

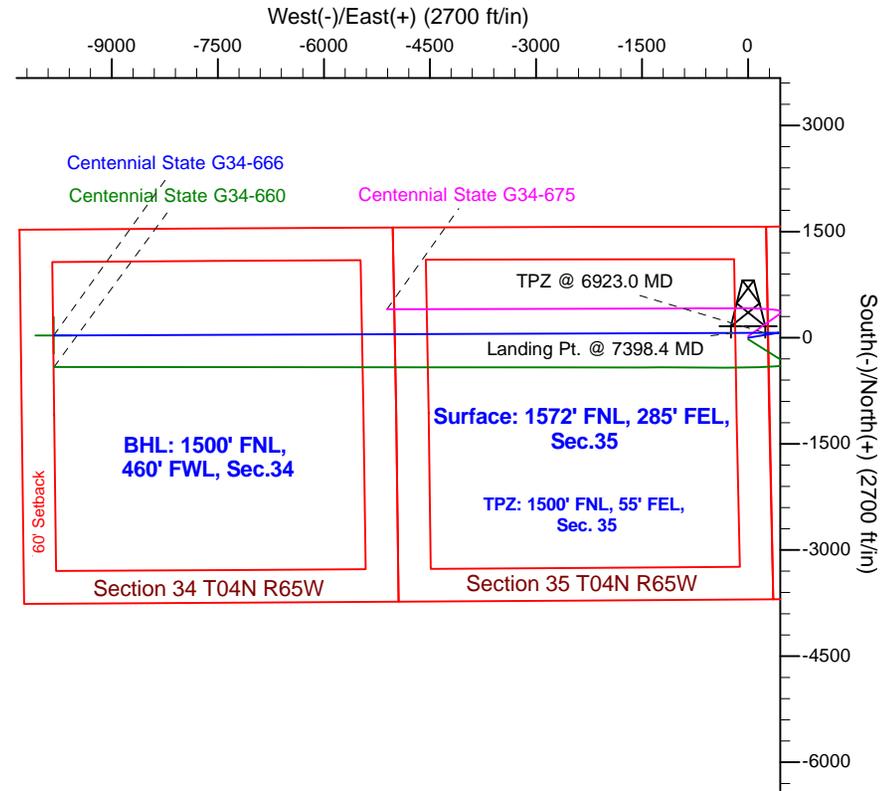
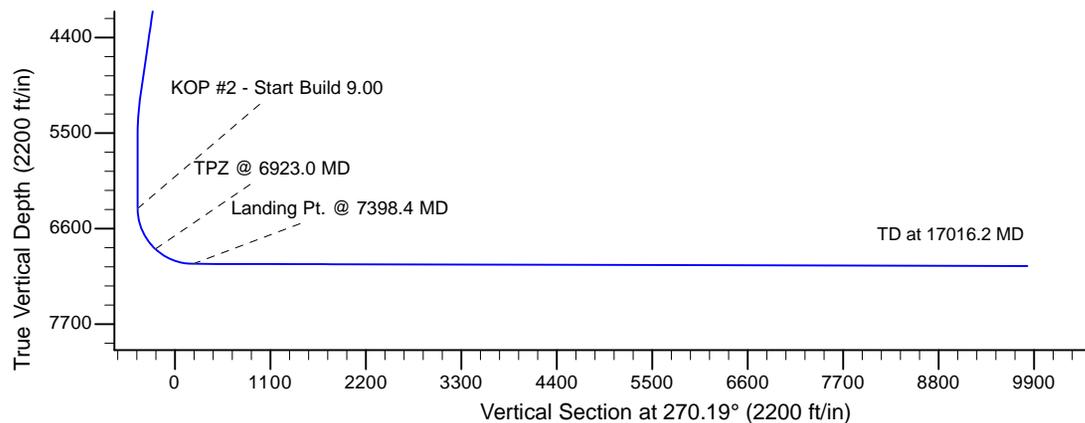
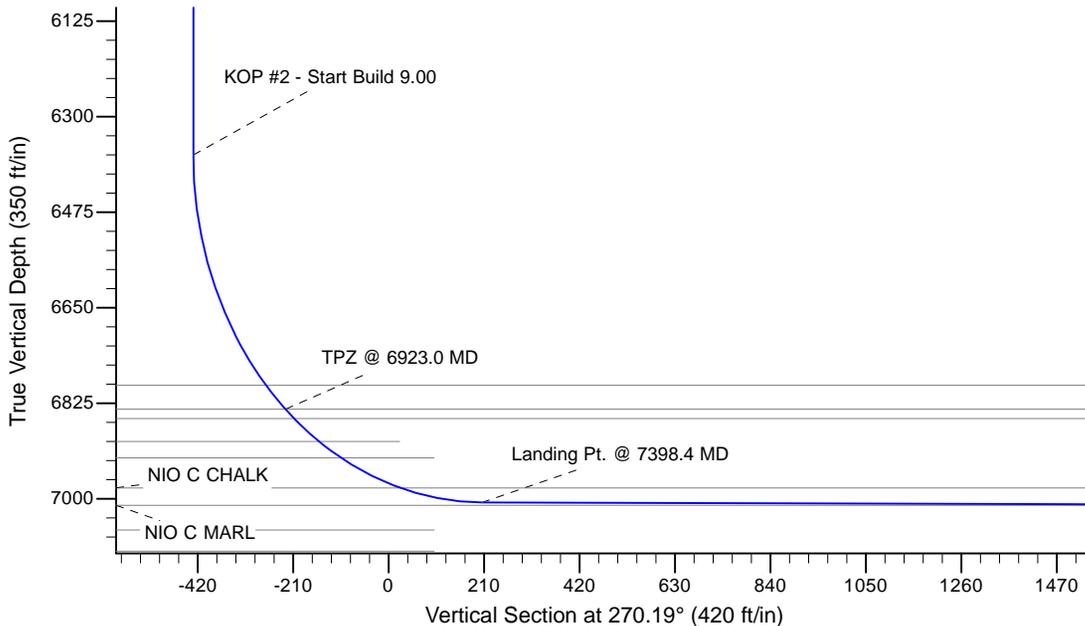
Project: Bronco
 Site: G Section 35-T4N-R65W Weld County, CO
 Well: Centennial State G34-666
 Wellbore: Original Drilling
 Design: APD - Rev 2

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	0.0	0.0	
2	2100.0	0.00	0.00	2100.0	0.0	0.0	0.00	0.00	0.0	
3	2515.3	8.31	80.75	2513.9	4.8	29.7	2.00	80.75	-29.6	
4	5114.8	8.31	80.75	5086.1	65.2	400.3	0.00	0.00	-400.1	
5	5530.2	0.00	0.00	5500.0	70.0	430.0	2.00	180.00	-429.8	
6	6400.1	0.00	0.00	6369.9	70.0	430.0	0.00	0.00	-429.8	
7	7398.4	89.85	269.79	7006.5	67.7	-204.9	9.00	269.79	205.2	Centennial State G34-666 BHL 1500'FNL, 460'FWL
8	17016.5	89.85	269.79	7031.7	32.2	-9822.9	0.00	0.00	9822.9	



T G M

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

Magnetic Field
 Strength: 53252.2snT
 Dip Angle: 67.03°
 Date: 12/31/2009
 Model: IGRF200510

WELL DETAILS: Centennial State G34-666					
Ground Level: 4784.0					
	Northing	Easting	Latitude	Longitude	
0.0	0.0	1343019.79	3244968.69	40.2716600	-104.6220800

Plan: APD - Rev 2 (Centennial State G34-666/Original Drilling)
 Created By: Shailey Jewell Date: 16:19, February 27 2017

OK to submit with 2A as per Noble Drilling
2/27/2017 4:22

Northern Region - DJ Basin

Bronco

G Section 35

Centennial State G34-666

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 G34-666
Project:	Bronco	TVD Reference:	WELL @ 4814.0ft (Original Well Elev)
Reference Site:	G Section 35	MD Reference:	WELL @ 4814.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	Grid
Reference Well:	Centennial State G34-666	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	17,016.2	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 #						Out of range
Beaman G34-17 - Wellbore #1 - Wellbore #1 - As Drilled	13,624.1	6,953.0	47.5	-96.9	0.329	Level 1, CC, ES, SF
Beaman G34-18 - Wellbore #1 - Wellbore #1 - As Drilled	14,697.7	6,964.3	634.0	469.1	3.845	CC
Beaman G34-18 - Wellbore #1 - Wellbore #1 - As Drilled	14,700.0	6,964.3	634.0	469.1	3.845	ES, SF
Beaman G34-99HZ - Original Drilling - Original Driling - A	15,273.1	9,495.7	309.3	18.4	1.063	Level 2, CC
Beaman G34-99HZ - Original Drilling - Original Driling - A	17,000.0	11,191.0	358.1	-44.4	0.890	Level 1, ES, SF
Beaman G35-31 - Wellbore #1 - Wellbore #1 - As Drilled	12,378.8	6,941.0	278.5	157.3	2.297	CC, ES, SF
Beebe 10-34 - Wellbore #1 - Wellbore #1 - As Drilled	14,030.0	7,039.1	1,655.5	1,501.9	10.782	CC, ES
Beebe 10-34 - Wellbore #1 - Wellbore #1 - As Drilled	14,200.0	7,038.1	1,664.2	1,508.2	10.670	SF
Bochius Pooling Unit 1 - Wellbore #1 - Wellbore #1 - As	12,879.9	6,939.6	841.1	710.3	6.430	CC
Bochius Pooling Unit 1 - Wellbore #1 - Wellbore #1 - As	12,900.0	6,939.9	841.3	710.2	6.413	ES, SF
Bockius 34-1G - Wellbore #1 - Wellbore #1 - As Drilled	12,797.3	6,946.1	980.0	851.0	7.599	CC
Bockius 34-1G - Wellbore #1 - Wellbore #1 - As Drilled	12,800.0	6,946.1	980.0	850.9	7.596	ES
Bockius 34-1G - Wellbore #1 - Wellbore #1 - As Drilled	12,900.0	6,947.0	985.3	855.0	7.561	SF
Bockius 34-2G - Wellbore #1 - Wellbore #1 - As Drilled	14,100.3	6,958.7	1,005.1	851.8	6.557	CC, ES
Bockius 34-2G - Wellbore #1 - Wellbore #1 - As Drilled	14,200.0	6,959.7	1,010.0	855.5	6.535	SF
Bockius 34-8G - Wellbore #1 - Wellbore #1 - As Drilled	12,805.0	6,947.6	303.5	174.5	2.351	CC, ES, SF
Bockius 37-07G - Wellbore #1 - Wellbore #1 - As Drilled	14,462.7	6,959.5	290.6	130.7	1.817	CC, ES, SF
Champ G34-06X - Wellbore #1 - Wellbore #1 - As Drilled	15,464.7	6,967.6	597.1	418.0	3.335	CC, ES
Champ G34-06X - Wellbore #1 - Wellbore #1 - As Drilled	15,500.0	6,967.8	598.1	418.8	3.334	SF
Cornelius 23-34 - Wellbore #1 - Wellbore #1 - As Drilled						Out of range
HSR - Aristocrat 12-34A - Wellbore #1 - Wellbore #1 - As	16,629.7	6,971.2	1,815.0	1,614.2	9.039	CC, ES
HSR - Aristocrat 12-34A - Wellbore #1 - Wellbore #1 - As	16,800.0	6,973.6	1,822.9	1,619.8	8.974	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	13,024.3	7,234.5	1,683.1	1,538.6	11.649	CC
HSR - Gun Club 09-34 - Wellbore #1 - Wellbore #1 - As D	13,100.0	7,233.3	1,684.8	1,538.6	11.524	ES
HSR - Gun Club 09-34 - Wellbore #1 - Wellbore #1 - As D	13,300.0	7,230.2	1,705.5	1,556.0	11.406	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						Out of range
HSR - Merritt 11-34A - Wellbore #1 - Wellbore #1 - As Dr	15,558.6	6,955.4	1,626.7	1,446.0	8.999	CC
HSR - Merritt 11-34A - Wellbore #1 - Wellbore #1 - As Dr	15,600.0	6,955.6	1,627.2	1,445.8	8.967	ES
HSR - Merritt 11-34A - Wellbore #1 - Wellbore #1 - As Dr	15,700.0	6,956.0	1,632.8	1,450.1	8.934	SF
HSR - Owens 14-34 - Wellbore #1 - Wellbore #1 - As Dri						Out of range
Moser 34-3G - Wellbore #1 - Wellbore #1 - As Drilled	15,532.9	6,964.8	847.4	667.3	4.705	CC, ES
Moser 34-3G - Wellbore #1 - Wellbore #1 - As Drilled	15,600.0	6,965.5	850.0	669.1	4.699	SF
Moser 34-4G - Wellbore #1 - Wellbore #1 - As Drilled	16,640.1	6,989.6	1,041.7	840.6	5.180	CC, ES

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 G34-666
Project:	Bronco	TVD Reference:	WELL @ 4814.0ft (Original Well Elev)
Reference Site:	G Section 35	MD Reference:	WELL @ 4814.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	Grid
Reference Well:	Centennial State G34-666	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 34-4G - Wellbore #1 - Wellbore #1 - As Drilled	16,700.0	6,989.7	1,043.4	841.5	5.167	SF
Moser 34-5G - Wellbore #1 - Wellbore #1 - As Drilled	16,776.0	6,947.0	711.5	508.2	3.500	CC, ES
Moser 34-5G - Wellbore #1 - Wellbore #1 - As Drilled	16,800.0	6,946.6	711.9	508.3	3.497	SF
Moser 34-6G - Wellbore #1 - Wellbore #1 - As Drilled	15,973.0	6,974.3	37.0	-151.3	0.196	Level 1, CC, ES, SF
Moser G34-30 - Wellbore #1 - Wellbore #1 - As Drilled	17,016.5	6,984.5	1,371.3	1,167.7	6.736	CC, ES, SF
Moser PC G34-65HN - Original Drilling - As Drilled	14,765.0	9,063.5	901.0	752.8	6.078	CC
Moser PC G34-65HN - Original Drilling - As Drilled	16,700.0	7,139.9	906.3	722.3	4.925	ES
Moser PC G34-65HN - Original Drilling - As Drilled	16,800.0	7,046.9	908.6	723.4	4.907	SF

Anticollision Summary Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Centennial State G34-666
Project:	Bronco	TVD Reference:	WELL @ 4814.0ft (Original Well Elev)
Reference Site:	G Section 35	MD Reference:	WELL @ 4814.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	Grid
Reference Well:	Centennial State G34-666	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						Out of range
Centennial State G34-626 - Original Drilling - APD - Rev						Out of range
Centennial State G34-635 - Original Drilling - APD - Rev	1,811.7	1,824.7	1,377.1	1,366.1	125.257	CC
Centennial State G34-635 - Original Drilling - APD - Rev	1,900.0	1,909.4	1,377.1	1,365.6	119.402	ES
Centennial State G34-635 - Original Drilling - APD - Rev	5,500.0	5,285.6	1,877.0	1,843.1	55.316	SF
Centennial State G34-645 - Original Drilling - APD - Rev	2,100.0	2,112.0	1,355.3	1,342.5	105.887	CC
Centennial State G34-645 - Original Drilling - APD - Rev	17,016.5	17,040.0	1,492.8	1,110.3	3.903	ES, SF
Centennial State G34-660 - Original Drilling - APD - Rev	1,900.0	1,899.0	21.8	10.3	1.899	CC, ES
Centennial State G34-660 - Original Drilling - APD - Rev	17,016.5	17,251.5	545.7	209.0	1.621	SF
Centennial State G34-675 - Original Drilling - APD - Rev	1,900.0	1,900.0	21.9	10.4	1.900	CC, ES
Centennial State G34-675 - Original Drilling - APD - Rev	12,300.0	12,296.4	363.2	159.5	1.783	SF
Centennial State G34-679 - Original Drilling - APD - Rev	5,599.5	5,587.2	757.5	722.5	21.602	CC
Centennial State G34-679 - Original Drilling - APD - Rev	17,016.5	17,017.4	761.7	379.7	1.994	ES, SF
Centennial State G34-684 - Original Drilling - APD - Rev	2,301.5	2,275.7	1,048.8	1,034.9	75.491	CC
Centennial State G34-684 - Original Drilling - APD - Rev	17,016.5	16,851.7	1,153.8	772.9	3.029	ES, SF
Centennial State G34-689 - Original Drilling - APD - Rev	2,000.0	1,988.0	1,071.4	1,059.3	88.567	CC, ES
Centennial State G34-689 - Original Drilling - APD - Rev	17,016.5	16,768.9	1,450.5	1,071.5	3.827	SF
CPC Mark 35-01 - Wellbore #1 - Wellbore #1 - As Drilled	8,766.0	6,960.8	692.6	635.6	12.160	CC, ES
CPC Mark 35-01 - Wellbore #1 - Wellbore #1 - As Drilled	8,900.0	6,960.0	705.4	646.8	12.029	SF
CPC Mark 35-02 - Wellbore #1 - Wellbore #1 - As Drilled	7,552.1	6,992.0	501.0	459.8	12.152	CC, ES
CPC Mark 35-02 - Wellbore #1 - Wellbore #1 - As Drilled	7,600.0	6,992.9	503.3	461.7	12.105	SF
Mark 11-35 - Wellbore #1 - 150' Drift	10,280.7	7,020.8	1,789.4	1,701.5	20.347	CC
Mark 11-35 - Wellbore #1 - 150' Drift	10,300.0	7,020.8	1,789.5	1,701.2	20.271	ES
Mark 11-35 - Wellbore #1 - 150' Drift	10,600.0	7,021.5	1,817.7	1,725.1	19.638	SF
Mark 11-35 - Wellbore #1 - Wellbore #1 - As Drilled						Out of range
Mark 12-35 - Wellbore #1 - Wellbore #1 - As Drilled	11,244.7	6,947.9	1,795.4	1,695.1	17.891	CC
Mark 12-35 - Wellbore #1 - Wellbore #1 - As Drilled	11,300.0	6,947.5	1,796.3	1,695.0	17.731	ES
Mark 12-35 - Wellbore #1 - Wellbore #1 - As Drilled	11,600.0	6,945.4	1,830.3	1,725.1	17.408	SF
Mark 14-35 - Wellbore #1 - Wellbore #1 - As Drilled						Out of range
Mark 35-11 - Original Drilling - Original Drilling - As Drilled	7,480.3	6,969.0	963.0	922.5	23.776	CC, ES
Mark 35-11 - Original Drilling - Original Drilling - As Drilled	7,700.0	6,967.3	987.8	945.5	23.353	SF
Mark 35-13 - Wellbore #1 - Wellbore #1 - As Drilled	8,824.1	6,962.2	353.7	295.4	6.069	CC, ES, SF
Mark 35-15 - Wellbore #1 - Wellbore #1 - As Drilled	8,247.5	6,956.9	459.3	410.2	9.352	CC, ES
Mark 35-15 - Wellbore #1 - Wellbore #1 - As Drilled	8,300.0	6,957.1	462.3	412.5	9.287	SF
Mark E Unit 1 - Wellbore #1 - Wellbore #1 - As Drilled						Out of range
Ocoma G35-03 - Wellbore #1 - Wellbore #1 - As Drilled	10,351.2	6,938.4	952.9	868.8	11.329	CC, ES
Ocoma G35-03 - Wellbore #1 - Wellbore #1 - As Drilled	10,500.0	6,941.8	964.4	878.3	11.193	SF
Ocoma G35-04 - Wellbore #1 - Wellbore #1 - As Drilled	11,582.4	6,936.9	619.2	512.7	5.817	CC
Ocoma G35-04 - Wellbore #1 - Wellbore #1 - As Drilled	11,600.0	6,936.8	619.4	512.7	5.802	ES, SF
Ocoma G35-05 - Wellbore #1 - Wellbore #1 - As Drilled	11,600.0	6,954.6	394.1	287.2	3.687	CC
Ocoma G35-05 - Wellbore #1 - Wellbore #1 - As Drilled	11,600.0	6,954.6	394.1	287.2	3.687	ES, SF
Ocoma G35-06 - Wellbore #1 - Wellbore #1 - As Drilled	10,320.1	6,937.3	464.0	380.5	5.555	CC, ES, SF
Ocoma G35-09 - Wellbore #1 - 150' Drift	7,381.2	7,073.3	1,669.6	1,624.5	37.054	CC, ES
Ocoma G35-09 - Wellbore #1 - 150' Drift	7,900.0	7,074.5	1,748.9	1,699.8	35.577	SF
Ocoma G35-09 - Wellbore #1 - Wellbore #1 - As Drilled	0.0	0.0	1,759.8			
Ocoma G35-09 - Wellbore #1 - Wellbore #1 - As Drilled	7,703.2	7,013.5	1,798.2	1,755.6	42.197	ES
Ocoma G35-09 - Wellbore #1 - Wellbore #1 - As Drilled	8,200.0	7,000.5	1,865.5	1,817.7	39.024	SF
Ocoma G35-10 - Wellbore #1 - Wellbore #1 - As Drilled	8,622.8	7,021.1	1,122.7	1,066.9	20.127	CC, ES
Ocoma G35-10 - Wellbore #1 - Wellbore #1 - As Drilled	8,800.0	7,020.1	1,136.6	1,078.6	19.596	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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Reference Wellbore	Original Drilling	Database:	EDM Production
Reference Design:	APD - Rev 2	Offset TVD Reference:	Offset Datum

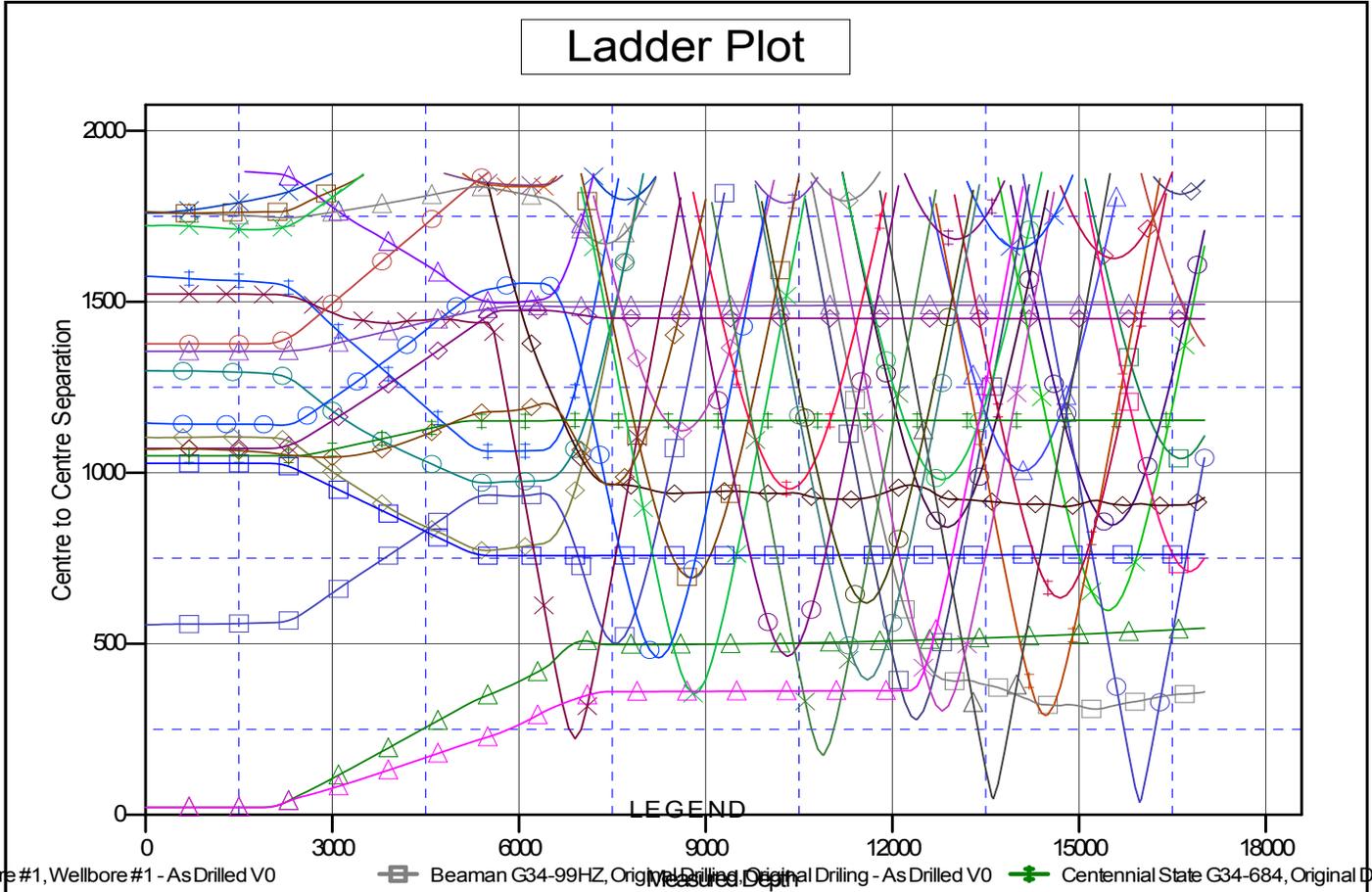
Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
G Section 35						
Staind G35-19 - Wellbore #1 - Wellbore #1 - As Drilled	10,881.8	7,057.2	174.6	79.3	1.832	CC, ES, 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	6,904.0	8,080.8	222.7	205.5	12.947	CC, ES
Mark State PC G36-79HN - Original Drilling - Original Dri	7,000.0	8,082.0	249.0	229.7	12.868	SF
Otis State G36-19 - Wellbore #1 - Wellbore #1 - As Drille	5,538.1	5,482.7	1,063.3	1,032.3	34.266	CC
Otis State G36-19 - Wellbore #1 - Wellbore #1 - As Drille	6,000.0	5,946.1	1,063.6	1,030.2	31.817	ES
Otis State G36-19 - Wellbore #1 - Wellbore #1 - As Drille	6,500.0	6,443.1	1,073.8	1,037.9	29.853	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	5,762.0	5,720.5	1,496.5	1,464.4	46.561	CC
Pedro State G36-20 - Wellbore #1 - Wellbore #1 - As Dri	5,800.0	5,751.8	1,496.6	1,464.3	46.299	ES
Pedro State G36-20 - Wellbore #1 - Wellbore #1 - As Dri	6,500.0	6,416.4	1,515.8	1,480.1	42.370	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	5,466.0	5,393.4	970.8	940.5	32.021	CC
State R G36-04 - Wellbore #1 - Wellbore #1 - As Drilled	5,500.0	5,428.8	970.9	940.4	31.847	ES
State R G36-04 - Wellbore #1 - Wellbore #1 - As Drilled	6,600.0	6,532.3	991.1	954.9	27.379	SF
State R G36-05 - Wellbore #1 - Wellbore #1 - As Drilled	5,490.6	5,432.9	772.8	742.5	25.568	CC
State R G36-05 - Wellbore #1 - Wellbore #1 - As Drilled	5,500.0	5,441.4	772.8	742.5	25.531	ES
State R G36-05 - Wellbore #1 - Wellbore #1 - As Drilled	6,500.0	6,422.6	802.0	766.5	22.592	SF
State R G36-06 - Wellbore #1 - Wellbore #1 - As Drilled	6,400.6	6,381.4	1,836.6	1,801.1	51.709	CC, ES
State R G36-06 - Wellbore #1 - Wellbore #1 - As Drilled	6,600.0	6,590.4	1,866.9	1,830.4	51.190	SF
State R G36-11 - Wellbore #1 - Wellbore #1 - As Drilled						Out of range
State R G36-12 - Wellbore #1 - Wellbore #1 - As Drilled	6,162.9	6,126.3	1,841.3	1,807.1	53.801	CC
State R G36-12 - Wellbore #1 - Wellbore #1 - As Drilled	6,300.0	6,251.7	1,841.8	1,806.8	52.736	ES
State R G36-12 - Wellbore #1 - Wellbore #1 - As Drilled	6,700.0	6,609.6	1,869.9	1,833.2	51.001	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

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 G34-666
Project:	Bronco	TVD Reference:	WELL @ 4814.0ft (Original Well Elev)
Reference Site:	G Section 35	MD Reference:	WELL @ 4814.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	Grid
Reference Well:	Centennial State G34-666	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 @ 4814.0ft (Original Well Elev) Coordinates are relative to: Centennial State G34-666
 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°



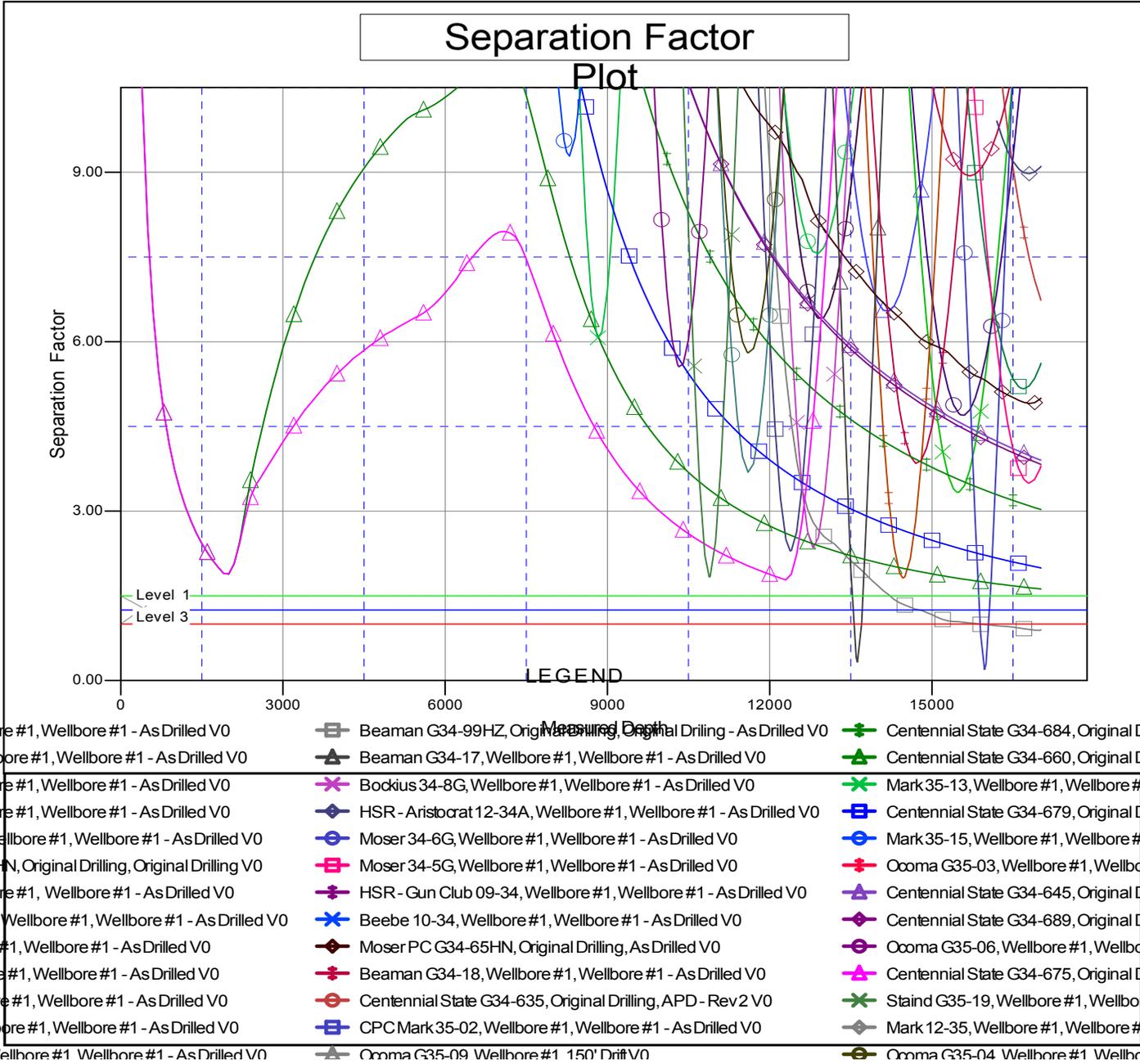
ore #1, Wellbore #1 - As Drilled V0	■ Beaman G34-99HZ, Original Drilling, Original Drilling - As Drilled V0	● Centennial State G34-684, Original Drill	
Wellbore #1, Wellbore #1 - As Drilled V0	▲ Beaman G34-17, Wellbore #1, Wellbore #1 - As Drilled V0	▲ Centennial State G34-660, Original Drill	
ore #1, Wellbore #1 - As Drilled V0	✖ Bockius 34-8G, Wellbore #1, Wellbore #1 - As Drilled V0	✖ Mark35-13, Wellbore #1, Wellbore #1 -	
ore #1, Wellbore #1 - As Drilled V0	◆ HSR - Aristocrat 12-34A, Wellbore #1, Wellbore #1 - As Drilled V0	■ Centennial State G34-679, Original Drill	
Wellbore #1, Wellbore #1 - As Drilled V0	○ Moser 34-6G, Wellbore #1, Wellbore #1 - As Drilled V0	○ Mark35-15, Wellbore #1, Wellbore #1 -	
Wellbore #1, Wellbore #1 - As Drilled V0	□ Moser 34-5G, Wellbore #1, Wellbore #1 - As Drilled V0	✖ Ocoma G35-03, Wellbore #1, Wellbore	
Wellbore #1, Wellbore #1 - As Drilled V0	◆ HSR - Gun Club 09-34, Wellbore #1, Wellbore #1 - As Drilled V0	▲ Centennial State G34-645, Original Drill	
Wellbore #1, Wellbore #1 - As Drilled V0	✖ Beebe 10-34, Wellbore #1, Wellbore #1 - As Drilled V0	◆ Centennial State G34-689, Original Drill	
Wellbore #1, Wellbore #1 - As Drilled V0	◆ Moser PC G34-65HN, Original Drilling, As Drilled V0	○ Ocoma G35-06, Wellbore #1, Wellbore	
Wellbore #1, Wellbore #1 - As Drilled V0	✖ Beaman G34-18, Wellbore #1, Wellbore #1 - As Drilled V0	▲ Centennial State G34-675, Original Drill	
Wellbore #1, Wellbore #1 - As Drilled V0	○ Centennial State G34-635, Original Drilling, APD - Rev 2 V0	✖ Staind G35-19, Wellbore #1, Wellbore	
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 -	
Wellbore #1, Wellbore #1 - As Drilled V0	▲ Ocoma G35-09, Wellbore #1, 150' Drift V0	◆ Ocoma G35-04, Wellbore #1, Wellbore	

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Anticollision Summary Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Centennial State G34-666
Project:	Bronco	TVD Reference:	WELL @ 4814.0ft (Original Well Elev)
Reference Site:	G Section 35	MD Reference:	WELL @ 4814.0ft (Original Well Elev)
Site Error:	0.0 ft	North Reference:	Grid
Reference Well:	Centennial State G34-666	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 @ 4814.0ft (Original Well Elev) Coordinates are relative to: Centennial State G34-666
 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 covergent point, SF - min separation factor, ES - min ellipse separation