

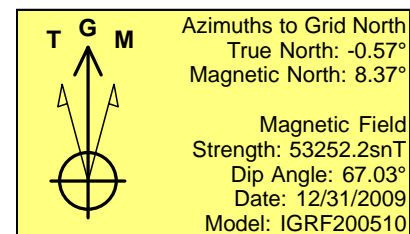
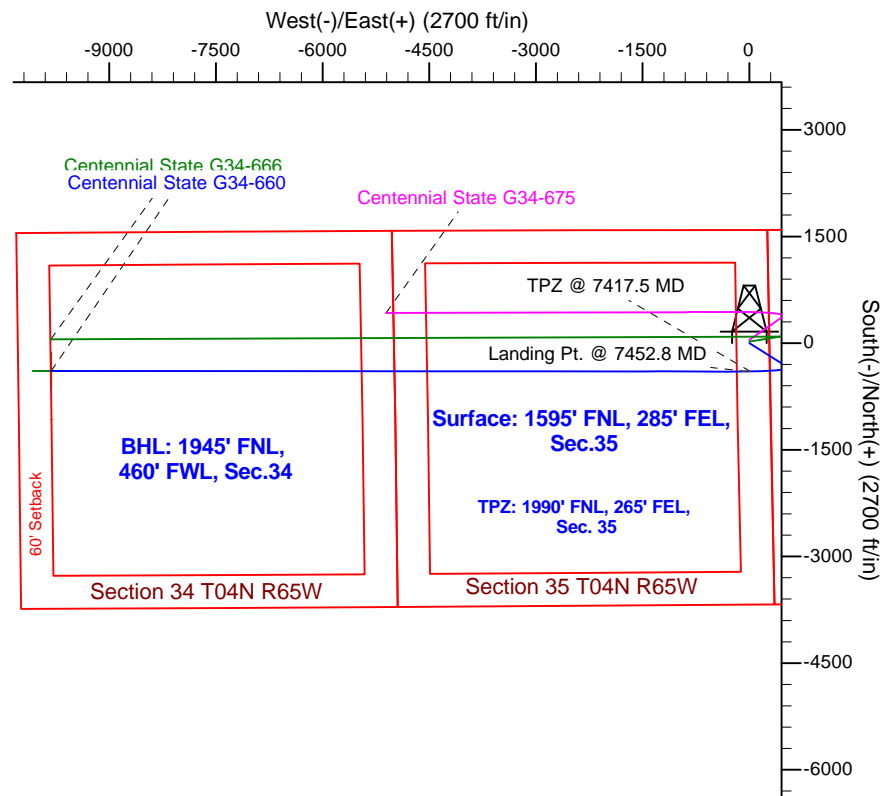
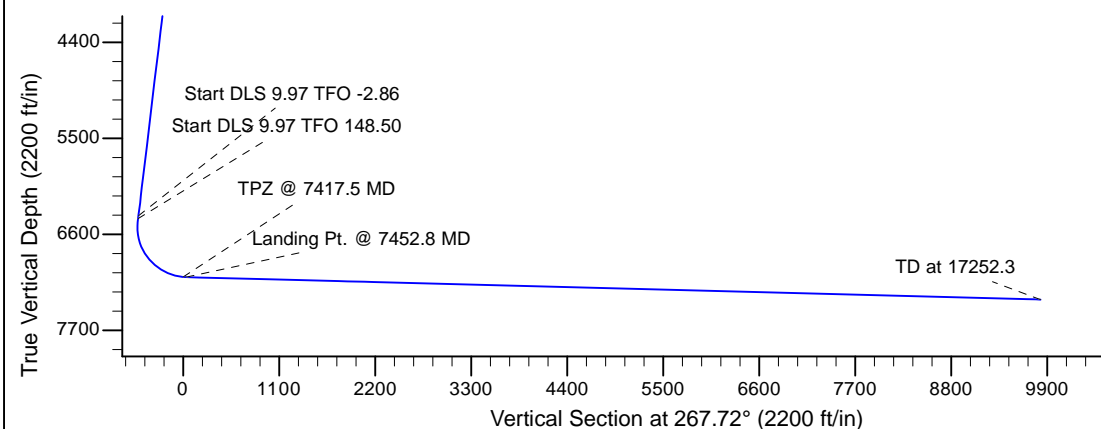
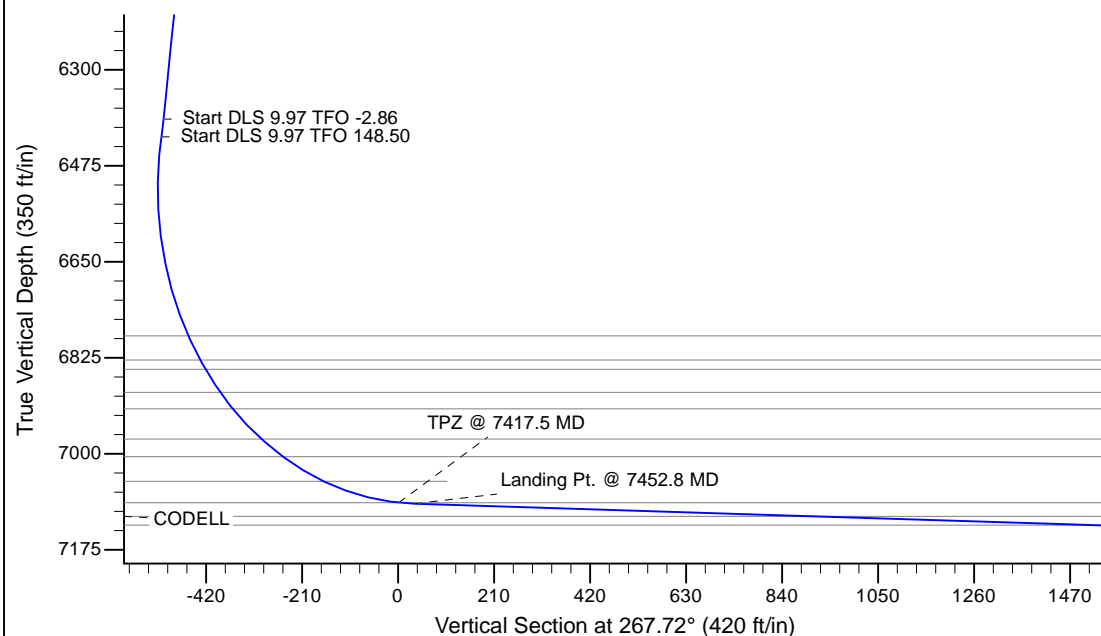
Project: Bronco
 Site: G Section 35-T4N-R65W Weld County, CO
 Well: Centennial State G34-660
 Wellbore: Original Drilling
 Design: APD - Rev 2

Northern Region - DJ Basin

Geodetic System: US State Plane 1983
 Datum: North American Datum 1983
 Ellipsoid: GRS 1980
 Zone: Colorado Northern Zone
 System Datum: Mean Sea Level

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	1900.0	0.00	0.00	1900.0	0.0	0.0	0.00	0.00	0.0	
3	2312.5	8.25	122.00	2311.1	-15.7	25.1	2.00	122.00	-24.5	
4	6434.1	8.25	122.00	6390.0	-329.1	526.7	0.00	0.00	-513.2	
5	6466.6	11.48	121.19	6422.0	-332.0	531.4	9.97	-2.86	-517.8	
6	7452.8	88.50	270.05	7091.0	-400.0	-20.0	9.97	148.50	35.9	
7	17252.3	88.50	270.06	7347.4	-390.3	-9816.1	0.00	83.92	9823.9	Centennial State G34-660 BHL 1945'FNL, 460'FWL



WELL DETAILS: Centennial State G34-660					
Ground Level: 4783.0					
	Northing	Easting	Latitude	Longitude	
0.0	0.0	1342997.95	3244968.90	40.2716000	-104.6220800
Plan: APD - Rev 2 (Centennial State G34-660/Original Drilling)					
Created By: Shailey Jewell			Date: 16:24, February 27 2017		
OK to submit with 2A as per Noble Drilling 2/27/2017 4:27					

Northern Region - DJ Basin

Bronco

G Section 35

Centennial State G34-660

Original Drilling

APD - Rev 2

Anticollision Summary Report

27 February, 2017

Anticollision Summary Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Centennial State G34-660
Project:	Bronco	TVD Reference:	WELL @ 4813.0ft (Original Well Elev)
Reference Site:	G Section 35	MD Reference:	WELL @ 4813.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	Grid
Reference Well:	Centennial State G34-660	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.79 sigma
Reference Wellbore	Original Drilling	Database:	EDM Produccction
Reference Design:	APD - Rev 2	Offset TVD Reference:	Offset Datum

Reference	APD - Rev 2		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD Interval 100.0ft	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 1,880.8 ft	Error Surface:	Pedal Curve
Warning Levels Evaluated at:	2.79 Sigma	Casing Method:	Not applied

Survey Tool Program	Date 2/27/2017			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.0	17,252.3	APD - Rev 2 (Original Drilling)	MWD+IFR1+MS_WY	Fixed:v2:Rockies, crustal dec + 3-axis correction

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						
G Section 34						
Aristocrat Angus Ranches #1 - Wellbore #1 - Wellbore #						Out of range
Beaman G34-17 - Wellbore #1 - Wellbore #1 - As Drilled	13,877.0	7,192.8	506.9	360.0	3.452	CC, ES
Beaman G34-17 - Wellbore #1 - Wellbore #1 - As Drilled	13,900.0	7,194.4	507.4	360.4	3.451	SF
Beaman G34-18 - Wellbore #1 - Wellbore #1 - As Drilled	14,941.2	7,228.3	1,087.0	919.8	6.503	CC, ES
Beaman G34-18 - Wellbore #1 - Wellbore #1 - As Drilled	15,000.0	7,229.5	1,088.6	920.7	6.483	SF
Beaman G34-99HZ - Original Drilling - Original Driling - A	15,488.5	9,475.2	823.3	548.4	2.994	CC
Beaman G34-99HZ - Original Drilling - Original Driling - A	17,200.0	11,181.0	882.7	505.2	2.338	ES, SF
Beaman G35-31 - Wellbore #1 - Wellbore #1 - As Drilled	12,617.3	7,149.1	744.5	621.2	6.035	CC, ES, SF
Beebe 10-34 - Wellbore #1 - Wellbore #1 - As Drilled	14,263.1	7,276.0	1,191.9	1,033.7	7.532	CC
Beebe 10-34 - Wellbore #1 - Wellbore #1 - As Drilled	14,300.0	7,276.7	1,192.5	1,033.5	7.502	ES
Beebe 10-34 - Wellbore #1 - Wellbore #1 - As Drilled	14,400.0	7,278.5	1,199.8	1,039.5	7.486	SF
Bochius Pooling Unit 1 - Wellbore #1 - Wellbore #1 - As	13,127.9	7,159.8	1,304.8	1,171.7	9.802	CC, ES
Bochius Pooling Unit 1 - Wellbore #1 - Wellbore #1 - As	13,200.0	7,162.2	1,306.8	1,172.6	9.737	SF
Bockius 34-1G - Wellbore #1 - Wellbore #1 - As Drilled	13,044.6	7,167.9	1,443.2	1,311.9	10.994	CC, ES
Bockius 34-1G - Wellbore #1 - Wellbore #1 - As Drilled	13,200.0	7,172.3	1,451.5	1,318.2	10.893	SF
Bockius 34-2G - Wellbore #1 - Wellbore #1 - As Drilled	14,349.0	7,207.3	1,462.9	1,307.2	9.397	CC, ES
Bockius 34-2G - Wellbore #1 - Wellbore #1 - As Drilled	14,500.0	7,212.2	1,470.6	1,313.1	9.334	SF
Bockius 34-8G - Wellbore #1 - Wellbore #1 - As Drilled	13,048.1	7,164.9	161.1	29.8	1.227	Level 2, CC, ES, SF
Bockius 37-07G - Wellbore #1 - Wellbore #1 - As Drilled	14,701.3	7,225.6	160.0	-2.2	0.986	Level 1, CC, ES, SF
Champ G34-06X - Wellbore #1 - Wellbore #1 - As Drilled	15,704.3	7,251.4	147.1	-34.3	0.811	Level 1, CC, ES, SF
Cornelius 23-34 - Wellbore #1 - Wellbore #1 - As Drilled						Out of range
HSR - Aristocrat 12-34A - Wellbore #1 - Wellbore #1 - As	16,865.7	7,269.5	1,371.1	1,166.4	6.697	CC
HSR - Aristocrat 12-34A - Wellbore #1 - Wellbore #1 - As	16,900.0	7,270.6	1,371.6	1,166.2	6.678	ES
HSR - Aristocrat 12-34A - Wellbore #1 - Wellbore #1 - As	17,000.0	7,273.6	1,377.7	1,171.0	6.666	SF
HSR - Carney 15-34 - Wellbore #1 - Wellbore #1 - As Dri						Out of range
HSR - Gun Club 09-34 - Wellbore #1 - Wellbore #1 - As D	13,253.6	7,458.3	1,219.1	1,072.8	8.332	CC
HSR - Gun Club 09-34 - Wellbore #1 - Wellbore #1 - As D	13,300.0	7,458.4	1,220.0	1,072.4	8.267	ES
HSR - Gun Club 09-34 - Wellbore #1 - Wellbore #1 - As D	13,400.0	7,458.5	1,227.9	1,078.2	8.204	SF
HSR - Gun Club 16-34 - Wellbore #1 - Wellbore #1 - As D						Out of range
HSR - Houston 13-34A - Wellbore #1 - Wellbore #1 - As						Out of range
HSR - Kemper 10-34 - Wellbore #1 - Wellbore #1 - As Dr	13,980.4	7,194.9	1,777.0	1,628.2	11.947	CC
HSR - Kemper 10-34 - Wellbore #1 - Wellbore #1 - As Dr	14,000.0	7,195.4	1,777.1	1,628.0	11.916	ES
HSR - Kemper 10-34 - Wellbore #1 - Wellbore #1 - As Dr	14,200.0	7,201.1	1,790.5	1,638.3	11.765	SF
HSR - Merritt 11-34A - Wellbore #1 - Wellbore #1 - As Dr	15,794.1	7,242.2	1,176.6	992.3	6.382	CC
HSR - Merritt 11-34A - Wellbore #1 - Wellbore #1 - As Dr	15,800.0	7,242.3	1,176.6	992.1	6.378	ES
HSR - Merritt 11-34A - Wellbore #1 - Wellbore #1 - As Dr	15,900.0	7,245.1	1,181.4	995.4	6.352	SF
HSR - Owens 14-34 - Wellbore #1 - Wellbore #1 - As Dri						Out of range

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

Anticollision Summary Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Centennial State G34-660
Project:	Bronco	TVD Reference:	WELL @ 4813.0ft (Original Well Elev)
Reference Site:	G Section 35	MD Reference:	WELL @ 4813.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	Grid
Reference Well:	Centennial State G34-660	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.79 sigma
Reference Wellbore	Original Drilling	Database:	EDM Produccction
Reference Design:	APD - Rev 2	Offset TVD Reference:	Offset Datum

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
G Section 34						
Moser 34-3G - Wellbore #1 - Wellbore #1 - As Drilled	15,780.7	7,221.0	1,298.2	1,115.7	7.114	CC
Moser 34-3G - Wellbore #1 - Wellbore #1 - As Drilled	15,800.0	7,221.0	1,298.3	1,115.5	7.103	ES
Moser 34-3G - Wellbore #1 - Wellbore #1 - As Drilled	15,900.0	7,221.0	1,303.6	1,119.8	7.093	SF
Moser 34-4G - Wellbore #1 - Wellbore #1 - As Drilled	16,887.8	7,299.5	1,485.9	1,280.1	7.220	CC
Moser 34-4G - Wellbore #1 - Wellbore #1 - As Drilled	16,900.0	7,299.8	1,486.0	1,280.0	7.213	ES
Moser 34-4G - Wellbore #1 - Wellbore #1 - As Drilled	17,000.0	7,302.2	1,490.2	1,282.9	7.190	SF
Moser 34-5G - Wellbore #1 - Wellbore #1 - As Drilled	17,007.1	7,222.0	288.7	87.5	1.435	Level 3, CC, ES, SF
Moser 34-6G - Wellbore #1 - Wellbore #1 - As Drilled	16,208.1	7,000.0	491.0	321.9	2.903	CC, ES, SF
Moser G34-30 - Wellbore #1 - Wellbore #1 - As Drilled	17,252.8	7,298.5	1,810.4	1,602.3	8.698	CC, ES, SF
Moser PC G34-65HN - Original Drilling - As Drilled	8,660.1	15,403.9	498.7	463.7	14.255	CC
Moser PC G34-65HN - Original Drilling - As Drilled	15,000.0	9,063.6	562.8	433.3	4.345	ES
Moser PC G34-65HN - Original Drilling - As Drilled	16,700.0	7,381.7	595.3	441.2	3.862	SF

Anticollision Summary Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Centennial State G34-660
Project:	Bronco	TVD Reference:	WELL @ 4813.0ft (Original Well Elev)
Reference Site:	G Section 35	MD Reference:	WELL @ 4813.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	Grid
Reference Well:	Centennial State G34-660	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.79 sigma
Reference Wellbore	Original Drilling	Database:	EDM Production
Reference Design:	APD - Rev 2	Offset TVD Reference:	Offset Datum

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						
G Section 35						
Centennial State G34-612 - Original Drilling - APD - Rev						Out of range
Centennial State G34-618 - Original Drilling - APD - Rev						Out of range
Centennial State G34-626 - Original Drilling - APD - Rev						Out of range
Centennial State G34-635 - Original Drilling - APD - Rev	1,811.2	1,825.2	1,355.3	1,344.3	123.267	CC
Centennial State G34-635 - Original Drilling - APD - Rev	2,100.0	2,055.7	1,356.0	1,343.6	108.817	ES
Centennial State G34-635 - Original Drilling - APD - Rev	17,252.8	17,027.2	1,733.1	1,356.1	4.597	SF
Centennial State G34-645 - Original Drilling - APD - Rev	7,507.4	7,316.1	1,007.5	961.8	22.034	CC
Centennial State G34-645 - Original Drilling - APD - Rev	17,252.8	17,040.0	1,122.5	756.1	3.064	ES, SF
Centennial State G34-666 - Original Drilling - APD - Rev	1,900.0	1,901.0	21.8	10.3	1.898	CC, ES
Centennial State G34-666 - Original Drilling - APD - Rev	17,252.8	17,012.4	545.7	209.1	1.621	SF
Centennial State G34-675 - Original Drilling - APD - Rev	1,900.0	1,901.0	43.7	32.2	3.797	CC, ES
Centennial State G34-675 - Original Drilling - APD - Rev	2,000.0	2,000.1	45.6	33.6	3.774	SF
Centennial State G34-679 - Original Drilling - APD - Rev	1,900.0	1,888.0	1,049.5	1,038.0	91.502	CC
Centennial State G34-679 - Original Drilling - APD - Rev	17,252.8	17,013.2	1,241.0	864.9	3.300	ES, SF
Centennial State G34-684 - Original Drilling - APD - Rev	1,900.0	1,888.0	1,071.4	1,059.9	93.408	CC, ES
Centennial State G34-684 - Original Drilling - APD - Rev	17,252.8	16,847.6	1,643.8	1,268.4	4.379	SF
Centennial State G34-689 - Original Drilling - APD - Rev	1,900.0	1,889.0	1,093.2	1,081.7	95.287	CC, ES
Centennial State G34-689 - Original Drilling - APD - Rev	6,100.0	6,081.0	1,874.1	1,835.7	48.824	SF
CPC Mark 35-01 - Wellbore #1 - Wellbore #1 - As Drilled	9,008.9	7,088.6	1,174.3	1,115.4	19.930	CC, ES
CPC Mark 35-01 - Wellbore #1 - Wellbore #1 - As Drilled	9,200.0	7,091.9	1,189.7	1,128.4	19.404	SF
CPC Mark 35-02 - Wellbore #1 - Wellbore #1 - As Drilled	7,792.1	7,079.6	10.9	-31.6	0.256	Level 1, CC, ES, SF
Mark 11-35 - Wellbore #1 - 150' Drift	10,513.2	7,102.1	1,308.3	1,218.6	14.584	CC, ES
Mark 11-35 - Wellbore #1 - 150' Drift	10,700.0	7,102.1	1,321.6	1,228.9	14.250	SF
Mark 11-35 - Wellbore #1 - Wellbore #1 - As Drilled	10,572.5	7,086.9	1,472.9	1,387.2	17.173	CC
Mark 11-35 - Wellbore #1 - Wellbore #1 - As Drilled	10,600.0	7,087.3	1,473.2	1,386.9	17.071	ES
Mark 11-35 - Wellbore #1 - Wellbore #1 - As Drilled	10,900.0	7,092.1	1,508.9	1,418.3	16.661	SF
Mark 12-35 - Wellbore #1 - Wellbore #1 - As Drilled	11,475.9	7,128.6	1,323.7	1,221.5	12.943	CC
Mark 12-35 - Wellbore #1 - Wellbore #1 - As Drilled	11,500.0	7,129.0	1,324.0	1,221.2	12.886	ES
Mark 12-35 - Wellbore #1 - Wellbore #1 - As Drilled	11,700.0	7,132.2	1,342.6	1,237.0	12.712	SF
Mark 14-35 - Wellbore #1 - Wellbore #1 - As Drilled						Out of range
Mark 35-11 - Original Drilling - Original Drilling - As Drilled	1,938.8	1,898.1	1,081.2	1,070.8	103.649	CC
Mark 35-11 - Original Drilling - Original Drilling - As Drilled	2,000.0	1,970.6	1,081.3	1,070.5	100.186	ES
Mark 35-11 - Original Drilling - Original Drilling - As Drilled	8,100.0	7,073.5	1,498.7	1,453.5	33.182	SF
Mark 35-13 - Wellbore #1 - Wellbore #1 - As Drilled	9,060.6	7,085.8	129.2	69.1	2.149	CC, ES, SF
Mark 35-15 - Wellbore #1 - Wellbore #1 - As Drilled	8,490.1	7,066.4	945.0	894.1	18.572	CC
Mark 35-15 - Wellbore #1 - Wellbore #1 - As Drilled	8,500.0	7,066.7	945.0	894.0	18.527	ES
Mark 35-15 - Wellbore #1 - Wellbore #1 - As Drilled	8,700.0	7,072.4	968.0	914.9	18.224	SF
Mark E Unit 1 - Wellbore #1 - Wellbore #1 - As Drilled						Out of range
Ocoma G35-03 - Wellbore #1 - Wellbore #1 - As Drilled	10,600.0	7,099.9	1,428.2	1,341.9	16.547	CC, ES
Ocoma G35-03 - Wellbore #1 - Wellbore #1 - As Drilled	10,800.0	7,109.1	1,442.1	1,353.1	16.197	SF
Ocoma G35-04 - Wellbore #1 - Wellbore #1 - As Drilled	11,824.9	7,130.1	1,087.9	979.3	10.016	CC, ES
Ocoma G35-04 - Wellbore #1 - Wellbore #1 - As Drilled	11,900.0	7,131.2	1,090.5	980.8	9.947	SF
Ocoma G35-05 - Wellbore #1 - Wellbore #1 - As Drilled	11,836.5	7,142.7	76.1	-32.8	0.699	Level 1, CC, ES, SF
Ocoma G35-06 - Wellbore #1 - Wellbore #1 - As Drilled	10,557.9	7,096.2	12.2	-73.3	0.143	Level 1, CC, ES, SF
Ocoma G35-09 - Wellbore #1 - 150' Drift	7,612.7	7,142.8	1,176.7	1,130.6	25.529	CC, ES
Ocoma G35-09 - Wellbore #1 - 150' Drift	7,900.0	7,150.3	1,211.3	1,162.8	24.984	SF
Ocoma G35-09 - Wellbore #1 - Wellbore #1 - As Drilled	7,932.1	7,107.9	1,310.6	1,266.6	29.806	CC, ES
Ocoma G35-09 - Wellbore #1 - Wellbore #1 - As Drilled	8,300.0	7,106.4	1,361.3	1,313.2	28.296	SF
Ocoma G35-10 - Wellbore #1 - Wellbore #1 - As Drilled	8,857.1	7,140.7	639.1	581.6	11.110	CC, ES
Ocoma G35-10 - Wellbore #1 - Wellbore #1 - As Drilled	8,900.0	7,141.5	640.5	582.3	11.006	SF
Ocoma G35-15 - Wellbore #1 - Wellbore #1 - As Drilled						Out of range
Ocoma G35-16 - Wellbore #1 - Wellbore #1 - As Drilled						Out of range
Ocoma G35-23 - Wellbore #1 - Wellbore #1 - As Drilled						Out of range

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

Anticollision Summary Report

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Project:	Bronco	TVD Reference:	WELL @ 4813.0ft (Original Well Elev)
Reference Site:	G Section 35	MD Reference:	WELL @ 4813.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	Grid
Reference Well:	Centennial State G34-660	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.79 sigma
Reference Wellbore	Original Drilling	Database:	EDM Produccction
Reference Design:	APD - Rev 2	Offset TVD Reference:	Offset Datum

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
G Section 35						
Staind G35-19 - Wellbore #1 - Wellbore #1 - As Drilled	11,123.3	7,212.9	648.7	551.4	6.667	CC, ES
Staind G35-19 - Wellbore #1 - Wellbore #1 - As Drilled	11,200.0	7,214.7	653.2	555.2	6.666	SF
G Section 36						
Gerrity State G36-01 - Wellbore #1 - Wellbore #1 - As Dr						Out of range
Gerrity State G36-02 - Wellbore #1 - Wellbore #1 - As Dr						Out of range
Gerrity State G36-07 - Wellbore #1 - Wellbore #1 - As Dr						Out of range
Gerrity State G36-08 - Wellbore #1 - Wellbore #1 - As Dr						Out of range
Gerrity State G36-09 - Wellbore #1 - Wellbore #1 - As Dr						Out of range
Gerrity State G36-10 - Wellbore #1 - Wellbore #1 - As Dr						Out of range
Gerrity State G36-15 - Wellbore #1 - Wellbore #1 - As Dr						Out of range
Gerrity State G36-16 - Wellbore #1 - Wellbore #1 - As Dr						Out of range
Gerrity State G36-17 - Wellbore #1 - Wellbore #1 - As Dr						Out of range
Gerrity State G36-23 - Wellbore #1 - Wellbore #1 - As Dr						Out of range
Mark State PC G36-79HN - Original Drilling - Original Dri	7,032.7	8,559.1	50.0	32.3	2.824	CC, ES, SF
Otis State G36-19 - Wellbore #1 - Wellbore #1 - As Drille	6,504.2	6,445.2	1,236.7	1,199.2	32.925	CC, ES
Otis State G36-19 - Wellbore #1 - Wellbore #1 - As Drille	6,600.0	6,547.0	1,242.1	1,204.0	32.645	SF
Pedro State C31-79HN - Wellbore #1 - Original Drilling						Out of range
Pedro State G36-18 - Wellbore #1 - Wellbore #1 - As Dri						Out of range
Pedro State G36-20 - Wellbore #1 - Wellbore #1 - As Dri	6,580.4	6,487.4	1,156.6	1,120.2	31.727	CC, ES
Pedro State G36-20 - Wellbore #1 - Wellbore #1 - As Dri	6,700.0	6,588.1	1,168.1	1,131.2	31.610	SF
Pedro State G36-21 - Wellbore #1 - Wellbore #1 - As Dri						Out of range
Pedro State G36-22 - Wellbore #1 - Wellbore #1 - As Dri						Out of range
Pedro State G36-24 - Wellbore #1 - Wellbore #1 - As Dri						Out of range
Pedro State H01-30D - Wellbore #1 - Wellbore #1 - As D						Out of range
Shelton G36-27 - Wellbore #1 - Wellbore #1 - As Drilled						Out of range
State 04 - Wellbore #1 - Wellbore #1 - As Drilled						Out of range
State R G36-03 - Wellbore #1 - Wellbore #1 - As Drilled						Out of range
State R G36-04 - Wellbore #1 - Wellbore #1 - As Drilled	3,507.5	3,455.8	1,246.7	1,227.4	64.659	CC
State R G36-04 - Wellbore #1 - Wellbore #1 - As Drilled	3,600.0	3,540.1	1,247.0	1,227.2	63.040	ES
State R G36-04 - Wellbore #1 - Wellbore #1 - As Drilled	6,700.0	6,620.6	1,370.5	1,332.9	36.463	SF
State R G36-05 - Wellbore #1 - Wellbore #1 - As Drilled	6,564.7	6,484.4	467.2	431.0	12.915	CC, ES
State R G36-05 - Wellbore #1 - Wellbore #1 - As Drilled	6,600.0	6,519.0	468.2	431.9	12.879	SF
State R G36-06 - Wellbore #1 - Wellbore #1 - As Drilled	6,563.6	6,530.8	1,688.8	1,651.7	45.471	CC, ES
State R G36-06 - Wellbore #1 - Wellbore #1 - As Drilled	6,700.0	6,677.1	1,704.2	1,666.4	45.065	SF
State R G36-11 - Wellbore #1 - Wellbore #1 - As Drilled						Out of range
State R G36-12 - Wellbore #1 - Wellbore #1 - As Drilled	6,688.6	6,605.0	1,393.2	1,356.2	37.630	CC, ES
State R G36-12 - Wellbore #1 - Wellbore #1 - As Drilled	6,800.0	6,698.5	1,397.9	1,360.5	37.377	SF
State R G36-13 - Wellbore #1 - Wellbore #1 - As Drilled						Out of range
State R G36-14 - Wellbore #1 - Wellbore #1 - As Drilled						Out of range

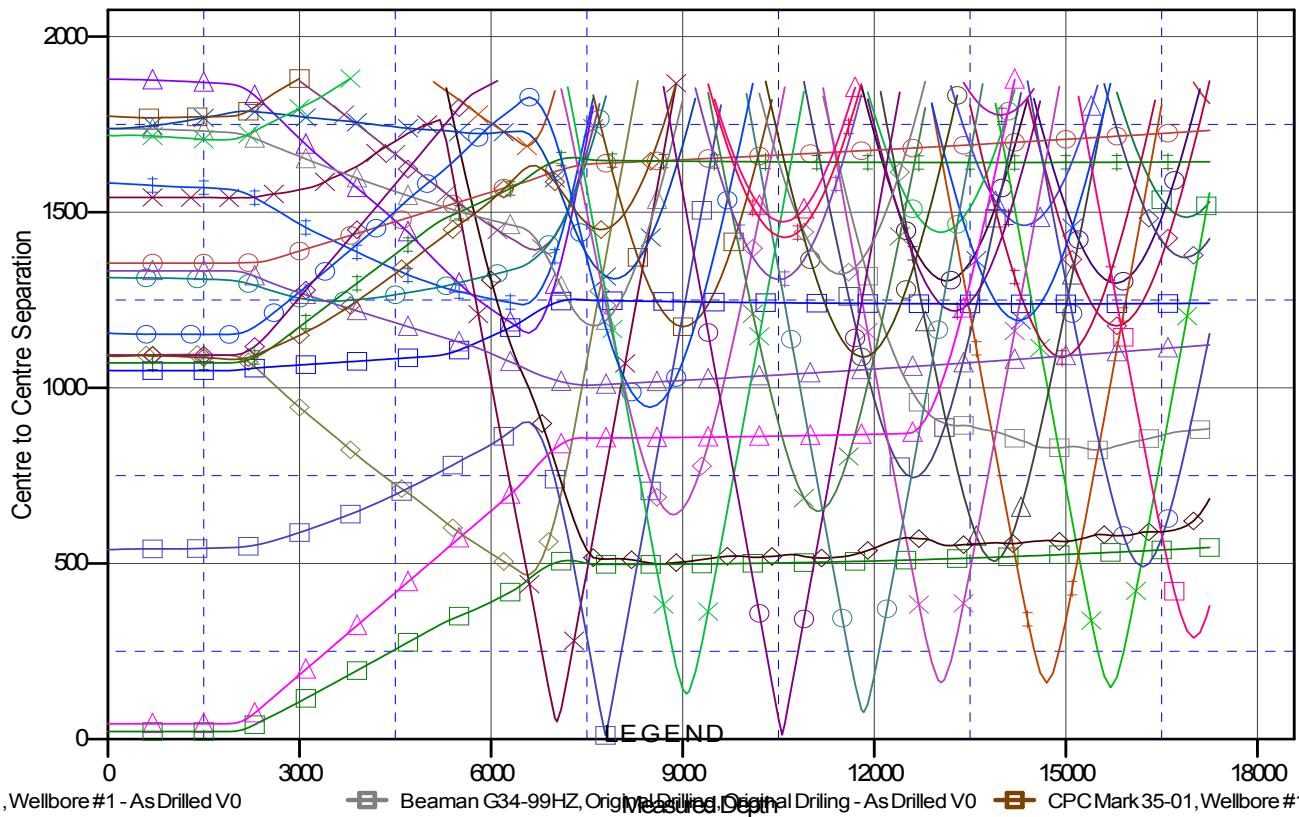
Anticollision Summary Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Centennial State G34-660
Project:	Bronco	TVD Reference:	WELL @ 4813.0ft (Original Well Elev)
Reference Site:	G Section 35	MD Reference:	WELL @ 4813.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	Grid
Reference Well:	Centennial State G34-660	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.79 sigma
Reference Wellbore	Original Drilling	Database:	EDM Production
Reference Design:	APD - Rev 2	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 4813.0ft (Original Well Elev)
Offset Depths are relative to Offset Datum
Central Meridian is -105.5000000

Coordinates are relative to: Centennial State G34-660
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.57°

Ladder Plot



ore #1, Wellbore #1 - As Drilled V0	Beaman G34-99HZ, Original Drilling, Original Drilling - As Drilled V0	CPC Mark 35-01, Wellbore #1, Wellbore
Wellbore #1, Wellbore #1 - As Drilled V0	HSR - Kemper 10-34, Wellbore #1, Wellbore #1 - As Drilled V0	Centennial State G34-684, Original Drill
ore #1, Wellbore #1 - As Drilled V0	Beaman G34-17, Wellbore #1, Wellbore #1 - As Drilled V0	Mark 35-13, Wellbore #1, Wellbore #1 -
ore #1, Wellbore #1 - As Drilled V0	Bockius 34-8G, Wellbore #1, Wellbore #1 - As Drilled V0	Centennial State G34-679, Original Drill
Wellbore #1, Wellbore #1 - As Drilled V0	HSR - Aristocrat 12-34A, Wellbore #1, Wellbore #1 - As Drilled V0	Mark 35-15, Wellbore #1, Wellbore #1 -
Wellbore #1, Wellbore #1 - As Drilled V0	Moser 34-6G, Wellbore #1, Wellbore #1 - As Drilled V0	Ocoma G35-03, Wellbore #1, Wellbore
Wellbore #1, Wellbore #1 - As Drilled V0	Moser 34-5G, Wellbore #1, Wellbore #1 - As Drilled V0	Centennial State G34-645, Original Drill
Wellbore #1, Wellbore #1 - As Drilled V0	HSR - Gun Club 09-34, Wellbore #1, Wellbore #1 - As Drilled V0	Centennial State G34-689, Original Drill
Wellbore #1, Wellbore #1 - As Drilled V0	Beebe 10-34, Wellbore #1, Wellbore #1 - As Drilled V0	Ocoma G35-06, Wellbore #1, Wellbore
Wellbore #1, Wellbore #1 - As Drilled V0	Moser PC G34-65HN, Original Drilling, As Drilled V0	Centennial State G34-675, Original Drill
Wellbore #1, Wellbore #1 - As Drilled V0	Beaman G34-18, Wellbore #1, Wellbore #1 - As Drilled V0	Staind G35-19, Wellbore #1, Wellbore
Wellbore #1, Wellbore #1 - As Drilled V0	Centennial State G34-635, Original Drilling, APD - Rev 2 V0	Mark 12-35, Wellbore #1, Wellbore #1 -
Wellbore #1, Wellbore #1 - As Drilled V0	CPC Mark 35-02, Wellbore #1, Wellbore #1 - As Drilled V0	Ocoma G35-04, Wellbore #1, Wellbore

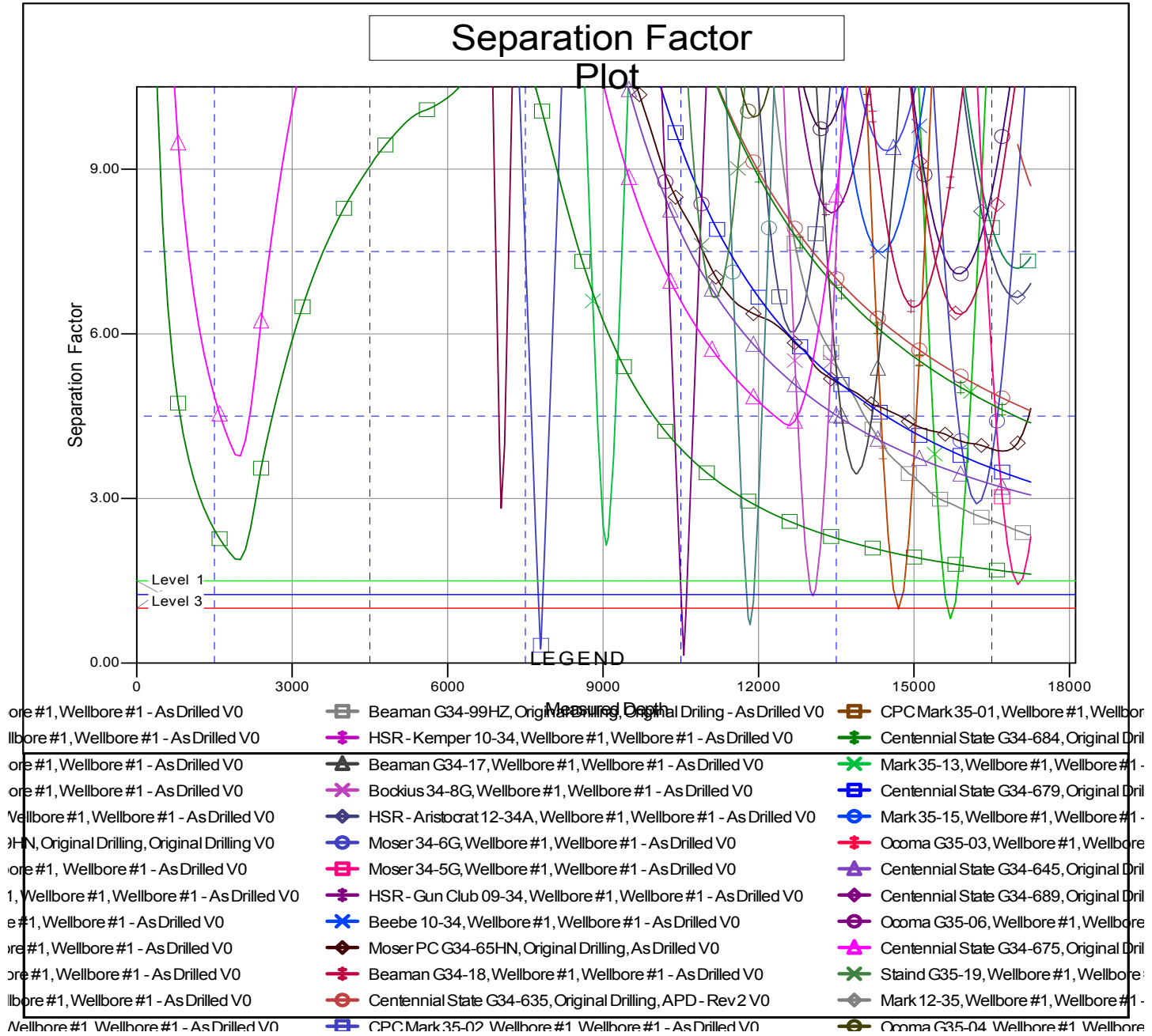
CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Summary Report

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Project:	Bronco	TVD Reference:	WELL @ 4813.0ft (Original Well Elev)
Reference Site:	G Section 35	MD Reference:	WELL @ 4813.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	Grid
Reference Well:	Centennial State G34-660	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.79 sigma
Reference Wellbore	Original Drilling	Database:	EDM Production
Reference Design:	APD - Rev 2	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 4813.0ft (Original Well Elev)
 Offset Depths are relative to Offset Datum
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Coordinates are relative to: Centennial State G34-660
 Coordinate System is US State Plane 1983, Colorado Northern Zone
 Grid Convergence at Surface is: 0.57°



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