

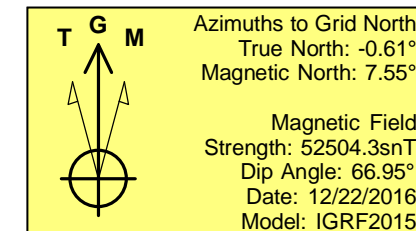
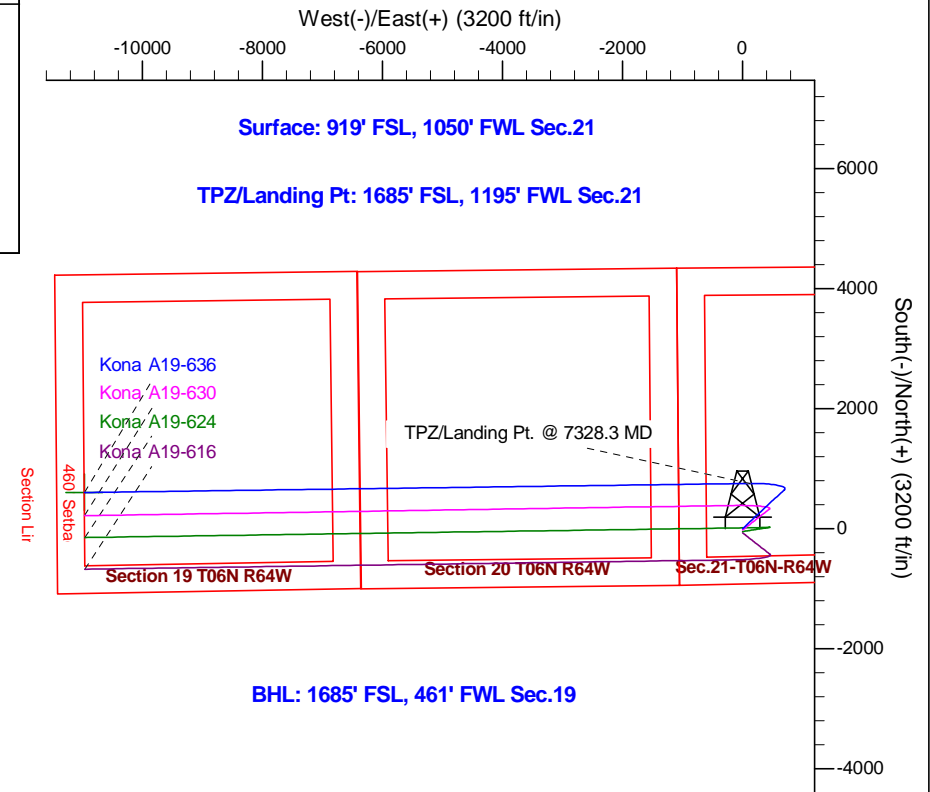
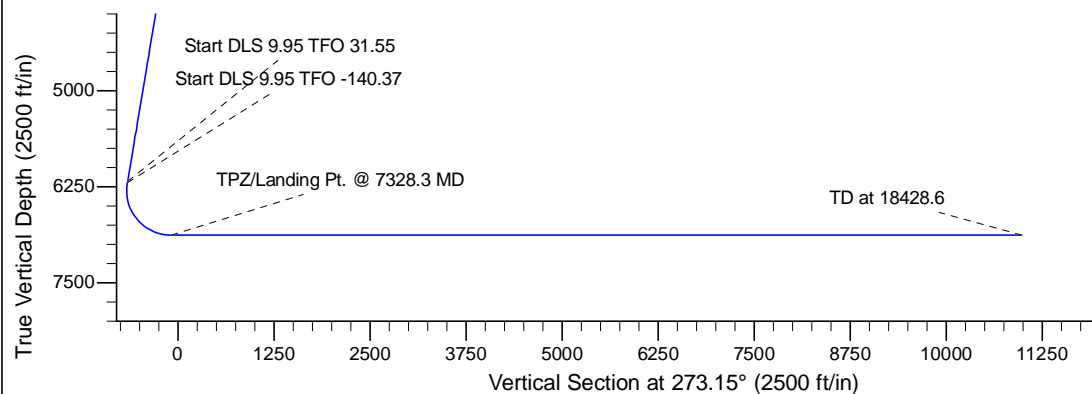
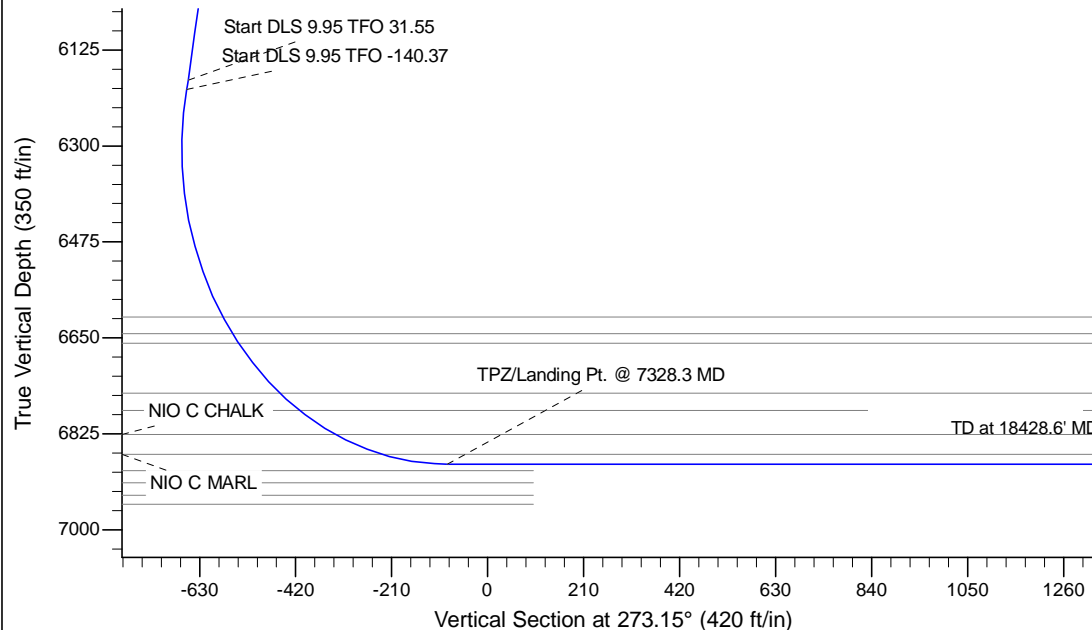
Project: Wells Ranch
 Site: A Section 21-T6N-R64W Weld County, CO
 Well: Kona A19-636
 Wellbore: Original Drilling
 Design: APD - Rev 0

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	2575.0	13.50	47.00	2568.8	54.0	57.9	2.00	47.00	-54.8	
4	6288.8	13.50	47.00	6180.0	645.3	692.0	0.00	0.00	-655.4	
5	6306.6	15.04	50.57	6197.2	648.1	695.3	9.95	31.55	-658.6	
6	7328.3	90.00	269.22	6880.0	755.0	130.0	9.95	-140.37	-88.3	
7	18428.6	90.00	269.22	6880.0	604.0	-10969.2	0.00	0.00	10985.8	Kona A19-636 BHL 1685'FSL, 461'FWL



WELL DETAILS: Kona A19-636					
		Ground Elevation: 4723.0		Longitude	
0.0	0.0	Northing 1414272.09	Easting 3261306.03	Latitude 40.4667800	-104.5608300
Plan: APD - Rev 0 (Kona A19-636/Original Drilling)					
Created By: Shailey Jewell			Date: 12:41, December 27 2016		
OK to submit with 2A as per Noble Drilling 12/27/2016 12:44					

Northern Region - DJ Basin

Wells Ranch

A Section 21

Kona A19-636

Original Drilling

APD - Rev 0

Anticollision Summary Report

27 December, 2016

Anticollision Summary Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Kona A19-636
Project:	Wells Ranch	TVD Reference:	WELL @ 4753.0ft (Original Well Elev.)
Reference Site:	A Section 21	MD Reference:	WELL @ 4753.0ft (Original Well Elev.)
Site Error:	0.0 ft	North Reference:	Grid
Reference Well:	Kona A19-636	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 0	Offset TVD Reference:	Offset Datum

Reference	APD - Rev 0		
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 10,000.0 ft	Error Surface:	Pedal Curve
Warning Levels Evaluated at:	2.79 Sigma	Casing Method:	Not applied

Survey Tool Program	Date	12/22/2016		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.0	18,428.6	APD - Rev 0 (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						
A Section 19						
Anderson 03-19 (PA) - Original Drilling - Original Drilling -	16,937.6	6,800.0	2,918.1	2,538.4	7.684	CC
Anderson 03-19 (PA) - Original Drilling - Original Drilling -	17,000.0	6,800.0	2,918.8	2,537.8	7.661	ES
Anderson 03-19 (PA) - Original Drilling - Original Drilling -	17,200.0	6,800.0	2,929.9	2,545.5	7.622	SF
Ley 07-19 - Original Drilling - Original Drilling - As Drilled	15,792.7	6,805.8	1,591.5	1,406.7	8.609	CC
Ley 07-19 - Original Drilling - Original Drilling - As Drilled	15,800.0	6,805.7	1,591.6	1,406.5	8.602	ES
Ley 07-19 - Original Drilling - Original Drilling - As Drilled	16,000.0	6,803.5	1,605.0	1,416.9	8.535	SF
Ley 08-19 - Original Drilling - Original Drilling - As Drilled	14,610.3	6,842.9	1,638.3	1,475.5	10.067	CC, ES
Ley 08-19 - Original Drilling - Original Drilling - As Drilled	14,800.0	6,842.8	1,649.2	1,483.3	9.938	SF
Luppens 05-19 - Original Drilling - Original Drilling - As D	18,428.6	6,831.9	1,443.0	1,208.7	6.160	CC, ES, SF
Roth 11-19 - Original Drilling - Original Drilling - As Drilled	17,150.7	6,802.8	276.0	55.0	1.249	Level 2, CC, ES, SF
Roth 14-19 (PA) - Original Drilling - Original Drilling - As D	17,076.4	6,801.0	1,063.2	680.8	2.780	CC
Roth 14-19 (PA) - Original Drilling - Original Drilling - As D	17,100.0	6,801.0	1,063.5	680.8	2.779	ES, SF
Roth 19-19 - Original Drilling - Original Drilling - As Drilled	17,713.5	6,890.0	205.9	-16.1	0.928	Level 1, CC, ES, SF
Roth 22-19 - Original Drilling - Original Drilling - As Drilled	17,559.0	6,932.5	1,106.1	886.5	5.037	CC
Roth 22-19 - Original Drilling - Original Drilling - As Drilled	17,600.0	6,932.5	1,106.8	886.4	5.021	ES, SF
Roth 23-19 - Original Drilling - Original Drilling - As Drilled	16,982.5	6,911.9	357.4	149.0	1.715	CC, ES, SF
Roth 25-19 - Original Drilling - Original Drilling - As Drilled	16,506.1	6,894.8	832.7	633.1	4.172	CC, ES, SF
Roth A19-12 - Original Drilling - Original Drilling - As Drill	18,107.0	6,807.6	315.9	87.4	1.383	Level 3, CC, ES, SF
Roth A19-13 (PA) - Original Drilling - Original Drilling - As	18,305.6	6,794.0	648.8	243.3	1.600	CC, ES, SF
Weber 04-19 (PA) - Original Drilling - Original Drilling - As	18,223.6	6,806.0	2,953.9	2,549.6	7.307	CC
Weber 04-19 (PA) - Original Drilling - Original Drilling - As	18,300.0	6,806.0	2,954.9	2,549.1	7.282	ES
Weber 04-19 (PA) - Original Drilling - Original Drilling - As	18,428.6	6,806.0	2,960.9	2,552.9	7.257	SF
Winter 09-19 - Original Drilling - Original Drilling - As Dril	14,518.6	6,834.1	177.3	16.2	1.100	Level 2, CC, ES, SF
Winter 15-19 - Original Drilling - Original Drilling - As Dril	15,947.5	6,801.0	1,032.1	671.0	2.858	CC, ES
Winter 15-19 - Original Drilling - Original Drilling - As Dril	16,000.0	6,801.0	1,033.4	671.9	2.858	SF
Winter 15-19-0 (PA) - Original Drilling - Original Drilling -	15,942.2	3,700.0	3,295.1	3,155.9	23.665	CC
Winter 15-19-0 (PA) - Original Drilling - Original Drilling -	16,000.0	3,700.0	3,295.6	3,155.6	23.543	ES
Winter 15-19-0 (PA) - Original Drilling - Original Drilling -	17,300.0	3,700.0	3,563.9	3,400.3	21.787	SF
Winters 10-19 - Original Drilling - Original Drilling - As Dr	16,201.8	6,809.2	593.5	400.1	3.070	CC, ES, 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 Kona A19-636
Project:	Wells Ranch	TVD Reference:	WELL @ 4753.0ft (Original Well Elev.)
Reference Site:	A Section 21	MD Reference:	WELL @ 4753.0ft (Original Well Elev.)
Site Error:	0.0 ft	North Reference:	Grid
Reference Well:	Kona A19-636	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 0	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						
A Section 20						
Foe 16-20 - Original Drilling - Original Drilling - As Drilled	9,191.9	6,837.1	1,020.8	956.8	15.935	CC
Foe 16-20 - Original Drilling - Original Drilling - As Drilled	9,200.0	6,837.1	1,020.9	956.7	15.912	ES
Foe 16-20 - Original Drilling - Original Drilling - As Drilled	9,300.0	6,836.8	1,026.5	961.4	15.751	SF
Foe 33-20 - Original Drilling - Original Drilling - As Drilled	10,429.9	6,851.0	85.8	0.6	1.007	Level 2, CC, ES, SF
Foe 34-20 (PA) - Original Drilling - Original Drilling - As D	10,508.4	6,827.0	1,199.2	938.5	4.601	CC, ES
Foe 34-20 (PA) - Original Drilling - Original Drilling - As D	10,600.0	6,827.0	1,202.7	940.9	4.595	SF
Foe 43-20 - Original Drilling - Original Drilling - As Drilled	9,018.2	6,839.5	443.9	382.6	7.242	CC, ES
Foe 43-20 - Original Drilling - Original Drilling - As Drilled	9,100.0	6,839.6	451.3	388.5	7.187	SF
Linda Rae 1 - Original Drilling - Original Drilling - As Drille	14,691.3	6,826.7	842.1	661.7	4.667	CC
Linda Rae 1 - Original Drilling - Original Drilling - As Drille	14,700.0	6,826.6	842.1	661.6	4.665	ES, SF
Simmons 42-20D - Original Drilling - Original Drilling - As	9,135.0	6,924.9	1,682.5	1,614.8	24.837	CC, ES
Simmons 42-20D - Original Drilling - Original Drilling - As	9,600.0	6,923.1	1,745.6	1,670.9	23.376	SF
Snider 1-20EG - Original Drilling - Original Drilling - As D	11,838.6	6,833.6	1,039.8	928.8	9.372	CC, ES
Snider 1-20EG - Original Drilling - Original Drilling - As D	11,900.0	6,834.0	1,041.6	929.9	9.331	SF
Stump A20-11 - Original Drilling - Original Drilling - As Dr	11,960.8	6,845.6	144.0	31.1	1.275	Level 3, CC, ES, SF
Stump A20-12 - Original Drilling - Original Drilling - As Dr	12,977.8	6,839.1	532.7	400.5	4.030	CC
Stump A20-12 - Original Drilling - Original Drilling - As Dr	13,000.0	6,838.3	533.1	400.4	4.017	ES, SF
Stump A20-13 - Original Drilling - Original Drilling - As Dr	13,115.5	6,824.9	1,073.9	939.0	7.956	CC, ES
Stump A20-13 - Original Drilling - Original Drilling - As Dr	13,200.0	6,824.8	1,077.3	941.5	7.933	SF
Winter 20-19 - Original Drilling - Original Drilling - As Dril	14,961.5	6,919.4	244.9	74.5	1.438	Level 3, CC, ES, SF
Winter 24-19 - Original Drilling - Original Drilling - As Dril	14,800.8	7,163.0	932.6	762.5	5.482	CC, ES
Winter 24-19 - Original Drilling - Original Drilling - As Dril	14,900.0	7,163.3	937.9	765.9	5.453	SF
Winter 39-19 - Original Drilling - Original Drilling - As Dril	13,819.5	6,965.2	555.5	405.8	3.710	CC, ES, SF
Winter 40-19 - Original Drilling - Original Drilling - As Dril	13,689.8	7,165.9	635.3	484.5	4.213	CC
Winter 40-19 - Original Drilling - Original Drilling - As Dril	13,700.0	7,165.8	635.4	484.4	4.209	ES, SF

Anticollision Summary Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Kona A19-636
Project:	Wells Ranch	TVD Reference:	WELL @ 4753.0ft (Original Well Elev.)
Reference Site:	A Section 21	MD Reference:	WELL @ 4753.0ft (Original Well Elev.)
Site Error:	0.0 ft	North Reference:	Grid
Reference Well:	Kona A19-636	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 0	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
A Section 21						
Culbreath 23-21 - Original Drilling - Original Drilling - As D	6,522.7	6,390.6	646.1	608.8	17.309	CC, ES
Culbreath 23-21 - Original Drilling - Original Drilling - As D	6,550.0	6,417.7	646.6	609.1	17.268	SF
Culbreath 33-21 (PA) - Original Drilling - Original Drilling	6,446.4	6,299.3	1,537.5	1,340.0	7.786	CC
Culbreath 33-21 (PA) - Original Drilling - Original Drilling	6,450.0	6,302.8	1,537.5	1,339.9	7.781	ES
Culbreath 33-21 (PA) - Original Drilling - Original Drilling	6,600.0	6,448.1	1,557.6	1,355.6	7.710	SF
Kona A19-616 - Original Drilling - APD - Rev 0	1,900.0	1,900.0	69.2	57.7	6.015	CC, ES
Kona A19-616 - Original Drilling - APD - Rev 0	18,428.6	18,015.6	1,280.3	848.5	2.965	SF
Kona A19-624 - Original Drilling - APD - Rev 0	1,900.0	1,900.0	47.4	35.8	4.115	CC, ES
Kona A19-624 - Original Drilling - APD - Rev 0	18,428.6	18,549.7	894.6	504.8	2.295	SF
Kona A19-630 - Original Drilling - APD - Rev 0	1,900.0	1,900.0	21.9	10.3	1.899	CC
Kona A19-630 - Original Drilling - APD - Rev 0	18,428.6	18,012.3	392.4	-33.7	0.921	Level 1, ES, SF
Kona A19-640 - Original Drilling - APD - Rev 0	18,428.6	18,107.8	324.2	-107.3	0.751	Level 1, CC, ES, SF
Kona A19-646 - Original Drilling - APD - Rev 0	18,400.0	24,777.2	707.3	148.1	1.265	Level 3, ES, SF
Kona A19-646 - Original Drilling - APD - Rev 0	18,428.6	18,119.2	707.2	273.5	1.631	CC
Kona A19-652 - Original Drilling - APD - Rev 0	7,328.1	6,900.7	1,067.6	1,021.0	22.932	CC
Kona A19-652 - Original Drilling - APD - Rev 0	18,428.6	18,011.6	1,094.0	661.3	2.528	ES, SF
Kona A19-662 - Original Drilling - APD - Rev 0	2,774.6	2,564.7	1,415.7	1,399.4	86.918	CC
Kona A19-662 - Original Drilling - APD - Rev 0	2,800.0	2,581.7	1,415.8	1,399.4	86.205	ES
Kona A19-662 - Original Drilling - APD - Rev 0	18,428.6	18,038.7	1,826.9	1,408.4	4.366	SF
Kona A19-670 - Original Drilling - APD - Rev 0	1,807.8	1,828.8	1,469.2	1,458.2	133.625	CC
Kona A19-670 - Original Drilling - APD - Rev 0	2,600.0	2,376.4	1,469.5	1,454.4	97.363	ES
Kona A19-670 - Original Drilling - APD - Rev 0	18,428.6	18,077.3	2,335.6	1,904.0	5.411	SF
Kona A19-679 - Original Drilling - APD - Rev 0	3,180.5	2,986.8	1,308.5	1,289.4	68.571	CC
Kona A19-679 - Original Drilling - APD - Rev 0	3,200.0	3,000.0	1,308.6	1,289.4	68.191	ES
Kona A19-679 - Original Drilling - APD - Rev 0	18,428.6	19,043.7	2,922.1	2,481.8	6.637	SF
Kona A19-685 - Original Drilling - APD - Rev 0	3,002.5	2,800.0	1,360.8	1,342.9	76.278	CC, ES
Kona A19-685 - Original Drilling - APD - Rev 0	18,428.6	19,249.8	3,274.9	2,834.5	7.436	SF
McKee 12-21 (PA) - Original Drilling - Original Drilling - A	7,911.8	6,881.0	1,373.5	1,152.5	6.213	CC, ES
McKee 12-21 (PA) - Original Drilling - Original Drilling - A	8,000.0	6,881.0	1,376.4	1,154.2	6.195	SF
McKee 21-21 (PA) - Original Drilling - Original Drilling - A	6,820.6	6,690.2	2,804.9	2,595.1	13.371	CC
McKee 21-21 (PA) - Original Drilling - Original Drilling - A	6,850.0	6,712.0	2,805.2	2,594.8	13.332	ES
McKee 21-21 (PA) - Original Drilling - Original Drilling - A	7,100.0	6,852.9	2,830.7	2,615.9	13.180	SF
McKee 22-21 - Original Drilling - Original Drilling - As Dril	6,795.2	6,655.1	1,591.2	1,551.4	39.964	CC
McKee 22-21 - Original Drilling - Original Drilling - As Dril	6,800.0	6,658.6	1,591.2	1,551.4	39.952	ES
McKee 22-21 - Original Drilling - Original Drilling - As Dril	6,900.0	6,726.9	1,595.5	1,555.4	39.812	SF
McKee 31-21 - Original Drilling - Original Drilling - As Dril	6,668.5	6,728.3	3,501.0	3,462.2	90.228	CC, ES
McKee 31-21 - Original Drilling - Original Drilling - As Dril	7,000.0	6,975.1	3,551.5	3,511.6	88.953	SF
McKee 32-21 - Original Drilling - Original Drilling - As Dril	6,529.1	6,406.5	2,198.9	2,161.5	58.727	CC, ES
McKee 32-21 - Original Drilling - Original Drilling - As Dril	6,700.0	6,559.1	2,217.1	2,179.0	58.156	SF
McKee 41-21 - Original Drilling - Original Drilling - As Dril	6,511.1	6,294.5	4,155.4	4,118.2	111.715	CC, ES
McKee 41-21 - Original Drilling - Original Drilling - As Dril	6,800.0	6,553.4	4,204.5	4,166.2	109.687	SF
McKee 42-21 - Original Drilling - Original Drilling - As Dril	6,476.6	6,352.8	3,188.5	3,151.4	85.861	CC, ES
McKee 42-21 - Original Drilling - Original Drilling - As Dril	6,700.0	6,554.7	3,227.9	3,189.8	84.690	SF
Sexton 43-21 (PA) - Original Drilling - Original Drilling - A	6,443.9	6,288.8	2,846.5	2,649.3	14.435	CC
Sexton 43-21 (PA) - Original Drilling - Original Drilling - A	6,450.0	6,294.8	2,846.5	2,649.1	14.421	ES
Sexton 43-21 (PA) - Original Drilling - Original Drilling - A	6,650.0	6,486.4	2,882.6	2,679.3	14.185	SF
Wells Trust 13-21 - Original Drilling - Original Drilling - As	7,951.0	6,860.6	82.8	36.5	1.790	CC, ES, SF
Wells Trust 14-21 - Original Drilling - Original Drilling - As	1,943.5	1,914.7	686.4	676.0	65.796	CC, ES
Wells Trust 14-21 - Original Drilling - Original Drilling - As	8,200.0	6,842.2	1,068.9	1,020.0	21.855	SF
Wells Trust 24-21 - Original Drilling - Original Drilling - As	2,454.2	2,407.3	371.9	358.5	27.742	CC
Wells Trust 24-21 - Original Drilling - Original Drilling - As	2,500.0	2,451.7	372.1	358.4	27.234	ES
Wells Trust 24-21 - Original Drilling - Original Drilling - As	3,500.0	3,419.3	455.2	435.7	23.354	SF

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

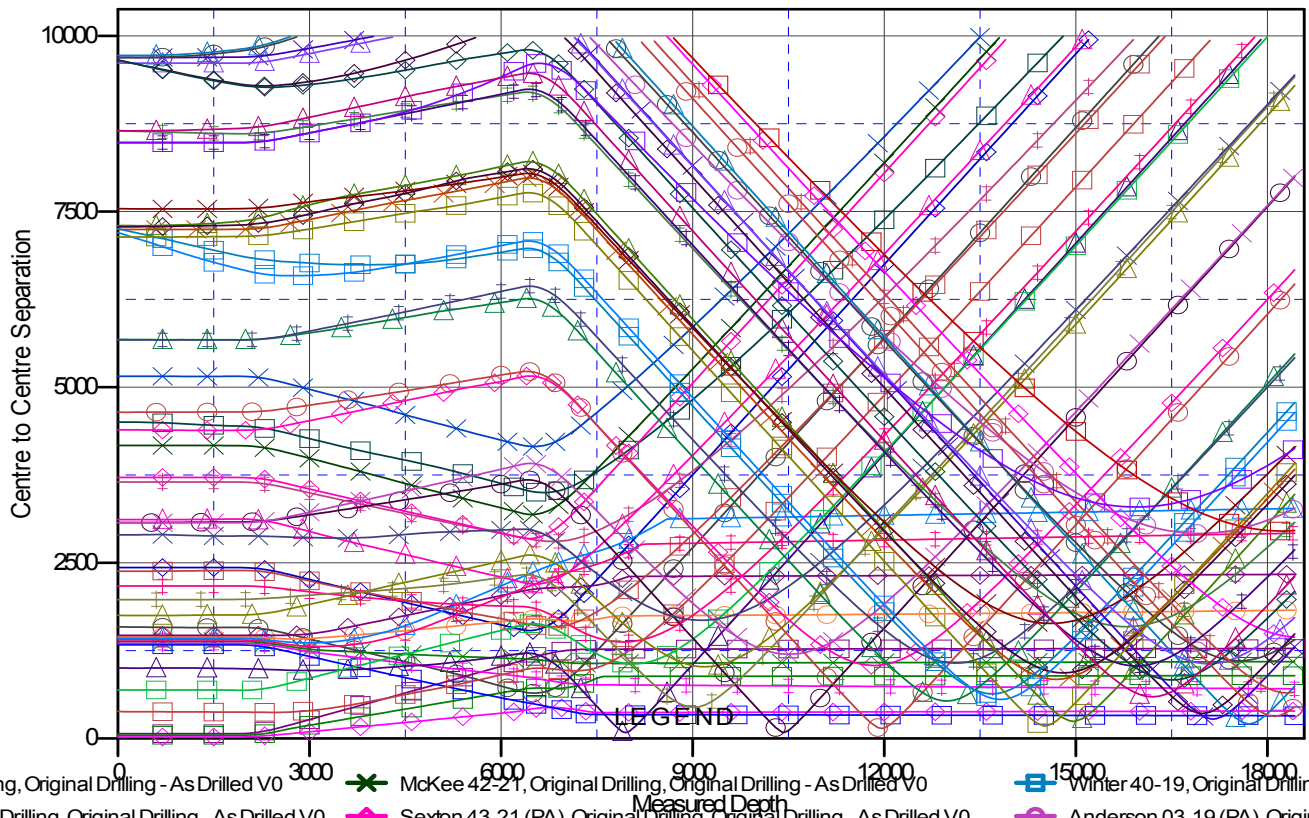
Anticollision Summary Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Kona A19-636
Project:	Wells Ranch	TVD Reference:	WELL @ 4753.0ft (Original Well Elev.)
Reference Site:	A Section 21	MD Reference:	WELL @ 4753.0ft (Original Well Elev.)
Site Error:	0.0 ft	North Reference:	Grid
Reference Well:	Kona A19-636	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 0	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 4753.0ft (Original Well Elev.)
Offset Depths are relative to Offset Datum
Central Meridian is -105.5000000

Coordinates are relative to: Kona A19-636
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.61°

Ladder Plot



Drilling, Original Drilling - As Drilled V0	McKee 42-21, Original Drilling, Original Drilling - As Drilled V0	Winter 40-19, Original Drilling, Original Drilling - As Drilled V0
Drilling, Original Drilling - As Drilled V0	Sexton 43-21 (PA), Original Drilling, Original Drilling - As Drilled V0	Anderson 03-19 (PA), Original Drilling, Original Drilling - As Drilled V0
Drilling, APD - Rev0 V0	Wells Trust 13-21, Original Drilling, Original Drilling - As Drilled V0	Ley 07-19, Original Drilling, Original Drilling - As Drilled V0
Drilling, APD - Rev0 V0	Wells Trust 14-21, Original Drilling, Original Drilling - As Drilled V0	Ley 08-19, Original Drilling, Original Drilling - As Drilled V0
Drilling, APD - Rev0 V0	Wells Trust 24-21, Original Drilling, Original Drilling - As Drilled V0	Luppens 05-19, Original Drilling, Original Drilling - As Drilled V0
Drilling, APD - Rev0 V0	Foe 16-20, Original Drilling, Original Drilling - As Drilled V0	Roth 11-19, Original Drilling, Original Drilling - As Drilled V0
Drilling, APD - Rev0 V0	Foe 33-20, Original Drilling, Original Drilling - As Drilled V0	Roth 14-19 (PA), Original Drilling, Original Drilling - As Drilled V0
Drilling, APD - Rev0 V0	Foe 34-20 (PA), Original Drilling, Original Drilling - As Drilled V0	Roth 19-19, Original Drilling, Original Drilling - As Drilled V0
Drilling, APD - Rev0 V0	Foe 43-20, Original Drilling, Original Drilling - As Drilled V0	Roth 22-19, Original Drilling, Original Drilling - As Drilled V0
Drilling, APD - Rev0 V0	Linda Rae 1, Original Drilling, Original Drilling - As Drilled V0	Roth 23-19, Original Drilling, Original Drilling - As Drilled V0
Drilling, APD - Rev0 V0	Simmons 42-20D, Original Drilling, Original Drilling - As Drilled V0	Roth 25-19, Original Drilling, Original Drilling - As Drilled V0
Drilling, APD - Rev0 V0	Snider 1-20EG, Original Drilling, Original Drilling - As Drilled V0	Roth A19-12, Original Drilling, Original Drilling - As Drilled V0
Drilling, Original Drilling - As Drilled V0	Stump A20-11, Original Drilling, Original Drilling - As Drilled V0	Roth A19-13 (PA), Original Drilling, Original Drilling - As Drilled V0

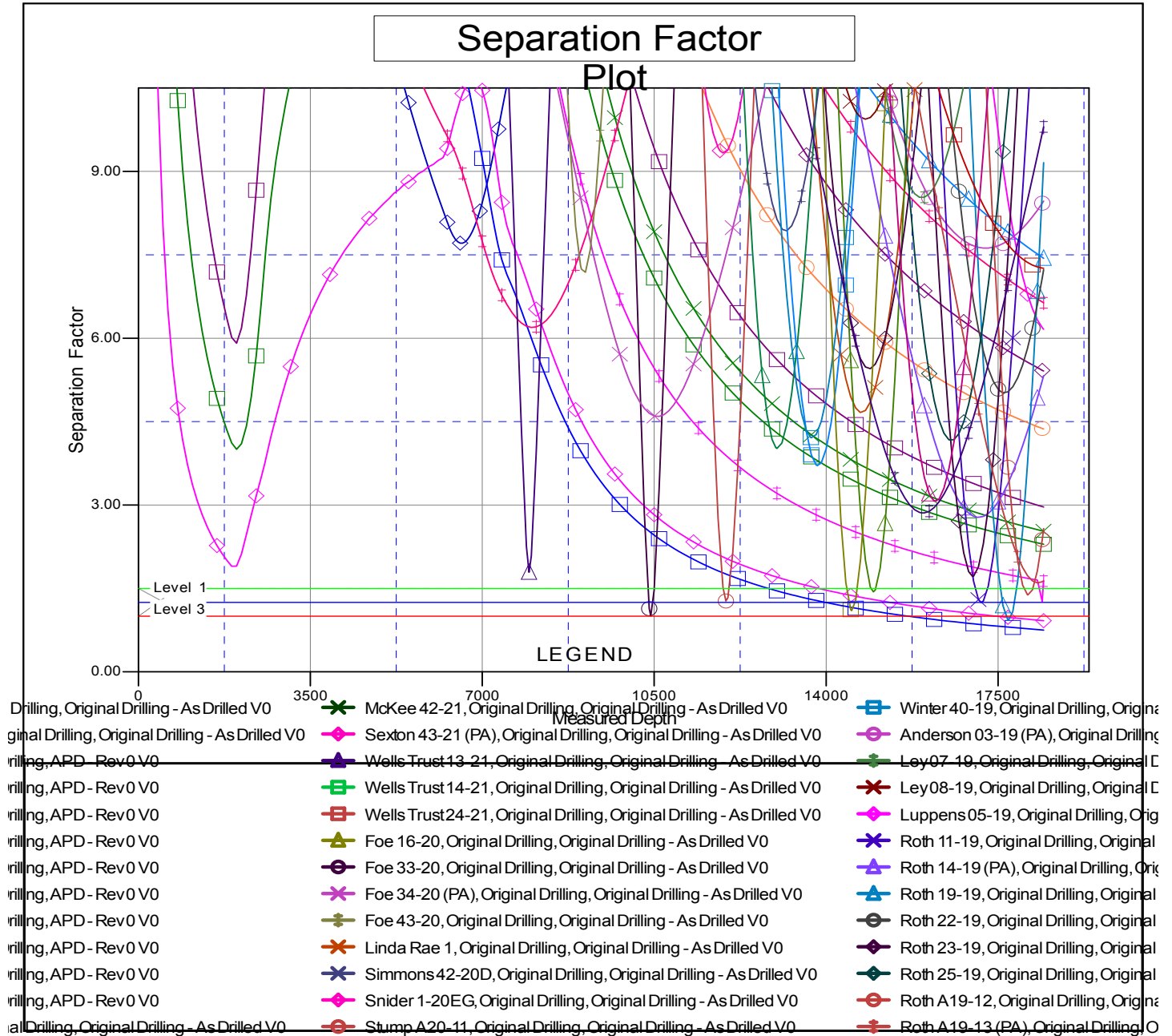
CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Summary Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Kona A19-636
Project:	Wells Ranch	TVD Reference:	WELL @ 4753.0ft (Original Well Elev.)
Reference Site:	A Section 21	MD Reference:	WELL @ 4753.0ft (Original Well Elev.)
Site Error:	0.0 ft	North Reference:	Grid
Reference Well:	Kona A19-636	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 0	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 4753.0ft (Original Well Elev.)
 Offset Depths are relative to Offset Datum
 Central Meridian is -105.5000000

Coordinates are relative to: Kona A19-636
 Coordinate System is US State Plane 1983, Colorado Northern Zone
 Grid Convergence at Surface is: 0.61°



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