

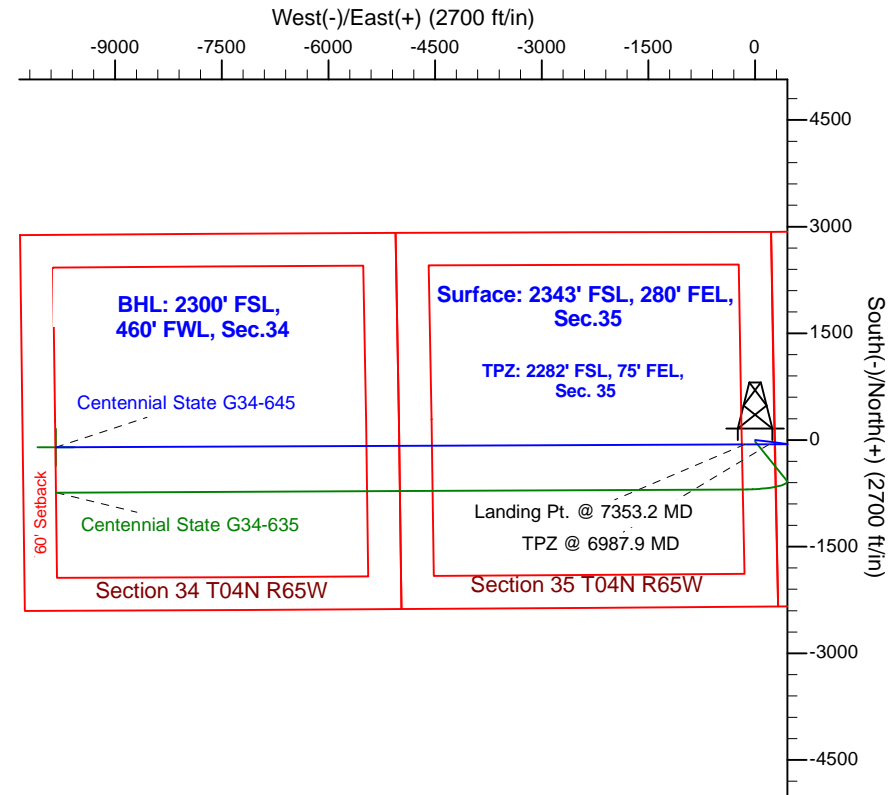
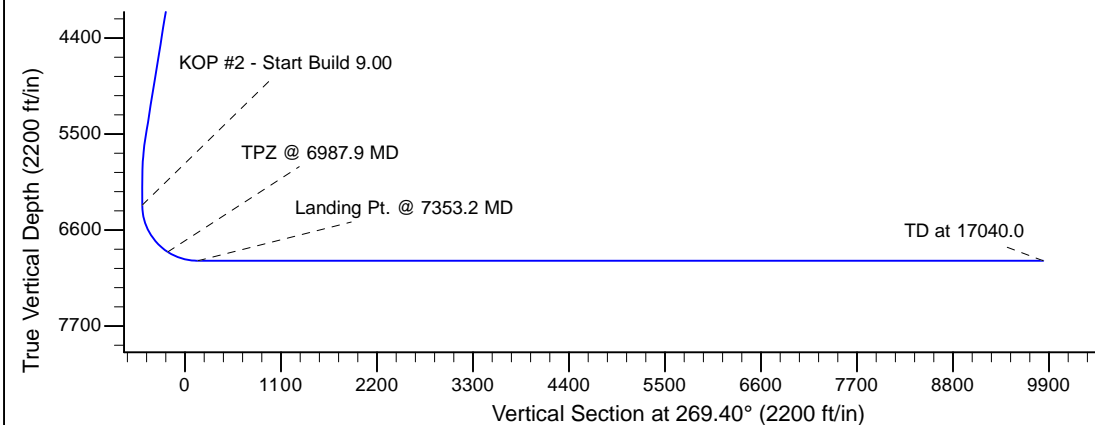
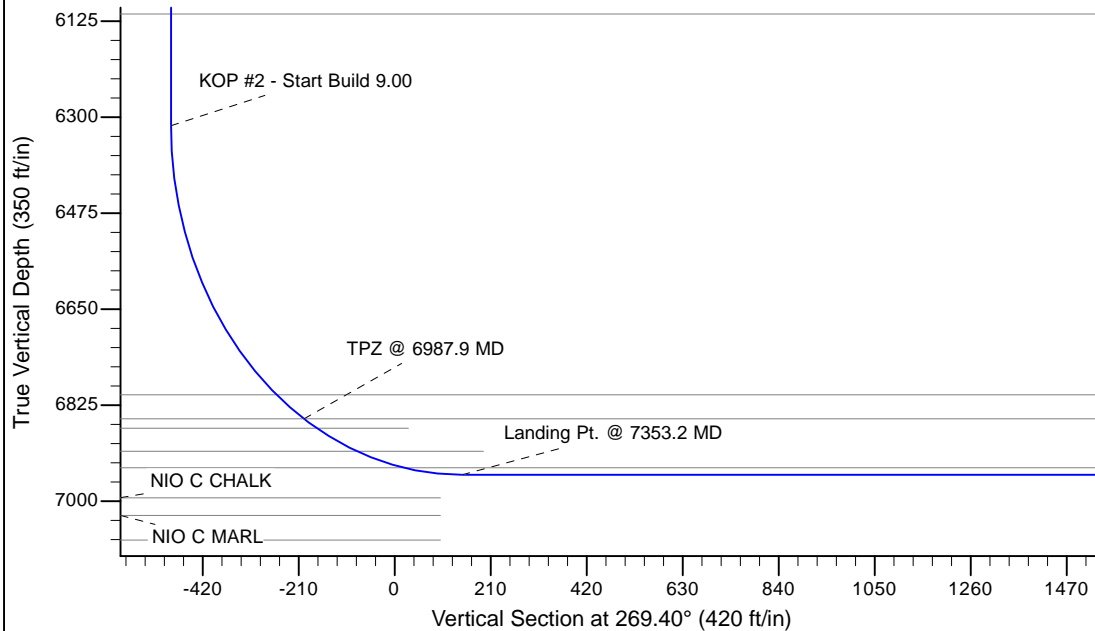
Project: Bronco
 Site: G Section 35-T4N-R65W Weld County, CO
 Well: Centennial State G34-645
 Wellbore: Original Drilling
 Design: APD - Rev 2

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	2500.0	0.00	0.00	2500.0	0.0	0.0	0.00	0.00	0.0	
3	2961.6	9.23	96.98	2959.6	-4.5	36.8	2.00	96.98	-36.8	
4	5576.3	9.23	96.98	5540.4	-55.5	453.2	0.00	0.00	-452.6	
5	6037.9	0.00	0.00	6000.0	-60.0	490.0	2.00	180.00	-489.3	
6	6353.2	0.00	0.00	6315.4	-60.0	490.0	0.00	0.00	-489.3	
7	7353.2	90.00	269.76	6952.0	-62.6	-146.6	9.00	269.76	147.3	
8	17040.0	90.00	269.76	6952.0	-102.7	-9833.3	0.00	0.00	9833.8	Centennial State G34-645 BHL 2300'FSL, 460"FWL



T G M

Azimuths to Grid North
 True North: -0.57°
 Magnetic North: 8.37°

Magnetic Field
 Strength: 53250.2snT
 Dip Angle: 67.03°
 Date: 12/31/2009
 Model: IGRF200510

WELL DETAILS: Centennial State G34-645				
	Ground Level:	4796.0		
	Northing	Easting	Latitude	Longitude
0.0	0.0	1341664.88	3244998.85	40.2679400 -104.6220200

Plan: APD - Rev 2 (Centennial State G34-645/Original Drilling)
 Created By: Shailey Jewell Date: 7:55, February 28 2017

OK to submit with 2A as per Noble Drilling
2/28/2017 7:55

Northern Region - DJ Basin

Bronco

G Section 35

Centennial State G34-645

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 G34-645
Project:	Bronco	TVD Reference:	WELL @ 4826.0ft (Original Well Elev)
Reference Site:	G Section 35	MD Reference:	WELL @ 4826.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	Grid
Reference Well:	Centennial State G34-645	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	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	17,039.9	APD - Rev 2 (Original Drilling)	MWD+IFR1+MS_WY	Fixed:v2:Rockies, crustal dec + 3-axis correction

Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Summary						
Offset Well - Wellbore - Design						
G Section 34						
Aristocrat Angus Ranches #1 - Wellbore #1 - Wellbore #	15,838.3	6,888.0	1,198.6	836.9	3.314	CC, ES
Aristocrat Angus Ranches #1 - Wellbore #1 - Wellbore #	15,900.0	6,888.0	1,200.2	837.6	3.310	SF
Beaman G34-17 - Wellbore #1 - Wellbore #1 - As Drilled	13,660.4	6,872.9	1,535.9	1,390.6	10.565	CC
Beaman G34-17 - Wellbore #1 - Wellbore #1 - As Drilled	13,700.0	6,873.2	1,536.4	1,390.4	10.519	ES
Beaman G34-17 - Wellbore #1 - Wellbore #1 - As Drilled	13,800.0	6,873.8	1,542.3	1,394.8	10.460	SF
Beaman G34-18 - Wellbore #1 - Wellbore #1 - As Drilled						Out of range
Beaman G34-99HZ - Original Drilling - Original Driling - A	15,315.3	9,500.8	1,795.8	1,501.4	6.099	CC
Beaman G34-99HZ - Original Drilling - Original Driling - A	17,040.0	11,191.0	1,840.1	1,428.7	4.473	ES, SF
Beaman G35-31 - Wellbore #1 - Wellbore #1 - As Drilled	12,416.5	6,865.3	1,766.5	1,644.2	14.449	CC, ES
Beaman G35-31 - Wellbore #1 - Wellbore #1 - As Drilled	12,700.0	6,863.6	1,789.1	1,662.9	14.184	SF
Beebe 10-34 - Wellbore #1 - Wellbore #1 - As Drilled	14,068.2	6,924.1	168.8	14.8	1.096	Level 2, 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	12,841.0	6,866.3	1,184.5	1,054.4	9.107	CC, ES
Bockius 34-8G - Wellbore #1 - Wellbore #1 - As Drilled	12,900.0	6,867.4	1,185.9	1,054.9	9.052	SF
Bockius 37-07G - Wellbore #1 - Wellbore #1 - As Drilled	14,500.3	6,899.6	1,199.4	1,038.3	7.447	CC, ES
Bockius 37-07G - Wellbore #1 - Wellbore #1 - As Drilled	14,600.0	6,899.3	1,203.5	1,041.1	7.410	SF
Champ G34-06X - Wellbore #1 - Wellbore #1 - As Drilled	15,502.0	6,893.0	892.8	712.7	4.958	CC, ES, SF
Cornelius 23-34 - Wellbore #1 - Wellbore #1 - As Drilled	14,719.3	6,953.6	968.7	802.5	5.828	CC, ES
Cornelius 23-34 - Wellbore #1 - Wellbore #1 - As Drilled	14,800.0	6,953.4	972.1	804.8	5.811	SF
HSR - Aristocrat 12-34A - Wellbore #1 - Wellbore #1 - As	16,667.3	6,882.6	324.6	122.9	1.609	CC, ES, SF
HSR - Carney 15-34 - Wellbore #1 - Wellbore #1 - As Dri	14,003.3	6,910.0	1,534.9	1,382.9	10.096	CC, ES
HSR - Carney 15-34 - Wellbore #1 - Wellbore #1 - As Dri	14,200.0	6,901.3	1,547.5	1,392.8	10.006	SF
HSR - Gun Club 09-34 - Wellbore #1 - Wellbore #1 - As D	13,063.6	7,150.1	195.1	49.6	1.341	Level 3, CC, ES, SF
HSR - Gun Club 16-34 - Wellbore #1 - Wellbore #1 - As D	13,019.6	7,188.5	1,541.2	1,405.9	11.396	CC, ES
HSR - Gun Club 16-34 - Wellbore #1 - Wellbore #1 - As D	13,200.0	7,186.9	1,551.7	1,414.1	11.278	SF
HSR - Houston 13-34A - Wellbore #1 - Wellbore #1 - As	16,763.9	6,874.6	1,472.1	1,268.4	7.229	CC
HSR - Houston 13-34A - Wellbore #1 - Wellbore #1 - As	16,800.0	6,874.5	1,472.5	1,268.3	7.209	ES
HSR - Houston 13-34A - Wellbore #1 - Wellbore #1 - As	16,900.0	6,873.9	1,478.3	1,272.9	7.197	SF
HSR - Kemper 10-34 - Wellbore #1 - Wellbore #1 - As Dr	13,785.5	6,881.0	747.7	600.0	5.062	CC
HSR - Kemper 10-34 - Wellbore #1 - Wellbore #1 - As Dr	13,800.0	6,881.1	747.8	599.9	5.055	ES, SF
HSR - Merritt 11-34A - Wellbore #1 - Wellbore #1 - As Dr	15,596.5	6,876.0	137.0	-44.8	0.753	Level 1, CC, ES, SF
HSR - Owens 14-34 - Wellbore #1 - Wellbore #1 - As Dri	15,724.3	6,908.9	1,607.5	1,423.2	8.722	CC, ES
HSR - Owens 14-34 - Wellbore #1 - Wellbore #1 - As Dri	15,900.0	6,910.4	1,617.0	1,430.3	8.661	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

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 G34-645
Project:	Bronco	TVD Reference:	WELL @ 4826.0ft (Original Well Elev)
Reference Site:	G Section 35	MD Reference:	WELL @ 4826.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	Grid
Reference Well:	Centennial State G34-645	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 34						
Offset Well - Wellbore - Design						
Moser 34-5G - Wellbore #1 - Wellbore #1 - As Drilled	16,813.9	6,931.6	781.0	576.5	3.819	CC, ES, SF
Moser 34-6G - Wellbore #1 - Wellbore #1 - As Drilled	16,010.4	6,962.1	1,455.0	1,265.6	7.679	CC, ES
Moser 34-6G - Wellbore #1 - Wellbore #1 - As Drilled	16,100.0	6,959.9	1,457.8	1,267.0	7.640	SF
Moser G34-30 - Wellbore #1 - Wellbore #1 - As Drilled						Out of range
Moser PC G34-65HN - Original Drilling - As Drilled	7,469.7	16,408.2	526.1	502.5	22.271	CC
Moser PC G34-65HN - Original Drilling - As Drilled	16,700.0	7,174.8	589.5	403.8	3.175	ES
Moser PC G34-65HN - Original Drilling - As Drilled	16,800.0	7,088.2	592.2	404.9	3.162	SF

Anticollision Summary Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Centennial State G34-645
Project:	Bronco	TVD Reference:	WELL @ 4826.0ft (Original Well Elev)
Reference Site:	G Section 35	MD Reference:	WELL @ 4826.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	Grid
Reference Well:	Centennial State G34-645	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						Out of range
Centennial State G34-618 - Original Drilling - APD - Rev	6,100.0	6,121.2	1,728.7	1,689.8	44.398	CC
Centennial State G34-618 - Original Drilling - APD - Rev	17,040.0	17,054.9	1,748.6	1,364.9	4.557	ES, SF
Centennial State G34-626 - Original Drilling - APD - Rev	7,451.5	7,453.0	1,237.3	1,189.4	25.787	CC
Centennial State G34-626 - Original Drilling - APD - Rev	17,040.0	17,029.2	1,282.3	900.3	3.357	ES, SF
Centennial State G34-635 - Original Drilling - APD - Rev	1,900.0	1,901.0	21.9	10.3	1.899	CC, ES
Centennial State G34-635 - Original Drilling - APD - Rev	17,040.0	17,027.2	637.5	254.1	1.663	SF
Centennial State G34-660 - Original Drilling - APD - Rev	7,330.0	7,521.4	1,007.5	961.6	21.947	CC
Centennial State G34-660 - Original Drilling - APD - Rev	17,040.0	17,227.7	1,122.2	756.3	3.067	ES, SF
Centennial State G34-666 - Original Drilling - APD - Rev	2,100.0	2,088.0	1,355.3	1,342.5	106.513	CC
Centennial State G34-666 - Original Drilling - APD - Rev	17,040.0	17,002.0	1,492.7	1,110.4	3.905	ES, SF
Centennial State G34-675 - Original Drilling - APD - Rev	1,900.0	1,888.0	1,377.1	1,365.6	120.066	CC, ES
Centennial State G34-675 - Original Drilling - APD - Rev	12,500.0	12,296.4	1,847.1	1,636.6	8.773	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	7,589.2	6,899.8	983.3	941.9	23.735	CC
CPC Mark 35-02 - Wellbore #1 - Wellbore #1 - As Drilled	7,600.0	6,899.7	983.4	941.9	23.682	ES
CPC Mark 35-02 - Wellbore #1 - Wellbore #1 - As Drilled	7,800.0	6,897.8	1,005.7	962.3	23.205	SF
Mark 11-35 - Wellbore #1 - 150' Drift	10,318.6	6,884.5	306.9	218.3	3.463	CC, ES, SF
Mark 11-35 - Wellbore #1 - Wellbore #1 - As Drilled	10,381.2	6,866.1	459.0	374.1	5.406	CC, ES
Mark 11-35 - Wellbore #1 - Wellbore #1 - As Drilled	10,400.0	6,865.9	459.4	374.2	5.392	SF
Mark 12-35 - Wellbore #1 - Wellbore #1 - As Drilled	11,283.4	6,871.0	308.2	206.8	3.040	CC, ES
Mark 12-35 - Wellbore #1 - Wellbore #1 - As Drilled	11,300.0	6,870.8	308.6	207.1	3.039	SF
Mark 14-35 - Wellbore #1 - Wellbore #1 - As Drilled	10,260.7	6,863.4	1,541.5	1,458.7	18.616	CC
Mark 14-35 - Wellbore #1 - Wellbore #1 - As Drilled	10,300.0	6,863.3	1,542.0	1,458.5	18.470	ES
Mark 14-35 - Wellbore #1 - Wellbore #1 - As Drilled	10,600.0	6,862.9	1,578.4	1,491.0	18.064	SF
Mark 35-11 - Original Drilling - Original Drilling - As Drilled						Out of range
Mark 35-13 - Wellbore #1 - Wellbore #1 - As Drilled	8,862.7	6,891.0	1,132.4	1,073.3	19.155	CC, ES
Mark 35-13 - Wellbore #1 - Wellbore #1 - As Drilled	9,100.0	6,886.5	1,157.0	1,094.7	18.562	SF
Mark 35-15 - Wellbore #1 - Wellbore #1 - As Drilled						Out of range
Mark E Unit 1 - Wellbore #1 - Wellbore #1 - As Drilled	11,114.8	6,868.3	1,341.1	1,242.9	13.655	CC, ES
Mark E Unit 1 - Wellbore #1 - Wellbore #1 - As Drilled	11,300.0	6,862.6	1,353.8	1,252.9	13.422	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	11,638.7	6,871.5	1,093.0	985.2	10.133	CC, ES
Ocoma G35-05 - Wellbore #1 - Wellbore #1 - As Drilled	11,800.0	6,868.8	1,104.9	995.0	10.056	SF
Ocoma G35-06 - Wellbore #1 - Wellbore #1 - As Drilled	10,357.5	6,863.8	1,022.9	938.5	12.109	CC, ES
Ocoma G35-06 - Wellbore #1 - Wellbore #1 - As Drilled	10,500.0	6,863.8	1,032.8	946.4	11.951	SF
Ocoma G35-09 - Wellbore #1 - 150' Drift	7,416.9	6,943.9	188.1	143.2	4.189	CC, ES, SF
Ocoma G35-09 - Wellbore #1 - Wellbore #1 - As Drilled	7,743.0	6,950.5	312.4	269.4	7.257	CC, ES, SF
Ocoma G35-10 - Wellbore #1 - Wellbore #1 - As Drilled	8,661.0	6,954.1	363.5	307.0	6.424	CC, ES
Ocoma G35-10 - Wellbore #1 - Wellbore #1 - As Drilled	8,700.0	6,953.7	365.6	308.5	6.403	SF
Ocoma G35-15 - Wellbore #1 - Wellbore #1 - As Drilled	8,782.6	6,959.6	1,743.2	1,685.3	30.126	CC
Ocoma G35-15 - Wellbore #1 - Wellbore #1 - As Drilled	8,800.0	6,959.0	1,743.2	1,685.1	29.989	ES
Ocoma G35-15 - Wellbore #1 - Wellbore #1 - As Drilled	9,300.0	6,938.3	1,818.2	1,753.6	28.162	SF
Ocoma G35-16 - Wellbore #1 - Wellbore #1 - As Drilled	1,267.7	1,254.9	1,690.1	1,683.4	251.916	CC
Ocoma G35-16 - Wellbore #1 - Wellbore #1 - As Drilled	7,300.0	6,951.2	1,705.4	1,665.9	43.261	ES
Ocoma G35-16 - Wellbore #1 - Wellbore #1 - As Drilled	7,900.0	6,971.1	1,814.3	1,770.0	41.027	SF
Ocoma G35-23 - Wellbore #1 - Wellbore #1 - As Drilled	8,191.2	6,918.3	898.7	850.2	18.510	CC
Ocoma G35-23 - Wellbore #1 - Wellbore #1 - As Drilled	8,200.0	6,918.0	898.8	850.1	18.466	ES
Ocoma G35-23 - Wellbore #1 - Wellbore #1 - As Drilled	8,400.0	6,912.3	922.6	871.7	18.106	SF

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

Anticollision Summary Report

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Reference Wellbore	Original Drilling	Database:	EDM Production
Reference Design:	APD - Rev 2	Offset TVD Reference:	Offset Datum

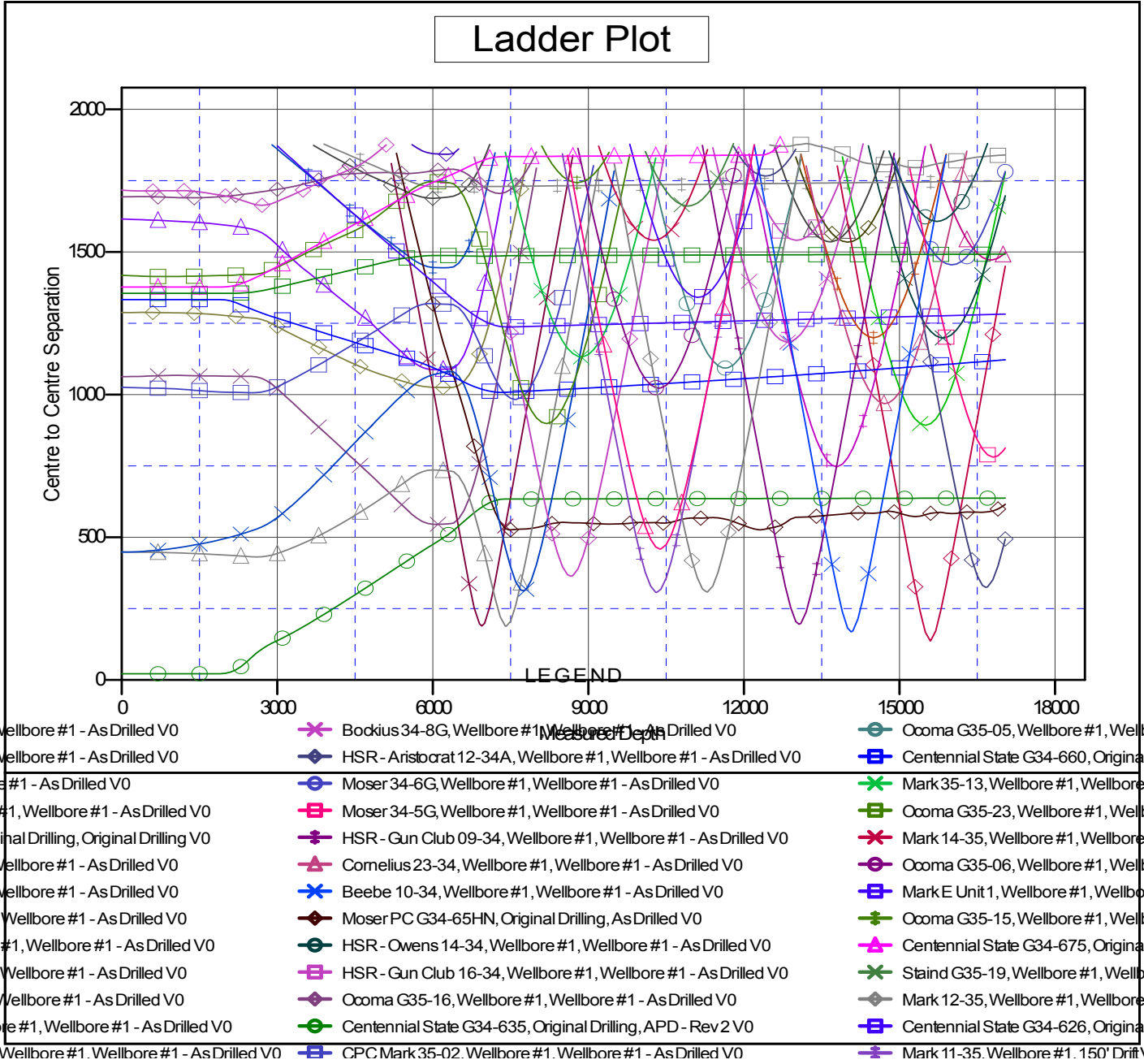
Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
G Section 35						
Staind G35-19 - Wellbore #1 - Wellbore #1 - As Drilled	10,919.0	6,961.4	1,661.3	1,565.2	17.275	CC, ES
Staind G35-19 - Wellbore #1 - Wellbore #1 - As Drilled	11,200.0	6,961.0	1,684.9	1,584.6	16.802	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	6,946.6	9,570.8	189.5	173.2	11.628	CC, ES
Mark State PC G36-79HN - Original Drilling - Original Dri	7,000.0	9,570.7	199.0	181.2	11.172	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	6,058.6	5,992.4	1,087.8	1,054.2	32.391	CC, ES
Pedro State G36-20 - Wellbore #1 - Wellbore #1 - As Dri	6,400.0	6,321.4	1,092.9	1,057.6	30.963	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	6,195.6	6,144.2	1,444.9	1,411.1	42.695	CC
State 04 - Wellbore #1 - Wellbore #1 - As Drilled	6,300.0	6,237.3	1,445.4	1,411.0	42.048	ES
State 04 - Wellbore #1 - Wellbore #1 - As Drilled	6,500.0	6,425.9	1,460.6	1,425.3	41.351	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	6,306.3	6,237.3	1,025.2	990.3	29.352	CC, ES
State R G36-05 - Wellbore #1 - Wellbore #1 - As Drilled	6,500.0	6,431.8	1,032.4	996.6	28.789	SF
State R G36-06 - Wellbore #1 - Wellbore #1 - As Drilled						Out of range
State R G36-11 - Wellbore #1 - Wellbore #1 - As Drilled	6,260.2	6,215.7	1,842.8	1,808.7	54.031	CC
State R G36-11 - Wellbore #1 - Wellbore #1 - As Drilled	6,300.0	6,250.1	1,842.9	1,808.6	53.714	ES
State R G36-11 - Wellbore #1 - Wellbore #1 - As Drilled	6,500.0	6,427.5	1,861.2	1,826.0	52.783	SF
State R G36-12 - Wellbore #1 - Wellbore #1 - As Drilled	6,077.8	6,020.1	545.5	512.1	16.345	CC, ES
State R G36-12 - Wellbore #1 - Wellbore #1 - As Drilled	6,400.0	6,335.8	549.9	514.9	15.706	SF
State R G36-13 - Wellbore #1 - Wellbore #1 - As Drilled	5,998.0	5,947.2	1,688.3	1,655.0	50.703	CC
State R G36-13 - Wellbore #1 - Wellbore #1 - As Drilled	6,000.0	5,948.8	1,688.3	1,655.0	50.689	ES
State R G36-13 - Wellbore #1 - Wellbore #1 - As Drilled	6,600.0	6,502.3	1,716.5	1,680.4	47.582	SF
State R G36-14 - 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 G34-645	
Project: Bronco	TVD Reference: WELL @ 4826.0ft (Original Well Elev)	
Reference Site: G Section 35	MD Reference: WELL @ 4826.0ft (Original Well Elev)	
Site Error: 0.0 ft	North Reference: Grid	
Reference Well: Centennial State G34-645	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 @ 4826.0ft (Original Well Elev) Coordinates are relative to: Centennial State G34-645
 Offset Depths are relative to Offset Datum Coordinate System is US State Plane 1983, Colorado Northern Zone
 Central Meridian is -105.5000000 Grid Convergence at Surface is: 0.57°



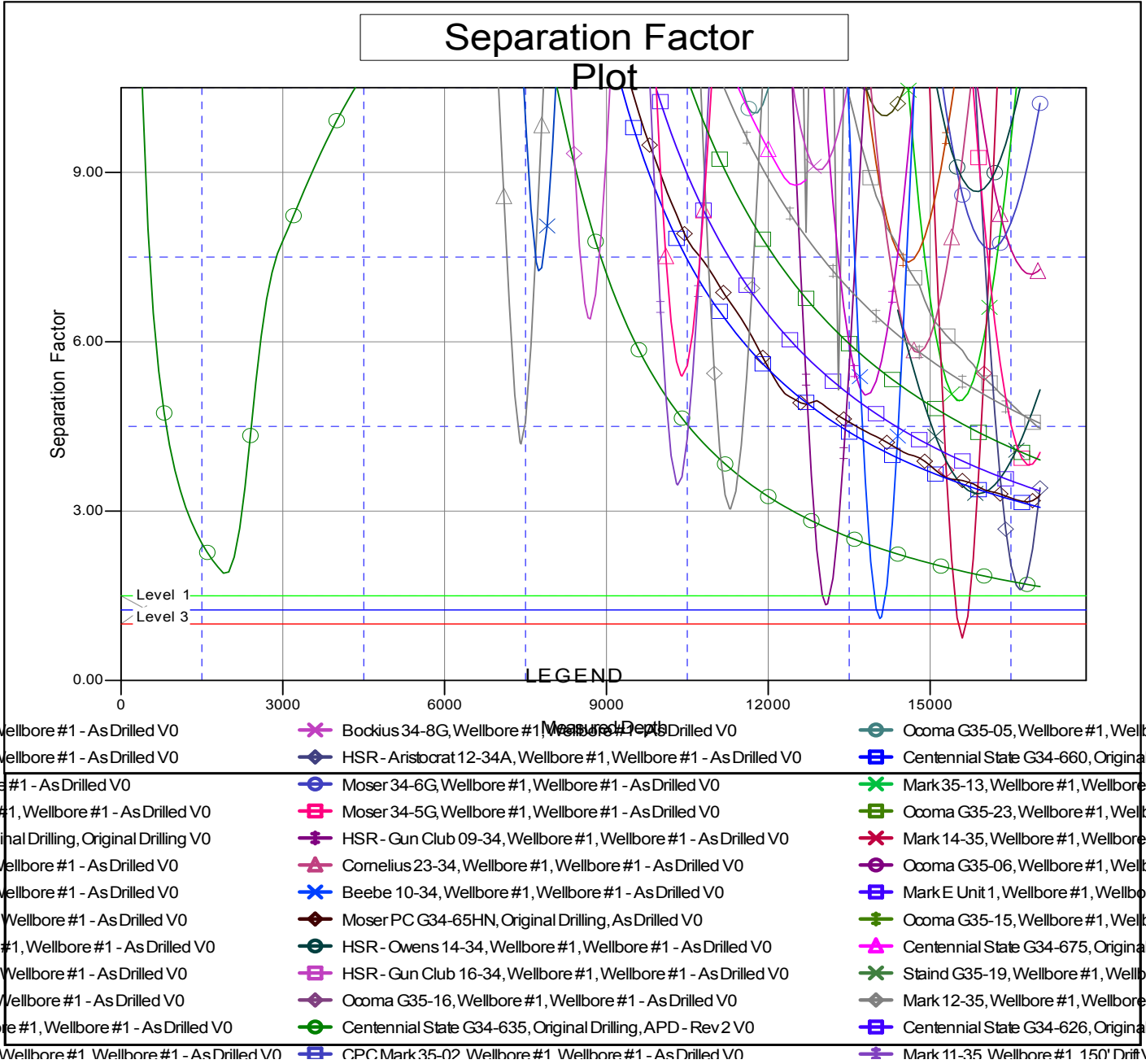
CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Summary Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Centennial State G34-645
Project:	Bronco	TVD Reference:	WELL @ 4826.0ft (Original Well Elev)
Reference Site:	G Section 35	MD Reference:	WELL @ 4826.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	Grid
Reference Well:	Centennial State G34-645	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 @ 4826.0ft (Original Well Elev)
 Offset Depths are relative to Offset Datum
 Central Meridian is -105.5000000

Coordinates are relative to: Centennial State G34-645
 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