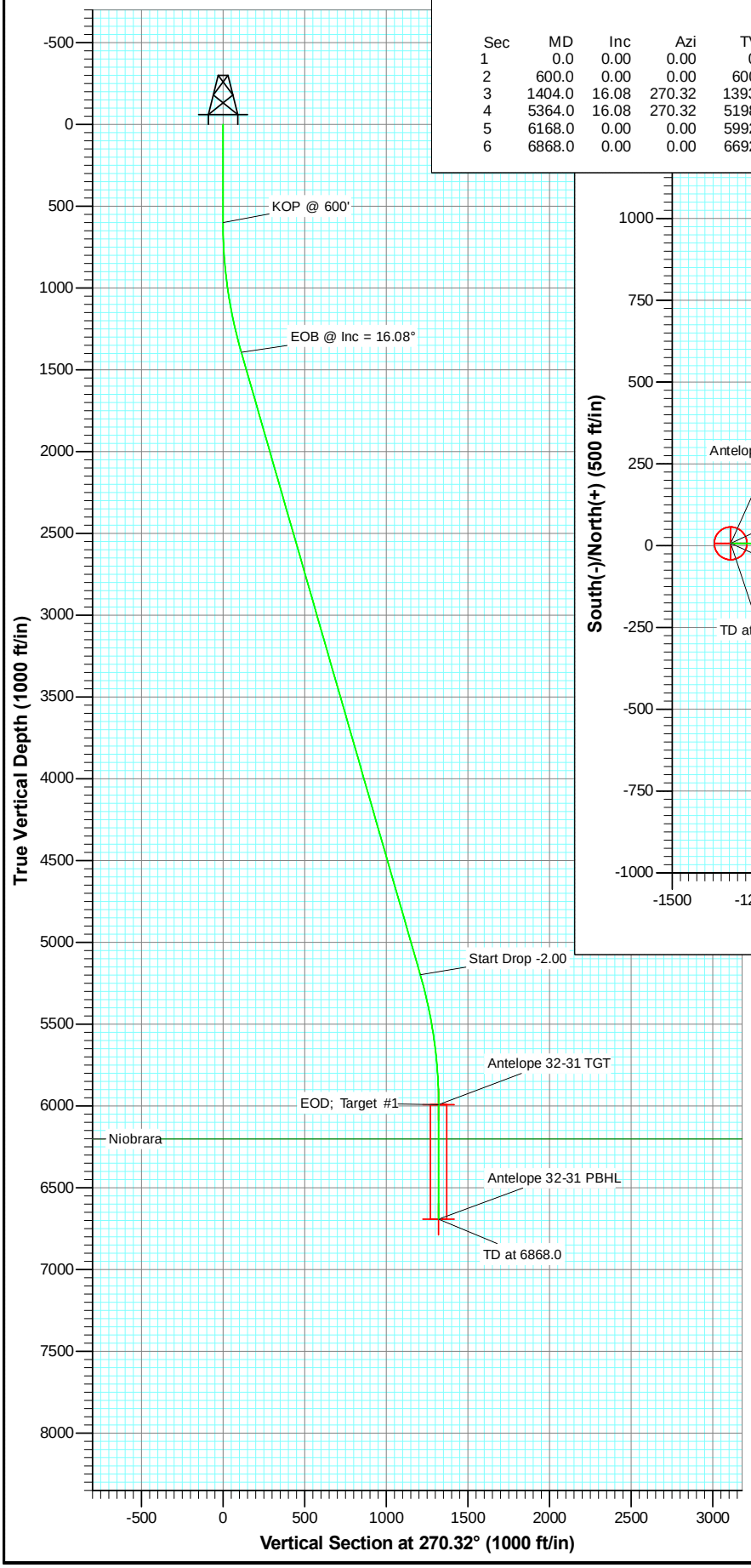
BONANZA CREEK ENERGY COMPANY

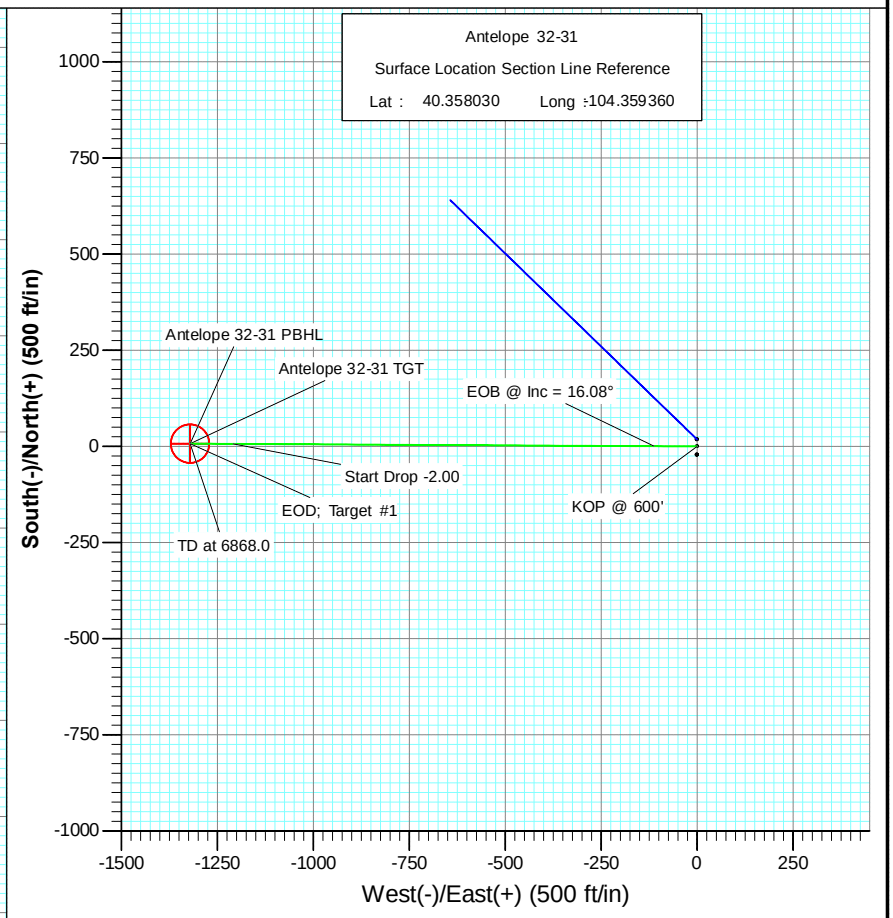
Project: Weld County
Site: Antelope 42-31 Pad
Well: Antelope 32-31
Wellbore: DD
Plan: Plan #1

CATHEDRAL

SECTION DETAILS

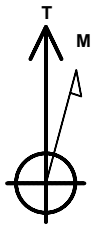
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DIeg	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	600.0	0.00	0.00	600.0	0.0	0.0	0.00	0.00	0.0	
3	1404.0	16.08	270.32	1393.5	0.6	-112.1	2.00	270.32	112.1	
4	5364.0	16.08	270.32	5198.5	6.7	-1208.9	0.00	0.00	1208.9	
5	6168.0	0.00	0.00	5992.0	7.3	-1321.0	2.00	180.00	1321.0	Antelope 32-31 TGT
6	6868.0	0.00	0.00	6692.0	7.3	-1321.0	0.00	0.00	1321.0	Antelope 32-31 PBHL





FORMATION TOP DETAILS

TVDPath	MDPath	Formation
6202.0	6378.0	Niobrara



Azimuths to True North
Magnetic North: 8.71°

Magnetic Field
Strength: 53208.2snT
Dip Angle: 67.10°
Date: 12/13/2010
Model: IGRF2010

Plan #1
Antelope 32-31

WELL @ 4602.0ft (Original Well Elev)
North American Datum 1983
Well Antelope 32-31, True North

Type	Target	Azimuth	Origin Type	N/S	E/W	From TVD
TD	No Target (Freehand)	270.32	Slot	0.0	0.0	0.0

Name	TVD	+N/-S	+E/-W	Latitude	Longitude
Antelope 32-31 TGT	5992.0	7.3	-1321.0	40.358050	-104.364100
Antelope 32-31 PBHL	6692.0	7.3	-1321.0	40.358050	-104.364100

Planning Report

Database:	EDM 5000.1 US Multi Users DB	**Local Co-ordinate Reference:**	Well Antelope 32-31
Company:	Bonanza Creek Energy Operating Company, LLC	**TVD Reference:**	WELL @ 4602.0ft (Original Well Elev)
Project:	Weld County	**MD Reference:**	WELL @ 4602.0ft (Original Well Elev)
Site:	Antelope 42-31 Pad	**North Reference:**	True
Well:	Antelope 32-31	**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	Antelope 42-31 Pad				
Site Position:		**Northing:**	1,375,296.24 ft	**Latitude:**	40.357970
From:	Lat/Long	**Easting:**	3,317,874.88 ft	**Longitude:**	-104.359360
Position Uncertainty:	0.0 ft	**Slot Radius:**	13.200 in	**Grid Convergence:**	0.74 °

Well	Antelope 32-31					
Well Position	**+N/-S**	0.0 ft	**Northing:**	1,375,318.09 ft	**Latitude:**	40.358030
	+E/-W	0.0 ft	**Easting:**	3,317,874.59 ft	**Longitude:**	-104.359360
Position Uncertainty		0.0 ft	**Wellhead Elevation:**	ft	**Ground Level:**	4,592.0 ft

Wellbore	DD			
Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	IGRF2010	12/13/2010	8.71	67.10	53,208

Design	Plan #1				
Audit Notes:					
Version:		**Phase:**	PLAN	**Tie On Depth:**	0.0
Vertical Section:	**Depth From (TVD) (ft)**	**+N/-S (ft)**	**+E/-W (ft)**	**Direction (°)**	
	0.0	0.0	0.0	270.32	

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	
600.0	0.00	0.00	600.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,404.0	16.08	270.32	1,393.5	0.6	-112.1	2.00	2.00	0.00	270.32	
5,364.0	16.08	270.32	5,198.5	6.7	-1,208.9	0.00	0.00	0.00	0.00	
6,168.0	0.00	0.00	5,992.0	7.3	-1,321.0	2.00	-2.00	0.00	180.00	Antelope 32-31 TGT
6,868.0	0.00	0.00	6,692.0	7.3	-1,321.0	0.00	0.00	0.00	0.00	Antelope 32-31 PBHL

Database:	EDM 5000.1 US Multi Users DB	**Local Co-ordinate Reference:**	Well Antelope 32-31
Company:	Bonanza Creek Energy Operating Company, LLC	**TVD Reference:**	WELL @ 4602.0ft (Original Well Elev)
Project:	Weld County	**MD Reference:**	WELL @ 4602.0ft (Original Well Elev)
Site:	Antelope 42-31 Pad	**North Reference:**	True
Well:	Antelope 32-31	**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	
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	KOP @ 600'
700.0	2.00	270.32	700.0	0.0	-1.7	1.7	2.00	2.00	
800.0	4.00	270.32	799.8	0.0	-7.0	7.0	2.00	2.00	
900.0	6.00	270.32	899.5	0.1	-15.7	15.7	2.00	2.00	
1,000.0	8.00	270.32	998.7	0.2	-27.9	27.9	2.00	2.00	
1,100.0	10.00	270.32	1,097.5	0.2	-43.5	43.5	2.00	2.00	
1,200.0	12.00	270.32	1,195.6	0.3	-62.6	62.6	2.00	2.00	
1,300.0	14.00	270.32	1,293.1	0.5	-85.1	85.1	2.00	2.00	
1,400.0	16.00	270.32	1,389.6	0.6	-111.0	111.0	2.00	2.00	
1,404.0	16.08	270.32	1,393.5	0.6	-112.1	112.1	2.00	2.00	EOB @ Inc = 16.08°
1,500.0	16.08	270.32	1,485.7	0.8	-138.7	138.7	0.00	0.00	
1,600.0	16.08	270.32	1,581.8	0.9	-166.4	166.4	0.00	0.00	
1,700.0	16.08	270.32	1,677.9	1.1	-194.1	194.1	0.00	0.00	
1,800.0	16.08	270.32	1,774.0	1.2	-221.8	221.8	0.00	0.00	
1,900.0	16.08	270.32	1,870.1	1.4	-249.5	249.5	0.00	0.00	
2,000.0	16.08	270.32	1,966.2	1.5	-277.2	277.2	0.00	0.00	
2,100.0	16.08	270.32	2,062.3	1.7	-304.9	304.9	0.00	0.00	
2,200.0	16.08	270.32	2,158.3	1.8	-332.6	332.6	0.00	0.00	
2,300.0	16.08	270.32	2,254.4	2.0	-360.2	360.3	0.00	0.00	
2,400.0	16.08	270.32	2,350.5	2.2	-387.9	388.0	0.00	0.00	
2,500.0	16.08	270.32	2,446.6	2.3	-415.6	415.6	0.00	0.00	
2,600.0	16.08	270.32	2,542.7	2.5	-443.3	443.3	0.00	0.00	
2,700.0	16.08	270.32	2,638.8	2.6	-471.0	471.0	0.00	0.00	
2,800.0	16.08	270.32	2,734.9	2.8	-498.7	498.7	0.00	0.00	
2,900.0	16.08	270.32	2,831.0	2.9	-526.4	526.4	0.00	0.00	
3,000.0	16.08	270.32	2,927.0	3.1	-554.1	554.1	0.00	0.00	
3,100.0	16.08	270.32	3,023.1	3.2	-581.8	581.8	0.00	0.00	
3,200.0	16.08	270.32	3,119.2	3.4	-609.5	609.5	0.00	0.00	
3,300.0	16.08	270.32	3,215.3	3.5	-637.2	637.2	0.00	0.00	
3,400.0	16.08	270.32	3,311.4	3.7	-664.9	664.9	0.00	0.00	
3,500.0	16.08	270.32	3,407.5	3.8	-692.6	692.6	0.00	0.00	
3,600.0	16.08	270.32	3,503.6	4.0	-720.3	720.3	0.00	0.00	
3,700.0	16.08	270.32	3,599.7	4.1	-748.0	748.0	0.00	0.00	
3,800.0	16.08	270.32	3,695.7	4.3	-775.7	775.7	0.00	0.00	
3,900.0	16.08	270.32	3,791.8	4.5	-803.4	803.4	0.00	0.00	
4,000.0	16.08	270.32	3,887.9	4.6	-831.1	831.1	0.00	0.00	
4,100.0	16.08	270.32	3,984.0	4.8	-858.8	858.8	0.00	0.00	
4,200.0	16.08	270.32	4,080.1	4.9	-886.5	886.5	0.00	0.00	
4,300.0	16.08	270.32	4,176.2	5.1	-914.2	914.2	0.00	0.00	
4,400.0	16.08	270.32	4,272.3	5.2	-941.9	941.9	0.00	0.00	
4,500.0	16.08	270.32	4,368.4	5.4	-969.6	969.6	0.00	0.00	
4,600.0	16.08	270.32	4,464.4	5.5	-997.3	997.3	0.00	0.00	
4,700.0	16.08	270.32	4,560.5	5.7	-1,025.0	1,025.0	0.00	0.00	
4,800.0	16.08	270.32	4,656.6	5.8	-1,052.7	1,052.7	0.00	0.00	
4,900.0	16.08	270.32	4,752.7	6.0	-1,080.4	1,080.4	0.00	0.00	
5,000.0	16.08	270.32	4,848.8	6.1	-1,108.1	1,108.1	0.00	0.00	

Database:	EDM 5000.1 US Multi Users DB	**Local Co-ordinate Reference:**	Well Antelope 32-31
Company:	Bonanza Creek Energy Operating Company, LLC	**TVD Reference:**	WELL @ 4602.0ft (Original Well Elev)
Project:	Weld County	**MD Reference:**	WELL @ 4602.0ft (Original Well Elev)
Site:	Antelope 42-31 Pad	**North Reference:**	True
Well:	Antelope 32-31	**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
5,100.0	16.08	270.32	4,944.9	6.3	-1,135.8	1,135.8	0.00	0.00	
5,200.0	16.08	270.32	5,041.0	6.5	-1,163.5	1,163.5	0.00	0.00	
5,300.0	16.08	270.32	5,137.1	6.6	-1,191.2	1,191.2	0.00	0.00	
5,364.0	16.08	270.32	5,198.5	6.7	-1,208.9	1,208.9	0.00	0.00	Start Drop -2.00
5,400.0	15.36	270.32	5,233.2	6.8	-1,218.6	1,218.7	2.00	-2.00	
5,500.0	13.36	270.32	5,330.1	6.9	-1,243.4	1,243.5	2.00	-2.00	
5,600.0	11.36	270.32	5,427.8	7.0	-1,264.8	1,264.9	2.00	-2.00	
5,700.0	9.36	270.32	5,526.1	7.1	-1,282.8	1,282.8	2.00	-2.00	
5,800.0	7.36	270.32	5,625.1	7.2	-1,297.4	1,297.4	2.00	-2.00	
5,900.0	5.36	270.32	5,724.4	7.3	-1,308.4	1,308.5	2.00	-2.00	
6,000.0	3.36	270.32	5,824.1	7.3	-1,316.0	1,316.1	2.00	-2.00	
6,100.0	1.36	270.32	5,924.1	7.3	-1,320.2	1,320.2	2.00	-2.00	
6,168.0	0.00	0.00	5,992.0	7.3	-1,321.0	1,321.0	2.00	-2.00	EOD; Target #1 - Antelope 32-31 TGT
6,200.0	0.00	0.00	6,024.0	7.3	-1,321.0	1,321.0	0.00	0.00	
6,300.0	0.00	0.00	6,124.0	7.3	-1,321.0	1,321.0	0.00	0.00	
6,378.0	0.00	0.00	6,202.0	7.3	-1,321.0	1,321.0	0.00	0.00	Niobrara
6,400.0	0.00	0.00	6,224.0	7.3	-1,321.0	1,321.0	0.00	0.00	
6,500.0	0.00	0.00	6,324.0	7.3	-1,321.0	1,321.0	0.00	0.00	
6,600.0	0.00	0.00	6,424.0	7.3	-1,321.0	1,321.0	0.00	0.00	
6,700.0	0.00	0.00	6,524.0	7.3	-1,321.0	1,321.0	0.00	0.00	
6,800.0	0.00	0.00	6,624.0	7.3	-1,321.0	1,321.0	0.00	0.00	
6,868.0	0.00	0.00	6,692.0	7.3	-1,321.0	1,321.0	0.00	0.00	TD at 6868.0 - Antelope 32-31 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
Antelope 32-31 TGT - plan hits target center - Point	0.00	0.00	5,992.0	7.3	-1,321.0	1,375,308.42	3,316,553.65	40.358050	-104.364100
Antelope 32-31 PBHL - plan hits target center - Circle (radius 50.0)	0.00	0.00	6,692.0	7.3	-1,321.0	1,375,308.42	3,316,553.65	40.358050	-104.364100

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
6,378.0	6,202.0	Niobrara		0.00	

Database:	EDM 5000.1 US Multi Users DB	**Local Co-ordinate Reference:**	Well Antelope 32-31
Company:	Bonanza Creek Energy Operating Company, LLC	**TVD Reference:**	WELL @ 4602.0ft (Original Well Elev)
Project:	Weld County	**MD Reference:**	WELL @ 4602.0ft (Original Well Elev)
Site:	Antelope 42-31 Pad	**North Reference:**	True
Well:	Antelope 32-31	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
600.0	600.0	0.0	0.0	KOP @ 600'
1,404.0	1,393.5	0.6	-112.1	EOB @ Inc = 16.08°
5,364.0	5,198.5	6.7	-1,208.9	Start Drop -2.00
6,168.0	5,992.0	7.3	-1,321.0	EOD; Target #1
6,868.0	6,692.0	7.3	-1,321.0	TD at 6868.0