

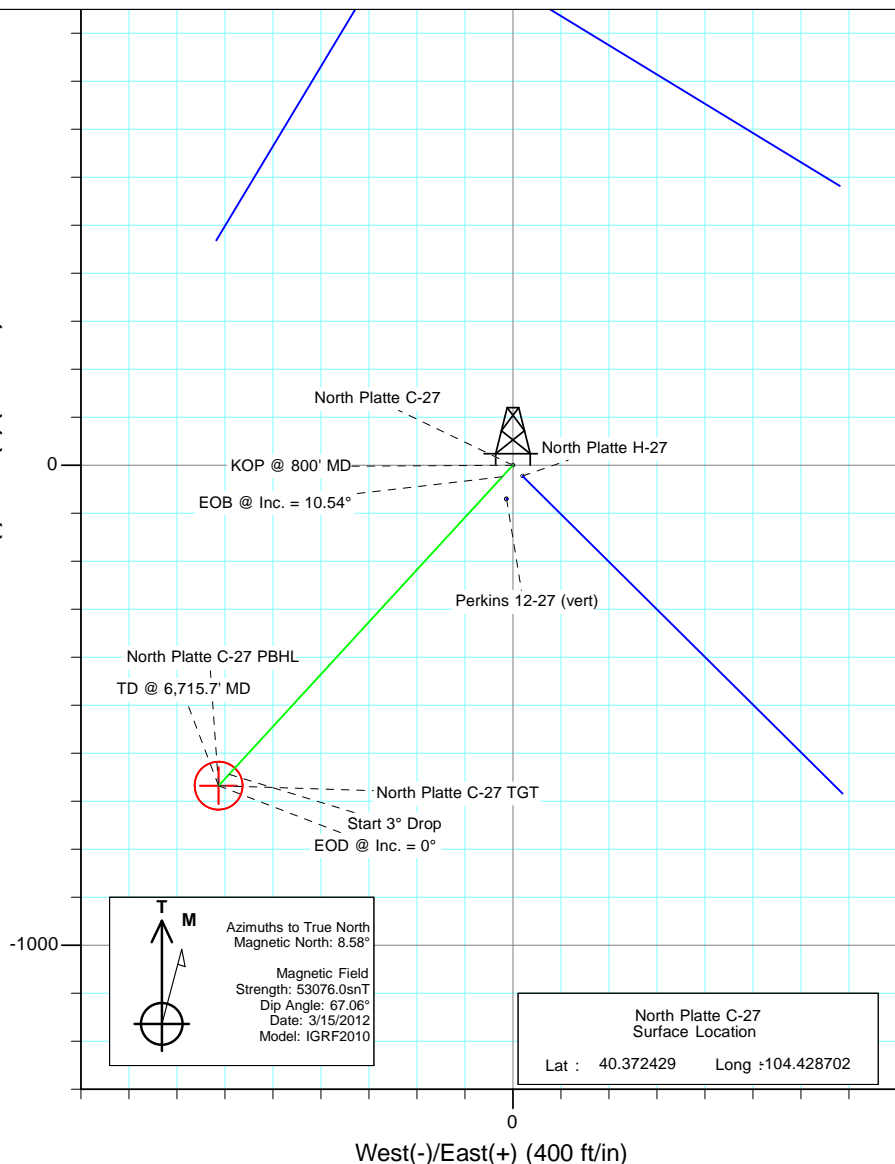
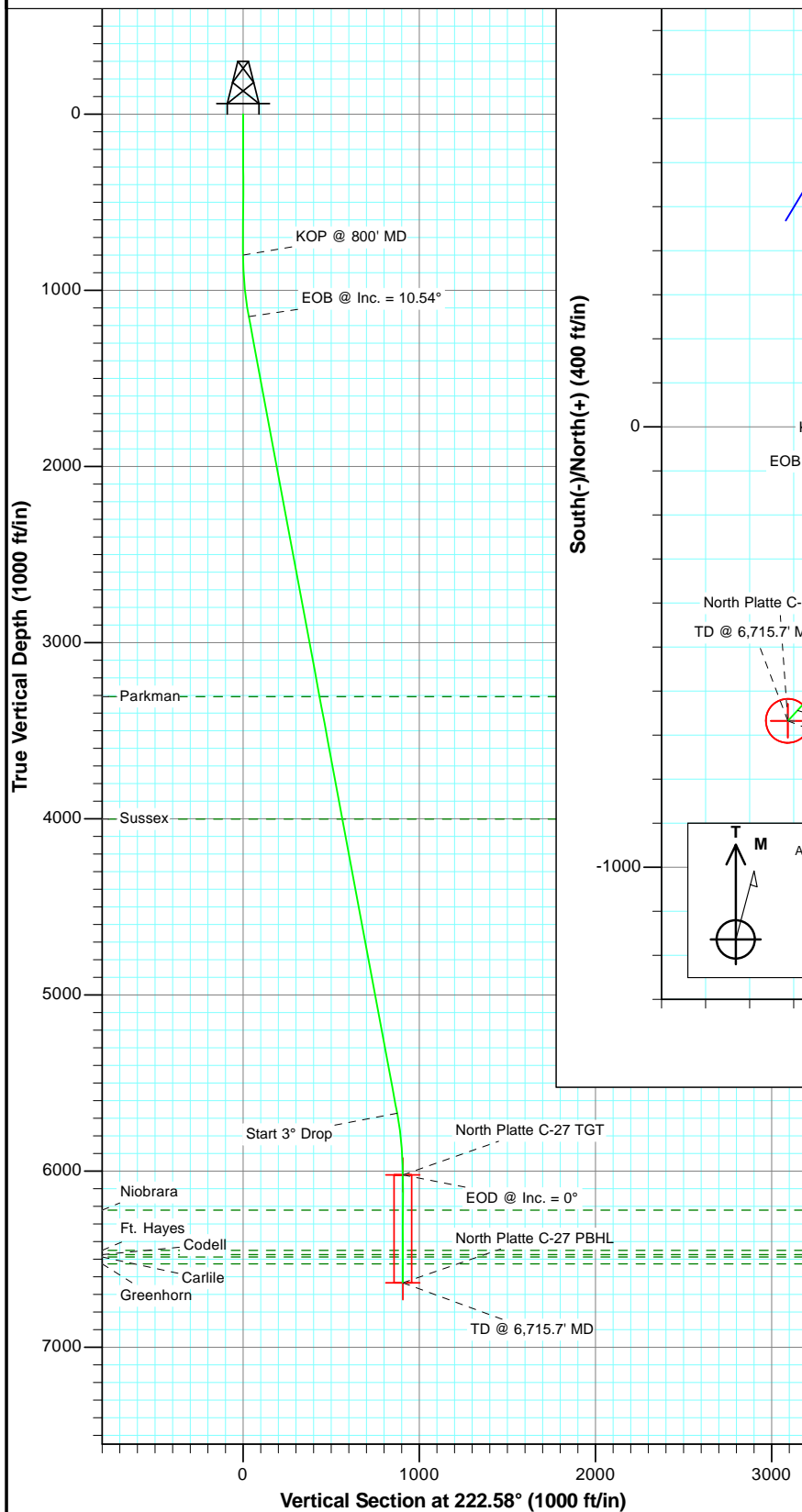


Project: Weld County
Site: Perkins 12-27 Pad
Well: North Platte C-27
Wellbore: OH
Plan: Plan #2



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	800.0	0.00	0.00	800.0	0.0	0.0	0.00	0.00	0.0	
3	1151.5	10.54	222.58	1149.5	-23.7	-21.8	3.00	222.58	32.3	
4	5752.2	10.54	222.58	5672.5	-643.7	-591.4	0.00	0.00	874.2	
5	6103.7	0.00	0.00	6022.0	-667.5	-613.3	3.00	180.00	906.4	North Platte C-27 TGT
6	6715.7	0.00	0.00	6634.0	-667.5	-613.3	0.00	0.00	906.4	North Platte C-27 PBHL



FORMATION TOP DETAILS

TVDPPath	MDPath	Formation
3307.0	3346.0	Parkman
4002.0	4053.0	Sussex
6222.0	6303.7	Niobrara
6450.0	6531.7	Ft. Hayes
6474.0	6555.7	Codell
6488.0	6569.7	Carlile
6527.0	6608.7	Greenhorn

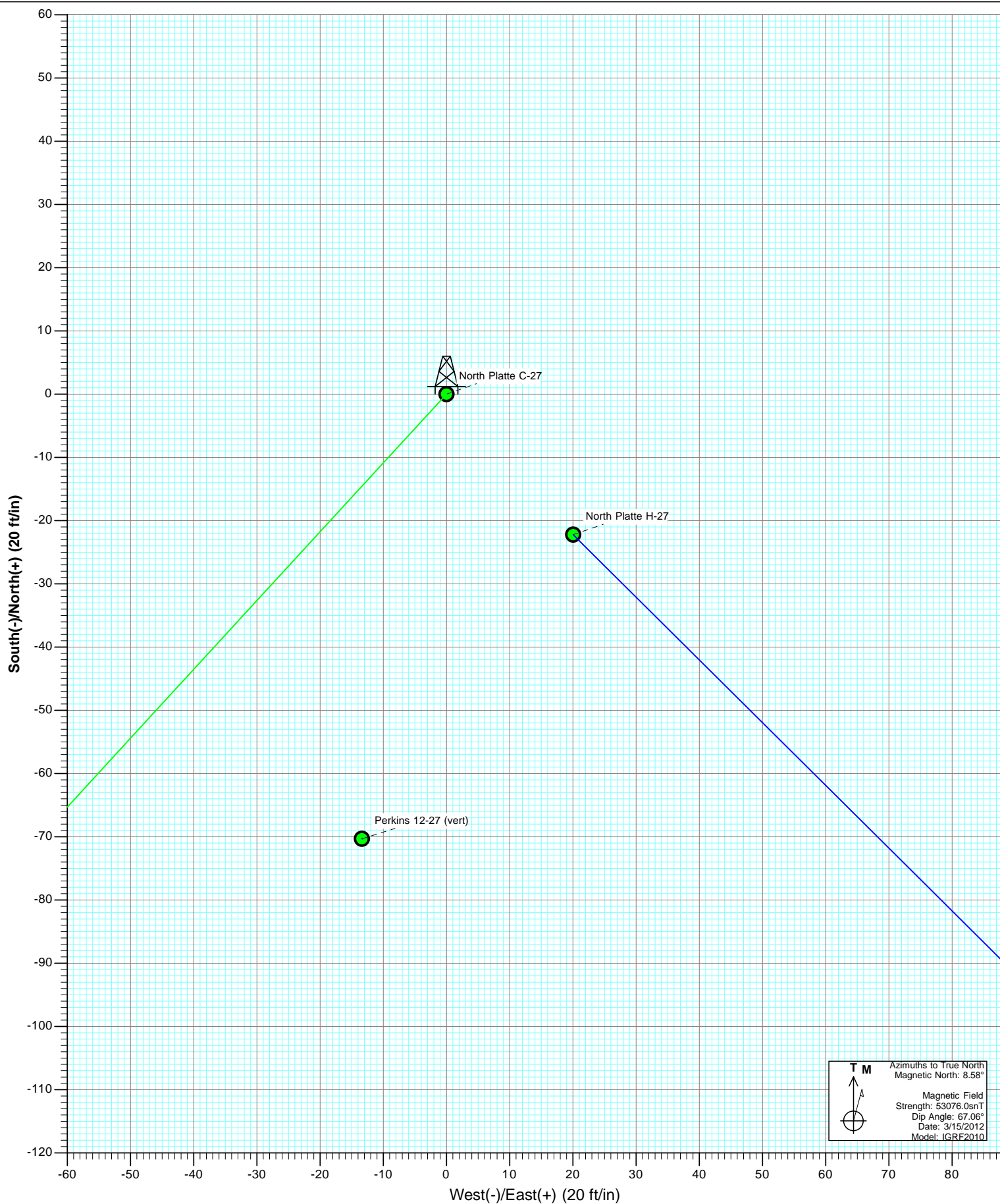
Plan #2
North Platte C-27
125XXX; SC

KBE @ 4552.0ft
North American Datum 1983
Well North Platte C-27, True North

Type	Target	TVDP	MD	Azimuth	Origin	Type	N/S	E/W	From TVD
TD	No Target (Freehand)	222.58	Slot	0.0	0.0				0.0
Name	North Platte C-27 TGT	TVDP	+N/-S	+E/-W	Latitude	Longitude			
	North Platte C-27 TGT	6022.0	-667.5	-613.3	40.370597	-104.430903			
	North Platte C-27 PBHL	6634.0	-667.5	-613.3	40.370597	-104.430903			

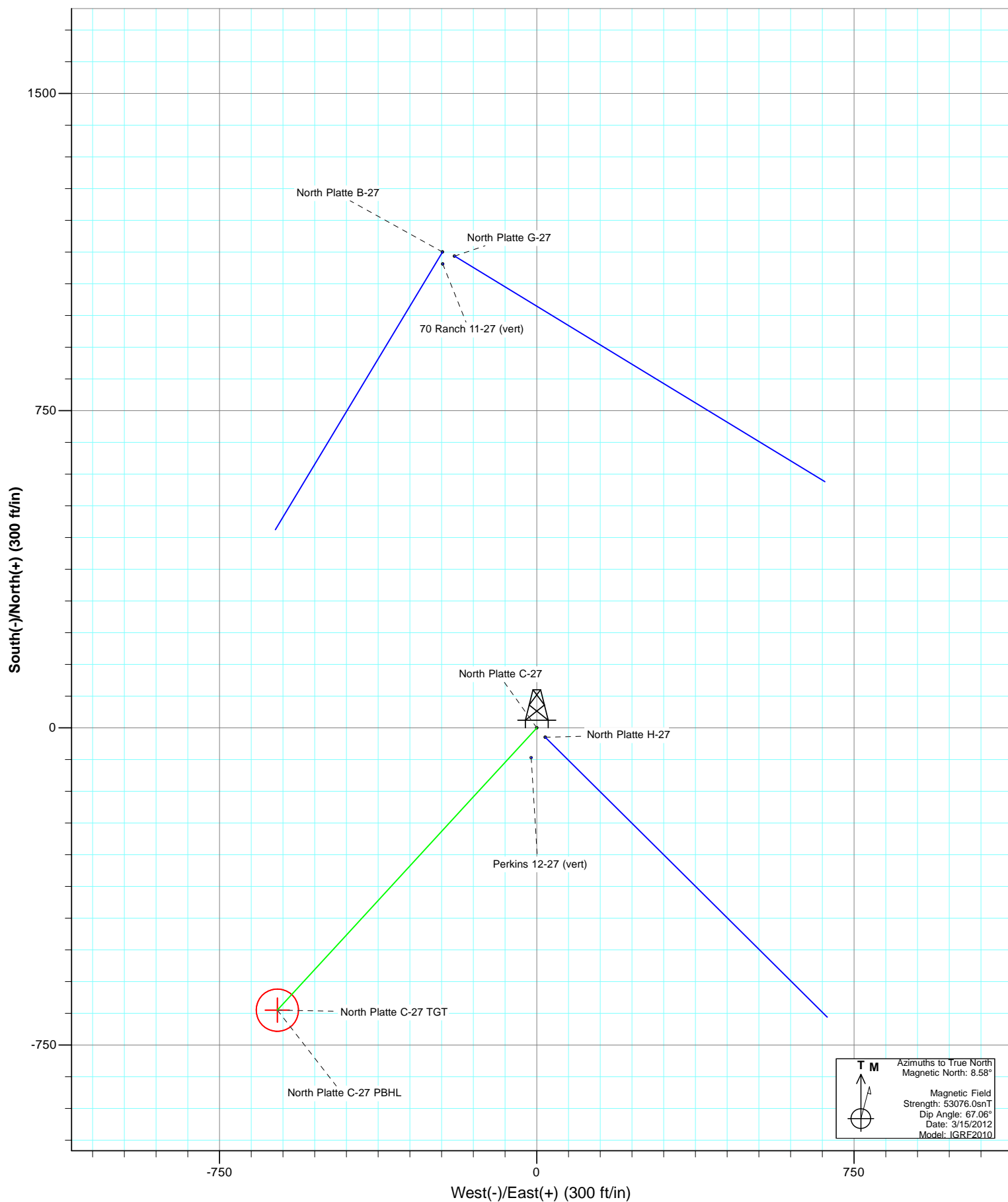


Project: Weld County
Site: Perkins 12-27 Pad
Well: North Platte C-27
Wellbore: OH
Plan: Plan #2



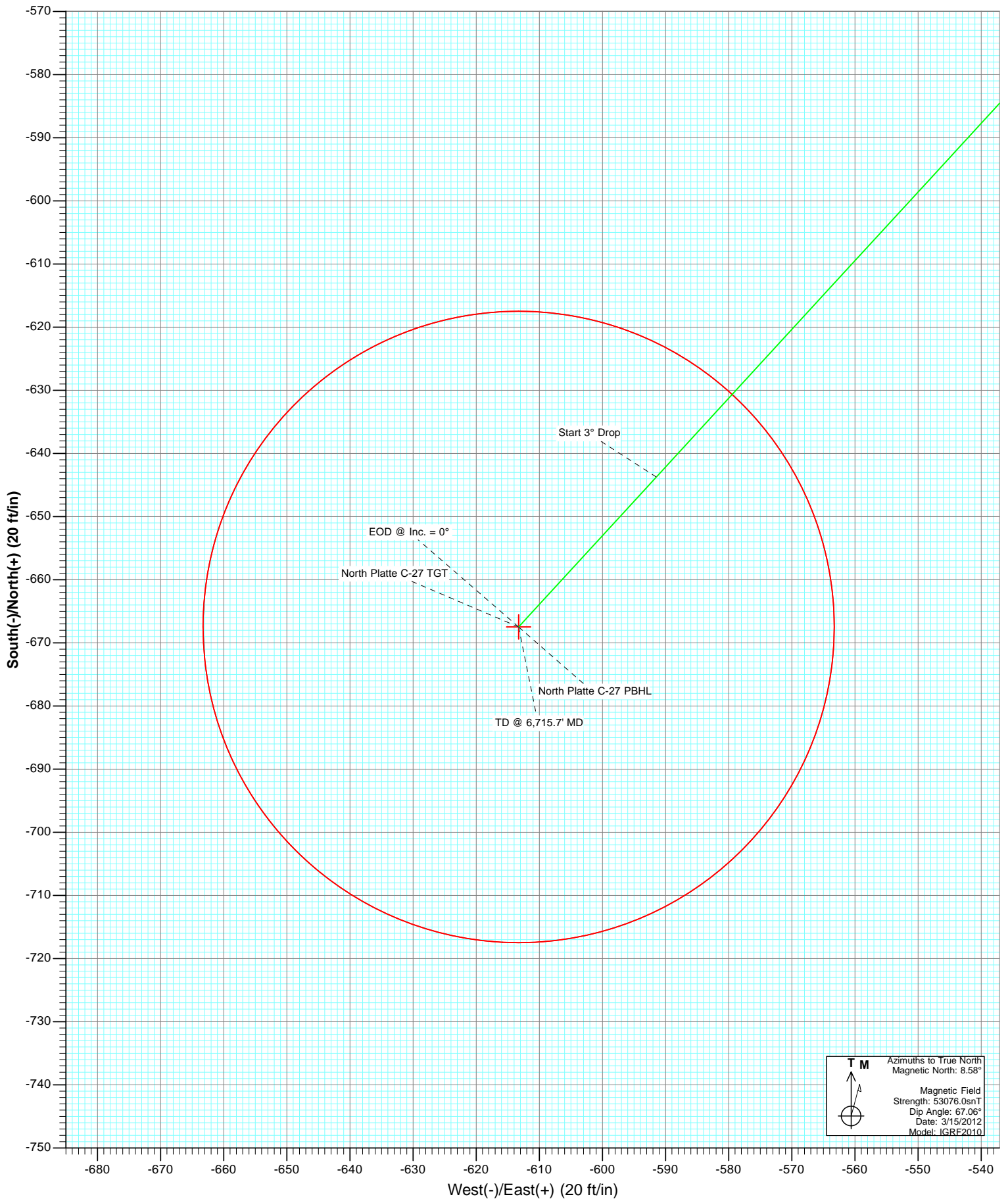


Project: Weld County
Site: Perkins 12-27 Pad
Well: North Platte C-27
Wellbore: OH
Plan: Plan #2





Project: Weld County
Site: Perkins 12-27 Pad
Well: North Platte C-27
Wellbore: OH
Plan: Plan #2



Cathedral Energy Services

Survey Report

Company:	Bonanza Creek Energy Operating Company, LLC	Local Co-ordinate Reference:	Well North Platte C-27
Project:	Weld County	TVD Reference:	KBE @ 4552.0ft
Site:	Perkins 12-27 Pad	MD Reference:	KBE @ 4552.0ft
Well:	North Platte C-27	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #2	Database:	USA EDM 5000 Multi Users DB

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		Perkins 12-27 Pad			
Site Position:		Northing:	1,380,251.72 ft	Latitude:	40.372236
From:	Lat/Long	Easting:	3,298,475.74 ft	Longitude:	-104.428750
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	0.69 °

Well	North Platte C-27					
Well Position	+N/-S	0.0 ft	Northing:	1,380,322.16 ft	Latitude:	40.372429
	+E/-W	0.0 ft	Easting:	3,298,488.27 ft	Longitude:	-104.428702
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,542.0 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	3/15/2012	8.58	67.06	53,076

Design	Plan #2			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	222.58

Survey Tool Program	Date	3/16/2012		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.0	6,715.7	Plan #2 (OH)	MWD	Geolink MWD

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)	Formations / Comments
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	
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	KOP @ 800' MD
900.0	3.00	222.58	900.0	-1.9	-1.8	2.6	3.00	3.00	
1,000.0	6.00	222.58	999.6	-7.7	-7.1	10.5	3.00	3.00	
1,100.0	9.00	222.58	1,098.8	-17.3	-15.9	23.5	3.00	3.00	
1,151.5	10.54	222.58	1,149.5	-23.7	-21.8	32.3	3.00	3.00	EOB @ Inc. = 10.54°

Cathedral Energy Services

Survey Report

Company:	Bonanza Creek Energy Operating Company, LLC	Local Co-ordinate Reference:	Well North Platte C-27
Project:	Weld County	TVD Reference:	KBE @ 4552.0ft
Site:	Perkins 12-27 Pad	MD Reference:	KBE @ 4552.0ft
Well:	North Platte C-27	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #2	Database:	USA EDM 5000 Multi Users DB

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)	Formations / Comments
1,200.0	10.54	222.58	1,197.2	-30.3	-27.8	41.1	0.00	0.00	
1,300.0	10.54	222.58	1,295.5	-43.8	-40.2	59.4	0.00	0.00	
1,400.0	10.54	222.58	1,393.8	-57.2	-52.6	77.7	0.00	0.00	
1,500.0	10.54	222.58	1,492.1	-70.7	-65.0	96.0	0.00	0.00	
1,600.0	10.54	222.58	1,590.4	-84.2	-77.4	114.3	0.00	0.00	
1,700.0	10.54	222.58	1,688.8	-97.7	-89.7	132.6	0.00	0.00	
1,800.0	10.54	222.58	1,787.1	-111.1	-102.1	150.9	0.00	0.00	
1,900.0	10.54	222.58	1,885.4	-124.6	-114.5	169.2	0.00	0.00	
2,000.0	10.54	222.58	1,983.7	-138.1	-126.9	187.5	0.00	0.00	
2,100.0	10.54	222.58	2,082.0	-151.6	-139.3	205.8	0.00	0.00	
2,200.0	10.54	222.58	2,180.3	-165.0	-151.6	224.1	0.00	0.00	
2,300.0	10.54	222.58	2,278.6	-178.5	-164.0	242.4	0.00	0.00	
2,400.0	10.54	222.58	2,376.9	-192.0	-176.4	260.7	0.00	0.00	
2,500.0	10.54	222.58	2,475.2	-205.5	-188.8	279.0	0.00	0.00	
2,600.0	10.54	222.58	2,573.6	-218.9	-201.2	297.3	0.00	0.00	
2,700.0	10.54	222.58	2,671.9	-232.4	-213.5	315.6	0.00	0.00	
2,800.0	10.54	222.58	2,770.2	-245.9	-225.9	333.9	0.00	0.00	
2,900.0	10.54	222.58	2,868.5	-259.4	-238.3	352.2	0.00	0.00	
3,000.0	10.54	222.58	2,966.8	-272.8	-250.7	370.5	0.00	0.00	
3,100.0	10.54	222.58	3,065.1	-286.3	-263.1	388.8	0.00	0.00	
3,200.0	10.54	222.58	3,163.4	-299.8	-275.5	407.1	0.00	0.00	
3,300.0	10.54	222.58	3,261.7	-313.3	-287.8	425.4	0.00	0.00	
3,346.0	10.54	222.58	3,307.0	-319.5	-293.5	433.9	0.00	0.00	Parkman
3,400.0	10.54	222.58	3,360.0	-326.8	-300.2	443.7	0.00	0.00	
3,500.0	10.54	222.58	3,458.4	-340.2	-312.6	462.0	0.00	0.00	
3,600.0	10.54	222.58	3,556.7	-353.7	-325.0	480.3	0.00	0.00	
3,700.0	10.54	222.58	3,655.0	-367.2	-337.4	498.6	0.00	0.00	
3,800.0	10.54	222.58	3,753.3	-380.7	-349.7	516.9	0.00	0.00	
3,900.0	10.54	222.58	3,851.6	-394.1	-362.1	535.2	0.00	0.00	
4,000.0	10.54	222.58	3,949.9	-407.6	-374.5	553.5	0.00	0.00	
4,053.0	10.54	222.58	4,002.0	-414.7	-381.1	563.2	0.00	0.00	Sussex
4,100.0	10.54	222.58	4,048.2	-421.1	-386.9	571.8	0.00	0.00	
4,200.0	10.54	222.58	4,146.5	-434.6	-399.3	590.1	0.00	0.00	
4,300.0	10.54	222.58	4,244.8	-448.0	-411.6	608.4	0.00	0.00	
4,400.0	10.54	222.58	4,343.2	-461.5	-424.0	626.7	0.00	0.00	
4,500.0	10.54	222.58	4,441.5	-475.0	-436.4	645.0	0.00	0.00	
4,600.0	10.54	222.58	4,539.8	-488.5	-448.8	663.3	0.00	0.00	
4,700.0	10.54	222.58	4,638.1	-501.9	-461.2	681.6	0.00	0.00	
4,800.0	10.54	222.58	4,736.4	-515.4	-473.6	699.9	0.00	0.00	
4,900.0	10.54	222.58	4,834.7	-528.9	-485.9	718.2	0.00	0.00	
5,000.0	10.54	222.58	4,933.0	-542.4	-498.3	736.5	0.00	0.00	
5,100.0	10.54	222.58	5,031.3	-555.8	-510.7	754.8	0.00	0.00	
5,200.0	10.54	222.58	5,129.7	-569.3	-523.1	773.1	0.00	0.00	
5,300.0	10.54	222.58	5,228.0	-582.8	-535.5	791.4	0.00	0.00	
5,400.0	10.54	222.58	5,326.3	-596.3	-547.8	809.7	0.00	0.00	
5,500.0	10.54	222.58	5,424.6	-609.7	-560.2	828.0	0.00	0.00	
5,600.0	10.54	222.58	5,522.9	-623.2	-572.6	846.3	0.00	0.00	
5,700.0	10.54	222.58	5,621.2	-636.7	-585.0	864.6	0.00	0.00	
5,752.2	10.54	222.58	5,672.5	-643.7	-591.4	874.2	0.00	0.00	Start 3° Drop
5,800.0	9.11	222.58	5,719.6	-649.7	-597.0	882.3	3.00	-3.00	
5,900.0	6.11	222.58	5,818.7	-659.5	-605.9	895.6	3.00	-3.00	
6,000.0	3.11	222.58	5,918.4	-665.4	-611.4	903.6	3.00	-3.00	
6,103.7	0.00	0.00	6,022.0	-667.5	-613.3	906.4	3.00	-3.00	EOD @ Inc. = 0°

Cathedral Energy Services

Survey Report

Company:	Bonanza Creek Energy Operating Company, LLC	Local Co-ordinate Reference:	Well North Platte C-27
Project:	Weld County	TVD Reference:	KBE @ 4552.0ft
Site:	Perkins 12-27 Pad	MD Reference:	KBE @ 4552.0ft
Well:	North Platte C-27	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #2	Database:	USA EDM 5000 Multi Users DB

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)	Formations / Comments
6,200.0	0.00	0.00	6,118.3	-667.5	-613.3	906.4	0.00	0.00	
6,300.0	0.00	0.00	6,218.3	-667.5	-613.3	906.4	0.00	0.00	
6,303.7	0.00	0.00	6,222.0	-667.5	-613.3	906.4	0.00	0.00	Niobrara
6,400.0	0.00	0.00	6,318.3	-667.5	-613.3	906.4	0.00	0.00	
6,500.0	0.00	0.00	6,418.3	-667.5	-613.3	906.4	0.00	0.00	
6,531.7	0.00	0.00	6,450.0	-667.5	-613.3	906.4	0.00	0.00	Ft. Hayes
6,555.7	0.00	0.00	6,474.0	-667.5	-613.3	906.4	0.00	0.00	Codell
6,569.7	0.00	0.00	6,488.0	-667.5	-613.3	906.4	0.00	0.00	Carlile
6,600.0	0.00	0.00	6,518.3	-667.5	-613.3	906.4	0.00	0.00	
6,608.7	0.00	0.00	6,527.0	-667.5	-613.3	906.4	0.00	0.00	Greenhorn
6,700.0	0.00	0.00	6,618.3	-667.5	-613.3	906.4	0.00	0.00	
6,715.7	0.00	0.00	6,634.0	-667.5	-613.3	906.4	0.00	0.00	TD @ 6,715.7' MD

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
North Platte C-27 PBHL - plan hits target center - Circle (radius 50.0)	0.00	0.00	6,634.0	-667.5	-613.3	1,379,647.33	3,297,883.11	40.370597	-104.430903
North Platte C-27 TGT - plan hits target center - Point	0.00	0.00	6,022.0	-667.5	-613.3	1,379,647.33	3,297,883.11	40.370597	-104.430903

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,346.0	3,307.0	Parkman			
4,053.0	4,002.0	Sussex			
6,303.7	6,222.0	Niobrara			
6,531.7	6,450.0	Ft. Hayes			
6,555.7	6,474.0	Codell			
6,569.7	6,488.0	Carlile			
6,608.7	6,527.0	Greenhorn			

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
800.0	800.0	0.0	0.0	KOP @ 800' MD
1,151.5	1,149.5	-23.7	-21.8	EOB @ Inc. = 10.54°
5,752.2	5,672.5	-643.7	-591.4	Start 3° Drop
6,103.7	6,022.0	-667.5	-613.3	EOD @ Inc. = 0°
6,715.7	6,634.0	-667.5	-613.3	TD @ 6,715.7' MD

Checked By: _____ Approved By: _____ Date: _____

Bonanza Creek Energy Operating Company, LLC

Weld County

Perkins 12-27 Pad

North Platte C-27

OH

Plan #2

Anticollision Report

16 March, 2012

Cathedral Energy Services

Anticollision Report

Company:	Bonanza Creek Energy Operating Company, LLC	Local Co-ordinate Reference:	Well North Platte C-27
Project:	Weld County	TVD Reference:	KBE @ 4552.0ft
Reference Site:	Perkins 12-27 Pad	MD Reference:	KBE @ 4552.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	North Platte C-27	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 #2	Offset TVD Reference:	Offset Datum

Reference	Plan #2		
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	3/16/2012		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0.0	6,715.7	Plan #2 (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						
70 Ranch 11-27 Pad						
70 Ranch 11-27 (vert) - OH - Plan #1						Out of range
North Platte B-27 - OH - Plan #1						Out of range
North Platte G-27 - OH - Plan #1						Out of range
Perkins 12-27 Pad						
North Platte H-27 - OH - Plan #2	0.0	0.0	29.9			
North Platte H-27 - OH - Plan #2	800.0	800.0	29.9	29.9	10,000.000	CC, ES
Perkins 12-27 (vert) - OH - Plan #1	0.0	0.0	71.6			
Perkins 12-27 (vert) - OH - Plan #1	1,307.6	1,303.0	37.7	37.7	10,000.000	CC, ES

Cathedral Energy Services

Anticollision Report

Company:	Bonanza Creek Energy Operating Company, LLC	Local Co-ordinate Reference:	Well North Platte C-27
Project:	Weld County	TVD Reference:	KBE @ 4552.0ft
Reference Site:	Perkins 12-27 Pad	MD Reference:	KBE @ 4552.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	North Platte C-27	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 #2	Offset TVD Reference:	Offset Datum

Offset Design Perkins 12-27 Pad - North Platte H-27 - OH - Plan #2												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	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Total Uncertainty Axis	Separation Factor	
(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	137.92	-22.2	20.1	29.9				
100.0	100.0	100.0	100.0	0.2	0.2	137.92	-22.2	20.1	29.9	29.9	0.00	N/A	
200.0	200.0	200.0	200.0	0.3	0.3	137.92	-22.2	20.1	29.9	29.9	0.00	N/A	
300.0	300.0	300.0	300.0	0.5	0.5	137.92	-22.2	20.1	29.9	29.9	0.00	N/A	
400.0	400.0	400.0	400.0	0.7	0.7	137.92	-22.2	20.1	29.9	29.9	0.00	N/A	
500.0	500.0	500.0	500.0	0.9	0.9	137.92	-22.2	20.1	29.9	29.9	0.00	N/A	
600.0	600.0	600.0	600.0	1.0	1.0	137.92	-22.2	20.1	29.9	29.9	0.00	N/A	
700.0	700.0	700.0	700.0	1.2	1.2	137.92	-22.2	20.1	29.9	29.9	0.00	N/A	
800.0	800.0	800.0	800.0	1.4	1.4	137.92	-22.2	20.1	29.9	29.9	0.00	N/A CC, ES	
900.0	900.0	898.3	898.3	1.6	1.6	-89.37	-24.0	21.9	32.4	32.4	0.00	N/A	
1,000.0	999.6	995.9	995.6	1.7	1.7	-99.72	-29.3	27.2	40.7	40.7	0.00	N/A	
1,100.0	1,098.8	1,092.0	1,090.9	2.0	2.0	-109.45	-37.9	35.9	56.3	56.3	0.00	N/A	
1,200.0	1,197.2	1,186.9	1,184.2	2.3	2.2	-116.24	-49.6	47.7	79.0	79.0	0.00	N/A	
1,300.0	1,295.5	1,283.5	1,279.2	2.5	2.5	-120.16	-62.5	60.7	103.9	103.9	0.00	N/A	
1,400.0	1,393.8	1,380.2	1,374.1	2.9	2.8	-122.56	-75.4	73.6	129.1	129.1	0.00	N/A	
1,500.0	1,492.1	1,476.9	1,469.0	3.2	3.1	-124.18	-88.3	86.6	154.4	154.4	0.00	N/A	
1,600.0	1,590.4	1,573.5	1,563.9	3.5	3.5	-125.34	-101.2	99.6	179.7	179.7	0.00	N/A	
1,700.0	1,688.8	1,670.2	1,658.9	3.9	3.8	-126.22	-114.1	112.6	205.2	205.2	0.00	N/A	
1,800.0	1,787.1	1,766.9	1,753.8	4.2	4.1	-126.90	-127.0	125.6	230.7	230.7	0.00	N/A	
1,900.0	1,885.4	1,863.5	1,848.7	4.5	4.5	-127.44	-139.8	138.6	256.2	256.2	0.00	N/A	
2,000.0	1,983.7	1,960.2	1,943.6	4.9	4.8	-127.89	-152.7	151.6	281.7	281.7	0.00	N/A	
2,100.0	2,082.0	2,056.9	2,038.5	5.2	5.2	-128.26	-165.6	164.5	307.2	307.2	0.00	N/A	
2,200.0	2,180.3	2,153.5	2,133.5	5.6	5.5	-128.58	-178.5	177.5	332.8	332.8	0.00	N/A	
2,300.0	2,278.6	2,250.2	2,228.4	6.0	5.9	-128.85	-191.4	190.5	358.3	358.3	0.00	N/A	
2,400.0	2,376.9	2,346.9	2,323.3	6.3	6.2	-129.09	-204.3	203.5	383.9	383.9	0.00	N/A	
2,500.0	2,475.2	2,443.5	2,418.2	6.7	6.6	-129.29	-217.2	216.5	409.4	409.4	0.00	N/A	
2,600.0	2,573.6	2,540.2	2,513.1	7.0	6.9	-129.47	-230.1	229.5	435.0	435.0	0.00	N/A	
2,700.0	2,671.9	2,636.9	2,608.1	7.4	7.3	-129.63	-242.9	242.4	460.6	460.6	0.00	N/A	
2,800.0	2,770.2	2,733.5	2,703.0	7.7	7.6	-129.78	-255.8	255.4	486.1	486.1	0.00	N/A	

Cathedral Energy Services

Anticollision Report

Company:	Bonanza Creek Energy Operating Company, LLC	Local Co-ordinate Reference:	Well North Platte C-27
Project:	Weld County	TVD Reference:	KBE @ 4552.0ft
Reference Site:	Perkins 12-27 Pad	MD Reference:	KBE @ 4552.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	North Platte C-27	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 #2	Offset TVD Reference:	Offset Datum

Offset Design Perkins 12-27 Pad - Perkins 12-27 (vert) - 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	-169.23	-70.3	-13.4	71.6					
100.0	100.0	100.0	100.0	0.2	0.2	-169.23	-70.3	-13.4	71.6	71.6	0.00	N/A		
200.0	200.0	200.0	200.0	0.3	0.3	-169.23	-70.3	-13.4	71.6	71.6	0.00	N/A		
300.0	300.0	300.0	300.0	0.5	0.5	-169.23	-70.3	-13.4	71.6	71.6	0.00	N/A		
400.0	400.0	400.0	400.0	0.7	0.7	-169.23	-70.3	-13.4	71.6	71.6	0.00	N/A		
500.0	500.0	500.0	500.0	0.9	0.9	-169.23	-70.3	-13.4	71.6	71.6	0.00	N/A		
600.0	600.0	600.0	600.0	1.0	1.0	-169.23	-70.3	-13.4	71.6	71.6	0.00	N/A		
700.0	700.0	700.0	700.0	1.2	1.2	-169.23	-70.3	-13.4	71.6	71.6	0.00	N/A		
800.0	800.0	800.0	800.0	1.4	1.4	-169.23	-70.3	-13.4	71.6	71.6	0.00	N/A		
900.0	900.0	900.0	900.0	1.6	1.6	-32.98	-70.3	-13.4	69.4	69.4	0.00	N/A		
1,000.0	999.6	999.6	999.6	1.7	1.7	-36.98	-70.3	-13.4	62.9	62.9	0.00	N/A		
1,100.0	1,098.8	1,098.8	1,098.8	2.0	1.9	-45.67	-70.3	-13.4	53.0	53.0	0.00	N/A		
1,200.0	1,197.2	1,197.2	1,197.2	2.3	2.1	-62.84	-70.3	-13.4	42.5	42.5	0.00	N/A		
1,300.0	1,295.5	1,295.5	1,295.5	2.5	2.2	-87.93	-70.3	-13.4	37.7	37.7	0.00	N/A		
1,307.6	1,303.0	1,303.0	1,303.0	2.6	2.3	-90.00	-70.3	-13.4	37.7	37.7	0.00	N/A	CC, ES	
1,400.0	1,393.8	1,393.8	1,393.8	2.9	2.4	-113.79	-70.3	-13.4	41.3	41.3	0.00	N/A		
1,500.0	1,492.1	1,492.1	1,492.1	3.2	2.6	-132.55	-70.3	-13.4	51.6	51.6	0.00	N/A		
1,600.0	1,590.4	1,590.4	1,590.4	3.5	2.8	-144.36	-70.3	-13.4	65.5	65.5	0.00	N/A		
1,700.0	1,688.8	1,688.8	1,688.8	3.9	2.9	-151.89	-70.3	-13.4	81.1	81.1	0.00	N/A		
1,800.0	1,787.1	1,787.1	1,787.1	4.2	3.1	-156.94	-70.3	-13.4	97.7	97.7	0.00	N/A		
1,900.0	1,885.4	1,885.4	1,885.4	4.5	3.3	-160.51	-70.3	-13.4	114.8	114.8	0.00	N/A		
2,000.0	1,983.7	1,983.7	1,983.7	4.9	3.4	-163.16	-70.3	-13.4	132.2	132.2	0.00	N/A		
2,100.0	2,082.0	2,082.0	2,082.0	5.2	3.6	-165.18	-70.3	-13.4	149.8	149.8	0.00	N/A		
2,200.0	2,180.3	2,180.3	2,180.3	5.6	3.8	-166.78	-70.3	-13.4	167.6	167.6	0.00	N/A		
2,300.0	2,278.6	2,278.6	2,278.6	6.0	4.0	-168.07	-70.3	-13.4	185.5	185.5	0.00	N/A		
2,400.0	2,376.9	2,376.9	2,376.9	6.3	4.1	-169.14	-70.3	-13.4	203.4	203.4	0.00	N/A		
2,500.0	2,475.2	2,475.2	2,475.2	6.7	4.3	-170.03	-70.3	-13.4	221.4	221.4	0.00	N/A		
2,600.0	2,573.6	2,573.6	2,573.6	7.0	4.5	-170.79	-70.3	-13.4	239.5	239.5	0.00	N/A		
2,700.0	2,671.9	2,671.9	2,671.9	7.4	4.6	-171.44	-70.3	-13.4	257.6	257.6	0.00	N/A		
2,800.0	2,770.2	2,770.2	2,770.2	7.7	4.8	-172.00	-70.3	-13.4	275.7	275.7	0.00	N/A		
2,900.0	2,868.5	2,868.5	2,868.5	8.1	5.0	-172.50	-70.3	-13.4	293.8	293.8	0.00	N/A		
3,000.0	2,966.8	2,966.8	2,966.8	8.5	5.2	-172.94	-70.3	-13.4	312.0	312.0	0.00	N/A		
3,100.0	3,065.1	3,065.1	3,065.1	8.8	5.3	-173.33	-70.3	-13.4	330.2	330.2	0.00	N/A		
3,200.0	3,163.4	3,163.4	3,163.4	9.2	5.5	-173.68	-70.3	-13.4	348.4	348.4	0.00	N/A		
3,300.0	3,261.7	3,261.7	3,261.7	9.5	5.7	-173.99	-70.3	-13.4	366.6	366.6	0.00	N/A		
3,400.0	3,360.0	3,360.0	3,360.0	9.9	5.8	-174.28	-70.3	-13.4	384.8	384.8	0.00	N/A		
3,500.0	3,458.4	3,458.4	3,458.4	10.3	6.0	-174.54	-70.3	-13.4	403.0	403.0	0.00	N/A		
3,600.0	3,556.7	3,556.7	3,556.7	10.6	6.2	-174.77	-70.3	-13.4	421.2	421.2	0.00	N/A		
3,700.0	3,655.0	3,655.0	3,655.0	11.0	6.4	-174.99	-70.3	-13.4	439.4	439.4	0.00	N/A		
3,800.0	3,753.3	3,753.3	3,753.3	11.4	6.5	-175.19	-70.3	-13.4	457.7	457.7	0.00	N/A		
3,900.0	3,851.6	3,851.6	3,851.6	11.7	6.7	-175.38	-70.3	-13.4	475.9	475.9	0.00	N/A		
4,000.0	3,949.9	3,949.9	3,949.9	12.1	6.9	-175.55	-70.3	-13.4	494.2	494.2	0.00	N/A		

Cathedral Energy Services

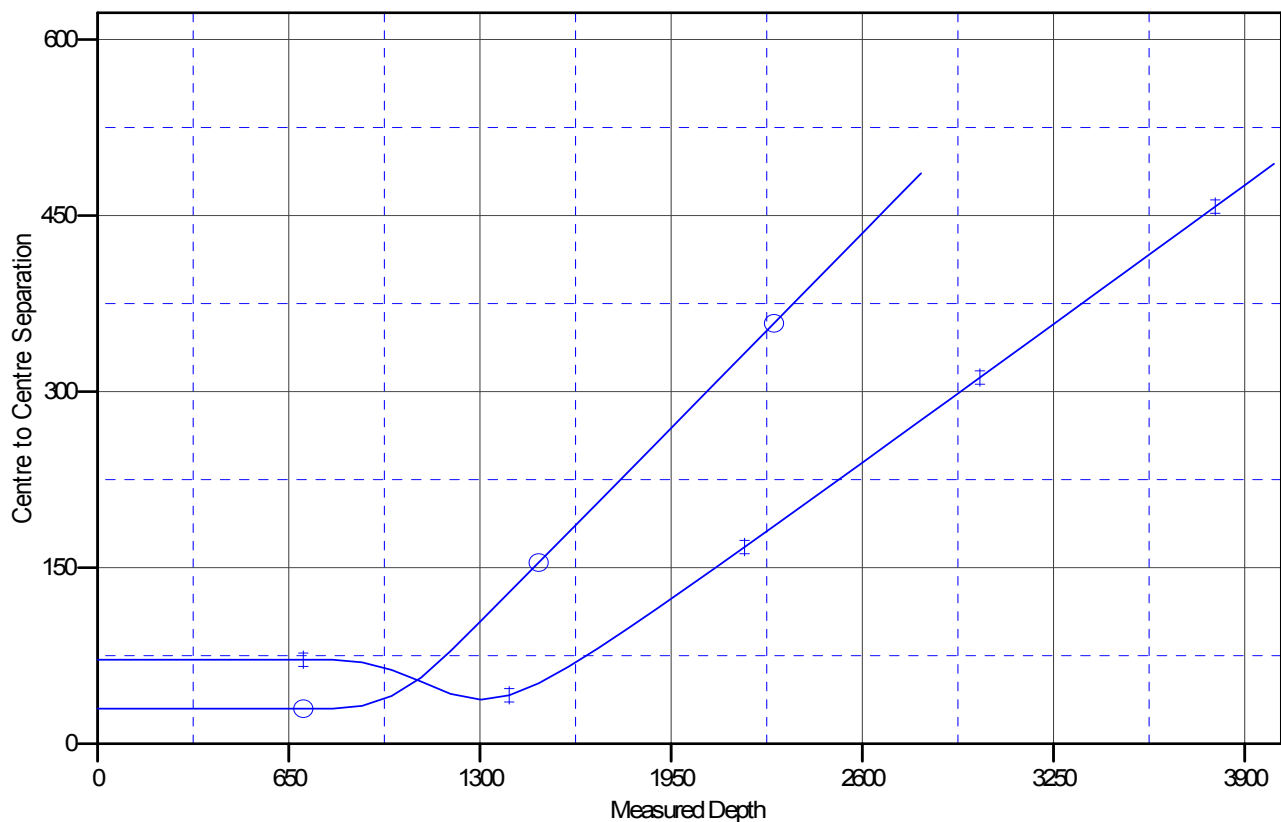
Anticollision Report

Company:	Bonanza Creek Energy Operating Company, LLC	Local Co-ordinate Reference:	Well North Platte C-27
Project:	Weld County	TVD Reference:	KBE @ 4552.0ft
Reference Site:	Perkins 12-27 Pad	MD Reference:	KBE @ 4552.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	North Platte C-27	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 #2	Offset TVD Reference:	Offset Datum

Reference Depths are relative to KBE @ 4552.0ft
 Offset Depths are relative to Offset Datum
 Central Meridian is -105.500000 °

Coordinates are relative to: North Platte C-27
 Coordinate System is US State Plane 1983, Colorado Northern Zone
 Grid Convergence at Surface is: 0.69°

Ladder Plot



LEGEND

○ North Platte H-27, OH, Plan #2 V0
 + Perkins 12-27 (vert), OH, Plan #1 V0