

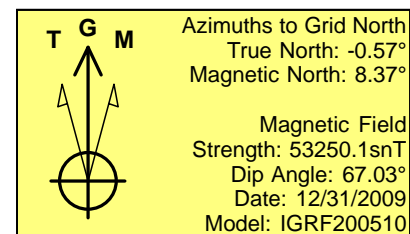
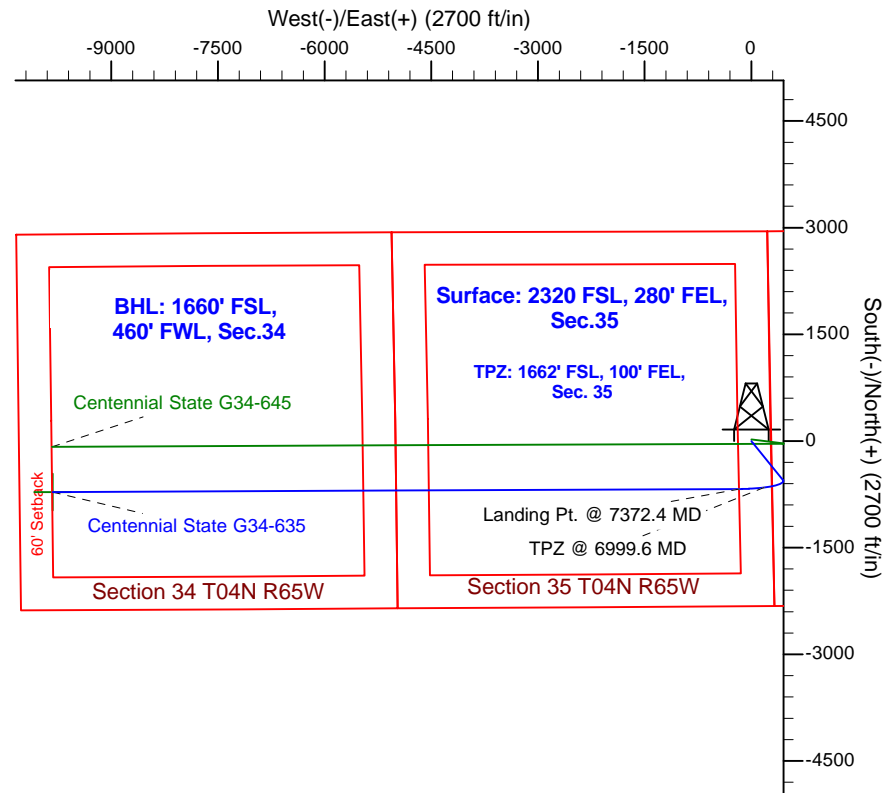
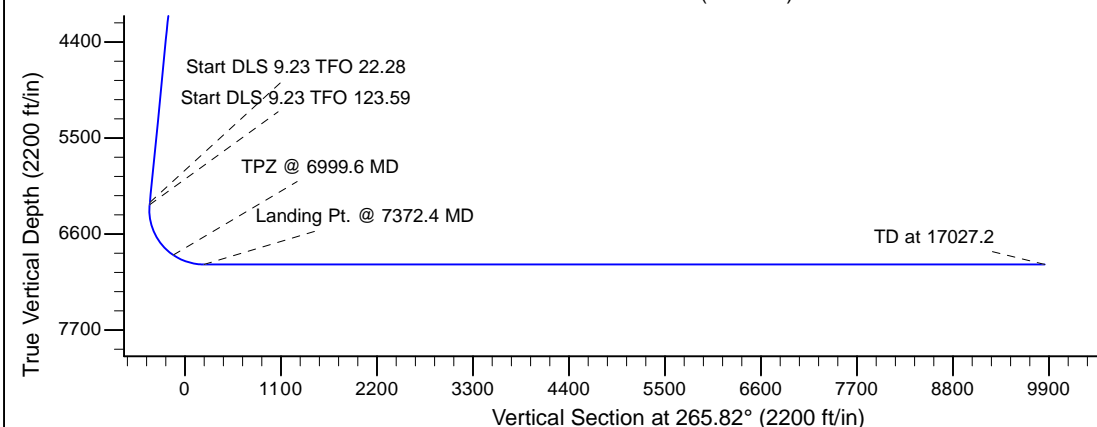
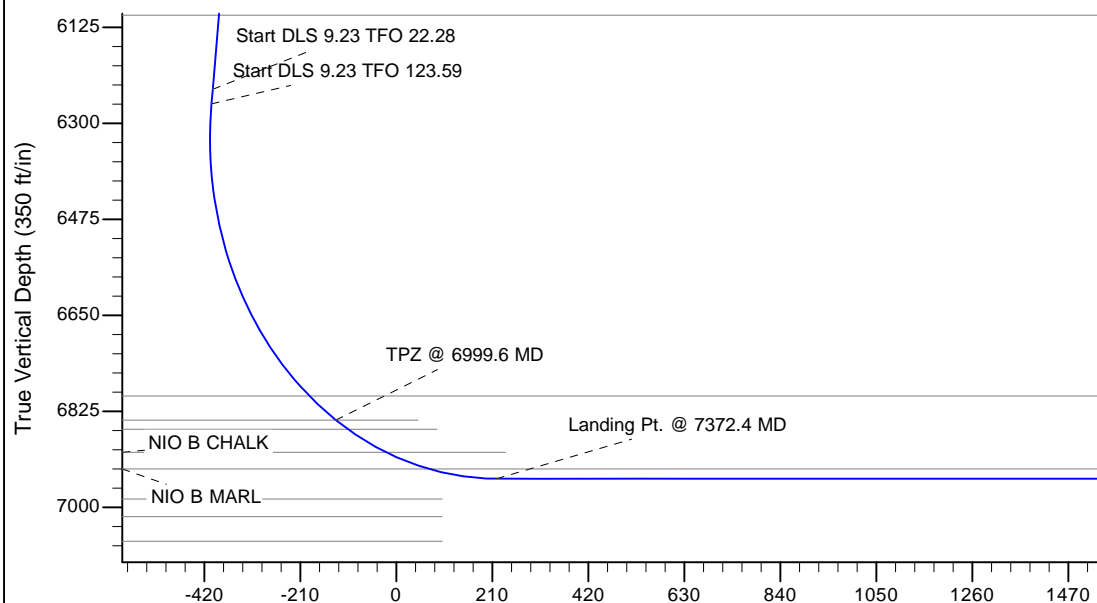
Project: Bronco
 Site: G Section 35-T4N-R65W Weld County, CO
 Well: Centennial State G34-635
 Wellbore: Original Drilling
 Design: APD - Rev 2

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	VSec	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	2387.5	9.75	141.00	2385.2	-32.2	26.0	2.00	141.00	-23.6	
4	6296.8	9.75	141.00	6238.0	-546.7	442.7	0.00	0.00	-401.6	
5	6324.1	12.12	145.56	6264.8	-550.8	445.8	9.23	22.28	-404.4	
6	7372.4	90.00	269.74	6948.0	-675.0	-170.0	9.23	123.59	218.8	
7	17027.2	90.00	269.75	6948.0	-718.3	-9824.7	0.00	90.00	9850.9	Centennial State G34-635 BHL 1660'FSL, 460'FWL



WELL DETAILS: Centennial State G34-635

Ground Level: 4797.0			
Northing	Easting	Latitude	Longitude
0.0	0.0	1341643.03	3244999.06
		40.2678800	-104.6220200

Plan: APD - Rev 2 (Centennial State G34-635/Original Drilling)

Created By: Shailey Jewell

Date: 7:59, February 28 2017

OK to submit with 2A as per Noble Drilling
2/28/2017 8:01

Northern Region - DJ Basin

Bronco

G Section 35

Centennial State G34-635

Original Drilling

APD - Rev 2

Anticollision Summary Report

28 February, 2017

Anticollision Summary Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Centennial State G34-635
Project:	Bronco	TVD Reference:	WELL @ 4827.0ft (Original Well Elev)
Reference Site:	G Section 35	MD Reference:	WELL @ 4827.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	Grid
Reference Well:	Centennial State G34-635	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	17,027.2	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 #	15,831.9	6,883.0	561.5	200.6	1.556	CC, ES, SF
Beaman G34-17 - Wellbore #1 - Wellbore #1 - As Drilled						Out of range
Beaman G34-18 - Wellbore #1 - Wellbore #1 - As Drilled						Out of range
Beaman G34-99HZ - Original Drilling - Original Drilling - A						Out of range
Beaman G35-31 - Wellbore #1 - Wellbore #1 - As Drilled						Out of range
Beebe 10-34 - Wellbore #1 - Wellbore #1 - As Drilled	14,061.4	6,909.1	467.6	314.3	3.051	CC, ES, SF
Bochius Pooling Unit 1 - Wellbore #1 - Wellbore #1 - As						Out of range
Bockius 34-1G - Wellbore #1 - Wellbore #1 - As Drilled						Out of range
Bockius 34-2G - Wellbore #1 - Wellbore #1 - As Drilled						Out of range
Bockius 34-8G - Wellbore #1 - Wellbore #1 - As Drilled	12,833.7	6,860.7	1,820.6	1,691.2	14.071	CC, ES
Bockius 34-8G - Wellbore #1 - Wellbore #1 - As Drilled	13,100.0	6,865.9	1,840.0	1,707.5	13.886	SF
Bockius 37-07G - Wellbore #1 - Wellbore #1 - As Drilled	14,493.1	6,905.8	1,836.1	1,675.6	11.443	CC
Bockius 37-07G - Wellbore #1 - Wellbore #1 - As Drilled	14,500.0	6,905.8	1,836.1	1,675.5	11.435	ES
Bockius 37-07G - Wellbore #1 - Wellbore #1 - As Drilled	14,700.0	6,905.1	1,847.7	1,684.8	11.342	SF
Champ G34-06X - Wellbore #1 - Wellbore #1 - As Drilled	15,494.9	6,894.2	1,529.8	1,350.4	8.526	CC
Champ G34-06X - Wellbore #1 - Wellbore #1 - As Drilled	15,500.0	6,894.2	1,529.8	1,350.3	8.522	ES
Champ G34-06X - Wellbore #1 - Wellbore #1 - As Drilled	15,600.0	6,894.5	1,533.4	1,352.7	8.485	SF
Cornelius 23-34 - Wellbore #1 - Wellbore #1 - As Drilled	14,712.8	6,953.8	331.9	166.3	2.004	CC, ES, SF
HSR - Aristocrat 12-34A - Wellbore #1 - Wellbore #1 - As	16,660.6	6,883.6	312.7	111.6	1.555	CC, ES, SF
HSR - Carney 15-34 - Wellbore #1 - Wellbore #1 - As Dri	13,997.7	6,893.7	898.5	747.3	5.939	CC
HSR - Carney 15-34 - Wellbore #1 - Wellbore #1 - As Dri	14,000.0	6,893.6	898.6	747.2	5.937	ES
HSR - Carney 15-34 - Wellbore #1 - Wellbore #1 - As Dri	14,100.0	6,889.3	904.3	751.4	5.914	SF
HSR - Gun Club 09-34 - Wellbore #1 - Wellbore #1 - As D	13,057.0	7,144.2	441.1	296.2	3.044	CC, ES, SF
HSR - Gun Club 16-34 - Wellbore #1 - Wellbore #1 - As D	13,013.4	7,182.2	905.0	770.4	6.725	CC, ES
HSR - Gun Club 16-34 - Wellbore #1 - Wellbore #1 - As D	13,100.0	7,181.5	909.1	773.2	6.689	SF
HSR - Houston 13-34A - Wellbore #1 - Wellbore #1 - As	16,757.6	6,875.4	834.6	631.7	4.112	CC, ES
HSR - Houston 13-34A - Wellbore #1 - Wellbore #1 - As	16,800.0	6,875.2	835.7	631.9	4.101	SF
HSR - Kemper 10-34 - Wellbore #1 - Wellbore #1 - As Dr	13,778.9	6,874.5	111.2	-35.8	0.757	Level 1, CC, ES, SF
HSR - Merritt 11-34A - Wellbore #1 - Wellbore #1 - As Dr	15,589.7	6,874.6	500.1	318.9	2.761	CC, ES
HSR - Merritt 11-34A - Wellbore #1 - Wellbore #1 - As Dr	15,600.0	6,874.6	500.2	319.0	2.760	SF
HSR - Owens 14-34 - Wellbore #1 - Wellbore #1 - As Dri	15,717.9	6,891.3	970.6	787.1	5.288	CC, ES
HSR - Owens 14-34 - Wellbore #1 - Wellbore #1 - As Dri	15,800.0	6,891.9	974.0	789.1	5.267	SF
Moser 34-3G - Wellbore #1 - Wellbore #1 - As Drilled						Out of range
Moser 34-4G - Wellbore #1 - Wellbore #1 - As Drilled						Out of range
Moser 34-5G - Wellbore #1 - Wellbore #1 - As Drilled	16,806.3	6,960.1	1,417.9	1,213.8	6.950	CC, ES
Moser 34-5G - Wellbore #1 - Wellbore #1 - As Drilled	16,900.0	6,957.8	1,421.0	1,215.9	6.929	SF
Moser 34-6G - 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

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Centennial State G34-635
Project:	Bronco	TVD Reference:	WELL @ 4827.0ft (Original Well Elev)
Reference Site:	G Section 35	MD Reference:	WELL @ 4827.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	Grid
Reference Well:	Centennial State G34-635	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 ft	Output errors are at	2.79 sigma
Reference Wellbore	Original Drilling	Database:	EDM Produccion
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 34						
Moser G34-30 - Wellbore #1 - Wellbore #1 - As Drilled						Out of range
Moser PC G34-65HN - Original Drilling - As Drilled	7,462.5	16,402.0	1,159.1	1,135.6	49.199	CC
Moser PC G34-65HN - Original Drilling - As Drilled	16,700.0	7,177.1	1,226.8	1,041.8	6.630	ES
Moser PC G34-65HN - Original Drilling - As Drilled	17,000.0	6,925.5	1,239.1	1,049.8	6.545	SF

Anticollision Summary Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Centennial State G34-635
Project:	Bronco	TVD Reference:	WELL @ 4827.0ft (Original Well Elev)
Reference Site:	G Section 35	MD Reference:	WELL @ 4827.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	Grid
Reference Well:	Centennial State G34-635	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
G Section 35						
Centennial State G34-612 - Original Drilling - APD - Rev	7,165.5	7,101.4	1,645.6	1,602.3	38.026	CC
Centennial State G34-612 - Original Drilling - APD - Rev	17,027.2	17,074.2	1,770.6	1,406.3	4.860	ES, SF
Centennial State G34-618 - Original Drilling - APD - Rev	7,393.1	7,427.3	1,095.7	1,049.1	23.504	CC
Centennial State G34-618 - Original Drilling - APD - Rev	17,027.2	17,054.9	1,111.2	728.3	2.902	ES, SF
Centennial State G34-626 - Original Drilling - APD - Rev	7,391.0	7,396.4	607.1	560.2	12.944	CC
Centennial State G34-626 - Original Drilling - APD - Rev	17,027.2	17,029.2	649.1	270.3	1.714	ES, SF
Centennial State G34-645 - Original Drilling - APD - Rev	1,900.0	1,901.0	21.9	10.3	1.899	CC, ES
Centennial State G34-645 - Original Drilling - APD - Rev	17,027.2	17,033.8	637.5	254.2	1.663	SF
Centennial State G34-660 - Original Drilling - APD - Rev	1,900.0	1,886.0	1,355.3	1,343.8	118.226	CC
Centennial State G34-660 - Original Drilling - APD - Rev	2,000.0	2,016.1	1,355.7	1,343.6	111.948	ES
Centennial State G34-660 - Original Drilling - APD - Rev	17,027.2	17,218.0	1,732.7	1,356.5	4.606	SF
Centennial State G34-666 - Original Drilling - APD - Rev	1,900.0	1,887.0	1,377.1	1,365.6	120.098	CC, ES
Centennial State G34-666 - Original Drilling - APD - Rev	5,400.0	5,349.2	1,875.2	1,841.1	55.074	SF
Centennial State G34-675 - Original Drilling - APD - Rev	1,900.0	1,887.0	1,399.0	1,387.5	122.005	CC, ES
Centennial State G34-675 - Original Drilling - APD - Rev	4,400.0	4,228.5	1,871.6	1,844.8	69.781	SF
Centennial State G34-679 - Original Drilling - APD - Rev						Out of range
Centennial State G34-684 - Original Drilling - APD - Rev						Out of range
Centennial State G34-689 - Original Drilling - APD - Rev						Out of range
CPC Mark 35-01 - Wellbore #1 - Wellbore #1 - As Drilled						Out of range
CPC Mark 35-02 - Wellbore #1 - Wellbore #1 - As Drilled	1,915.4	1,885.9	1,029.6	1,019.0	97.350	CC, ES
CPC Mark 35-02 - Wellbore #1 - Wellbore #1 - As Drilled	8,100.0	6,878.7	1,698.2	1,652.7	37.278	SF
Mark 11-35 - Wellbore #1 - 150' Drift	10,311.9	6,853.6	327.6	239.8	3.731	CC, ES, SF
Mark 11-35 - Wellbore #1 - Wellbore #1 - As Drilled	10,374.5	6,869.2	176.3	91.9	2.090	CC, ES, SF
Mark 12-35 - Wellbore #1 - Wellbore #1 - As Drilled	11,276.7	6,865.8	327.4	226.7	3.251	CC, ES, SF
Mark 14-35 - Wellbore #1 - Wellbore #1 - As Drilled	10,254.4	6,863.6	906.2	824.0	11.016	CC, ES
Mark 14-35 - Wellbore #1 - Wellbore #1 - As Drilled	10,400.0	6,863.4	917.8	833.1	10.829	SF
Mark 35-11 - Original Drilling - Original Drilling - As Drilled						Out of range
Mark 35-13 - Wellbore #1 - Wellbore #1 - As Drilled	8,855.6	6,885.6	1,767.1	1,708.5	30.135	CC
Mark 35-13 - Wellbore #1 - Wellbore #1 - As Drilled	8,900.0	6,884.7	1,767.7	1,708.4	29.826	ES
Mark 35-13 - Wellbore #1 - Wellbore #1 - As Drilled	9,300.0	6,877.1	1,822.1	1,758.2	28.479	SF
Mark 35-15 - Wellbore #1 - Wellbore #1 - As Drilled						Out of range
Mark E Unit 1 - Wellbore #1 - Wellbore #1 - As Drilled	11,108.6	6,864.1	705.5	607.9	7.228	CC, ES
Mark E Unit 1 - Wellbore #1 - Wellbore #1 - As Drilled	11,200.0	6,861.5	711.4	612.2	7.170	SF
Ocoma G35-03 - Wellbore #1 - Wellbore #1 - As Drilled						Out of range
Ocoma G35-04 - Wellbore #1 - Wellbore #1 - As Drilled						Out of range
Ocoma G35-05 - Wellbore #1 - Wellbore #1 - As Drilled	11,631.6	6,864.2	1,728.7	1,621.5	16.125	CC, ES
Ocoma G35-05 - Wellbore #1 - Wellbore #1 - As Drilled	11,900.0	6,859.7	1,749.4	1,639.1	15.848	SF
Ocoma G35-06 - Wellbore #1 - Wellbore #1 - As Drilled	10,350.3	6,859.3	1,658.2	1,574.3	19.770	CC, ES
Ocoma G35-06 - Wellbore #1 - Wellbore #1 - As Drilled	10,600.0	6,859.3	1,676.9	1,589.9	19.270	SF
Ocoma G35-09 - Wellbore #1 - 150' Drift	3,087.1	3,059.9	382.2	363.5	20.492	CC
Ocoma G35-09 - Wellbore #1 - 150' Drift	3,200.0	3,171.1	382.7	363.3	19.754	ES
Ocoma G35-09 - Wellbore #1 - 150' Drift	7,410.2	6,912.5	445.3	400.5	9.954	SF
Ocoma G35-09 - Wellbore #1 - Wellbore #1 - As Drilled	7,736.4	6,945.4	321.8	279.0	7.504	CC, ES, SF
Ocoma G35-10 - Wellbore #1 - Wellbore #1 - As Drilled	8,654.1	6,951.8	998.2	942.0	17.771	CC, ES
Ocoma G35-10 - Wellbore #1 - Wellbore #1 - As Drilled	8,800.0	6,950.5	1,008.8	951.0	17.469	SF
Ocoma G35-15 - Wellbore #1 - Wellbore #1 - As Drilled	8,777.1	6,942.3	1,108.7	1,051.4	19.341	CC
Ocoma G35-15 - Wellbore #1 - Wellbore #1 - As Drilled	8,800.0	6,941.4	1,108.9	1,051.2	19.207	ES
Ocoma G35-15 - Wellbore #1 - Wellbore #1 - As Drilled	9,000.0	6,932.9	1,130.9	1,070.0	18.577	SF
Ocoma G35-16 - Wellbore #1 - Wellbore #1 - As Drilled	7,297.3	6,941.0	1,072.3	1,032.8	27.137	CC
Ocoma G35-16 - Wellbore #1 - Wellbore #1 - As Drilled	7,300.0	6,941.4	1,072.3	1,032.8	27.127	ES
Ocoma G35-16 - Wellbore #1 - Wellbore #1 - As Drilled	7,500.0	6,951.5	1,094.8	1,053.9	26.741	SF
Ocoma G35-23 - Wellbore #1 - Wellbore #1 - As Drilled	8,184.8	6,917.4	264.3	216.0	5.476	CC, ES
Ocoma G35-23 - Wellbore #1 - Wellbore #1 - As Drilled	8,200.0	6,916.9	264.7	216.1	5.447	SF

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 G34-635
Project:	Bronco	TVD Reference:	WELL @ 4827.0ft (Original Well Elev)
Reference Site:	G Section 35	MD Reference:	WELL @ 4827.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	Grid
Reference Well:	Centennial State G34-635	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
G Section 35						
Staind G35-19 - Wellbore #1 - Wellbore #1 - As Drilled						Out of range
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	6,948.2	10,180.0	211.0	193.6	12.143	CC, ES
Mark State PC G36-79HN - Original Drilling - Original Dri	7,000.0	10,187.4	219.2	200.1	11.480	SF
Otis State G36-19 - Wellbore #1 - Wellbore #1 - As Drille						Out of range
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	5,863.2	5,789.4	1,408.5	1,374.9	41.907	CC
Pedro State G36-20 - Wellbore #1 - Wellbore #1 - As Dri	6,100.0	6,019.9	1,409.7	1,374.7	40.222	ES
Pedro State G36-20 - Wellbore #1 - Wellbore #1 - As Dri	6,500.0	6,401.4	1,437.4	1,400.1	38.550	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	6,945.6	6,900.9	1,579.6	1,540.4	40.345	CC, ES
Pedro State H01-30D - Wellbore #1 - Wellbore #1 - As D	7,200.0	7,015.7	1,606.4	1,566.1	39.898	SF
Shelton G36-27 - Wellbore #1 - Wellbore #1 - As Drilled						Out of range
State 04 - Wellbore #1 - Wellbore #1 - As Drilled	6,427.7	6,336.0	1,213.6	1,177.7	33.841	CC, ES
State 04 - Wellbore #1 - Wellbore #1 - As Drilled	6,500.0	6,402.2	1,217.7	1,181.5	33.607	SF
State R G36-03 - Wellbore #1 - Wellbore #1 - As Drilled						Out of range
State R G36-04 - Wellbore #1 - Wellbore #1 - As Drilled						Out of range
State R G36-05 - Wellbore #1 - Wellbore #1 - As Drilled	2,384.8	2,368.5	1,288.5	1,275.7	100.240	CC
State R G36-05 - Wellbore #1 - Wellbore #1 - As Drilled	2,400.0	2,383.5	1,288.6	1,275.6	99.620	ES
State R G36-05 - Wellbore #1 - Wellbore #1 - As Drilled	6,500.0	6,416.2	1,544.4	1,507.6	42.040	SF
State R G36-06 - Wellbore #1 - Wellbore #1 - As Drilled						Out of range
State R G36-11 - Wellbore #1 - Wellbore #1 - As Drilled	6,400.0	6,315.2	1,849.3	1,812.9	50.860	CC, ES
State R G36-11 - Wellbore #1 - Wellbore #1 - As Drilled	6,500.0	6,404.0	1,860.2	1,823.3	50.455	SF
State R G36-12 - Wellbore #1 - Wellbore #1 - As Drilled	6,327.1	6,243.9	576.8	540.5	15.900	CC, ES
State R G36-12 - Wellbore #1 - Wellbore #1 - As Drilled	6,400.0	6,315.2	579.0	542.3	15.779	SF
State R G36-13 - Wellbore #1 - Wellbore #1 - As Drilled	6,546.7	6,443.4	1,219.7	1,183.6	33.852	CC, ES
State R G36-13 - Wellbore #1 - Wellbore #1 - As Drilled	6,700.0	6,578.8	1,231.0	1,194.4	33.582	SF
State R G36-14 - Wellbore #1 - Wellbore #1 - As Drilled						Out of range

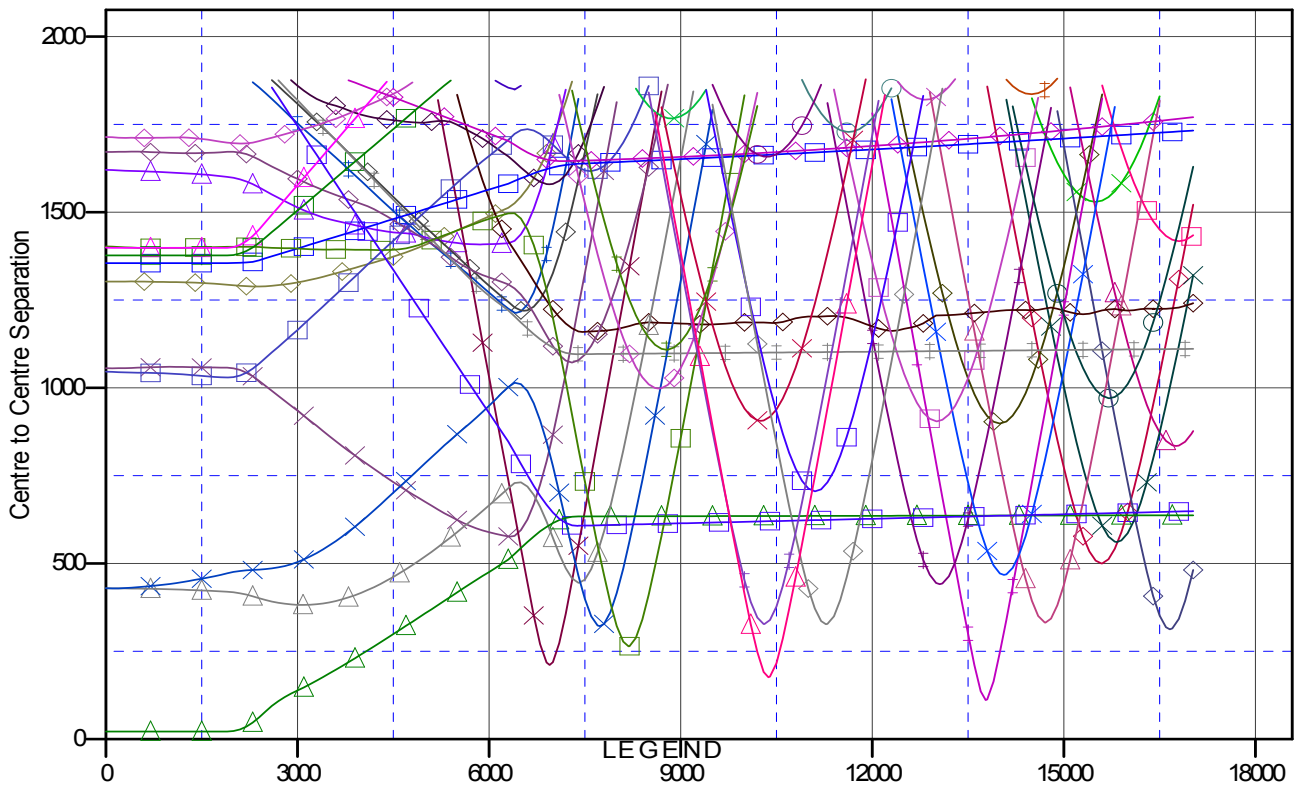
Anticollision Summary Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Centennial State G34-635
Project:	Bronco	TVD Reference:	WELL @ 4827.0ft (Original Well Elev)
Reference Site:	G Section 35	MD Reference:	WELL @ 4827.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	Grid
Reference Well:	Centennial State G34-635	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 @ 4827.0ft (Original Well Elev)
Offset Depths are relative to Offset Datum
Central Meridian is -105.5000000

Coordinates are relative to: Centennial State G34-635
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.57°

Ladder Plot



Wellbore #1 - As Drilled V0	HSR - Aristocrat 12-34A, Wellbore #1, Wellbore #1 - As Drilled V0	Mark 35-13, Wellbore #1, Wellbore #1 - As Drilled V0
Wellbore #1 - As Drilled V0	Moser 34-5G, Wellbore #1, Wellbore #1 - As Drilled V0	Centennial State G34-612, Original Drilling, Original Drilling V0
Wellbore #1 - As Drilled V0	HSR - Gun Club 09-34, Wellbore #1, Wellbore #1 - As Drilled V0	Ocoma G35-23, Wellbore #1, Wellbore #1 - As Drilled V0
Wellbore #1 - As Drilled V0	Cornelius 23-34, Wellbore #1, Wellbore #1 - As Drilled V0	Centennial State G34-645, Original Drilling, Original Drilling V0
Wellbore #1 - As Drilled V0	Beebe 10-34, Wellbore #1, Wellbore #1 - As Drilled V0	Mark 14-35, Wellbore #1, Wellbore #1 - As Drilled V0
Wellbore #1 - As Drilled V0	Moser PC G34-65HN, Original Drilling, As Drilled V0	Ocoma G35-06, Wellbore #1, Wellbore #1 - As Drilled V0
Wellbore #1 - As Drilled V0	HSR - Owens 14-34, Wellbore #1, Wellbore #1 - As Drilled V0	Mark E Unit 1, Wellbore #1, Wellbore #1 - As Drilled V0
Wellbore #1, Wellbore #1 - As Drilled V0	HSR - Gun Club 16-34, Wellbore #1, Wellbore #1 - As Drilled V0	Ocoma G35-15, Wellbore #1, Wellbore #1 - As Drilled V0
Wellbore #1, Wellbore #1 - As Drilled V0	Ocoma G35-16, Wellbore #1, Wellbore #1 - As Drilled V0	Centennial State G34-675, Original Drilling, Original Drilling V0
Wellbore #1, Wellbore #1 - As Drilled V0	CPC Mark 35-02, Wellbore #1, Wellbore #1 - As Drilled V0	Mark 12-35, Wellbore #1, Wellbore #1 - As Drilled V0
Wellbore #1, Wellbore #1 - As Drilled V0	Centennial State G34-618, Original Drilling, APD - Rev 2 V0	Centennial State G34-626, Original Drilling, Original Drilling V0
Wellbore #1, Wellbore #1 - As Drilled V0	Ocoma G35-09, Wellbore #1, 150' Drift V0	Mark 11-35, Wellbore #1, 150' Drift V0

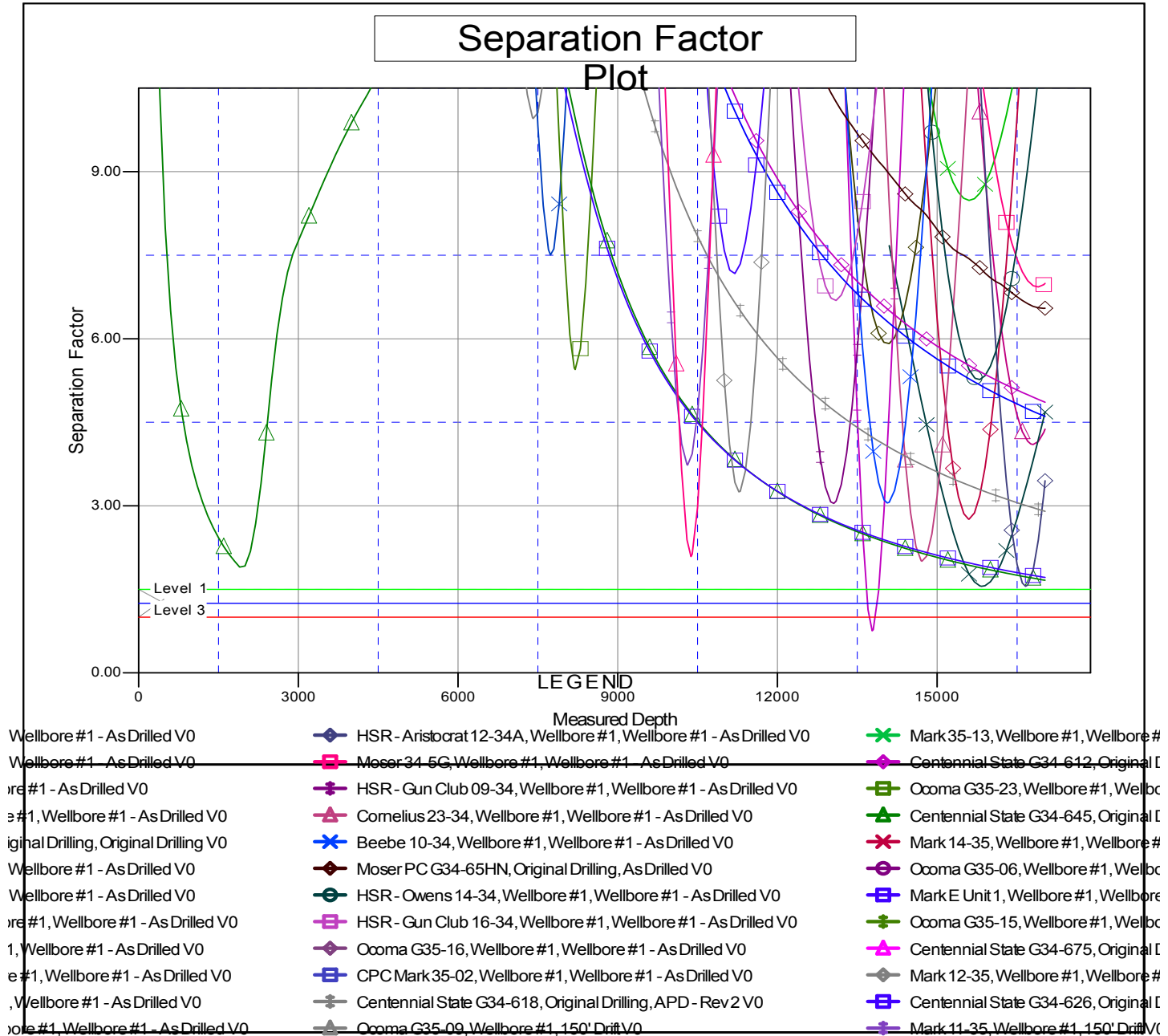
CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Summary Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Centennial State G34-635
Project:	Bronco	TVD Reference:	WELL @ 4827.0ft (Original Well Elev)
Reference Site:	G Section 35	MD Reference:	WELL @ 4827.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	Grid
Reference Well:	Centennial State G34-635	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 @ 4827.0ft (Original Well Elev)
 Offset Depths are relative to Offset Datum
 Central Meridian is -105.5000000

Coordinates are relative to: Centennial State G34-635
 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