

Northern Region - DJ Basin

Mustang

D Section 19

Independence D18-767

Independence D18-767

Plan #2

Anticollision Summary Report

12 February, 2020

Noble Energy, Inc.
Anticollision Summary Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Independence D18-767
Project:	Mustang	TVD Reference:	Well @ 4817.00ft
Reference Site:	D Section 19	MD Reference:	Well @ 4817.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Independence D18-767	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Independence D18-767	Database:	EDMP
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Reference	Plan #2		
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 200.00 ft	Error Surface:	Pedal Curve
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program	Date	2/12/2020		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.00	17,547.18	Plan #2 (Independence D18-767)	2_MWD+IFR1+MS	A008Mb: IFR dec & multi-station analysis

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						
C Section 30						
ANDERSON #1(PR) - Wellbore #1 - No Surveys						Out of range
ANDERSON #2(PA) - Wellbore #1 - Gyro Surveys						Out of range
BROSNAHAN #1(SI) - Wellbore #1 - No Surveys						Out of range
BROSNAHAN #14-30(SI) - Wellbore #1 - No Surveys						Out of range
Brosnaham 13-30 - Wellbore #1 - Wellbore #1 - As Drilled						Out of range
JOHNSON #30-15(PR) - Wellbore #1 - No Surveys						Out of range
Johnson A-30 - Wellbore #1 - Wellbore #1 - As Drilled						Out of range
JOHNSON C30-717 - Wellbore #1 - Plan #1						Out of range
JOHNSON C30-725 - Wellbore #1 - Plan #1						Out of range
JOHNSON C30-734 - Wellbore #1 - Plan #1						Out of range
JOHNSON C30-743 - Wellbore #1 - Plan #1						Out of range
JOHNSON C30-752 - Wellbore #1 - Plan #1						Out of range
JOHNSON C30-760 - Wellbore #1 - Plan #1						Out of range
JOHNSON C30-766 - Wellbore #1 - Plan #1						Out of range
JOHNSON C30-775 - Wellbore #1 - Plan #1						Out of range
Johnson D06-730 - Wellbore #1 - Plan #1						Out of range
Johnson D06-734 - Wellbore #1 - Plan #1						Out of range
Johnson D06-744 - Wellbore #1 - Plan #1						Out of range
Johnson D06-756 - Wellbore #1 - Plan #1						Out of range
Johnson D06-761 - Wellbore #1 - Plan #1						Out of range
Johnson D06-766 - Wellbore #1 - Plan #1						Out of range
Johnson D06-777 - Wellbore #1 - Plan #1						Out of range
Johnson D06-785 - Wellbore #1 - Plan #1						Out of range
Loustalet #30-03(SI) - Wellbore #1 - No Surveys						Out of range
LOUSTALET #30-1(PR) - Wellbore #1 - Gyro Surveys						Out of range
LOUSTALET #30-14(PR) - Wellbore #1 - No Surveys						Out of range
LOUSTALET #30-2(PR) - Wellbore #1 - No Surveys						Out of range
LOUSTALET #30-4(SI) - Wellbore #1 - No Surveys						Out of range
LOUSTALET #30-44(PR) - Wellbore #1 - No Surveys						Out of range
STEWART #30-1(PR) - Wellbore #1 - Gyro Surveys						Out of range
STEWART #30-2(PA) - Wellbore #1 - Gyro Surveys						Out of range
STEWART #30-23(PA) - Wellbore #1 - Gyro Surveys						Out of range
STEWART #30-25(SI) - Wellbore #1 - No Surveys						Out of range
STEWART R C #30-6(SI) - Wellbore #1 - No Surveys						Out of range

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Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Independence D18-767	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Independence D18-767	Database:	EDMP
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Summary

Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
D Section 05						
BECKER #12-10I(PA) - Wellbore #1 - Gyro Surveys						Out of range
BECKER #15-9I(PR) - Wellbore #1 - Gyro Surveys						Out of range
BECKER #5-12(PA) - Wellbore #1 - Gyro						Out of range
BECKER #5-13(PA) - Wellbore #1 - Gyro Surveys						Out of range
BECKER #5-14(PA) - Wellbore #1 - Gyro Surveys						Out of range
BECKER #5-16(PA) - Wellbore #1 - Gyro Surveys						Out of range
BECKER #5-2(PA) - Wellbore #1 - Gyro Surveys						Out of range
BECKER #5-3(PA) - Wellbore #1 - Gyro Surveys						Out of range
BECKER #5-4(PA) - Wellbore #1 - Gyro Surveys						Out of range
BECKER #5-5(PA) - Wellbore #1 - Gyro Surveys						Out of range
BECKER #5-8(PR) - Wellbore #1 - Gyro Surveys						Out of range
BECKER #6(SI) - Wellbore #1 - Gyro Surveys						Out of range
BECKER #7(PA) - Wellbore #1 - Gyro Surveys						Out of range
Becker 05-1(PA) - Wellbore #1 - Gyro Surveys						Out of range
Becker 05-15(PA) - Wellbore #1 - Gyro Surveys						Out of range
Becker 08-12I (SI) - Wellbore #1 - As-Drilled						Out of range
Becker D17-715 - Wellbore #1 - Plan #2						Out of range
Becker D17-725 - Wellbore #1 - Plan #2						Out of range
Becker D17-735 - Wellbore #1 - Plan #2						Out of range
Becker D17-745 - Wellbore #1 - Plan #2						Out of range
Becker D17-755 - Wellbore #1 - Plan #2						Out of range
Becker D17-765 - Wellbore #1 - Plan #2						Out of range
Becker D17-775 - Wellbore #1 - Plan #2						Out of range
Becker D17-785 - Wellbore #1 - Plan #2						Out of range
Becker Ranch #5E-323 (PR) - Wellbore #1 - As Drilled						Out of range
Becker Ranch #5E-403 (PR) - As Drilled - As Drilled						Out of range
Becker Ranch #5J-103 (PA) - Wellbore #1 - As Drilled						Out of range
Becker Ranch #5J-203 (PR) - Wellbore #1 - As-Drilled						Out of range
Becker Ranch #5J-303 (PR) - Wellbore #1 - As Drilled						Out of range
Becker Ranch #5J-323 (PA) - Wellbore #1 - As Drilled						Out of range
Becker Ranch #5J-323R (PR) - Wellbore #1 - As-Drilled						Out of range
Becker Ranch #5J-343 (PR) - Wellbore #1 - As Drilled						Out of range
Becker Ranch #5M-203 (PR) - Wellbore #1 - As-Drilled						Out of range
Becker Ranch #5M-243 (PR) - Wellbore #1 - As-Drilled						Out of range
Becker Ranch #5M-303 (PR) - Wellbore #1 - As-Drilled						Out of range
Becker Ranch #5M-323 (PR) - Wellbore #1 - As-Drilled						Out of range
Becker Ranch #5M-423 (PR) - Wellbore #1 - As-Drilled						Out of range
Becker Ranch #5R-203 (PR) - Wellbore #1 - As-Drilled						Out of range
Becker Ranch #5R-243 (PR) - Wellbore #1 - As-Drilled						Out of range
Becker Ranch #5R-303 (PR) - Wellbore #1 - As-Drilled						Out of range
Becker Ranch #5R-323 (PR) - Wellbore #1 - As-Drilled						Out of range
Becker Ranch #5R-443 (PR) - Wellbore #1 - As-Drilled						Out of range
Becker Ranch #5U-243 (PR) - Wellbore #1 - As-Drilled						Out of range
Becker Ranch #5U-303 (PR) - Wellbore #1 - As-Drilled						Out of range
Becker Ranch #5U-443 (PR) - Wellbore #1 - As-Drilled						Out of range
LDS #D08-18D(SI) - Wellbore #1 - MWD Surveys						Out of range
LDS #D08-29 (PR) - Wellbore #1 - Gyro Surveys						Out of range
LDS D08-28D (SI) - Wellbore #1 - MWD Surveys						Out of range
LDS D08-30D (PR) - Wellbore #1 - MWD Surveys						Out of range

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Reference Well:	Independence D18-767	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Independence D18-767	Database:	EDMP
Reference Design:	Plan #2	Offset TVD Reference:	Reference 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						
D Section 06						
AMEN PC D #06-18D(PR) - Wellbore #1 - MWD Surveys						Out of range
Amen PC D06-29 - Wellbore #1 - Wellbore #1 - As Drille						Out of range
FARAMIER FARMS #6-1(PA) - Wellbore #1 - Gyro Surve						Out of range
FARAMIR FARMS #6-2(PA) - Wellbore #1 - No Surveys						Out of range
FARAMIR FARMS #6-21(PR) - Wellbore #1 - No Surveys						Out of range
FARAMIR FARMS #6-22(PA) - Wellbore #1 - No Surveys						Out of range
FARAMIR FARMS #6-3(PA) - Wellbore #1 - Gyro Survey						Out of range
FARAMIR FARMS #6-32(PA) - Wellbore #1 - Gyro Surve						Out of range
FARAMIR FARMS #6-34(PR) - Wellbore #1 - No Surveys						Out of range
FARAMIR FARMS #6-4(SI) - Wellbore #1 - No Surveys						Out of range
HILL #6-35(PA) - Wellbore #1 - Gyro Surveys						Out of range
HOFF #6-15(PR) - Wellbore #1 - No Surveys						Out of range
HOFF PC D #06-21(PR) - Wellbore #1 - No Surveys						Out of range
Hoff PC D #06-27(SI) - Wellbore #1 - No Surveys						Out of range
Hoff PC D06-28D - Wellbore #1 - Wellbore #1 - As Drilled						Out of range
HORST #6-25(PA) - Wellbore #1 - No Surveys						Out of range
MCKENNEY #5(SI) - Wellbore #1 - No Surveys						Out of range
MCKENNEY #6-1(PA) - Wellbore #1 - Gyro Surveys						Out of range
MCKENNEY #6-12(SI) - Wellbore #1 - No Surveys						Out of range
MCKENNEY #6-13(SI) - Wellbore #1 - No Surveys						Out of range
MCKENNEY #6-14(SI) - Wellbore #1 - No Surveys						Out of range
MCKENNEY #6-2(PA) - Wellbore #1 - Gyro Surveys						Out of range
MCKENNEY #6-42(PR) - Wellbore #1 - No Surveys						Out of range
MCKENNEY #6-43(PR) - Wellbore #1 - No Surveys						Out of range
McKenney 06-01 - Wellbore #1 - Wellbore #1- As Drilled						Out of range
McKENNEY 6-3(PA) - Wellbore #1 - Gyro Surveys						Out of range
Shelton PC D06-32D(PR) - Wellbore #1 - MWD Surveys						Out of range
SMITH PC D #06-20D(PR) - Wellbore #1 - No Surveys						Out of range

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Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Independence D18-767	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Independence D18-767	Database:	EDMP
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
D Section 07						
Dechant 07-01-17 - Dechant 07-01-17 - Dechant 07-01-1						Out of range
Dechant 07-11 - Dechant 07-11 - Dechant 07-11 - As Dril						Out of range
Dechant 07-13 - Dechant 07-13 - Dechant 07-13 - As Dri						Out of range
Dechant 07-14 - Dechant 07-14 - Dechant 07-14 - As Dri						Out of range
Dechant 07-15 - Dechant 07-15 - Dechant 07-15 - As Dri						Out of range
Dechant 18-07 - Dechant 18-07 - Dechant 18-07 - As Dri						Out of range
Dechant D07-09 - Dechant D07-09 - Dechant D07-09 - A						Out of range
Dechant D07-10 - Dechant D07-10 - Dechant D07-10 - A						Out of range
Dechant D07-11 - Dechant D07-11 - Dechant D07-11 - A						Out of range
Dechant D07-12 - Dechant D07-12 - Dechant D07-12 - A						Out of range
Dechant D07-13 - Dechant D07-13 - Dechant D07-13 - A						Out of range
Dechant D07-14 - Dechant D07-14 - Dechant D07-14 - A						Out of range
Dechant D07-15 - Dechant D07-15 - Dechant D07-15 - A						Out of range
Dechant D07-16 - Dechant D07-16 - Dechant D07-16 - A						Out of range
Dechant D07-20 - Dechant D07-20 - Dechant D07-20 - A	14,880.67	6,876.96	152.60	57.46	1.604	CC, ES
Dechant D07-20 - Dechant D07-20 - Dechant D07-20 - A	14,900.00	6,877.18	153.82	57.68	1.600	SF
Dechant D07-21 - Dechant D07-21 - Dechant D07-21 - A						Out of range
Dechant D07-22 - Dechant D07-22 - Dechant D07-22 - A						Out of range
Dechant D07-23 - Dechant D07-23 - Dechant D07-23 - A						Out of range
Dechant D07-24 - Dechant D07-24 - Dechant D07-24 - A						Out of range
Dechant D07-25 - Dechant D07-25 - Dechant D07-25 - A	13,758.23	6,877.47	40.64	-45.34	0.473	Level 1, CC, ES, SF
Dechant D07-32 - Dechant D07-32 - Dechant D07-32 - A						Out of range
Dechant D07-33 - Dechant D07-33 - Dechant D07-33 - A						Out of range
Dechant D18-27D - Dechant D18-27D - Dechant D18-27						Out of range
Dechant D18-30D - Wellbore #1 - Wellbore #1 - As Drilled						Out of range
HSR Barbour 04-07 - HSR Barbour 04-07 - HSR Barbour	17,282.90	6,893.86	179.36	64.75	1.565	CC, ES
HSR Barbour 04-07 - HSR Barbour 04-07 - HSR Barbour	17,300.00	6,893.83	180.17	64.78	1.561	SF
HSR Parkman 06-07 - HSR Parkman 06-07 - HSR Parkm						Out of range
HSR Petrie 03-07 - HSR Petrie 03-07 - HSR Petrie 03-07						Out of range
HSR Safran 05-07 - HSR Safran 05-07 - HSR Safran 05-						Out of range
Two E Ranch 07-01 - Two E Ranch 07-01 - Two E Ranch						Out of range
Two E Ranches 1 - Two E Ranches 1 - Two E Ranches 1						Out of range

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Anticollision Summary Report

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Project:	Mustang	TVD Reference:	Well @ 4817.00ft
Reference Site:	D Section 19	MD Reference:	Well @ 4817.00ft
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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						
D Section 08						
HSR-ALVIN DECHANT #12-8 (SI) - Wellbore #1 - As-Dri						Out of range
HSR-ALVIN DECHANT #13-8 (SI) - Wellbore #1 - As-Dri						Out of range
HSR-LDS #14-8(SI) - Wellbore #1 - As-Drilled						Out of range
HSR-LDS #15-8(SI) - Wellbore #1 - As-Drilled						Out of range
HSR-LDS #16-8(SI) - Wellbore #1 - Gyro Surveys						Out of range
HSR-LDS #3-8(SI) - Wellbore #1 - As-Drilled						Out of range
HSR-LDS #4-8(SI) - Wellbore 1 - As-Drilled						Out of range
HSR-LDS #5-8(SI) - Wellbore #1 - As-Drilled						Out of range
HSR-LDS #6-8(SI) - Wellbore #1 - As-Drilled						Out of range
HSR-LDS #9-8(SI) - Wellbore #1 - As-Drilled						Out of range
HSR-LDS A #10-8(SI) - Wellbore #1 - As-Drilled						Out of range
HSR-LDS A #11-8(SI) - Wellbore #1 - As-Drilled						Out of range
LDS #18-8(SI) - Wellbore #1 - Gyro Surveys						Out of range
LDS #20-8(SI) - Wellbore #1 - No Surveys						Out of range
LDS D #09-30(SI) - Wellbore #1 - As-Drilled						Out of range
LDS D #09-31D(SI) - Wellbore #1 - As-Drilled						Out of range
RUBY RED #D #8-1D(PA) - Wellbore #1 - Gyro Surveys						Out of range
RUBY RED #D 8-7(PR) - Wellbore #1 - Gyro Surveys						Out of range
RUBY RED #D 8-8(PR) - Wellbore #1 - Gyro Surveys						Out of range
RUBY RED D8-2(PA) - Wellbore #1 - Gyro Surveys						Out of range
TWO E RANCHES #1(PA) - Wellbore #1 - Gyro Surveys						Out of range

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Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Independence D18-767	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Independence D18-767	Database:	EDMP
Reference Design:	Plan #2	Offset TVD Reference:	Reference 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						
D Section 17						
Butterball D19-27D - Butterball D19-27D OH - As-Drilled						Out of range
Butterball D19-27D - Gyros - Gyro Surveys						Out of range
Guttersen State D16-33 (SI) - Wellbore #1 - No Surveys						Out of range
HSR LDS 6-17 (PA) - Wellbore #1 - Gyro Surveys						Out of range
HSR LDS B5-17 (SI) - Wellbore #1 - Gyro Surveys						Out of range
HSR Mike Guttersen 16-17X (SI) - Wellbore #1 - As-Dri						Out of range
HSR Mike Guttersen 16-17 (DA) - Wellbore #1 - As-Drille						Out of range
HSR Weeks 10-17 (TA) - Wellbore #1 - Gyro Surveys						Out of range
HSR Weeks 15-17 (PA) - Wellbore #1 - As-Drilled						Out of range
HSR Weeks 9-17 (TA) - Wellbore #1 - Gyro Surveys						Out of range
HSR-LDS 3-17 (PA) - Wellbore #1 - Gyro Surveys						Out of range
HSR-LDS 4-17 (SI) - Wellbore #1 - Gyro Surveys						Out of range
LDS 18-17 (PA) - Wellbore #1 - Gyro Surveys						Out of range
LDS D17-13 (PA) - Wellbore #1 - Gyro Surveys						Out of range
LDS D17-18 (SI) - Wellbore #1 - Gyro Surveys						Out of range
LDS D17-20 (PA) - Wellbore #1 - As-Drilled						Out of range
LDS D17-21 (PA) - Wellbore #1 - As-Drilled						Out of range
LDS D17-22 (TA) - Wellbore #1 - As-Drilled						Out of range
LDS D17-24D (PA) - LDS D17-24D Gyros - As-Drilled						Out of range
LDS D17-24D (PA) - LDS D17-24D OH - As-Drilled						Out of range
LDS D17-25D (PA) - LDS D17-25D Gyros - As-Drilled						Out of range
LDS D17-25D (PA) - LDS D17-25D OH - LDS D17-25D -						Out of range
LDS D17-31D (PR) - Gyros - As-Drilled						Out of range
LDS D17-31D (PR) - LDS D17-31D OH - As-Drilled						Out of range
LDS D17-32D (PA) - Gyros - As-Drilled						Out of range
LDS D17-32D (PA) - LDS D17-32D OH - As-Drilled						Out of range
LDS D17-33 (PA) - LDS D17-33 - As-Drilled						Out of range
LDS D17-7 (PA) - Wellbore #1 - As-Drilled						Out of range
LDS D20-29D (PA) - Gyros - As-Drilled						Out of range
LDS D20-29D (PA) - LDS D20-29D OH - As-Drilled						Out of range
LDS D20-30D (TA) - Gyros - As-Drilled						Out of range
LDS D20-30D (TA) - LDS D20-30D OH - As-Drilled						Out of range
LDS RED D17-11 (SI) - Wellbore #1 - As Drilled						Out of range
LDS Red D17-12 (PA) - Wellbore #1 - Gyro Surveys						Out of range
LDS Red D17-14 (DA) - LDS Red D17-14 - No Surveys						Out of range
LDS Red D17-14X (PA) - Wellbore #1 - As-Drilled						Out of range
LDS Red D17-3J (PA) - Wellbore #1 - Gyro Surveys						Out of range
LDS White D17-1 (PA) - Wellbore #1 - Gyro Surveys						Out of range
LDS White D17-2 (SI) - Wellbore #1 - As-Drilled						Out of range
LDS White D17-8 (SI) - Wellbore #1 - As-Drilled						Out of range
Thomson D20-31D (TA) - Gyros - Gyro Surveys						Out of range
Thomson D20-31D (TA) - Thomson D20-31D OH - As-Dr						Out of range
Weeks 20-17 (PA) - Wellbore #1 - Gyro Surveys						Out of range

Noble Energy, Inc.
Anticollision Summary Report

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Project:	Mustang	TVD Reference:	Well @ 4817.00ft
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Site Error:	0.00 ft	North Reference:	Grid
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Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Independence D18-767	Database:	EDMP
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
D Section 18						
Horton D18-20D (PR) - Gyros - Gyro Surveys						Out of range
Horton D18-20D (PR) - Horton D18-20D OH - As-Drilled						Out of range
Horton D18-22D (PR) - Gyros - Gyro Surveys						Out of range
Horton D18-22D (PR) - Horton D18-22D OH - As-Drilled						Out of range
LSWD 1 (IJ) - LSWD 1 - LSWD 1 - As Drilled						Out of range
Mick D18-03 (PR) - Mick D18-03 - Mick D18-03 - As Drill						Out of range
Mick D18-04 (SI) - Wellbore #1 - Wellbore #1- As Drilled						Out of range
Mick D18-05 (SI) - Wellbore #1 - Wellbore #1- As Drilled						Out of range
Mick D18-06 (PR) - Mick D18-06 - Mick D18-06 - As Drill						Out of range
Mick D18-11 (PA) - Mick D18-11 - Mick D18-11 - As Drille						Out of range
Mick D18-12 (PA) - Wellbore #1 - Wellbore #1- As Drilled						Out of range
Mick D18-13 (PA) - Wellbore #1 - Wellbore #1- As Drilled						Out of range
Mick D18-14 (PA) - Mick D18-14 - Mick D18-14 - As Drille						Out of range
Mick D18-19 (PR) - Mick D18-19 - Mick D18-19 - As Drill						Out of range
Mick D18-25 (SI) - Mick D18-25 - Mick D18-25 - As Drille						Out of range
Scooter 18-02 (PR) - Scooter 18-02 - Scooter 18-02 - As						Out of range
Scooter D18-07 (PR) - Scooter D18-07 - Scooter D18-07						Out of range
Scooter D18-10 (PA) - Scooter D18-10 - Scooter D18-10						Out of range
Scooter D18-15 (PA) - Scooter D18-15 - Scooter D18-15						Out of range
Scooter D18-16 (PA) - Scooter D18-16 - Scooter D18-16						Out of range
Scooter D18-17 JI (PA) - Gyros - Gyro Surveys						Out of range
Scooter D18-17 JI (PA) - Scooter D18-17 JI OH - As-Drill						Out of range
Scooter D18-1JI (PR) - Gyros - Gyro Surveys						Out of range
Scooter D18-1JI (PR) - Scooter D18-1JI OH - As-Drilled						Out of range
Scooter D18-4J (PA) - Scooter D18-4J - Scooter D18-4J						Out of range
Scooter D18-78-1HN - Original Drilling - Original Drilling -						Out of range
Scooter D18-78-1HN - Original Drilling - ST01 - Original D						Out of range
Scooter D18-79-1HN - Original Drilling - Original Drilling -						Out of range
Scooter D18-79HN - Original Drilling - Original Drilling - A						Out of range
Scooter D18-8JI (PA) - Gyros - Gyro Surveys						Out of range
Scooter D18-8JI (PA) - Scooter D18-8JI OH - As-Drilled						Out of range
Scooter D18-9JI (PA) - Gyros - Gyro Surveys						Out of range
Scooter D18-9JI (PA) - Scooter D18-9JI OH - As-Drilled						Out of range
Shianne D18-29D (SI) - Gyros - Gyro Surveys						Out of range
Shianne D18-29D (SI) - Shianne D18-29D OH - As-Drille						Out of range

Noble Energy, Inc.
Anticollision Summary Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Independence D18-767
Project:	Mustang	TVD Reference:	Well @ 4817.00ft
Reference Site:	D Section 19	MD Reference:	Well @ 4817.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Independence D18-767	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Independence D18-767	Database:	EDMP
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
D Section 19						
Butterball 13-19 - Butterball 13-19 - Butterball 13-19 - As						Out of range
Butterball 14-19 - Butterball 14-19 - Butterball 14-19 - As						Out of range
Butterball 23-19 - Butterball 23-19 - Butterball 23-19 - As						Out of range
Butterball B04-19 - Butterball B04-19 - Butterball B04-19						Out of range
Butterball D18-75HN - Original Drilling - Original Drilling -						Out of range
Butterball D19-17D - Butterball D19-17D - Butterball D19						Out of range
Butterball D19-18D - Butterball D19-18D - Butterball D19						Out of range
Butterball D19-19D - Butterball D19-19D - Butterball D19						Out of range
Butterball D19-20D - Butterball D19-20D - Butterball D19						Out of range
Butterball D19-22D - Wellbore #1 - Wellbore #1 - As Drill						Out of range
Butterball D19-75HN - Original Drilling - Original Drilling -						Out of range
Butterball D24-19 - Butterball D24-19 - Butterball D24-19						Out of range
Butterball H24-69HN - Original Drilling - Original Drilling -	7,139.85	8,256.98	70.63	44.03	2.656	CC
Butterball H24-69HN - Original Drilling - Original Drilling -	7,150.00	8,257.44	71.43	40.44	2.305	ES
Butterball H24-69HN - Original Drilling - Original Drilling -	7,200.00	8,259.76	94.85	42.88	1.825	SF
Champlin 366 Amoco F 1 - Wellbore #1 - Wellbore #1 - A						Out of range
Dechant D19-32D - Dechant D19-32D - Dechant D19-32						Out of range
Graznak 01-19 - Graznak 01-19 - Graznak 01-19 - As Dr						Out of range
Higgins D19-720 - Original Drilling - Original Drilling - As						Out of range
Higgins D19-720 - Sidetrack Curve/Horizontal - ST01 - A						Out of range
Independence D18-717 - Independence D18-717 - Plan 1						Out of range
Independence D18-725 - Independence D18-725 - Plan 1						Out of range
Independence D18-732 - Independence D18-732 - Plan 1						Out of range
Independence D18-739 - Independence D18-739 - Plan 1						Out of range
Independence D18-744 - Independence D18-744 - Plan #						Out of range
Independence D18-759 - Independence D18-759 - Plan 1	2,200.00	2,201.00	22.00	6.69	1.437	Level 3, CC
Independence D18-759 - Independence D18-759 - Plan 1	2,300.00	2,298.98	22.46	6.44	1.402	Level 3, ES, SF
Independence D18-767 - Independence D18-767 - Plan 1	2,200.00	2,200.00	0.00	0.00	10,000.000	CC
Independence D18-767 - Independence D18-767 - Plan 1	7,232.17	7,233.01	0.00	-40.49	0.000	Level 1, SF
Independence D18-767 - Independence D18-767 - Plan 1	12,325.19	12,326.03	8.61	-95.94	0.082	Level 1, ES
Independence D30-711 - Independence D30-711 OH - As						Out of range
Independence D30-718 - Independence D30-718 OH - A						Out of range
Independence D30-724 - Independence D30-724 OH - A						Out of range
Independence D30-731 - Independence D30-731 OH - A						Out of range
Independence D30-737 - Independence D30-737 OH - A						Out of range
Independence D30-743 - Independence D30-743 OH - A						Out of range
Independence D30-758 - Independence D30-758 OH - A	1,892.66	1,905.68	151.74	138.74	11.668	CC
Independence D30-758 - Independence D30-758 OH - A	2,100.00	2,112.67	152.11	138.12	10.879	ES
Independence D30-758 - Independence D30-758 OH - A	2,500.15	2,492.04	163.36	147.82	10.511	SF
Independence D30-765 - Independence D30-765 OH - A	7,372.62	7,036.67	73.98	29.69	1.671	CC, ES, SF
Independence D30-770 - Independence D30-770 OH - A	1,908.46	1,908.48	147.24	134.17	11.268	CC
Independence D30-770 - Independence D30-770 OH - A	2,100.00	2,099.23	147.46	133.52	10.584	ES
Independence D30-770 - Independence D30-770 OH - A	2,625.82	2,602.95	159.94	143.89	9.964	SF
Independence D30-777 - Independence D30-777 - As-Dr	825.75	825.75	153.44	148.02	28.325	CC
Independence D30-777 - Independence D30-777 - As-Dr	2,200.00	2,198.59	154.26	139.91	10.754	ES
Independence D30-777 - Independence D30-777 - As-Dr	2,625.82	2,603.79	160.03	143.95	9.954	SF
Independence State D30-784 - Independence State D30	1,946.29	1,946.34	153.00	139.69	11.488	CC
Independence State D30-784 - Independence State D30	2,000.00	1,998.59	153.22	139.65	11.284	ES
Independence State D30-784 - Independence State D30	2,100.00	2,093.80	155.53	141.59	11.154	SF
LDS White D19-10 - LDS White D19-10 - LDS White D19						Out of range
LDS White D19-15 - LDS White D19-15 - LDS White D19						Out of range
LDS White D19-16 - Wellbore #1 - Wellbore #1 - As Drill						Out of range
Mile High 02-19 - 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

Noble Energy, Inc.
Anticollision Summary Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Independence D18-767
Project:	Mustang	TVD Reference:	Well @ 4817.00ft
Reference Site:	D Section 19	MD Reference:	Well @ 4817.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Independence D18-767	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Independence D18-767	Database:	EDMP
Reference Design:	Plan #2	Offset TVD Reference:	Reference 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						
D Section 19						
Sean D19-09 - Wellbore #1 - Wellbore #1 - As Drilled						Out of range
Turk Blue D19-02J - Turk Blue D19-02J - Turk Blue D19-						Out of range
Turk Blue D19-04 - Turk Blue D19-04 - Turk Blue D19-04						Out of range
Turk Blue D19-05 - Turk Blue D19-05 - Turk Blue D19-05						Out of range
Turk Blue D19-06 - Turk Blue D19-06 - Turk Blue D19-06						Out of range
Turk White D19-01 - Wellbore #1 - Wellbore #1 - As Drill						Out of range
Turk White D19-02 - Wellbore #1 - Wellbore #1 - As Drill						Out of range
Turk White D19-08 - Wellbore #1 - Wellbore #1 - As Drill						Out of range
D Section 20						
Bohlender D20-2J - Wellbore #1 - No Surveys						Out of range
Bohlender D20-3 - Wellbore #1 - Gyro Surveys						Out of range
Bohlender D20-4 (P&A) - Wellbore #1 - No Surveys						Out of range
Bohlender D20-6 - Wellbore#1 - Gyro Surveys						Out of range
Butterball D19-27D - Butterball D19-27D - Butterball D19						Out of range
Duncan D20-1 (P&A) - Wellbore #1 - No Surveys						Out of range
Duncan D20-10 - Wellbore #1 - Gyro Surveys						Out of range
Duncan D20-11 (SI) - Wellbore #1 - No Surveys						Out of range
Duncan D20-12 (SI) - Wellbore #1 - No Surveys						Out of range
Duncan D20-13 (SI) - Wellbore #1 - No Surveys						Out of range
Duncan D20-14 (SI) - Wellbore #1 - Gyro Surveys						Out of range
Duncan D20-15 (P&A) - Wellbore #1 - Gyro Surveys						Out of range
Duncan D20-16 (SI) - Wellbore #1 - Gyro Surveys						Out of range
Duncan D20-2 - Wellbore #1 - Gyro Surveys						Out of range
Duncan D20-7 - Wellbore #1 - Gyro Surveys						Out of range
Duncan D20-8 - Wellbore #1 - Gyro Surveys						Out of range
Duncan D20-9 (P&A) - Wellbore #1 - Gyro Surveys						Out of range
E Ranches (P&A) - Wellbore #1 - No Surveys						Out of range
Guttersen 10-20 - Wellbore #1 - Gyro Surveys						Out of range
LDS D20-30D - LDS D20-30D - LDS D20-30D - As Drille						Out of range

Noble Energy, Inc.
Anticollision Summary Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Independence D18-767
Project:	Mustang	TVD Reference:	Well @ 4817.00ft
Reference Site:	D Section 19	MD Reference:	Well @ 4817.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Independence D18-767	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Independence D18-767	Database:	EDMP
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
D Section 29						
Guttersen D29-31D - Wellbore #1 - Guttersen D29-31D						Out of range
Guttersen D29-33D - Wellbore #1 - Guttersen D29-33D -						Out of range
Guttersen D29-65HN - Guttersen D29-65HN OH - As-Dri						Out of range
Guttersen D29-67HN - Original Drilling - Original Drilling						Out of range
Guttersen D29-69HN - Original Drilling - Original Drilling						Out of range
Guttersen D29-722 - Guttersen D29-722 OH - As-Drilled						Out of range
Guttersen D29-730 - Guttersen D29-730 OH - As-Drilled						Out of range
Guttersen D29-738 - Guttersen D29-738 OH - As-Drilled						Out of range
Guttersen D29-746 - Guttersen D29-746 OH - As-Drilled						Out of range
Guttersen D29-754 - Guttersen D29-754 OH - As-Drilled						Out of range
Guttersen D29-770 - Guttersen D29-770 OH - As-Drilled						Out of range
Guttersen D29-778 - Guttersen D29-778 OH - As-Drilled						Out of range
Guttersen D29-786 - Guttersen D29-786 OH - As-Drilled						Out of range
Guttersen D29-99HZ - Guttersen D29-99HZ OH - As-Dril						Out of range
Guttersen D30-68-1HN - Original Drilling - Original Drillin						Out of range
Guttersen D30-69-1HN - Original Drilling - Original Drillin						Out of range
Guttersen State D29-714 - Guttersen State D29-714 OH						Out of range
Guttersen State Y05-719 - Guttersen State Y05-719 - Pla						Out of range
Guttersen Y05-726 - Guttersen Y05-726 - Plan #4						Out of range
Guttersen Y05-734 - Guttersen Y05-734 - As-Drilled						Out of range
Guttersen Y05-749 - Guttersen Y05-749 OH - As-Drilled						Out of range
Guttersen Y05-756 - Guttersen Y05-756 - As-Drilled						Out of range
Guttersen Y05-771 - Guttersen Y05-771 - As-Drilled						Out of range
Guttersen Y05-779 - Guttersen Y05- 779 - As-Drilled						Out of range
Guttersen Y05-786 - Guttersen Y05-786 - As-Drilled						Out of range
Jessie D29-1J (PR) - Wellbore #1 - Gyro Surveys						Out of range
Jessie D29-4J (PA) - Wellbore #1 - Gyro Surveys						Out of range
Kate Red D29-03J - Kate Red D29-03J - Kate Red D29-0						Out of range
Kate Red D29-11 - Wellbore #1 - Gyro Surveys						Out of range
Kate Red D29-13 - Wellbore #1 - Gyro Surveys						Out of range
Kate Red D29-14 - Wellbore #1 - Gyro Surveys						Out of range
Kate Red D29-2J - Wellbore #1 - Kate Red D29-2J						Out of range
Kate Red D29-3 - Wellbore #1 - Kate Red D29-3						Out of range
Kate Red D29-5 - Wellbore #1 - Gyro Surveys						Out of range
Kate Red D29-6 - Wellbore #1 - Gyro Surveys						Out of range
Kate White D29-01 (PR) - Wellbore #1 - Gyro Surveys						Out of range
Kate White D29-07 (PA) - Wellbore #1 - Gyro Surveys						Out of range
Kate White D29-08 (PA) - Wellbore #1 - Gyro Surveys						Out of range
Kate White D29-15 (SI) - Wellbore #1 - Gyro Surveys						Out of range
Kate White D29-16 - Wellbore #1 - Gyro Surveys						Out of range
Kate White D29-9 (SI) - Wellbore #1 - Gyro Surveys						Out of range

Noble Energy, Inc.
Anticollision Summary Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Independence D18-767
Project:	Mustang	TVD Reference:	Well @ 4817.00ft
Reference Site:	D Section 19	MD Reference:	Well @ 4817.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Independence D18-767	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Independence D18-767	Database:	EDMP
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
D Section 30						
Adams D30-27D - Adams D30-27D - Adams D30-27D - A						Out of range
Adams D30-29D - Wellbore #1 - Wellbore #1 - As Drilled						Out of range
Adams D30-30D - Adams D30-30D Gyros - Gyros						Out of range
Adams D30-30D - Adams D30-30D OH - As Drilled						Out of range
Adams D30-31D - Adams D30-31D Gyros - Gyros						Out of range
Adams D30-31D - Adams D30-31D OH - As-drilled						Out of range
Corbin D30-23D - Corbin D30-23D - Corbin D30-23D - As						Out of range
Corbin Red D30-04J - Corbin Red D30-04J - Corbin Red						Out of range
Corbin Red D30-09 - Corbin Red D30-09 - Corbin Red D						Out of range
Corbin Red D30-15 - Corbin Red D30-15 - Corbin Red D						Out of range
Corbin Red D30-16 - Corbin Red D30-16 - Corbin Red D						Out of range
Dechant D30-17D - Dechant D30-17D - Dechant D30-17						Out of range
Dechant D30-20D - Dechant D30-20D - Dechant D30-20						Out of range
Dechant D30-24D - Dechant D30-24D - Dechant D30-24						Out of range
Dechant D30-25D - Dechant D30-25D - Dechant D30-25						Out of range
Dechant D31-27D - Dechant D31-27D - Dechant D31-27						Out of range
Dechant D31-28D - Dechant D31-28D - Dechant D31-28						Out of range
Dechant D31-29D - Dechant D31-29D - Dechant D31-29						Out of range
Dechant D31-77HN - Original Drilling - Original Drilling - A						Out of range
Hanson D30-11 - Hanson D30-11 - Hanson D30-11 - As D						Out of range
Hanson D30-12 - Hanson D30-12 - Hanson D30-12 - As						Out of range
Hanson D30-13 - Hanson D30-13 - Hanson D30-13 - As						Out of range
Hanson D30-14 - Hanson D30-14 - Hanson D30-14 - As						Out of range
Hettinger C Unit 1 - Hettinger C Unit 1 - Hettinger C Unit						Out of range
Hettinger D30-02 - Hettinger D30-02 - Hettinger D30-02 -						Out of range
Hettinger D30-03 - Hettinger D30-03 - Hettinger D30-03 -						Out of range
Hettinger D30-04 - Hettinger D30-04 - Hettinger D30-04 -						Out of range
Hettinger D30-05 - Hettinger D30-05 - Hettinger D30-05 -						Out of range
Hettinger D30-06 - Hettinger D30-06 - Hettinger D30-06 -						Out of range
Hettinger D30-08 - Hettinger D30-08 - Hettinger D30-08 -						Out of range
Leslie E Hanson Gas Unit 1 - Leslie E Hanson Gas Unit						Out of range
McWilliams D29-32 - McWilliams D29-32 - McWilliams D						Out of range
McWilliams D30-07 - McWilliams D30-07 - McWilliams D						Out of range
McWilliams D30-18 - McWilliams D30-18 - McWilliams D						Out of range
McWilliams D30-19 - McWilliams D30-19 - McWilliams D						Out of range
McWilliams D30-21 - McWilliams D30-21 - McWilliams D						Out of range
McWilliams D30-22 - McWilliams D30-22 - McWilliams D						Out of range

Noble Energy, Inc.
Anticollision Summary Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Independence D18-767
Project:	Mustang	TVD Reference:	Well @ 4817.00ft
Reference Site:	D Section 19	MD Reference:	Well @ 4817.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Independence D18-767	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Independence D18-767	Database:	EDMP
Reference Design:	Plan #2	Offset TVD Reference:	Reference 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						
H Section 01						
Collins 1-1 - Wellbore #1 - Wellbore #1 - As Drilled						Out of range
Houndskeeper 1-13 - Wellbore #1 - Wellbore #1 - As Dril						Out of range
Houndskeeper H01-17 - Wellbore #1 - Wellbore #1 - As D						Out of range
Houndskeeper H01-22 - Wellbore #1 - Wellbore #1 - As D						Out of range
Houndskeeper H01-27 - Wellbore #1 - Wellbore #1 - As D						Out of range
Houndskeeper H01-28 - Wellbore #1 - Wellbore #1 - As D						Out of range
Houndskeeper PC H01-21D - Wellbore #1 - Wellbore #1						Out of range
HSR-HARTMAN #4-1(PR) - Wellbore #1 - Gyro Surveys						Out of range
HSR-KOSKELA #5-1(PR) - Wellbore #1 - No Surveys						Out of range
HSR-LAURICE #6-1(PR) - Wellbore #1 - No Surveys						Out of range
LJS R H01-02 - Wellbore #1 - Wellbore #1 - As Drilled						Out of range
LJS R H01-08 - Wellbore #1 - Wellbore #1 - As Drilled						Out of range
Shelton 22-1(PR) - Wellbore #1 - Wellbore #1						Out of range
Shelton 31-01(PR) - Wellbore #1 - Gyro Surveys						Out of range
Shelton D07-30 - Wellbore #1 - Wellbore #1 - As Drilled						Out of range
Shelton H #12-29(PR) - Wellbore #1 - No Surveys						Out of range
Shelton H 1-12X(PR) - Wellbore #1 - No Surveys						Out of range
Shelton H01-23 - Wellbore #1 - Wellbore #1 - As Drilled						Out of range
Shelton H01-24 - Wellbore #1 - Wellbore #1 - As Drilled						Out of range
Shelton H01-759 - Wellbore #1 - Plan #1						Out of range
Shelton H01-766 - Wellbore #1 - Plan #1						Out of range
Shelton H01-780 - Wellbore #1 - Plan #1						Out of range
Shelton H01-783 - Wellbore #1 - Plan #1						Out of range
Shelton H13-715 - Shelton H13-715 - Plan #1						Out of range
Shelton H13-724 - Shelton H13-724 - Plan #1						Out of range
Shelton H13-730 - Shelton H13-730 - Plan #1						Out of range
Shelton H13-734 - Shelton H13-734 - Plan #1						Out of range
Shelton H13-744 - Shelton H13-744 - Plan #1						Out of range
Shelton H13-753 - Shelton H13-753 - Plan #1						Out of range
Shelton H13-763 - Shelton H13-763 - Plan #1						Out of range
Shelton H13-768 - Shelton H13-768 - Plan #1						Out of range
Shelton H13-773 - Shelton H13-773 - Plan #1						Out of range
Shelton H13-782 - Shelton H13-782 - Plan #1						Out of range
Shelton H3-615 - Wellbore #1 - Plan #1						Out of range
Shelton H3-625 - Wellbore #1 - Plan #1						Out of range
Shelton H3-635 - Wellbore #1 - Plan #1						Out of range
Shelton H3-645 - Wellbore #1 - Plan #1						Out of range
Shelton H3-655 - Wellbore #1 - Plan #1						Out of range
Shelton H3-665 - Wellbore #1 - Plan #1						Out of range
Shelton H3-675 - Wellbore #1 - Plan #1						Out of range
Shelton H3-683 - Wellbore #1 - Plan #1						Out of range
UPRC #1-12J(PA) - Wellbore #1 - No Surveys						Out of range
UPRC #1-13J(SI) - Wellbore #1 - No Surveys						Out of range
UPRC 1-09J - Wellbore #1 - Wellbore #1 - As Drilled						Out of range
UPRC 1-10J - Wellbore #1 - Wellbore #1 - As Drilled						Out of range
UPRC 1-15J - Wellbore #1 - Wellbore #1 - As Drilled						Out of range
UPRC 1-16J - Wellbore #1 - Wellbore #1 - As Drilled						Out of range
UPRR 39 PAN AM G #1(PR) - Wellbore #1 - No Surveys						Out of range

Noble Energy, Inc.
Anticollision Summary Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Independence D18-767
Project:	Mustang	TVD Reference:	Well @ 4817.00ft
Reference Site:	D Section 19	MD Reference:	Well @ 4817.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Independence D18-767	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Independence D18-767	Database:	EDMP
Reference Design:	Plan #2	Offset TVD Reference:	Reference 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						
H Section 12						
Helms H 12-14D(SI) - Wellbore #1 - Gyro Surveys						Out of range
JOHNSON H #13-27D(PR) - Wellbore #1 - MWD Survey						Out of range
Ray H 12-24D(SI) - Wellbore #1 - Gyro Surveys						Out of range
SHELTON H #01-25D(SI) - Wellbore #1 - MWD Surveys						Out of range
Shelton H01-33D(SI) - Wellbore #1 - MWD Surveys						Out of range
STROH #H 12-03(SI) - Wellbore #1 - No Surveys						Out of range
Stroh #H12-16(SI) - Wellbore #1 - No Surveys						Out of range
Stroh #H12-18(PR) - Wellbore #1 - No Surveys						Out of range
Stroh #H12-22(PR) - Wellbore #1 - Gyro Surveys						Out of range
Stroh #H12-32(PR) - Wellbore #1 - No Surveys						Out of range
Stroh 12-01 - Wellbore #1 - Wellbore #1 - As Drilled						Out of range
STROH D #07-31(PR) - Wellbore #1 - Gyro Surveys						Out of range
STROH H #12-05(PA) - Wellbore #1 - Gyro Surveys						Out of range
STROH H #12-06(SI) - Wellbore #1 - No Surveys						Out of range
STROH H #12-08(PR) - Wellbore #1 - No Surveys						Out of range
STROH H #12-10(PR) - Wellbore #1 - No Surveys						Out of range
STROH H #12-11(SI) - Wellbore #1 - No Surveys						Out of range
STROH H #12-12(SI) - Wellbore #1 - No Surveys						Out of range
STROH H #12-13(SI) - Wellbore #1 - No Surveys						Out of range
STROH H #12-14(PA) - Wellbore #1 - No Surveys						Out of range
STROH H #12-20(PR) - Wellbore #1 - No Surveys						Out of range
STROH H #12-21(PR) - Wellbore #1 - No Surveys						Out of range
STROH H #12-28D(PR) - Wellbore #1 - MWD Surveys						Out of range
STROH H #12-4J(PR) - Wellbore #1 - No Surveys						Out of range
STROH H #12-9(PR) - Wellbore #1 - No Surveys						Out of range
Stroh H 12-04(PR) - Wellbore #1 - Wellbore #1						Out of range
Stroh H12-02 - Wellbore #1 - Wellbore #1 - As Drilled						Out of range
Stroh H12-27 - Wellbore #1 - Wellbore #1 - As Drilled						Out of range
STROH H12-99HZ(PR) - Wellbore #1 - MWD Surveys						Out of range
STROH PC H #12-30D(SI) - Wellbore #1 - MWD Surveys						Out of range
STROH PC H #12-31D(SI) - Wellbore #1 - MWD Surveys						Out of range
Stroh/12-7(PR) - Wellbore #1 - Gyro Surveys						Out of range