

BONANZA CREEK ENERGY OPERATING

Well Name: **Antelope B-V-33HNB**

Surface Location: Antelope B-33 Pad Sec.33-T5N-R62W
North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone

Ground Elevation: 4579.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1375892.69	3324170.30	40.359390	-104.336720	

RKB - 13' WELL @ 4592.0ft (RKB - 13')

WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
BHL 1320'FNL, 470'FEL	6237.0	153.4	4316.9	Point



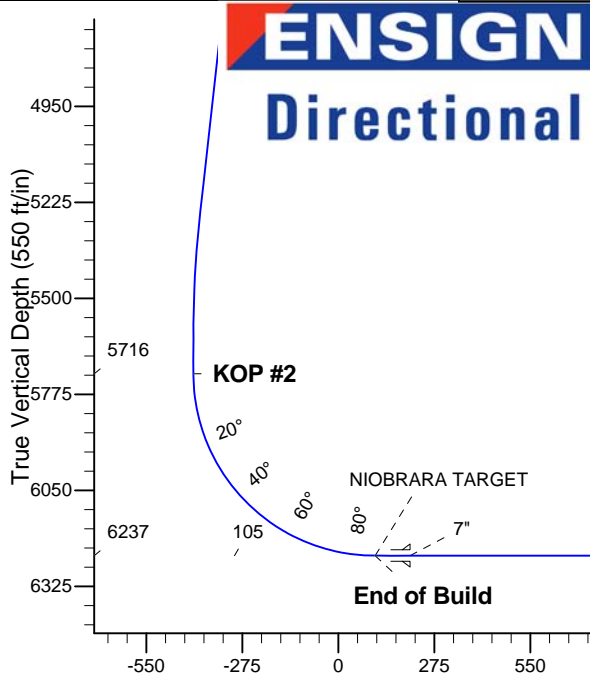
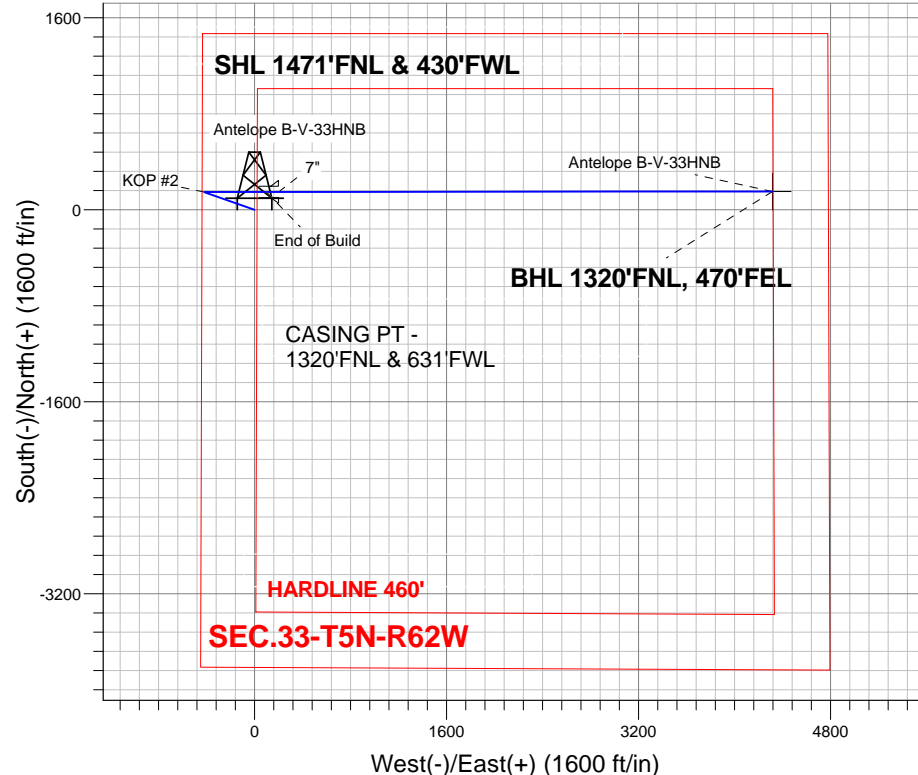
Azimuths to True North
Magnetic North: 8.40°

Magnetic Field
Strength: 52979.7nT
Dip Angle: 67.03°
Date: 2/19/2013
Model: IGRF2010

Antelope B-33 Pad Sec.33-T5N-R62W
Antelope B-V-33HNB
Plan #2 (2-19-13)
11:22, February 19 2013

ANNOTATIONS

TVD	MD	Annotation
1500.0	1500.0	KOP #1
5716.2	5741.8	KOP #2
6237.0	6559.9	End of Build



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	1500.0	0.00	0.00	1500.0	0.0	0.0	0.00	0.00	0.0	
3	1838.6	6.77	289.49	1837.8	6.7	-18.8	2.00	289.49	-18.6	
4	5287.0	6.77	289.49	5262.2	142.3	-402.2	0.00	0.00	-396.9	
5	5625.6	0.00	0.00	5600.0	149.0	-421.0	2.00	180.00	-415.4	
6	5741.8	0.00	0.00	5716.1	149.0	-421.0	0.00	0.00	-415.4	
7	6559.9	90.00	89.97	6237.0	149.3	99.9	11.00	89.97	105.1	
8	6660.1	90.00	89.97	6237.0	149.4	200.0	0.00	0.00	205.2	
9	6662.2	90.00	89.94	6237.0	149.4	202.2	1.00	-90.00	207.3	
10	10776.9	90.00	89.94	6237.0	153.4	4316.9	0.00	0.00	4319.6	BHL 1320'FNL, 470'FEL

BHL 1320'FNL, 470'FEL

Vertical Section at 87.96° (550 ft/in)



BONANZA CREEK ENERGY OPERATING

SEC.33-T5N-R62W

Antelope B-33 Pad Sec.33-T5N-R62W

Antelope B-V-33HNB

Wellbore #1

Plan: Plan #2 (2-19-13)

Standard Planning Report

19 February, 2013

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	
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,838.6	6.77	289.49	1,837.8	6.7	-18.8	2.00	2.00	0.00	289.49	
5,287.0	6.77	289.49	5,262.2	142.3	-402.2	0.00	0.00	0.00	0.00	
5,625.6	0.00	0.00	5,600.0	149.0	-421.0	2.00	-2.00	0.00	180.00	
5,741.8	0.00	0.00	5,716.1	149.0	-421.0	0.00	0.00	0.00	0.00	
6,559.9	90.00	89.97	6,237.0	149.3	99.9	11.00	11.00	0.00	89.97	
6,660.1	90.00	89.97	6,237.0	149.4	200.0	0.00	0.00	0.00	0.00	
6,662.2	90.00	89.94	6,237.0	149.4	202.2	1.00	0.00	-1.00	-90.00	
10,776.9	90.00	89.94	6,237.0	153.4	4,316.9	0.00	0.00	0.00	0.00	BHL 1320'FNL, 470

Database:	Landmark	Local Co-ordinate Reference:	Well Antelope B-V-33HNB
Company:	BONANZA CREEK ENERGY OPERATING	TVD Reference:	WELL @ 4592.0ft (RKB - 13')
Project:	SEC.33-T5N-R62W	MD Reference:	WELL @ 4592.0ft (RKB - 13')
Site:	Antelope B-33 Pad Sec.33-T5N-R62W	North Reference:	True
Well:	Antelope B-V-33HNB	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2 (2-19-13)		

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)	Turn Rate (°/100ft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
KOP #1									
1,600.0	2.00	289.49	1,600.0	0.6	-1.6	-1.6	2.00	2.00	0.00
1,700.0	4.00	289.49	1,699.8	2.3	-6.6	-6.5	2.00	2.00	0.00
1,800.0	6.00	289.49	1,799.5	5.2	-14.8	-14.6	2.00	2.00	0.00
1,838.6	6.77	289.49	1,837.8	6.7	-18.8	-18.6	2.00	2.00	0.00
1,900.0	6.77	289.49	1,898.8	9.1	-25.7	-25.3	0.00	0.00	0.00
2,000.0	6.77	289.49	1,998.1	13.0	-36.8	-36.3	0.00	0.00	0.00
2,100.0	6.77	289.49	2,097.4	17.0	-47.9	-47.3	0.00	0.00	0.00
2,200.0	6.77	289.49	2,196.7	20.9	-59.0	-58.2	0.00	0.00	0.00
2,300.0	6.77	289.49	2,296.0	24.8	-70.1	-69.2	0.00	0.00	0.00
2,400.0	6.77	289.49	2,395.3	28.8	-81.2	-80.2	0.00	0.00	0.00
2,500.0	6.77	289.49	2,494.6	32.7	-92.4	-91.1	0.00	0.00	0.00
2,600.0	6.77	289.49	2,593.9	36.6	-103.5	-102.1	0.00	0.00	0.00
2,700.0	6.77	289.49	2,693.2	40.6	-114.6	-113.1	0.00	0.00	0.00
2,800.0	6.77	289.49	2,792.5	44.5	-125.7	-124.0	0.00	0.00	0.00
2,900.0	6.77	289.49	2,891.8	48.4	-136.8	-135.0	0.00	0.00	0.00
3,000.0	6.77	289.49	2,991.1	52.4	-147.9	-146.0	0.00	0.00	0.00
3,100.0	6.77	289.49	3,090.4	56.3	-159.1	-157.0	0.00	0.00	0.00
3,200.0	6.77	289.49	3,189.7	60.2	-170.2	-167.9	0.00	0.00	0.00
3,300.0	6.77	289.49	3,289.0	64.2	-181.3	-178.9	0.00	0.00	0.00
3,400.0	6.77	289.49	3,388.3	68.1	-192.4	-189.9	0.00	0.00	0.00
3,500.0	6.77	289.49	3,487.6	72.0	-203.5	-200.8	0.00	0.00	0.00
3,600.0	6.77	289.49	3,586.9	76.0	-214.6	-211.8	0.00	0.00	0.00
3,700.0	6.77	289.49	3,686.2	79.9	-225.7	-222.8	0.00	0.00	0.00
3,800.0	6.77	289.49	3,785.5	83.8	-236.9	-233.7	0.00	0.00	0.00
3,900.0	6.77	289.49	3,884.8	87.8	-248.0	-244.7	0.00	0.00	0.00
4,000.0	6.77	289.49	3,984.1	91.7	-259.1	-255.7	0.00	0.00	0.00
4,100.0	6.77	289.49	4,083.4	95.6	-270.2	-266.6	0.00	0.00	0.00
4,200.0	6.77	289.49	4,182.7	99.6	-281.3	-277.6	0.00	0.00	0.00
4,300.0	6.77	289.49	4,282.0	103.5	-292.4	-288.6	0.00	0.00	0.00
4,400.0	6.77	289.49	4,381.3	107.4	-303.6	-299.6	0.00	0.00	0.00
4,500.0	6.77	289.49	4,480.6	111.4	-314.7	-310.5	0.00	0.00	0.00
4,600.0	6.77	289.49	4,579.9	115.3	-325.8	-321.5	0.00	0.00	0.00
4,700.0	6.77	289.49	4,679.3	119.2	-336.9	-332.5	0.00	0.00	0.00
4,800.0	6.77	289.49	4,778.6	123.2	-348.0	-343.4	0.00	0.00	0.00
4,900.0	6.77	289.49	4,877.9	127.1	-359.1	-354.4	0.00	0.00	0.00
5,000.0	6.77	289.49	4,977.2	131.0	-370.3	-365.4	0.00	0.00	0.00
5,100.0	6.77	289.49	5,076.5	135.0	-381.4	-376.3	0.00	0.00	0.00

Database:	Landmark	Local Co-ordinate Reference:	Well Antelope B-V-33HNB
Company:	BONANZA CREEK ENERGY OPERATING	TVD Reference:	WELL @ 4592.0ft (RKB - 13')
Project:	SEC.33-T5N-R62W	MD Reference:	WELL @ 4592.0ft (RKB - 13')
Site:	Antelope B-33 Pad Sec.33-T5N-R62W	North Reference:	True
Well:	Antelope B-V-33HNB	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2 (2-19-13)		

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)	Turn Rate (°/100ft)
5,200.0	6.77	289.49	5,175.8	138.9	-392.5	-387.3	0.00	0.00	0.00
5,287.0	6.77	289.49	5,262.2	142.3	-402.2	-396.9	0.00	0.00	0.00
5,300.0	6.51	289.49	5,275.1	142.8	-403.6	-398.2	2.00	-2.00	0.00
5,400.0	4.51	289.49	5,374.6	146.0	-412.6	-407.2	2.00	-2.00	0.00
5,500.0	2.51	289.49	5,474.4	148.1	-418.4	-412.9	2.00	-2.00	0.00
5,600.0	0.51	289.49	5,574.4	149.0	-420.9	-415.3	2.00	-2.00	0.00
5,625.6	0.00	0.00	5,600.0	149.0	-421.0	-415.4	2.00	-2.00	0.00
5,700.0	0.00	0.00	5,674.4	149.0	-421.0	-415.4	0.00	0.00	0.00
5,741.8	0.00	0.00	5,716.2	149.0	-421.0	-415.4	0.00	0.00	0.00
KOP #2									
5,800.0	6.41	89.97	5,774.2	149.0	-417.7	-412.2	11.01	11.01	0.00
5,900.0	17.41	89.97	5,871.9	149.0	-397.1	-391.6	11.00	11.00	0.00
6,000.0	28.41	89.97	5,963.9	149.0	-358.3	-352.8	11.00	11.00	0.00
6,100.0	39.41	89.97	6,046.8	149.1	-302.6	-297.1	11.00	11.00	0.00
6,200.0	50.41	89.97	6,117.5	149.1	-232.1	-226.7	11.00	11.00	0.00
6,300.0	61.41	89.97	6,173.5	149.2	-149.4	-144.0	11.00	11.00	0.00
6,400.0	72.41	89.97	6,212.6	149.2	-57.6	-52.2	11.00	11.00	0.00
6,500.0	83.41	89.97	6,233.6	149.3	40.1	45.3	11.00	11.00	0.00
6,559.9	90.00	89.97	6,237.0	149.3	99.9	105.1	11.00	11.00	0.00
End of Build - NIOBRARA TARGET									
6,600.0	90.00	89.97	6,237.0	149.3	139.9	145.1	0.00	0.00	0.00
6,660.1	90.00	89.97	6,237.0	149.4	200.0	205.2	0.00	0.00	0.00
7"									
6,662.2	90.00	89.94	6,237.0	149.4	202.2	207.3	1.01	0.00	-1.01
6,700.0	90.00	89.94	6,237.0	149.4	239.9	245.1	0.00	0.00	0.00
6,800.0	90.00	89.94	6,237.0	149.5	339.9	345.0	0.00	0.00	0.00
6,900.0	90.00	89.94	6,237.0	149.6	439.9	445.0	0.00	0.00	0.00
7,000.0	90.00	89.94	6,237.0	149.7	539.9	544.9	0.00	0.00	0.00
7,100.0	90.00	89.94	6,237.0	149.8	639.9	644.8	0.00	0.00	0.00
7,200.0	90.00	89.94	6,237.0	149.9	739.9	744.8	0.00	0.00	0.00
7,300.0	90.00	89.94	6,237.0	150.0	839.9	844.7	0.00	0.00	0.00
7,400.0	90.00	89.94	6,237.0	150.1	939.9	944.7	0.00	0.00	0.00
7,500.0	90.00	89.94	6,237.0	150.2	1,039.9	1,044.6	0.00	0.00	0.00
7,600.0	90.00	89.94	6,237.0	150.3	1,139.9	1,144.5	0.00	0.00	0.00
7,700.0	90.00	89.94	6,237.0	150.4	1,239.9	1,244.5	0.00	0.00	0.00
7,800.0	90.00	89.94	6,237.0	150.5	1,339.9	1,344.4	0.00	0.00	0.00
7,900.0	90.00	89.94	6,237.0	150.6	1,439.9	1,444.4	0.00	0.00	0.00
8,000.0	90.00	89.94	6,237.0	150.7	1,539.9	1,544.3	0.00	0.00	0.00
8,100.0	90.00	89.94	6,237.0	150.8	1,639.9	1,644.2	0.00	0.00	0.00
8,200.0	90.00	89.94	6,237.0	150.9	1,739.9	1,744.2	0.00	0.00	0.00
8,300.0	90.00	89.94	6,237.0	151.0	1,839.9	1,844.1	0.00	0.00	0.00
8,400.0	90.00	89.94	6,237.0	151.1	1,939.9	1,944.1	0.00	0.00	0.00
8,500.0	90.00	89.94	6,237.0	151.2	2,039.9	2,044.0	0.00	0.00	0.00
8,600.0	90.00	89.94	6,237.0	151.3	2,139.9	2,143.9	0.00	0.00	0.00
8,700.0	90.00	89.94	6,237.0	151.4	2,239.9	2,243.9	0.00	0.00	0.00
8,800.0	90.00	89.94	6,237.0	151.5	2,339.9	2,343.8	0.00	0.00	0.00
8,900.0	90.00	89.94	6,237.0	151.6	2,439.9	2,443.8	0.00	0.00	0.00
9,000.0	90.00	89.94	6,237.0	151.7	2,539.9	2,543.7	0.00	0.00	0.00
9,100.0	90.00	89.94	6,237.0	151.8	2,639.9	2,643.7	0.00	0.00	0.00
9,200.0	90.00	89.94	6,237.0	151.9	2,739.9	2,743.6	0.00	0.00	0.00
9,300.0	90.00	89.94	6,237.0	151.9	2,839.9	2,843.5	0.00	0.00	0.00
9,400.0	90.00	89.94	6,237.0	152.0	2,939.9	2,943.5	0.00	0.00	0.00
9,500.0	90.00	89.94	6,237.0	152.1	3,039.9	3,043.4	0.00	0.00	0.00

Plan Annotations					
	Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
			+N/-S	+E/-W	
			(ft)	(ft)	
	1,500.0	1,500.0	0.0	0.0	KOP #1
	5,741.8	5,716.2	149.0	-421.0	KOP #2
	6,559.9	6,237.0	149.3	99.8	End of Build



BONANZA CREEK ENERGY OPERATING

SEC.33-T5N-R62W

Antelope B-33 Pad Sec.33-T5N-R62W

Antelope B-V-33HNB

Wellbore #1

Plan #2 (2-19-13)

Anticollision Report

19 February, 2013

Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well Antelope B-V-33HNB
Project:	SEC.33-T5N-R62W	TVD Reference:	WELL @ 4592.0ft (RKB - 13')
Reference Site:	Antelope B-33 Pad Sec.33-T5N-R62W	MD Reference:	WELL @ 4592.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Antelope B-V-33HNB	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #2 (2-19-13)	Offset TVD Reference:	Offset Datum

Reference	Plan #2 (2-19-13)		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 1,000.0ft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma		

Survey Tool Program	Date 2/19/2013			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.0	10,776.9	Plan #2 (2-19-13) (Wellbore #1)	MWD	MWD - Standard

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 B-33 Pad Sec.33-T5N-R62W						
Antelope C-W-33HNB - Wellbore #1 - Plan #1 (11-12-12)	200.0	199.0	19.5	18.8	29.028	CC, ES
Antelope C-W-33HNB - Wellbore #1 - Plan #1 (11-12-12)	500.0	497.1	29.5	27.5	14.783	SF

Offset Design Antelope B-33 Pad Sec.33-T5N-R62W - Antelope C-W-33HNB - Wellbore #1 - Plan #1 (11-12-12)												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)	Minimum Separation (ft)	Separation Factor	
0.0	0.0	0.0	0.0	0.0	0.0	-90.00	0.0	-19.5	19.5	19.5	0.00	N/A	
100.0	100.0	99.0	99.0	0.1	0.1	-90.00	0.0	-19.5	19.5	19.3	0.22	87.229	
200.0	200.0	199.0	199.0	0.3	0.3	-90.00	0.0	-19.5	19.5	18.8	0.67	29.028 CC, ES	
300.0	300.0	298.7	298.7	0.6	0.5	-94.38	-1.5	-20.2	20.3	19.2	1.10	18.430	
400.0	400.0	398.1	398.0	0.8	0.7	-105.60	-6.2	-22.3	23.2	21.7	1.53	15.147	
500.0	500.0	497.1	496.6	1.0	1.0	-118.46	-14.0	-25.9	29.5	27.5	2.00	14.783 SF	
600.0	600.0	595.4	594.1	1.2	1.3	-128.90	-24.8	-30.8	39.8	37.3	2.50	15.909	
700.0	700.0	692.7	690.3	1.5	1.6	-136.17	-38.5	-37.0	54.1	51.0	3.05	17.712	
800.0	800.0	788.9	784.7	1.7	2.0	-141.05	-54.9	-44.4	72.1	68.4	3.65	19.764	
900.0	900.0	883.8	877.3	1.9	2.4	-144.36	-74.0	-53.0	93.6	89.3	4.28	21.854	
1,000.0	1,000.0	977.5	968.0	2.1	2.8	-146.68	-95.5	-62.8	118.4	113.5	4.95	23.901	
1,100.0	1,100.0	1,073.9	1,060.9	2.4	3.3	-148.31	-118.8	-73.3	144.7	139.0	5.67	25.518	
1,200.0	1,200.0	1,170.3	1,153.9	2.6	3.9	-149.44	-142.1	-83.9	171.0	164.7	6.39	26.760	
1,300.0	1,300.0	1,266.7	1,246.9	2.8	4.4	-150.27	-165.4	-94.4	197.4	190.3	7.12	27.739	
1,400.0	1,400.0	1,363.1	1,339.8	3.0	4.9	-150.90	-188.6	-105.0	223.9	216.0	7.85	28.530	
1,500.0	1,500.0	1,459.6	1,432.8	3.3	5.4	-151.40	-211.9	-115.5	250.3	241.7	8.58	29.182	
1,600.0	1,600.0	1,556.0	1,525.8	3.5	6.0	-81.13	-235.2	-126.1	276.5	269.3	7.22	38.310	
1,700.0	1,699.8	1,652.4	1,618.7	3.7	6.5	-81.91	-258.5	-136.7	302.3	294.6	7.69	39.306	
1,800.0	1,799.5	1,748.6	1,711.5	3.9	7.0	-83.12	-281.8	-147.2	327.8	319.6	8.17	40.115	
1,838.6	1,837.8	1,785.7	1,747.3	4.0	7.2	-83.67	-290.7	-151.2	337.6	329.3	8.36	40.380	
1,900.0	1,898.8	1,844.7	1,804.1	4.1	7.5	-84.86	-305.0	-157.7	353.3	344.6	8.67	40.769	
2,000.0	1,998.1	1,940.7	1,896.7	4.4	8.1	-86.58	-328.2	-168.2	379.1	370.0	9.18	41.309	
2,100.0	2,097.4	2,036.7	1,989.3	4.6	8.6	-88.08	-351.3	-178.7	405.3	395.6	9.71	41.751	
2,200.0	2,196.7	2,132.7	2,081.8	4.9	9.1	-89.41	-374.5	-189.2	431.6	421.4	10.25	42.114	
2,300.0	2,296.0	2,228.7	2,174.4	5.2	9.7	-90.58	-397.7	-199.7	458.1	447.3	10.80	42.412	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

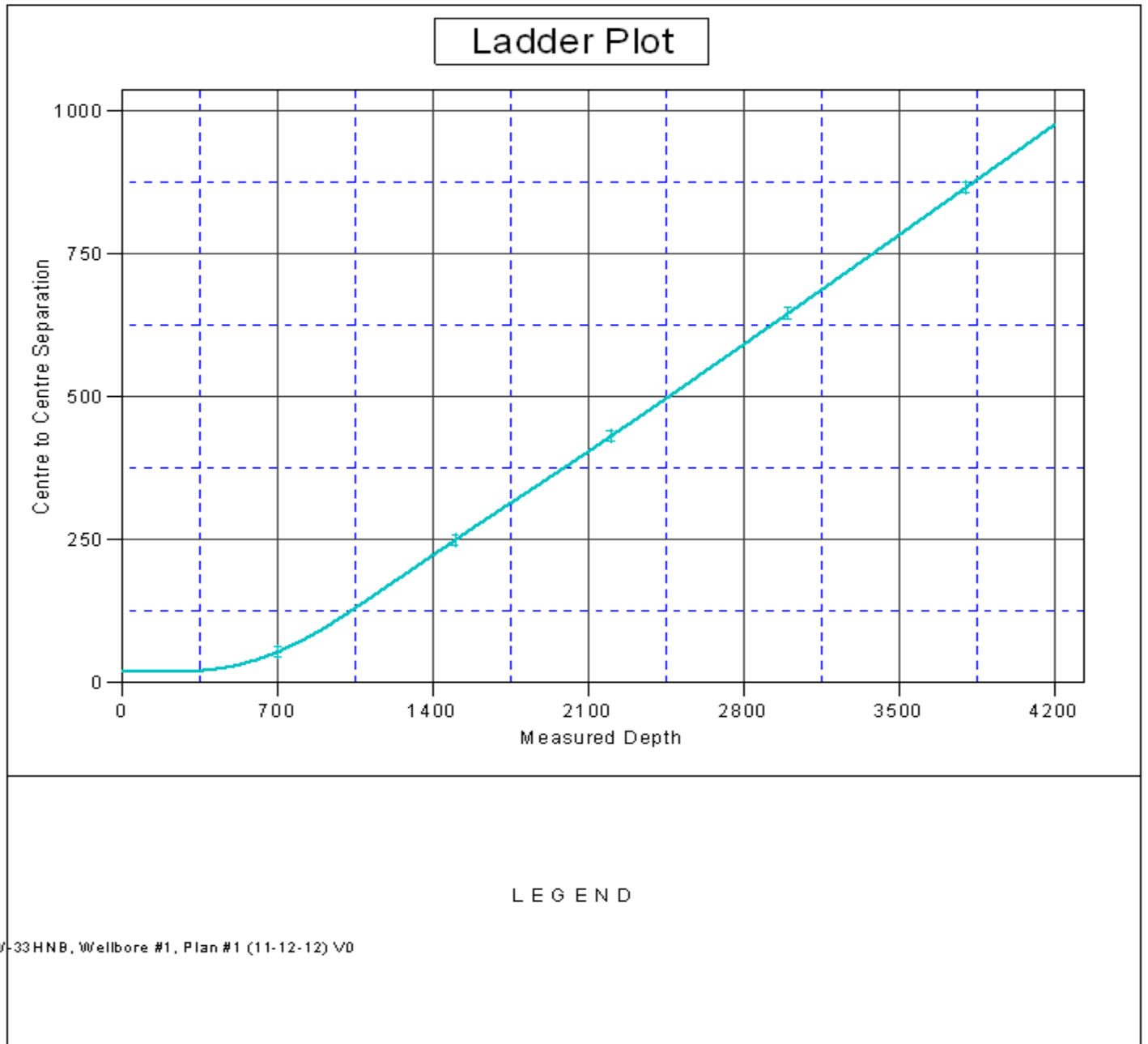
Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well Antelope B-V-33HNB
Project:	SEC.33-T5N-R62W	TVD Reference:	WELL @ 4592.0ft (RKB - 13')
Reference Site:	Antelope B-33 Pad Sec.33-T5N-R62W	MD Reference:	WELL @ 4592.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Antelope B-V-33HNB	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #2 (2-19-13)	Offset TVD Reference:	Offset Datum

Offset Design Antelope B-33 Pad Sec.33-T5N-R62W - Antelope C-W-33HNB - Wellbore #1 - Plan #1 (11-12-12)												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						
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)	Minimum Separation (ft)	Separation Factor	Warning
2,400.0	2,395.3	2,324.7	2,267.0	5.4	10.2	-91.62	-420.9	-210.2	484.8	473.5	11.37	42.658	
2,500.0	2,494.6	2,420.8	2,359.6	5.7	10.7	-92.56	-444.1	-220.8	511.7	499.7	11.94	42.862	
2,600.0	2,593.9	2,516.8	2,452.2	6.0	11.3	-93.40	-467.3	-231.3	538.6	526.1	12.52	43.031	
2,700.0	2,693.2	2,612.8	2,544.7	6.3	11.8	-94.16	-490.5	-241.8	565.6	552.5	13.10	43.173	
2,800.0	2,792.5	2,708.8	2,637.3	6.6	12.3	-94.85	-513.7	-252.3	592.8	579.1	13.69	43.292	
2,900.0	2,891.8	2,804.8	2,729.9	6.9	12.9	-95.48	-536.9	-262.8	620.0	605.7	14.29	43.393	
3,000.0	2,991.1	2,900.8	2,822.5	7.2	13.4	-96.06	-560.1	-273.3	647.2	632.3	14.89	43.478	
3,100.0	3,090.4	2,996.8	2,915.0	7.5	13.9	-96.60	-583.3	-283.8	674.5	659.1	15.49	43.550	
3,200.0	3,189.7	3,092.8	3,007.6	7.8	14.5	-97.09	-606.5	-294.3	701.9	685.8	16.09	43.612	
3,300.0	3,289.0	3,188.9	3,100.2	8.1	15.0	-97.54	-629.6	-304.8	729.3	712.6	16.70	43.664	
3,400.0	3,388.3	3,284.9	3,192.8	8.4	15.5	-97.96	-652.8	-315.3	756.8	739.5	17.31	43.709	
3,500.0	3,487.6	3,380.9	3,285.3	8.7	16.1	-98.36	-676.0	-325.9	784.3	766.3	17.93	43.748	
3,600.0	3,586.9	3,476.9	3,377.9	9.0	16.6	-98.72	-699.2	-336.4	811.8	793.2	18.54	43.782	
3,700.0	3,686.2	3,572.9	3,470.5	9.3	17.1	-99.06	-722.4	-346.9	839.3	820.2	19.16	43.811	
3,800.0	3,785.5	3,668.9	3,563.1	9.6	17.7	-99.38	-745.6	-357.4	866.9	847.1	19.78	43.836	
3,900.0	3,884.8	3,764.9	3,655.6	9.9	18.2	-99.68	-768.8	-367.9	894.5	874.1	20.40	43.857	
4,000.0	3,984.1	3,861.0	3,748.2	10.2	18.7	-99.97	-792.0	-378.4	922.1	901.1	21.02	43.876	
4,100.0	4,083.4	3,957.0	3,840.8	10.5	19.3	-100.23	-815.2	-388.9	949.8	928.1	21.64	43.892	
4,200.0	4,182.7	4,053.0	3,933.4	10.8	19.8	-100.48	-838.4	-399.4	977.4	955.2	22.26	43.906	

Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well Antelope B-V-33HNB
Project:	SEC.33-T5N-R62W	TVD Reference:	WELL @ 4592.0ft (RKB - 13')
Reference Site:	Antelope B-33 Pad Sec.33-T5N-R62W	MD Reference:	WELL @ 4592.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Antelope B-V-33HNB	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #2 (2-19-13)	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 4592.0ft (RKB - 13')
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000 °

Coordinates are relative to: Antelope B-V-33HNB
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.75°



Company:	BONANZA CREEK ENERGY OPERATING	Local Co-ordinate Reference:	Well Antelope B-V-33HNB
Project:	SEC.33-T5N-R62W	TVD Reference:	WELL @ 4592.0ft (RKB - 13')
Reference Site:	Antelope B-33 Pad Sec.33-T5N-R62W	MD Reference:	WELL @ 4592.0ft (RKB - 13')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Antelope B-V-33HNB	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #2 (2-19-13)	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 4592.0ft (RKB - 13')
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000 °

Coordinates are relative to: Antelope B-V-33HNB
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.75°

