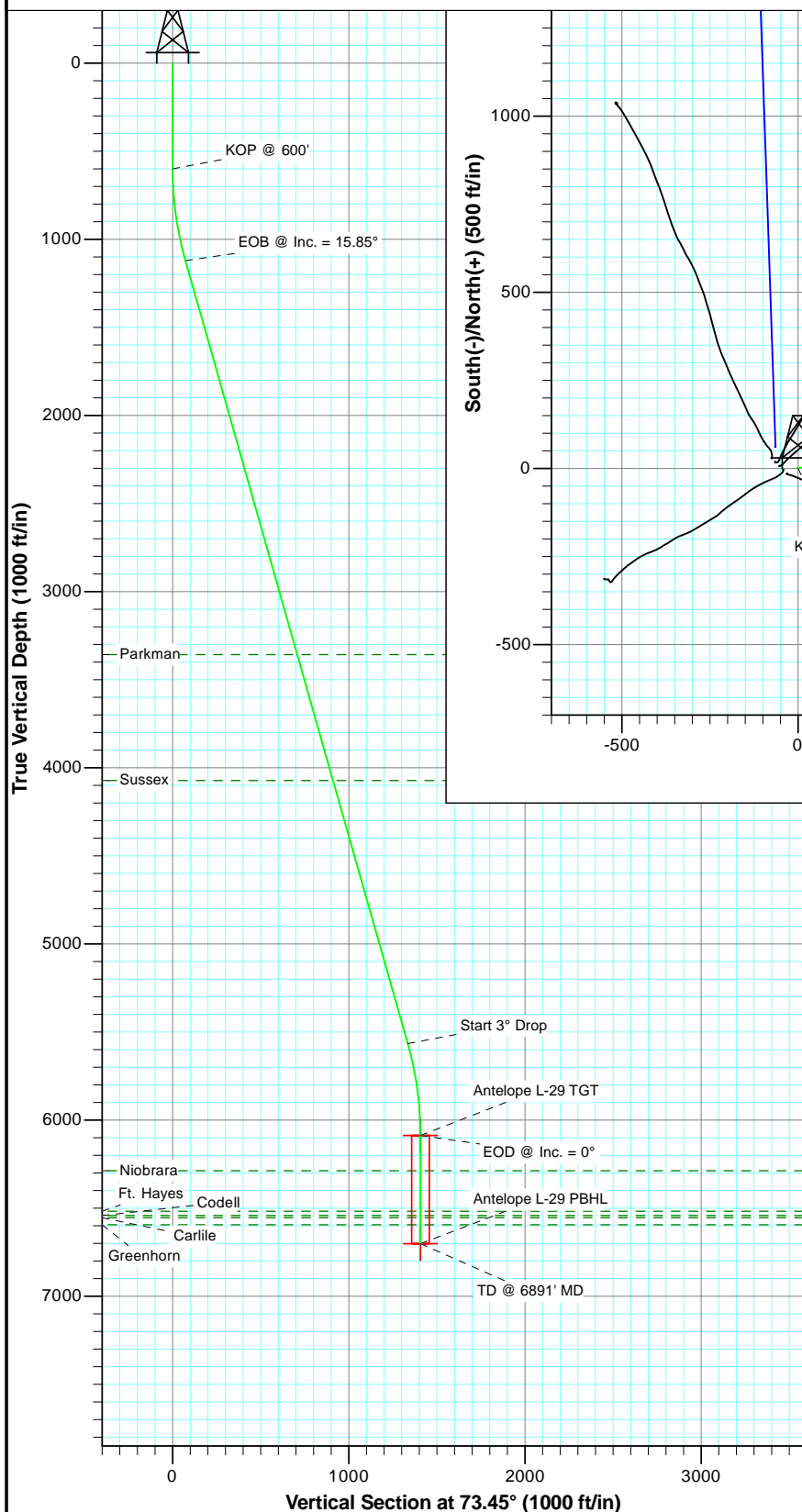


Project: Weld County
Site: Antelope G 29 Pad
Well: Antelope L-29
Wellbore: OH
Plan: Plan #1



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	600.0	0.00	0.00	600.0	0.0	0.0	0.00	0.00	0.0	
3	1128.2	15.85	73.45	1121.5	20.7	69.6	3.00	73.45	72.6	
4	5748.8	15.85	73.45	5566.5	380.1	1278.9	0.00	0.00	1334.2	
5	6277.0	0.00	0.00	6088.0	400.8	1348.5	3.00	180.00	1406.8	Antelope L-29 TGT
6	6891.0	0.00	0.00	6702.0	400.8	1348.5	0.00	0.00	1406.8	Antelope L-29 PBHL



FORMATION TOP DETAILS

TVDPath	MDPath	Formation
3358.0	3453.1	Parkman
4073.0	4196.3	Sussex
6288.0	6477.0	Niobrara
6518.0	6707.0	Ft. Hayes
6542.0	6731.0	Codell
6554.0	6743.0	Carlile
6594.0	6783.0	Greenhorn



Azimuths to True North
Magnetic North: 8.56°
Magnetic Field
Strength: 53100.2nT
Dip Angle: 67.08°
Date: 1/17/2012
Model: IGRF2010

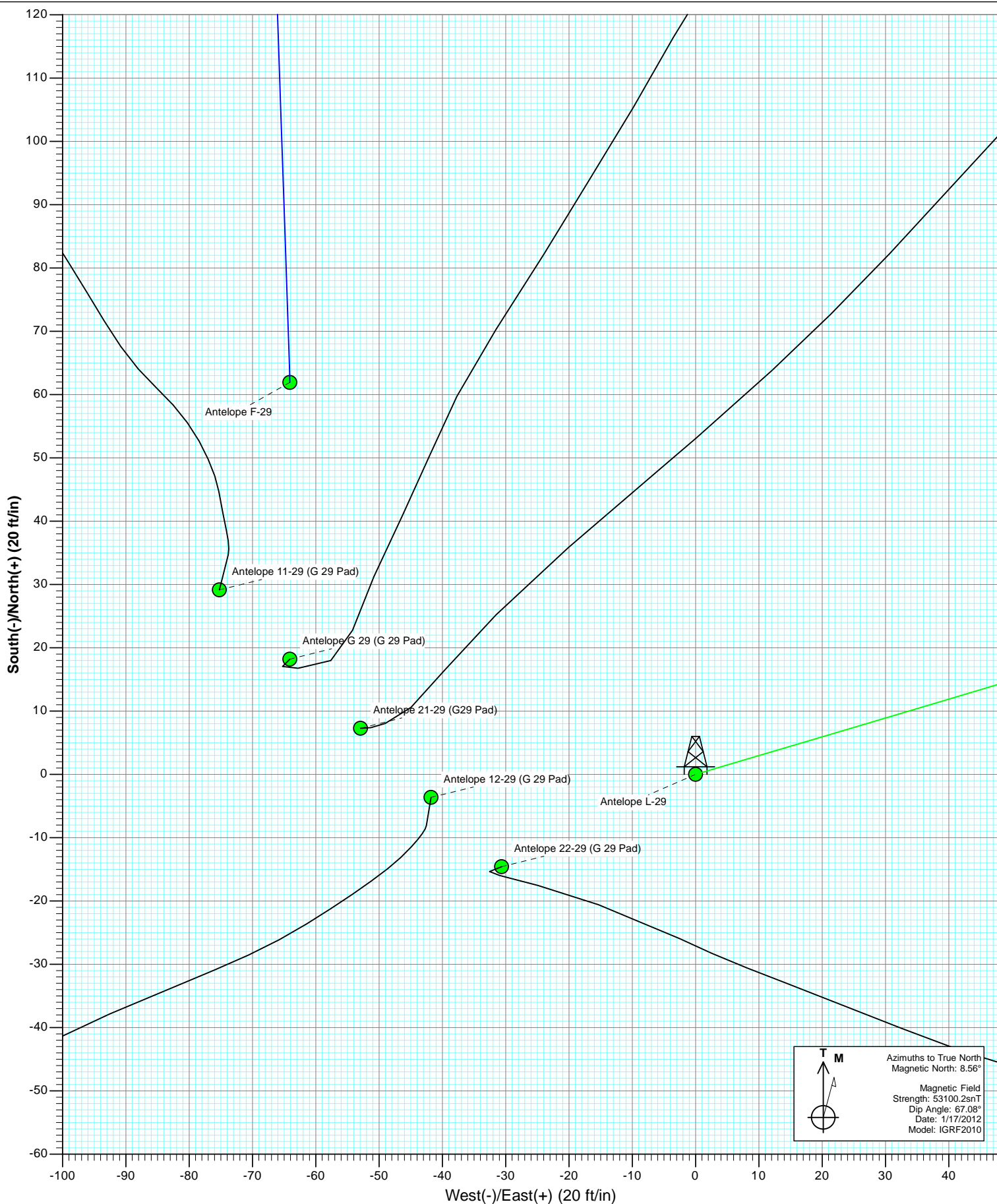
Plan #1
Antelope L-29
125XXX; SC

KBE @ 4668.0ft (Original Well Elev)
North American Datum 1983
Well Antelope L-29, True North

Type	Target	Azimuth	Origin	Type	N/S	E/W	From	TVD
TD	No Target (Freehand)	73.45	Slot		0.0	0.0		0.0
Name		TVD	+N/-S	+E/-W	Latitude	Longitude		
Antelope L-29 TGT		6088.0	400.8	1348.5	40.374390	-104.347680		
Antelope L-29 PBHL		6702.0	400.8	1348.5	40.374390	-104.347680		

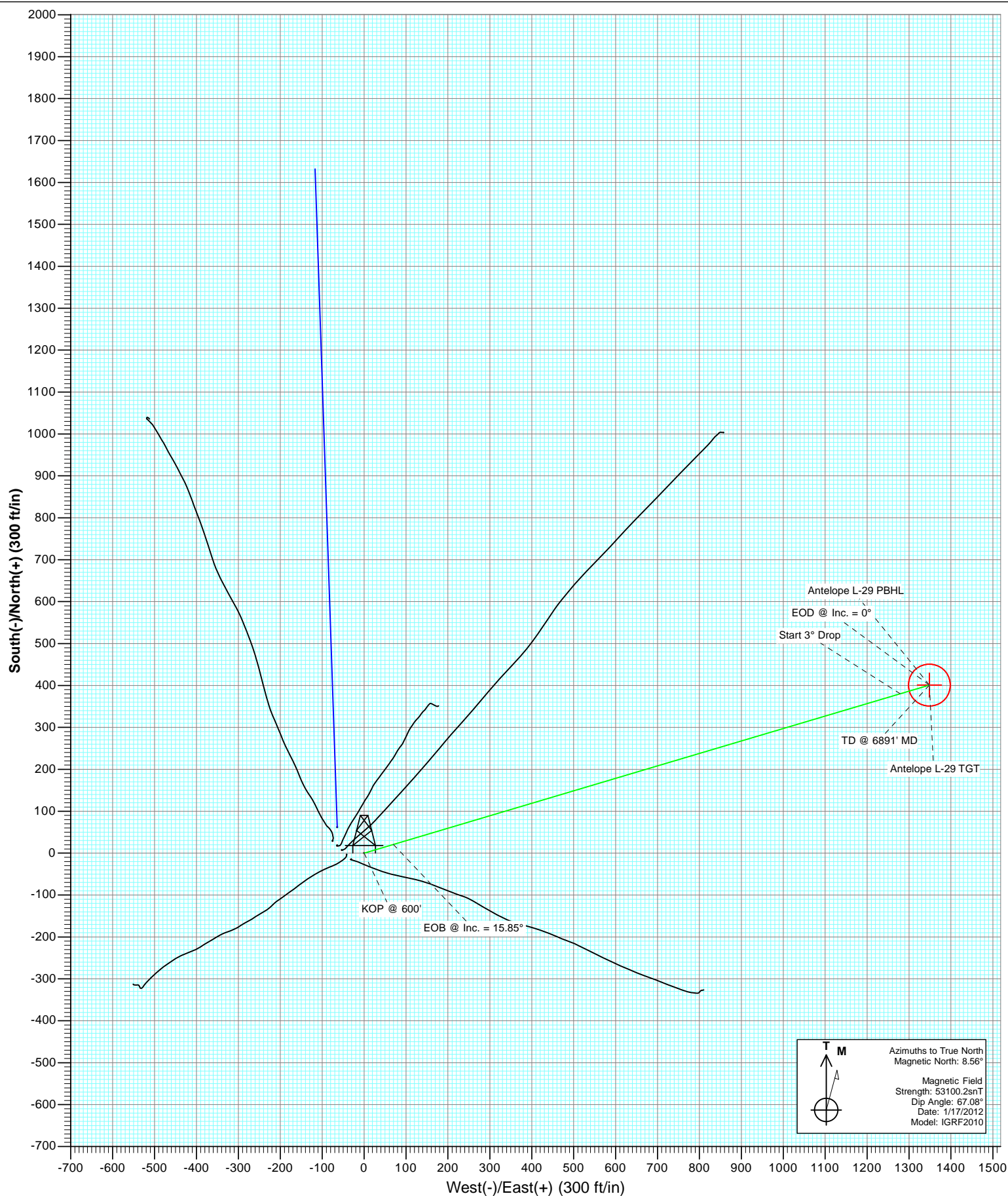


Project: Weld County
Site: Antelope G 29 Pad
Well: Antelope L-29
Wellbore: OH
Plan: Plan #1



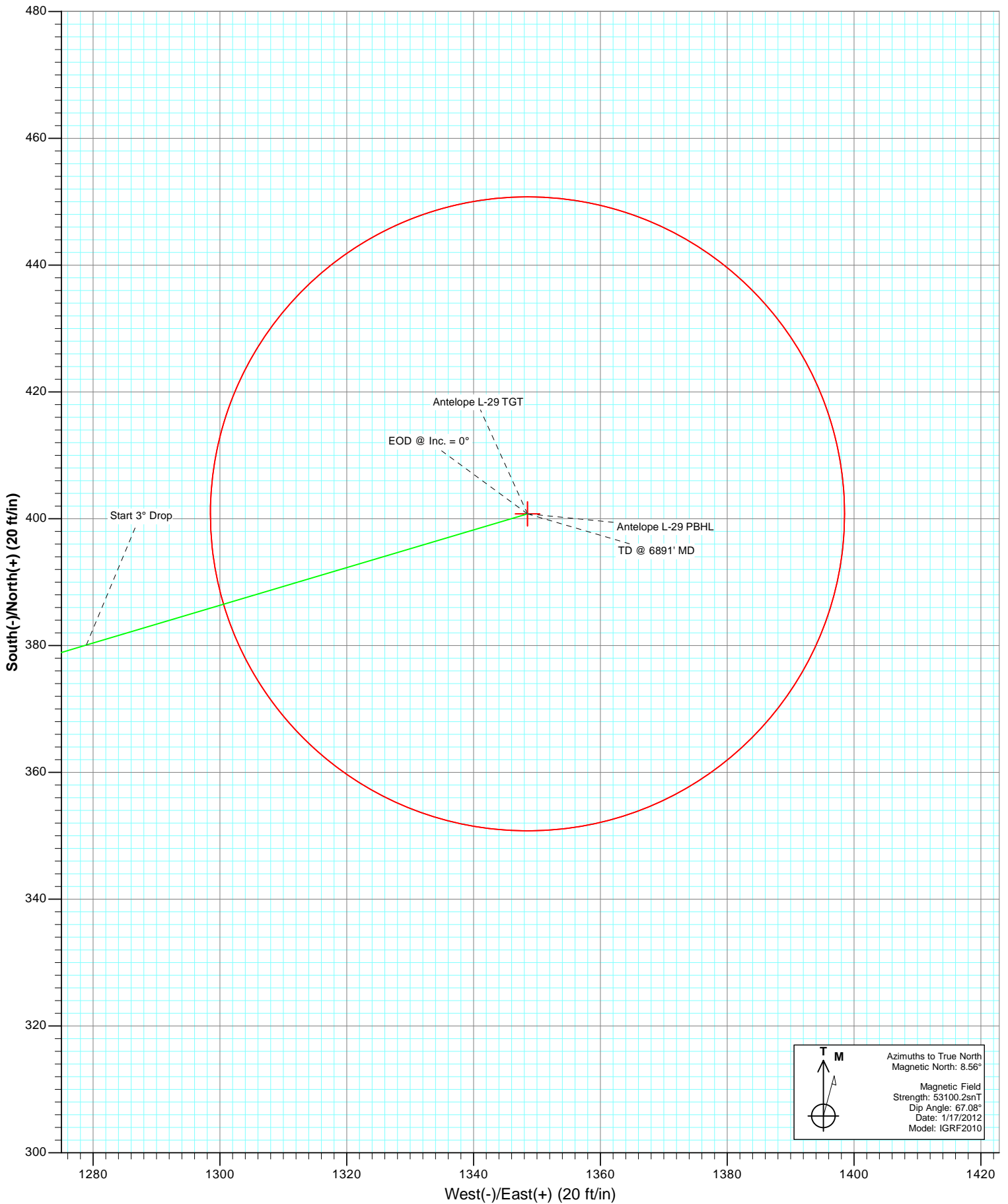


Project: Weld County
Site: Antelope G 29 Pad
Well: Antelope L-29
Wellbore: OH
Plan: Plan #1





Project: Weld County
Site: Antelope G 29 Pad
Well: Antelope L-29
Wellbore: OH
Plan: Plan #1



Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Antelope L-29
Company:	Bonanza Creek Energy Operating Company, LLC	TVD Reference:	KBE @ 4668.0ft (Original Well Elev)
Project:	Weld County	MD Reference:	KBE @ 4668.0ft (Original Well Elev)
Site:	Antelope G 29 Pad	North Reference:	True
Well:	Antelope L-29	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 G 29 Pad			
Site Position:		Northing:	1,380,957.95 ft	Latitude:	40.373450
From:	Lat/Long	Easting:	3,319,577.00 ft	Longitude:	-104.352990
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	0.74 °

Well	Antelope L-29					
Well Position	+N/-S	0.0 ft	Northing:	1,380,901.35 ft	Latitude:	40.373290
	+E/-W	0.0 ft	Easting:	3,319,708.69 ft	Longitude:	-104.352520
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,658.0 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	IGRF2010	1/17/2012	8.56	67.08	53,100

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	73.45	

Plan Sections										
Measured Depth	Inclination	Azimuth	Vertical Depth	+N/-S	+E/-W	Dogleg Rate	Build Rate	Turn Rate	TFO	Target
(ft)	(°)	(°)	(ft)	(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	
1,128.2	15.85	73.45	1,121.5	20.7	69.6	3.00	3.00	0.00	73.45	
5,748.8	15.85	73.45	5,566.5	380.1	1,278.9	0.00	0.00	0.00	0.00	
6,277.0	0.00	0.00	6,088.0	400.8	1,348.5	3.00	-3.00	0.00	180.00	Antelope L-29 TGT
6,891.0	0.00	0.00	6,702.0	400.8	1,348.5	0.00	0.00	0.00	0.00	Antelope L-29 PBHL

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Antelope L-29
Company:	Bonanza Creek Energy Operating Company, LLC	TVD Reference:	KBE @ 4668.0ft (Original Well Elev)
Project:	Weld County	MD Reference:	KBE @ 4668.0ft (Original Well Elev)
Site:	Antelope G 29 Pad	North Reference:	True
Well:	Antelope L-29	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	73.45	700.0	0.7	2.5	2.6	3.00	3.00	
800.0	6.00	73.45	799.6	3.0	10.0	10.5	3.00	3.00	
900.0	9.00	73.45	898.8	6.7	22.5	23.5	3.00	3.00	
1,000.0	12.00	73.45	997.1	11.9	40.0	41.7	3.00	3.00	
1,100.0	15.00	73.45	1,094.3	18.5	62.4	65.1	3.00	3.00	
1,128.2	15.85	73.45	1,121.5	20.7	69.6	72.6	3.00	3.00	EOB @ Inc. = 15.85°
1,200.0	15.85	73.45	1,190.6	26.3	88.4	92.2	0.00	0.00	
1,300.0	15.85	73.45	1,286.8	34.0	114.5	119.5	0.00	0.00	
1,400.0	15.85	73.45	1,383.0	41.8	140.7	146.8	0.00	0.00	
1,500.0	15.85	73.45	1,479.2	49.6	166.9	174.1	0.00	0.00	
1,600.0	15.85	73.45	1,575.4	57.4	193.1	201.4	0.00	0.00	
1,700.0	15.85	73.45	1,671.6	65.2	219.2	228.7	0.00	0.00	
1,800.0	15.85	73.45	1,767.8	72.9	245.4	256.0	0.00	0.00	
1,900.0	15.85	73.45	1,864.0	80.7	271.6	283.3	0.00	0.00	
2,000.0	15.85	73.45	1,960.2	88.5	297.7	310.6	0.00	0.00	
2,100.0	15.85	73.45	2,056.4	96.3	323.9	337.9	0.00	0.00	
2,200.0	15.85	73.45	2,152.6	104.0	350.1	365.2	0.00	0.00	
2,300.0	15.85	73.45	2,248.8	111.8	376.3	392.5	0.00	0.00	
2,400.0	15.85	73.45	2,345.0	119.6	402.4	419.8	0.00	0.00	
2,500.0	15.85	73.45	2,441.2	127.4	428.6	447.1	0.00	0.00	
2,600.0	15.85	73.45	2,537.4	135.2	454.8	474.4	0.00	0.00	
2,700.0	15.85	73.45	2,633.6	142.9	481.0	501.8	0.00	0.00	
2,800.0	15.85	73.45	2,729.8	150.7	507.1	529.1	0.00	0.00	
2,900.0	15.85	73.45	2,826.0	158.5	533.3	556.4	0.00	0.00	
3,000.0	15.85	73.45	2,922.2	166.3	559.5	583.7	0.00	0.00	
3,100.0	15.85	73.45	3,018.4	174.1	585.7	611.0	0.00	0.00	
3,200.0	15.85	73.45	3,114.6	181.8	611.8	638.3	0.00	0.00	
3,300.0	15.85	73.45	3,210.8	189.6	638.0	665.6	0.00	0.00	
3,400.0	15.85	73.45	3,307.0	197.4	664.2	692.9	0.00	0.00	
3,453.1	15.85	73.45	3,358.0	201.5	678.1	707.4	0.00	0.00	Parkman
3,500.0	15.85	73.45	3,403.2	205.2	690.3	720.2	0.00	0.00	
3,600.0	15.85	73.45	3,499.4	212.9	716.5	747.5	0.00	0.00	
3,700.0	15.85	73.45	3,595.6	220.7	742.7	774.8	0.00	0.00	
3,800.0	15.85	73.45	3,691.8	228.5	768.9	802.1	0.00	0.00	
3,900.0	15.85	73.45	3,788.0	236.3	795.0	829.4	0.00	0.00	
4,000.0	15.85	73.45	3,884.2	244.1	821.2	856.7	0.00	0.00	
4,100.0	15.85	73.45	3,980.4	251.8	847.4	884.0	0.00	0.00	
4,196.3	15.85	73.45	4,073.0	259.3	872.6	910.3	0.00	0.00	Sussex
4,200.0	15.85	73.45	4,076.6	259.6	873.6	911.3	0.00	0.00	
4,300.0	15.85	73.45	4,172.8	267.4	899.7	938.6	0.00	0.00	
4,400.0	15.85	73.45	4,269.0	275.2	925.9	965.9	0.00	0.00	
4,500.0	15.85	73.45	4,365.2	283.0	952.1	993.2	0.00	0.00	
4,600.0	15.85	73.45	4,461.4	290.7	978.3	1,020.5	0.00	0.00	
4,700.0	15.85	73.45	4,557.6	298.5	1,004.4	1,047.8	0.00	0.00	
4,800.0	15.85	73.45	4,653.8	306.3	1,030.6	1,075.2	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Antelope L-29
Company:	Bonanza Creek Energy Operating Company, LLC	TVD Reference:	KBE @ 4668.0ft (Original Well Elev)
Project:	Weld County	MD Reference:	KBE @ 4668.0ft (Original Well Elev)
Site:	Antelope G 29 Pad	North Reference:	True
Well:	Antelope L-29	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
4,900.0	15.85	73.45	4,750.0	314.1	1,056.8	1,102.5	0.00	0.00	
5,000.0	15.85	73.45	4,846.2	321.9	1,082.9	1,129.8	0.00	0.00	
5,100.0	15.85	73.45	4,942.4	329.6	1,109.1	1,157.1	0.00	0.00	
5,200.0	15.85	73.45	5,038.6	337.4	1,135.3	1,184.4	0.00	0.00	
5,300.0	15.85	73.45	5,134.8	345.2	1,161.5	1,211.7	0.00	0.00	
5,400.0	15.85	73.45	5,231.0	353.0	1,187.6	1,239.0	0.00	0.00	
5,500.0	15.85	73.45	5,327.2	360.7	1,213.8	1,266.3	0.00	0.00	
5,600.0	15.85	73.45	5,423.4	368.5	1,240.0	1,293.6	0.00	0.00	
5,700.0	15.85	73.45	5,519.6	376.3	1,266.2	1,320.9	0.00	0.00	
5,748.8	15.85	73.45	5,566.5	380.1	1,278.9	1,334.2	0.00	0.00	Start 3° Drop
5,800.0	14.31	73.45	5,615.9	383.9	1,291.7	1,347.5	3.00	-3.00	
5,900.0	11.31	73.45	5,713.4	390.2	1,313.0	1,369.7	3.00	-3.00	
6,000.0	8.31	73.45	5,812.0	395.1	1,329.3	1,386.7	3.00	-3.00	
6,100.0	5.31	73.45	5,911.3	398.4	1,340.6	1,398.6	3.00	-3.00	
6,200.0	2.31	73.45	6,011.0	400.3	1,347.0	1,405.2	3.00	-3.00	
6,277.0	0.00	0.00	6,088.0	400.8	1,348.5	1,406.8	3.00	-3.00	EOD @ Inc. = 0°
6,300.0	0.00	0.00	6,111.0	400.8	1,348.5	1,406.8	0.00	0.00	
6,400.0	0.00	0.00	6,211.0	400.8	1,348.5	1,406.8	0.00	0.00	
6,477.0	0.00	0.00	6,288.0	400.8	1,348.5	1,406.8	0.00	0.00	Niobrara
6,500.0	0.00	0.00	6,311.0	400.8	1,348.5	1,406.8	0.00	0.00	
6,600.0	0.00	0.00	6,411.0	400.8	1,348.5	1,406.8	0.00	0.00	
6,700.0	0.00	0.00	6,511.0	400.8	1,348.5	1,406.8	0.00	0.00	
6,707.0	0.00	0.00	6,518.0	400.8	1,348.5	1,406.8	0.00	0.00	Ft. Hayes
6,731.0	0.00	0.00	6,542.0	400.8	1,348.5	1,406.8	0.00	0.00	Codell
6,743.0	0.00	0.00	6,554.0	400.8	1,348.5	1,406.8	0.00	0.00	Carlile
6,783.0	0.00	0.00	6,594.0	400.8	1,348.5	1,406.8	0.00	0.00	Greenhorn
6,800.0	0.00	0.00	6,611.0	400.8	1,348.5	1,406.8	0.00	0.00	
6,891.0	0.00	0.00	6,702.0	400.8	1,348.5	1,406.8	0.00	0.00	TD @ 6891' 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 L-29 TGT	0.00	0.00	6,088.0	400.8	1,348.5	1,381,319.54	3,321,051.90	40.374390	-104.347680
- plan hits target center									
- Point									
Antelope L-29 PBHL	0.00	0.00	6,702.0	400.8	1,348.5	1,381,319.54	3,321,051.90	40.374390	-104.347680
- 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 L-29
Company:	Bonanza Creek Energy Operating Company, LLC	TVD Reference:	KBE @ 4668.0ft (Original Well Elev)
Project:	Weld County	MD Reference:	KBE @ 4668.0ft (Original Well Elev)
Site:	Antelope G 29 Pad	North Reference:	True
Well:	Antelope L-29	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
3,453.1	3,358.0	Parkman				
4,196.3	4,073.0	Sussex				
6,477.0	6,288.0	Niobrara				
6,707.0	6,518.0	Ft. Hayes				
6,731.0	6,542.0	Codell				
6,743.0	6,554.0	Carlile				
6,783.0	6,594.0	Greenhorn				

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
600.0	600.0	0.0	0.0	KOP @ 600'	
1,128.2	1,121.5	20.7	69.6	EOB @ Inc. = 15.85°	
5,748.8	5,566.5	380.1	1,278.9	Start 3° Drop	
6,277.0	6,088.0	400.8	1,348.5	EOD @ Inc. = 0°	
6,891.0	6,702.0	400.8	1,348.5	TD @ 6891' MD	

Bonanza Creek Energy Operating Company, LLC

Weld County

Antelope G 29 Pad

Antelope L-29

OH

Plan #1

Anticollision Report

17 January, 2012

Cathedral Energy Services

Anticollision Report

Company:	Bonanza Creek Energy Operating Company, LLC	Local Co-ordinate Reference:	Well Antelope L-29
Project:	Weld County	TVD Reference:	KBE @ 4668.0ft (Original Well Elev)
Reference Site:	Antelope G 29 Pad	MD Reference:	KBE @ 4668.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Antelope L-29	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	1/17/2012		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0.0	6,891.0	Plan #1 (OH)	MWD	Geolink MWD	

Summary							
Site Name	Reference	Offset	Distance		Separation Factor	Warning	
	Measured	Measured	Between	Between			
	Depth	Depth	Centres	Ellipses			
Offset Well - Wellbore - Design							
Antelope G 29 Pad							
Antelope 11-29 (G 29 Pad) - DD - DD	0.0	0.0	80.7				
Antelope 12-29 (G 29 Pad) - DD - DD	0.0	0.0	42.0				
Antelope 21-29 (G29 Pad) - DD - DD	0.0	0.0	53.4				
Antelope 21-29 (G29 Pad) - DD - DD	680.6	681.5	46.9	46.9	10,000.000	CC, ES	
Antelope 22-29 (G 29 Pad) - DD - DD	0.0	0.0	33.9				
Antelope 22-29 (G 29 Pad) - DD - DD	717.7	718.9	30.5	30.5	10,000.000	CC, ES	
Antelope F-29 - OH - Plan #1	0.0	0.0	89.1				
Antelope F-29 - OH - Plan #1	600.0	600.0	89.1	89.1	10,000.000	CC, ES	
Antelope G 29 (G 29 Pad) - DD - DD	0.0	0.0	66.6				
Antelope G 29 (G 29 Pad) - DD - DD	675.6	676.8	61.0	61.0	10,000.000	CC, ES	

Cathedral Energy Services

Anticollision Report

Company:	Bonanza Creek Energy Operating Company, LLC	Local Co-ordinate Reference:	Well Antelope L-29
Project:	Weld County	TVD Reference:	KBE @ 4668.0ft (Original Well Elev)
Reference Site:	Antelope G 29 Pad	MD Reference:	KBE @ 4668.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Antelope L-29	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 G 29 Pad - Antelope 11-29 (G 29 Pad) - DD - DD													Offset Site Error:	0.0 ft
Survey Program: 470-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	0.0	0.0	0.0	0.0	-68.82	29.1	-75.2	80.7					
100.0	100.0	98.9	98.9	0.2	0.2	-68.64	29.4	-75.2	80.7	80.7	0.00	N/A		
200.0	200.0	198.9	198.9	0.3	0.3	-68.10	30.1	-75.0	80.8	80.8	0.00	N/A		
300.0	300.0	298.8	298.8	0.5	0.5	-67.19	31.4	-74.7	81.0	81.0	0.00	N/A		
400.0	400.0	398.7	398.7	0.7	0.7	-65.93	33.2	-74.2	81.3	81.3	0.00	N/A		
500.0	500.0	497.9	497.9	0.9	0.9	-64.28	35.5	-73.7	81.9	81.9	0.00	N/A		
600.0	600.0	595.8	595.6	1.0	1.1	-61.55	40.4	-74.5	84.8	84.8	0.00	N/A		
700.0	700.0	693.4	693.0	1.2	1.3	-132.59	47.3	-76.0	91.5	91.5	0.00	N/A		
800.0	799.6	788.6	787.7	1.4	1.5	-132.54	55.9	-80.5	105.4	105.4	0.00	N/A		
900.0	898.8	883.5	881.9	1.6	1.7	-134.77	64.5	-88.4	126.1	126.1	0.00	N/A		
1,000.0	997.1	976.7	973.9	2.0	2.0	-136.26	76.4	-96.3	152.4	152.4	0.00	N/A		
1,100.0	1,094.3	1,068.6	1,064.1	2.4	2.3	-137.36	91.4	-105.5	185.3	185.3	0.00	N/A		
1,200.0	1,190.6	1,163.4	1,157.0	2.8	2.7	-138.64	108.3	-113.2	220.0	220.0	0.00	N/A		
1,300.0	1,286.8	1,247.5	1,239.3	3.3	3.0	-139.52	124.3	-121.5	257.0	257.0	0.00	N/A		
1,400.0	1,383.0	1,328.8	1,318.0	3.8	3.4	-140.11	141.3	-132.4	297.6	297.6	0.00	N/A		
1,500.0	1,479.2	1,425.8	1,411.6	4.2	3.8	-140.29	163.4	-145.2	338.8	338.8	0.00	N/A		
1,600.0	1,575.4	1,520.4	1,502.5	4.7	4.3	-139.95	187.2	-155.4	378.8	378.8	0.00	N/A		
1,700.0	1,671.6	1,611.2	1,590.0	5.2	4.7	-139.73	209.7	-165.1	418.5	418.5	0.00	N/A		
1,800.0	1,767.8	1,692.8	1,668.4	5.8	5.1	-139.63	229.8	-175.0	459.4	459.4	0.00	N/A		

Cathedral Energy Services

Anticollision Report

Company:	Bonanza Creek Energy Operating Company, LLC	Local Co-ordinate Reference:	Well Antelope L-29
Project:	Weld County	TVD Reference:	KBE @ 4668.0ft (Original Well Elev)
Reference Site:	Antelope G 29 Pad	MD Reference:	KBE @ 4668.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Antelope L-29	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 G 29 Pad - Antelope 12-29 (G 29 Pad) - DD - DD													Offset Site Error:	0.0 ft
Survey Program: 469-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	0.0	0.0	0.0	0.0	-94.97	-3.6	-41.8	42.0					
100.0	100.0	99.0	99.0	0.2	0.2	-95.24	-3.8	-41.8	42.0	42.0	0.00	N/A		
200.0	200.0	198.9	198.9	0.3	0.3	-96.04	-4.4	-41.9	42.2	42.2	0.00	N/A		
300.0	300.0	298.9	298.9	0.5	0.5	-97.36	-5.4	-42.1	42.4	42.4	0.00	N/A		
400.0	400.0	398.8	398.8	0.7	0.7	-99.19	-6.8	-42.3	42.9	42.9	0.00	N/A		
500.0	500.0	498.1	498.0	0.9	0.9	-101.58	-8.8	-42.8	43.7	43.7	0.00	N/A		
600.0	600.0	595.7	595.4	1.0	1.1	-105.75	-13.1	-46.6	48.5	48.5	0.00	N/A		
700.0	700.0	692.4	691.7	1.2	1.3	177.31	-19.1	-54.5	60.8	60.8	0.00	N/A		
800.0	799.6	786.8	785.1	1.4	1.6	175.41	-26.3	-66.1	82.7	82.7	0.00	N/A		
900.0	898.8	879.3	876.0	1.6	1.9	175.39	-33.2	-81.6	113.6	113.6	0.00	N/A		
1,000.0	997.1	972.8	967.8	2.0	2.2	175.57	-40.2	-97.9	150.1	150.1	0.00	N/A		
1,100.0	1,094.3	1,064.1	1,057.5	2.4	2.5	175.22	-48.6	-113.1	191.3	191.3	0.00	N/A		
1,200.0	1,190.6	1,154.3	1,146.0	2.8	2.8	175.03	-57.0	-127.8	235.7	235.7	0.00	N/A		
1,300.0	1,286.8	1,245.0	1,235.1	3.3	3.1	174.64	-66.7	-141.9	280.1	280.1	0.00	N/A		
1,400.0	1,383.0	1,337.2	1,325.8	3.8	3.5	174.20	-76.9	-155.4	323.9	323.9	0.00	N/A		
1,500.0	1,479.2	1,428.4	1,415.4	4.2	3.8	173.93	-86.6	-168.4	367.3	367.3	0.00	N/A		
1,600.0	1,575.4	1,522.6	1,508.3	4.7	4.1	173.79	-95.9	-181.5	410.0	410.0	0.00	N/A		
1,700.0	1,671.6	1,617.8	1,602.3	5.2	4.4	173.70	-104.7	-193.9	451.9	451.9	0.00	N/A		
1,800.0	1,767.8	1,713.4	1,696.8	5.8	4.7	173.66	-113.0	-205.7	492.9	492.9	0.00	N/A		

Cathedral Energy Services

Anticollision Report

Company:	Bonanza Creek Energy Operating Company, LLC	Local Co-ordinate Reference:	Well Antelope L-29
Project:	Weld County	TVD Reference:	KBE @ 4668.0ft (Original Well Elev)
Reference Site:	Antelope G 29 Pad	MD Reference:	KBE @ 4668.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Antelope L-29	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 G 29 Pad - Antelope 21-29 (G29 Pad) - DD - DD													Offset Site Error:	0.0 ft
Survey Program: 470-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance				Total Uncertainty Axis	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)				
0.0	0.0	0.0	0.0	0.0	0.0	-82.16	7.3	-52.9	53.4					
100.0	100.0	99.1	99.1	0.2	0.2	-82.14	7.3	-52.9	53.4	53.4	0.00	N/A		
200.0	200.0	199.2	199.2	0.3	0.3	-82.10	7.3	-52.6	53.1	53.1	0.00	N/A		
300.0	300.0	299.2	299.2	0.5	0.5	-82.02	7.3	-52.3	52.8	52.8	0.00	N/A		
400.0	400.0	399.3	399.3	0.7	0.7	-81.91	7.4	-51.8	52.3	52.3	0.00	N/A		
500.0	500.0	499.9	499.9	0.9	0.9	-81.67	7.5	-50.9	51.5	51.5	0.00	N/A		
600.0	600.0	600.9	600.8	1.0	1.0	-79.57	8.7	-47.5	48.3	48.3	0.00	N/A		
680.6	680.6	681.5	681.3	1.2	1.2	-149.75	11.6	-43.9	46.9	46.9	0.00	N/A CC, ES		
700.0	700.0	701.0	700.7	1.2	1.2	-148.75	12.7	-42.9	47.0	47.0	0.00	N/A		
800.0	799.6	801.8	801.0	1.4	1.5	-142.40	20.7	-35.9	49.3	49.3	0.00	N/A		
900.0	898.8	902.9	900.9	1.6	1.8	-136.42	31.1	-25.3	53.8	53.8	0.00	N/A		
1,000.0	997.1	1,003.8	1,000.0	2.0	2.1	-131.51	43.7	-11.1	60.3	60.3	0.00	N/A		
1,100.0	1,094.3	1,103.7	1,097.1	2.4	2.5	-127.23	58.9	6.7	68.9	68.9	0.00	N/A		
1,200.0	1,190.6	1,201.8	1,191.7	2.8	3.0	-123.71	77.1	25.7	80.7	80.7	0.00	N/A		
1,300.0	1,286.8	1,300.0	1,285.4	3.3	3.5	-119.33	98.5	45.7	94.3	94.3	0.00	N/A		
1,400.0	1,383.0	1,398.2	1,377.8	3.8	4.1	-114.00	122.9	67.9	109.0	109.0	0.00	N/A		
1,500.0	1,479.2	1,496.5	1,469.9	4.2	4.7	-109.14	148.5	91.2	124.8	124.8	0.00	N/A		
1,600.0	1,575.4	1,594.8	1,562.3	4.7	5.3	-105.94	173.4	113.6	141.1	141.1	0.00	N/A		
1,700.0	1,671.6	1,693.6	1,655.7	5.2	5.8	-103.96	197.5	134.8	157.7	157.7	0.00	N/A		
1,800.0	1,767.8	1,792.3	1,749.6	5.8	6.4	-102.90	220.7	154.8	174.2	174.2	0.00	N/A		
1,900.0	1,864.0	1,889.9	1,842.1	6.3	7.0	-101.83	244.2	175.0	191.0	191.0	0.00	N/A		
2,000.0	1,960.2	1,987.8	1,934.9	6.8	7.5	-100.93	268.1	195.0	208.3	208.3	0.00	N/A		
2,100.0	2,056.4	2,087.3	2,029.0	7.3	8.1	-99.92	292.6	216.2	225.5	225.5	0.00	N/A		
2,200.0	2,152.6	2,185.9	2,122.1	7.8	8.7	-98.93	317.0	237.8	242.5	242.5	0.00	N/A		
2,300.0	2,248.8	2,285.7	2,216.8	8.3	9.3	-98.43	340.5	258.5	259.1	259.1	0.00	N/A		
2,400.0	2,345.0	2,381.5	2,307.5	8.8	9.9	-97.87	363.9	278.6	276.3	276.3	0.00	N/A		
2,500.0	2,441.2	2,480.7	2,401.5	9.3	10.4	-97.42	388.1	299.2	293.7	293.7	0.00	N/A		
2,600.0	2,537.4	2,578.4	2,493.7	9.9	11.1	-96.83	412.4	320.3	311.0	311.0	0.00	N/A		
2,700.0	2,633.6	2,676.6	2,585.6	10.4	11.7	-95.86	438.0	343.5	328.9	328.9	0.00	N/A		
2,800.0	2,729.8	2,773.5	2,676.4	10.9	12.3	-95.02	462.9	366.5	346.3	346.3	0.00	N/A		
2,900.0	2,826.0	2,863.5	2,760.0	11.4	12.9	-94.10	488.0	388.4	365.8	365.8	0.00	N/A		
3,000.0	2,922.2	2,960.3	2,850.5	11.9	13.5	-93.60	515.4	409.0	386.7	386.7	0.00	N/A		
3,100.0	3,018.4	3,060.5	2,945.3	12.5	14.1	-93.63	542.0	427.6	406.9	406.9	0.00	N/A		
3,200.0	3,114.6	3,156.6	3,036.2	13.0	14.7	-93.69	567.7	445.1	427.4	427.4	0.00	N/A		
3,300.0	3,210.8	3,266.5	3,140.6	13.5	15.3	-93.85	596.1	464.7	447.3	447.3	0.00	N/A		
3,400.0	3,307.0	3,373.2	3,242.7	14.0	15.9	-94.08	620.2	484.5	463.8	463.8	0.00	N/A		
3,500.0	3,403.2	3,472.3	3,337.4	14.5	16.5	-94.26	642.3	503.1	479.9	479.9	0.00	N/A		
3,600.0	3,499.4	3,572.3	3,432.5	15.1	17.0	-94.17	665.2	524.0	495.9	495.9	0.00	N/A		

Cathedral Energy Services

Anticollision Report

Company:	Bonanza Creek Energy Operating Company, LLC	Local Co-ordinate Reference:	Well Antelope L-29
Project:	Weld County	TVD Reference:	KBE @ 4668.0ft (Original Well Elev)
Reference Site:	Antelope G 29 Pad	MD Reference:	KBE @ 4668.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Antelope L-29	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 G 29 Pad - Antelope 22-29 (G 29 Pad) - DD - DD													Offset Site Error:	0.0 ft
Survey Program: 470-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	-115.42	-14.6	-30.6	33.9					
100.0	100.0	98.9	98.9	0.2	0.2	-115.41	-14.6	-30.7	34.0	0.00	N/A			
200.0	200.0	198.9	198.9	0.3	0.3	-115.38	-14.7	-31.0	34.3	0.00	N/A			
300.0	300.0	298.8	298.8	0.5	0.5	-115.34	-14.9	-31.4	34.8	0.00	N/A			
400.0	400.0	398.7	398.7	0.7	0.7	-115.29	-15.1	-32.0	35.4	0.00	N/A			
500.0	500.0	499.2	499.2	0.9	0.9	-115.41	-15.5	-32.6	36.0	0.00	N/A			
600.0	600.0	600.5	600.5	1.0	1.0	-119.41	-16.4	-29.1	33.4	0.00	N/A			
700.0	700.0	701.1	700.7	1.2	1.2	156.97	-18.7	-21.0	30.5	0.00	N/A			
717.7	717.6	718.9	718.3	1.2	1.3	154.68	-19.3	-19.2	30.5	0.00	N/A CC, ES			
800.0	799.6	801.0	799.8	1.4	1.5	143.29	-22.9	-9.3	32.3	0.00	N/A			
900.0	898.8	900.7	898.0	1.6	1.8	130.30	-29.8	6.2	40.0	0.00	N/A			
1,000.0	997.1	1,000.0	995.1	2.0	2.1	122.33	-37.2	25.4	51.3	0.00	N/A			
1,100.0	1,094.3	1,099.8	1,092.6	2.4	2.5	120.54	-44.8	45.4	65.6	0.00	N/A			
1,200.0	1,190.6	1,199.9	1,190.1	2.8	2.9	120.89	-50.8	67.4	79.9	0.00	N/A			
1,300.0	1,286.8	1,299.2	1,287.0	3.3	3.3	121.98	-55.6	88.4	93.3	0.00	N/A			
1,400.0	1,383.0	1,398.6	1,383.9	3.8	3.7	122.47	-60.4	110.1	106.7	0.00	N/A			
1,500.0	1,479.2	1,496.3	1,478.5	4.2	4.2	121.50	-66.2	133.9	120.4	0.00	N/A			
1,600.0	1,575.4	1,593.6	1,572.7	4.7	4.6	120.74	-73.2	157.2	135.4	0.00	N/A			
1,700.0	1,671.6	1,688.9	1,665.1	5.2	5.0	120.44	-81.4	178.9	152.1	0.00	N/A			
1,800.0	1,767.8	1,789.1	1,762.4	5.8	5.5	120.40	-90.7	201.0	169.6	0.00	N/A			
1,900.0	1,864.0	1,890.2	1,860.9	6.3	5.9	120.68	-98.4	222.7	185.7	0.00	N/A			
2,000.0	1,960.2	1,985.8	1,954.0	6.8	6.3	120.97	-105.8	242.9	201.9	0.00	N/A			
2,100.0	2,056.4	2,075.5	2,041.2	7.3	6.7	121.02	-115.3	261.9	221.0	0.00	N/A			
2,200.0	2,152.6	2,174.6	2,137.5	7.8	7.2	121.14	-127.4	282.0	241.7	0.00	N/A			
2,300.0	2,248.8	2,274.8	2,235.1	8.3	7.6	121.54	-138.6	301.4	261.7	0.00	N/A			
2,400.0	2,345.0	2,374.6	2,332.7	8.8	8.0	122.09	-148.8	319.9	281.0	0.00	N/A			
2,500.0	2,441.2	2,477.6	2,433.3	9.3	8.4	122.55	-158.1	339.6	299.1	0.00	N/A			
2,600.0	2,537.4	2,580.7	2,534.3	9.9	8.8	123.18	-166.0	358.5	316.2	0.00	N/A			
2,700.0	2,633.6	2,685.6	2,637.4	10.4	9.2	123.89	-171.3	377.8	330.8	0.00	N/A			
2,800.0	2,729.8	2,782.5	2,732.1	10.9	9.6	124.22	-176.4	397.2	345.1	0.00	N/A			
2,900.0	2,826.0	2,877.5	2,825.2	11.4	10.0	124.64	-182.1	415.2	360.4	0.00	N/A			
3,000.0	2,922.2	2,974.3	2,920.0	11.9	10.4	125.01	-188.7	433.5	376.7	0.00	N/A			
3,100.0	3,018.4	3,069.9	3,013.6	12.5	10.8	125.29	-195.7	451.7	393.3	0.00	N/A			
3,200.0	3,114.6	3,169.4	3,111.0	13.0	11.1	125.53	-203.8	470.6	410.7	0.00	N/A			
3,300.0	3,210.8	3,269.2	3,209.2	13.5	11.5	126.14	-210.1	487.2	427.2	0.00	N/A			
3,400.0	3,307.0	3,362.3	3,300.5	14.0	11.9	126.47	-217.0	503.9	444.4	0.00	N/A			
3,500.0	3,403.2	3,457.1	3,393.2	14.5	12.3	126.60	-225.7	521.8	462.8	0.00	N/A			
3,600.0	3,499.4	3,554.3	3,487.6	15.1	12.7	126.38	-235.9	542.6	481.5	0.00	N/A			

Cathedral Energy Services

Anticollision Report

Company:	Bonanza Creek Energy Operating Company, LLC	Local Co-ordinate Reference:	Well Antelope L-29
Project:	Weld County	TVD Reference:	KBE @ 4668.0ft (Original Well Elev)
Reference Site:	Antelope G 29 Pad	MD Reference:	KBE @ 4668.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Antelope L-29	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 G 29 Pad - Antelope F-29 - 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	0.0	0.0	0.0	0.0	-45.98	61.9	-64.1	89.1					
100.0	100.0	100.0	100.0	0.2	0.2	-45.98	61.9	-64.1	89.1	89.1	0.00	N/A		
200.0	200.0	200.0	200.0	0.3	0.3	-45.98	61.9	-64.1	89.1	89.1	0.00	N/A		
300.0	300.0	300.0	300.0	0.5	0.5	-45.98	61.9	-64.1	89.1	89.1	0.00	N/A		
400.0	400.0	400.0	400.0	0.7	0.7	-45.98	61.9	-64.1	89.1	89.1	0.00	N/A		
500.0	500.0	500.0	500.0	0.9	0.9	-45.98	61.9	-64.1	89.1	89.1	0.00	N/A		
600.0	600.0	600.0	600.0	1.0	1.0	-45.98	61.9	-64.1	89.1	89.1	0.00	N/A CC, ES		
700.0	700.0	696.7	696.6	1.2	1.2	-119.66	64.4	-64.2	92.2	92.2	0.00	N/A		
800.0	799.6	792.8	792.4	1.4	1.4	-120.25	71.6	-64.4	101.5	101.5	0.00	N/A		
900.0	898.8	887.7	886.7	1.6	1.6	-120.98	83.6	-64.8	117.0	117.0	0.00	N/A		
1,000.0	997.1	981.1	978.6	2.0	1.9	-121.65	99.8	-65.4	138.5	138.5	0.00	N/A		
1,100.0	1,094.3	1,072.4	1,067.6	2.4	2.2	-122.13	120.0	-66.0	165.8	165.8	0.00	N/A		
1,200.0	1,190.6	1,161.5	1,153.4	2.8	2.6	-122.71	143.8	-66.8	198.2	198.2	0.00	N/A		
1,300.0	1,286.8	1,253.0	1,240.7	3.3	3.1	-122.68	171.5	-67.8	233.0	233.0	0.00	N/A		
1,400.0	1,383.0	1,346.7	1,329.9	3.8	3.6	-122.61	200.2	-68.7	267.9	267.9	0.00	N/A		
1,500.0	1,479.2	1,440.5	1,419.1	4.2	4.0	-122.55	228.8	-69.7	302.8	302.8	0.00	N/A		
1,600.0	1,575.4	1,534.2	1,508.4	4.7	4.5	-122.51	257.4	-70.7	337.7	337.7	0.00	N/A		
1,700.0	1,671.6	1,627.9	1,597.6	5.2	5.0	-122.48	286.0	-71.6	372.6	372.6	0.00	N/A		
1,800.0	1,767.8	1,721.6	1,686.8	5.8	5.5	-122.45	314.6	-72.6	407.6	407.6	0.00	N/A		
1,900.0	1,864.0	1,815.3	1,776.0	6.3	6.1	-122.42	343.3	-73.6	442.5	442.5	0.00	N/A		
2,000.0	1,960.2	1,909.0	1,865.2	6.8	6.6	-122.40	371.9	-74.5	477.4	477.4	0.00	N/A		

Cathedral Energy Services

Anticollision Report

Company:	Bonanza Creek Energy Operating Company, LLC	Local Co-ordinate Reference:	Well Antelope L-29
Project:	Weld County	TVD Reference:	KBE @ 4668.0ft (Original Well Elev)
Reference Site:	Antelope G 29 Pad	MD Reference:	KBE @ 4668.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Antelope L-29	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 G 29 Pad - Antelope G 29 (G 29 Pad) - DD - DD														Offset Site Error:	0.0 ft
Survey Program: 470-MWD														Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance				Total		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	Separation Factor			
0.0	0.0	0.0	0.0	0.0	0.0	-74.14	18.2	-64.1	66.6						
100.0	100.0	99.0	99.0	0.2	0.2	-74.20	18.2	-64.1	66.7	66.7	0.00	N/A			
200.0	200.0	198.9	198.9	0.3	0.3	-74.36	18.0	-64.3	66.8	66.8	0.00	N/A			
300.0	300.0	298.9	298.8	0.5	0.5	-74.64	17.7	-64.6	67.0	67.0	0.00	N/A			
400.0	400.0	398.8	398.8	0.7	0.7	-75.02	17.4	-64.9	67.2	67.2	0.00	N/A			
500.0	500.0	500.0	500.0	0.9	0.9	-75.43	16.9	-65.1	67.3	67.3	0.00	N/A			
600.0	600.0	602.3	602.2	1.0	1.0	-74.38	16.9	-60.6	63.0	63.0	0.00	N/A			
675.6	675.6	676.8	676.6	1.2	1.2	-146.17	18.5	-56.8	61.0	61.0	0.00	N/A CC, ES			
700.0	700.0	700.6	700.3	1.2	1.2	-145.58	19.5	-55.8	61.3	61.3	0.00	N/A			
800.0	799.6	799.3	798.7	1.4	1.4	-142.85	26.4	-52.9	67.2	67.2	0.00	N/A			
900.0	898.8	899.3	898.1	1.6	1.6	-140.29	36.5	-48.3	76.9	76.9	0.00	N/A			
1,000.0	997.1	998.2	996.4	2.0	1.9	-140.35	46.6	-43.7	90.6	90.6	0.00	N/A			
1,100.0	1,094.3	1,096.6	1,094.2	2.4	2.1	-142.17	56.3	-39.3	108.5	108.5	0.00	N/A			
1,200.0	1,190.6	1,196.8	1,193.7	2.8	2.3	-144.46	66.6	-33.9	128.8	128.8	0.00	N/A			
1,300.0	1,286.8	1,295.3	1,291.2	3.3	2.6	-145.05	78.9	-26.0	147.6	147.6	0.00	N/A			
1,400.0	1,383.0	1,393.4	1,388.2	3.8	2.9	-145.56	91.1	-18.5	166.8	166.8	0.00	N/A			
1,500.0	1,479.2	1,490.8	1,484.6	4.2	3.2	-145.99	103.2	-11.2	186.0	186.0	0.00	N/A			
1,600.0	1,575.4	1,587.7	1,580.6	4.7	3.4	-146.59	114.5	-4.6	205.8	205.8	0.00	N/A			
1,700.0	1,671.6	1,688.2	1,680.2	5.2	3.7	-147.10	126.2	2.4	225.5	225.5	0.00	N/A			
1,800.0	1,767.8	1,784.2	1,775.3	5.8	4.0	-147.56	137.0	9.3	244.8	244.8	0.00	N/A			
1,900.0	1,864.0	1,879.2	1,869.6	6.3	4.2	-148.20	146.9	14.9	265.2	265.2	0.00	N/A			
2,000.0	1,960.2	1,974.9	1,964.8	6.8	4.5	-149.04	155.8	19.3	286.5	286.5	0.00	N/A			
2,100.0	2,056.4	2,078.7	2,068.1	7.3	4.7	-149.89	165.0	24.6	307.4	307.4	0.00	N/A			
2,200.0	2,152.6	2,177.1	2,165.8	7.8	5.0	-150.53	173.8	30.8	327.1	327.1	0.00	N/A			
2,300.0	2,248.8	2,273.4	2,261.6	8.3	5.2	-151.25	181.4	36.5	347.1	347.1	0.00	N/A			
2,400.0	2,345.0	2,369.3	2,357.1	8.8	5.4	-152.02	188.3	41.6	367.6	367.6	0.00	N/A			
2,500.0	2,441.2	2,466.9	2,454.4	9.3	5.7	-152.82	194.8	46.3	388.4	388.4	0.00	N/A			
2,600.0	2,537.4	2,564.1	2,551.4	9.9	5.9	-153.64	200.5	51.0	409.4	409.4	0.00	N/A			
2,700.0	2,633.6	2,659.9	2,646.9	10.4	6.1	-154.31	206.6	55.3	430.7	430.7	0.00	N/A			
2,800.0	2,729.8	2,758.4	2,745.1	10.9	6.3	-154.92	213.0	59.5	452.2	452.2	0.00	N/A			
2,900.0	2,826.0	2,860.1	2,846.4	11.4	6.5	-155.36	220.6	65.0	472.9	472.9	0.00	N/A			
3,000.0	2,922.2	2,952.2	2,938.1	11.9	6.7	-155.78	227.0	69.5	494.0	494.0	0.00	N/A			

Cathedral Energy Services

Anticollision Report

Company:	Bonanza Creek Energy Operating Company, LLC	Local Co-ordinate Reference:	Well Antelope L-29
Project:	Weld County	TVD Reference:	KBE @ 4668.0ft (Original Well Elev)
Reference Site:	Antelope G 29 Pad	MD Reference:	KBE @ 4668.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Antelope L-29	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 @ 4668.0ft (Original Well Elev)

Offset Depths are relative to Offset Datum

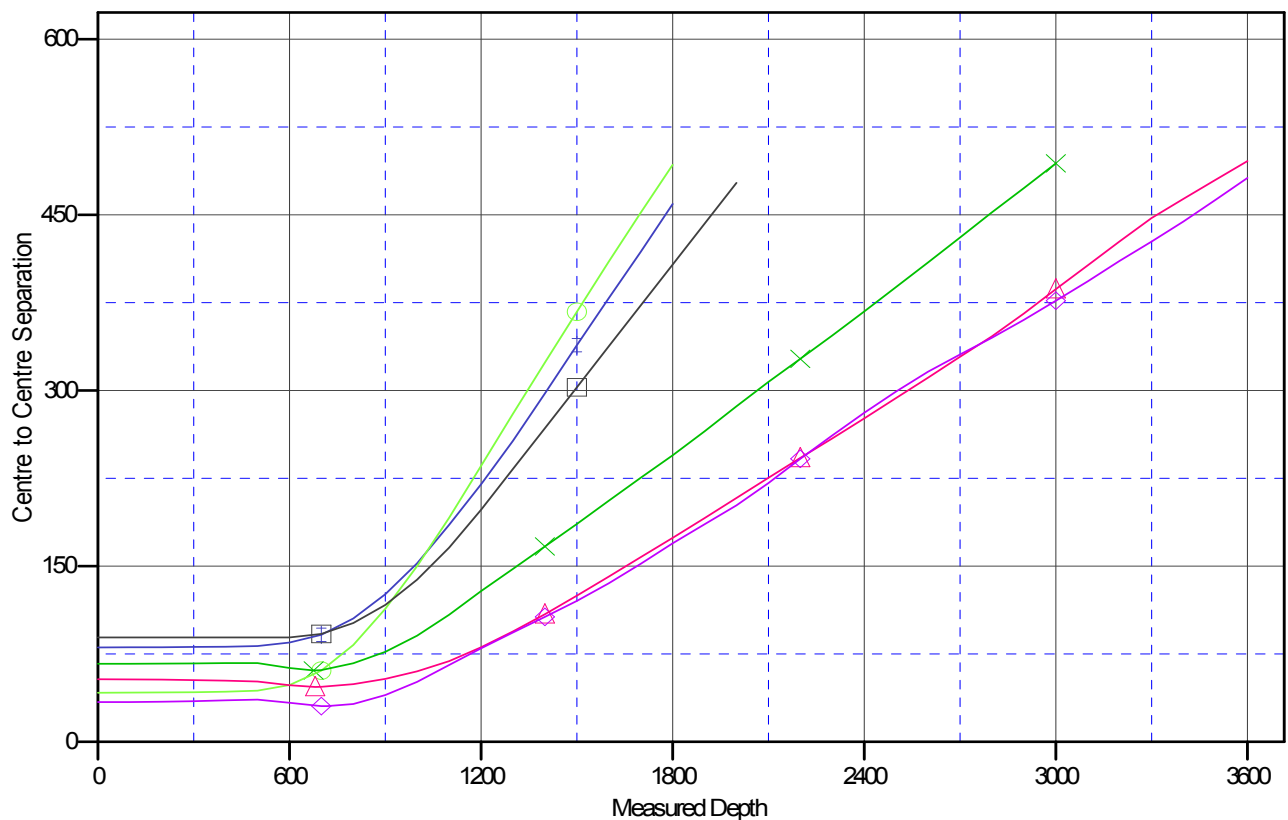
Central Meridian is -105.500000 °

Coordinates are relative to: Antelope L-29

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.74°

Ladder Plot



LEGEND

- Antelope 11-29 (G29 Pad), DD, DD V0
- Antelope 21-29 (G29 Pad), DD, DD V0
- Antelope F-29, OH, Plan #1 V0
- Antelope 12-29 (G29 Pad), DD, DD V0
- Antelope 22-29 (G29 Pad), DD, DD V0
- Antelope G29 (G29 Pad), DD, DD V0