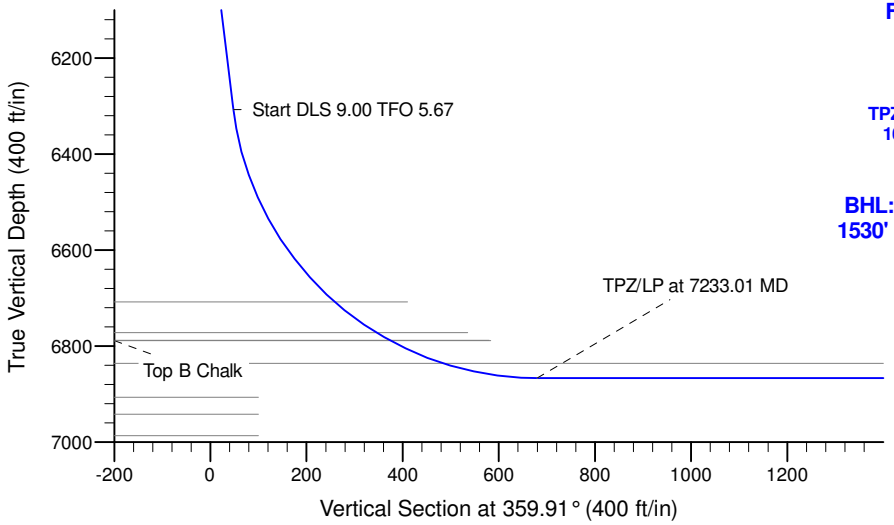
Project: Mustang
Site: D Section 19
Well: Independence D18-767
Wellbore: Independence D18-767
Design: Plan 1

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

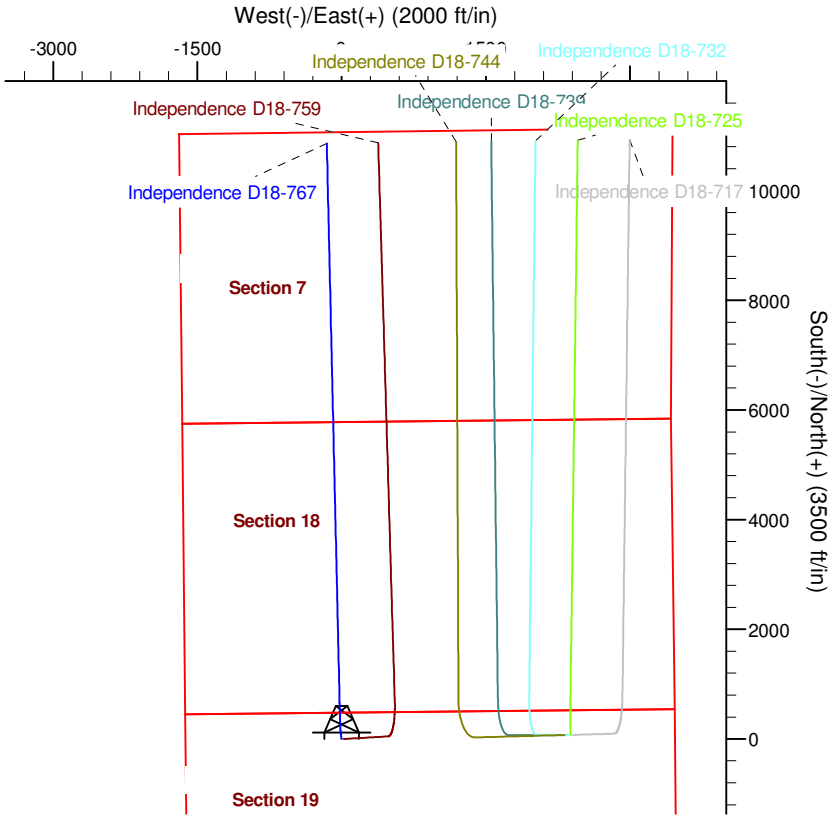
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	5850.00	0.00	0.00	5850.00	0.00	0.00	0.00	0.00	0.00	
3	5974.77	6.96	353.62	5974.46	7.53	-0.84	5.58	353.62	7.53	
4	6310.02	6.96	353.62	6307.24	47.92	-5.36	0.00	0.00	47.93	
5	7233.01	90.00	359.25	6867.00	679.75	-20.32	9.00	5.67	679.78	Independence D18-767 TPZ
6	17418.52	90.00	359.25	6867.00	10864.38	-153.43	0.00	0.00	10864.60	Independence D18-767 BHL

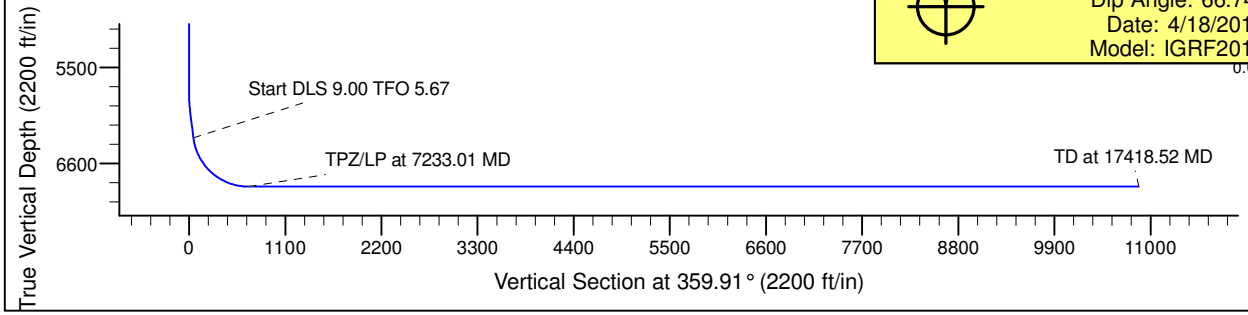


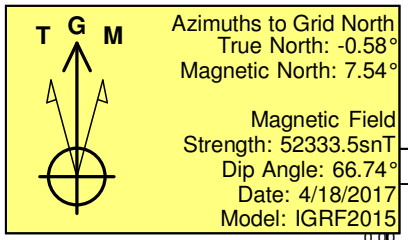
Surface: 480' FNL,1616' FWL, Sec.19

TPZ: 200' FSL, 1600' FWL, Sec.18

BHL: 200' FNL, 1530' FWL, Sec.7







Azimuths to Grid North
True North: -0.58°
Magnetic North: 7.54°

Magnetic Field
Strength: 52333.5snT
Dip Angle: 66.74°
Date: 4/18/2017
Model: IGRF2015

WELL DETAILS: Independence D18-767

	Northing	Easting	Latitude	Longitude
4787.00				
0.00	1323056.94	3252202.25	40.2166633	-104.5968867

Plan: Plan 1 (Independence D18-767/Independence D18-767)

Created By: Colby Baxter Date: 10:28, September 20 2018

Checked: _____ Date: _____

Reviewed: _____ Date: _____

Approved: _____ Date: _____

Northern Region - DJ Basin

Mustang
D Section 19
Independence D18-767

Independence D18-767

Plan: Plan 1

Standard Survey Report

20 September, 2018

Noble Energy, Inc.

Survey Report

Company:	Northern Region - DJ Basin	**Local Co-ordinate Reference:**	Well Independence D18-767
Project:	Mustang	**TVD Reference:**	Well @ 4817.00ft
Site:	D Section 19	**MD Reference:**	Well @ 4817.00ft
Well:	Independence D18-767	**North Reference:**	Grid
Wellbore:	Independence D18-767	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan 1	**Database:**	EDMP

Project Mustang, Weld County Colorado

Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site D Section 19

Site Position:		**Northing:**	1,318,926.35 usft	**Latitude:**	40.2052853
From:	Map	**Easting:**	3,253,617.62 usft	**Longitude:**	-104.5919702
Position Uncertainty:	0.00 ft	**Slot Radius:**	13.200 in	**Grid Convergence:**	0.59 °

Well Independence D18-767

Well Position	**+N/-S**	0.00 ft	**Northing:**	1,323,056.94 usft	**Latitude:**	40.2166634
	+E/-W	0.00 ft	**Easting:**	3,252,202.26 usft	**Longitude:**	-104.5968867
Position Uncertainty		0.00 ft	**Wellhead Elevation:**	ft	**Ground Level:**	4,787.00 ft

Wellbore Independence D18-767

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	4/18/2017	8.12	66.74	52,333.49044994

Design Plan 1

Audit Notes:

Version:		**Phase:**	PLAN	**Tie On Depth:**	0.00

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	359.91

Survey Tool Program **Date** 9/20/2018

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.00	17,418.52	Plan 1 (Independence D18-767)	2_MWD+IFR1+MS	A008Mb: IFR dec & multi-station analysis

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00

Noble Energy, Inc.

Survey Report

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Project:	Mustang	**TVD Reference:**	Well @ 4817.00ft
Site:	D Section 19	**MD Reference:**	Well @ 4817.00ft
Well:	Independence D18-767	**North Reference:**	Grid
Wellbore:	Independence D18-767	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan 1	**Database:**	EDMP

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00
3,900.00	0.00	0.00	3,900.00	0.00	0.00	0.00	0.00	0.00	0.00
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00
4,100.00	0.00	0.00	4,100.00	0.00	0.00	0.00	0.00	0.00	0.00
4,200.00	0.00	0.00	4,200.00	0.00	0.00	0.00	0.00	0.00	0.00
4,300.00	0.00	0.00	4,300.00	0.00	0.00	0.00	0.00	0.00	0.00
4,400.00	0.00	0.00	4,400.00	0.00	0.00	0.00	0.00	0.00	0.00
4,500.00	0.00	0.00	4,500.00	0.00	0.00	0.00	0.00	0.00	0.00
4,600.00	0.00	0.00	4,600.00	0.00	0.00	0.00	0.00	0.00	0.00
4,700.00	0.00	0.00	4,700.00	0.00	0.00	0.00	0.00	0.00	0.00
4,800.00	0.00	0.00	4,800.00	0.00	0.00	0.00	0.00	0.00	0.00
4,900.00	0.00	0.00	4,900.00	0.00	0.00	0.00	0.00	0.00	0.00
5,000.00	0.00	0.00	5,000.00	0.00	0.00	0.00	0.00	0.00	0.00
5,100.00	0.00	0.00	5,100.00	0.00	0.00	0.00	0.00	0.00	0.00
5,200.00	0.00	0.00	5,200.00	0.00	0.00	0.00	0.00	0.00	0.00
5,300.00	0.00	0.00	5,300.00	0.00	0.00	0.00	0.00	0.00	0.00

Noble Energy, Inc.

Survey Report

Company:	Northern Region - DJ Basin	**Local Co-ordinate Reference:**	Well Independence D18-767
Project:	Mustang	**TVD Reference:**	Well @ 4817.00ft
Site:	D Section 19	**MD Reference:**	Well @ 4817.00ft
Well:	Independence D18-767	**North Reference:**	Grid
Wellbore:	Independence D18-767	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan 1	**Database:**	EDMP

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
5,400.00	0.00	0.00	5,400.00	0.00	0.00	0.00	0.00	0.00	0.00
5,500.00	0.00	0.00	5,500.00	0.00	0.00	0.00	0.00	0.00	0.00
5,600.00	0.00	0.00	5,600.00	0.00	0.00	0.00	0.00	0.00	0.00
5,700.00	0.00	0.00	5,700.00	0.00	0.00	0.00	0.00	0.00	0.00
5,800.00	0.00	0.00	5,800.00	0.00	0.00	0.00	0.00	0.00	0.00
5,850.00	0.00	0.00	5,850.00	0.00	0.00	0.00	0.00	0.00	0.00
5,900.00	2.79	353.62	5,899.98	1.21	-0.14	1.21	5.58	5.58	0.00
5,974.77	6.96	353.62	5,974.46	7.53	-0.84	7.53	5.58	5.58	0.00
6,000.00	6.96	353.62	5,999.51	10.57	-1.18	10.57	0.00	0.00	0.00
6,100.00	6.96	353.62	6,098.77	22.62	-2.53	22.62	0.00	0.00	0.00
6,200.00	6.96	353.62	6,198.03	34.67	-3.88	34.67	0.00	0.00	0.00
6,300.00	6.96	353.62	6,297.29	46.72	-5.22	46.72	0.00	0.00	0.00
6,310.02	6.96	353.62	6,307.24	47.92	-5.36	47.93	0.00	0.00	0.00
6,400.00	15.04	356.70	6,395.49	65.03	-6.64	65.04	9.00	8.98	3.42
6,500.00	24.04	357.71	6,489.64	98.41	-8.20	98.42	9.00	8.99	1.02
6,600.00	33.04	358.20	6,577.40	146.10	-9.88	146.12	9.00	9.00	0.48
6,700.00	42.03	358.49	6,656.62	206.94	-11.62	206.95	9.00	9.00	0.29
6,800.00	51.03	358.70	6,725.34	279.42	-13.39	279.44	9.00	9.00	0.21
6,900.00	60.03	358.86	6,781.88	361.76	-15.15	361.78	9.00	9.00	0.16
7,000.00	69.03	358.99	6,824.83	451.93	-16.84	451.96	9.00	9.00	0.13
7,100.00	78.03	359.11	6,853.16	547.72	-18.43	547.74	9.00	9.00	0.12
7,200.00	87.03	359.22	6,866.14	646.75	-19.88	646.78	9.00	9.00	0.11
7,233.01	90.00	359.25	6,867.00	679.75	-20.32	679.78	9.00	9.00	0.11
7,300.00	90.00	359.25	6,867.00	746.73	-21.20	746.76	0.00	0.00	0.00
7,400.00	90.00	359.25	6,867.00	846.72	-22.51	846.76	0.00	0.00	0.00
7,500.00	90.00	359.25	6,867.00	946.71	-23.81	946.75	0.00	0.00	0.00
7,600.00	90.00	359.25	6,867.00	1,046.71	-25.12	1,046.74	0.00	0.00	0.00
7,700.00	90.00	359.25	6,867.00	1,146.70	-26.43	1,146.74	0.00	0.00	0.00
7,800.00	90.00	359.25	6,867.00	1,246.69	-27.73	1,246.73	0.00	0.00	0.00
7,900.00	90.00	359.25	6,867.00	1,346.68	-29.04	1,346.72	0.00	0.00	0.00
8,000.00	90.00	359.25	6,867.00	1,446.67	-30.35	1,446.71	0.00	0.00	0.00
8,100.00	90.00	359.25	6,867.00	1,546.66	-31.65	1,546.71	0.00	0.00	0.00
8,200.00	90.00	359.25	6,867.00	1,646.65	-32.96	1,646.70	0.00	0.00	0.00
8,300.00	90.00	359.25	6,867.00	1,746.65	-34.27	1,746.69	0.00	0.00	0.00
8,400.00	90.00	359.25	6,867.00	1,846.64	-35.57	1,846.69	0.00	0.00	0.00
8,500.00	90.00	359.25	6,867.00	1,946.63	-36.88	1,946.68	0.00	0.00	0.00
8,600.00	90.00	359.25	6,867.00	2,046.62	-38.19	2,046.67	0.00	0.00	0.00
8,700.00	90.00	359.25	6,867.00	2,146.61	-39.50	2,146.67	0.00	0.00	0.00
8,800.00	90.00	359.25	6,867.00	2,246.60	-40.80	2,246.66	0.00	0.00	0.00
8,900.00	90.00	359.25	6,867.00	2,346.59	-42.11	2,346.65	0.00	0.00	0.00
9,000.00	90.00	359.25	6,867.00	2,446.59	-43.42	2,446.65	0.00	0.00	0.00
9,100.00	90.00	359.25	6,867.00	2,546.58	-44.72	2,546.64	0.00	0.00	0.00
9,200.00	90.00	359.25	6,867.00	2,646.57	-46.03	2,646.63	0.00	0.00	0.00

Noble Energy, Inc.

Survey Report

Company:	Northern Region - DJ Basin	**Local Co-ordinate Reference:**	Well Independence D18-767
Project:	Mustang	**TVD Reference:**	Well @ 4817.00ft
Site:	D Section 19	**MD Reference:**	Well @ 4817.00ft
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Wellbore:	Independence D18-767	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan 1	**Database:**	EDMP

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
9,300.00	90.00	359.25	6,867.00	2,746.56	-47.34	2,746.63	0.00	0.00	0.00
9,400.00	90.00	359.25	6,867.00	2,846.55	-48.64	2,846.62	0.00	0.00	0.00
9,500.00	90.00	359.25	6,867.00	2,946.54	-49.95	2,946.61	0.00	0.00	0.00
9,600.00	90.00	359.25	6,867.00	3,046.53	-51.26	3,046.61	0.00	0.00	0.00
9,700.00	90.00	359.25	6,867.00	3,146.53	-52.56	3,146.60	0.00	0.00	0.00
9,800.00	90.00	359.25	6,867.00	3,246.52	-53.87	3,246.59	0.00	0.00	0.00
9,900.00	90.00	359.25	6,867.00	3,346.51	-55.18	3,346.59	0.00	0.00	0.00
10,000.00	90.00	359.25	6,867.00	3,446.50	-56.48	3,446.58	0.00	0.00	0.00
10,100.00	90.00	359.25	6,867.00	3,546.49	-57.79	3,546.57	0.00	0.00	0.00
10,200.00	90.00	359.25	6,867.00	3,646.48	-59.10	3,646.57	0.00	0.00	0.00
10,300.00	90.00	359.25	6,867.00	3,746.47	-60.40	3,746.56	0.00	0.00	0.00
10,400.00	90.00	359.25	6,867.00	3,846.47	-61.71	3,846.55	0.00	0.00	0.00
10,500.00	90.00	359.25	6,867.00	3,946.46	-63.02	3,946.55	0.00	0.00	0.00
10,600.00	90.00	359.25	6,867.00	4,046.45	-64.33	4,046.54	0.00	0.00	0.00
10,700.00	90.00	359.25	6,867.00	4,146.44	-65.63	4,146.53	0.00	0.00	0.00
10,800.00	90.00	359.25	6,867.00	4,246.43	-66.94	4,246.53	0.00	0.00	0.00
10,900.00	90.00	359.25	6,867.00	4,346.42	-68.25	4,346.52	0.00	0.00	0.00
11,000.00	90.00	359.25	6,867.00	4,446.41	-69.55	4,446.51	0.00	0.00	0.00
11,100.00	90.00	359.25	6,867.00	4,546.41	-70.86	4,546.51	0.00	0.00	0.00
11,200.00	90.00	359.25	6,867.00	4,646.40	-72.17	4,646.50	0.00	0.00	0.00
11,300.00	90.00	359.25	6,867.00	4,746.39	-73.47	4,746.49	0.00	0.00	0.00
11,400.00	90.00	359.25	6,867.00	4,846.38	-74.78	4,846.49	0.00	0.00	0.00
11,500.00	90.00	359.25	6,867.00	4,946.37	-76.09	4,946.48	0.00	0.00	0.00
11,600.00	90.00	359.25	6,867.00	5,046.36	-77.39	5,046.47	0.00	0.00	0.00
11,700.00	90.00	359.25	6,867.00	5,146.35	-78.70	5,146.47	0.00	0.00	0.00
11,800.00	90.00	359.25	6,867.00	5,246.35	-80.01	5,246.46	0.00	0.00	0.00
11,900.00	90.00	359.25	6,867.00	5,346.34	-81.31	5,346.45	0.00	0.00	0.00
12,000.00	90.00	359.25	6,867.00	5,446.33	-82.62	5,446.45	0.00	0.00	0.00
12,100.00	90.00	359.25	6,867.00	5,546.32	-83.93	5,546.44	0.00	0.00	0.00
12,200.00	90.00	359.25	6,867.00	5,646.31	-85.23	5,646.43	0.00	0.00	0.00
12,300.00	90.00	359.25	6,867.00	5,746.30	-86.54	5,746.43	0.00	0.00	0.00
12,400.00	90.00	359.25	6,867.00	5,846.30	-87.85	5,846.42	0.00	0.00	0.00
12,500.00	90.00	359.25	6,867.00	5,946.29	-89.16	5,946.41	0.00	0.00	0.00
12,600.00	90.00	359.25	6,867.00	6,046.28	-90.46	6,046.41	0.00	0.00	0.00
12,700.00	90.00	359.25	6,867.00	6,146.27	-91.77	6,146.40	0.00	0.00	0.00
12,800.00	90.00	359.25	6,867.00	6,246.26	-93.08	6,246.39	0.00	0.00	0.00
12,900.00	90.00	359.25	6,867.00	6,346.25	-94.38	6,346.39	0.00	0.00	0.00
13,000.00	90.00	359.25	6,867.00	6,446.24	-95.69	6,446.38	0.00	0.00	0.00
13,100.00	90.00	359.25	6,867.00	6,546.24	-97.00	6,546.37	0.00	0.00	0.00
13,200.00	90.00	359.25	6,867.00	6,646.23	-98.30	6,646.37	0.00	0.00	0.00
13,300.00	90.00	359.25	6,867.00	6,746.22	-99.61	6,746.36	0.00	0.00	0.00
13,400.00	90.00	359.25	6,867.00	6,846.21	-100.92	6,846.35	0.00	0.00	0.00
13,500.00	90.00	359.25	6,867.00	6,946.20	-102.22	6,946.35	0.00	0.00	0.00

Company:	Northern Region - DJ Basin	**Local Co-ordinate Reference:**	Well Independence D18-767
Project:	Mustang	**TVD Reference:**	Well @ 4817.00ft
Site:	D Section 19	**MD Reference:**	Well @ 4817.00ft
Well:	Independence D18-767	**North Reference:**	Grid
Wellbore:	Independence D18-767	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan 1	**Database:**	EDMP

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
13,600.00	90.00	359.25	6,867.00	7,046.19	-103.53	7,046.34	0.00	0.00	0.00
13,700.00	90.00	359.25	6,867.00	7,146.18	-104.84	7,146.33	0.00	0.00	0.00
13,800.00	90.00	359.25	6,867.00	7,246.18	-106.14	7,246.33	0.00	0.00	0.00
13,900.00	90.00	359.25	6,867.00	7,346.17	-107.45	7,346.32	0.00	0.00	0.00
14,000.00	90.00	359.25	6,867.00	7,446.16	-108.76	7,446.31	0.00	0.00	0.00
14,100.00	90.00	359.25	6,867.00	7,546.15	-110.06	7,546.31	0.00	0.00	0.00
14,200.00	90.00	359.25	6,867.00	7,646.14	-111.37	7,646.30	0.00	0.00	0.00
14,300.00	90.00	359.25	6,867.00	7,746.13	-112.68	7,746.29	0.00	0.00	0.00
14,400.00	90.00	359.25	6,867.00	7,846.12	-113.99	7,846.29	0.00	0.00	0.00
14,500.00	90.00	359.25	6,867.00	7,946.12	-115.29	7,946.28	0.00	0.00	0.00
14,600.00	90.00	359.25	6,867.00	8,046.11	-116.60	8,046.27	0.00	0.00	0.00
14,700.00	90.00	359.25	6,867.00	8,146.10	-117.91	8,146.27	0.00	0.00	0.00
14,800.00	90.00	359.25	6,867.00	8,246.09	-119.21	8,246.26	0.00	0.00	0.00
14,900.00	90.00	359.25	6,867.00	8,346.08	-120.52	8,346.25	0.00	0.00	0.00
15,000.00	90.00	359.25	6,867.00	8,446.07	-121.83	8,446.25	0.00	0.00	0.00
15,100.00	90.00	359.25	6,867.00	8,546.06	-123.13	8,546.24	0.00	0.00	0.00
15,200.00	90.00	359.25	6,867.00	8,646.06	-124.44	8,646.23	0.00	0.00	0.00
15,300.00	90.00	359.25	6,867.00	8,746.05	-125.75	8,746.23	0.00	0.00	0.00
15,400.00	90.00	359.25	6,867.00	8,846.04	-127.05	8,846.22	0.00	0.00	0.00
15,500.00	90.00	359.25	6,867.00	8,946.03	-128.36	8,946.21	0.00	0.00	0.00
15,600.00	90.00	359.25	6,867.00	9,046.02	-129.67	9,046.21	0.00	0.00	0.00
15,700.00	90.00	359.25	6,867.00	9,146.01	-130.97	9,146.20	0.00	0.00	0.00
15,800.00	90.00	359.25	6,867.00	9,246.00	-132.28	9,246.19	0.00	0.00	0.00
15,900.00	90.00	359.25	6,867.00	9,346.00	-133.59	9,346.19	0.00	0.00	0.00
16,000.00	90.00	359.25	6,867.00	9,445.99	-134.89	9,446.18	0.00	0.00	0.00
16,100.00	90.00	359.25	6,867.00	9,545.98	-136.20	9,546.17	0.00	0.00	0.00
16,200.00	90.00	359.25	6,867.00	9,645.97	-137.51	9,646.17	0.00	0.00	0.00
16,300.00	90.00	359.25	6,867.00	9,745.96	-138.82	9,746.16	0.00	0.00	0.00
16,400.00	90.00	359.25	6,867.00	9,845.95	-140.12	9,846.15	0.00	0.00	0.00
16,500.00	90.00	359.25	6,867.00	9,945.95	-141.43	9,946.15	0.00	0.00	0.00
16,600.00	90.00	359.25	6,867.00	10,045.94	-142.74	10,046.14	0.00	0.00	0.00
16,700.00	90.00	359.25	6,867.00	10,145.93	-144.04	10,146.13	0.00	0.00	0.00
16,800.00	90.00	359.25	6,867.00	10,245.92	-145.35	10,246.13	0.00	0.00	0.00
16,900.00	90.00	359.25	6,867.00	10,345.91	-146.66	10,346.12	0.00	0.00	0.00
17,000.00	90.00	359.25	6,867.00	10,445.90	-147.96	10,446.11	0.00	0.00	0.00
17,100.00	90.00	359.25	6,867.00	10,545.89	-149.27	10,546.11	0.00	0.00	0.00
17,200.00	90.00	359.25	6,867.00	10,645.89	-150.58	10,646.10	0.00	0.00	0.00
17,300.00	90.00	359.25	6,867.00	10,745.88	-151.88	10,746.09	0.00	0.00	0.00
17,400.00	90.00	359.25	6,867.00	10,845.87	-153.19	10,846.09	0.00	0.00	0.00
17,418.52	90.00	359.25	6,867.00	10,864.38	-153.43	10,864.60	0.00	0.00	0.00

Noble Energy, Inc.

Survey Report

Company:	Northern Region - DJ Basin	**Local Co-ordinate Reference:**	Well Independence D18-767
Project:	Mustang	**TVD Reference:**	Well @ 4817.00ft
Site:	D Section 19	**MD Reference:**	Well @ 4817.00ft
Well:	Independence D18-767	**North Reference:**	Grid
Wellbore:	Independence D18-767	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan 1	**Database:**	EDMP

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Independence D18-767 - plan hits target center - Point	0.00	0.00	6,867.00	10,864.38	-153.43	1,333,921.30	3,252,048.82	40.2464899	-104.5970399
Independence D18-767 - plan hits target center - Point	0.00	0.00	6,867.00	679.75	-20.32	1,323,736.68	3,252,181.93	40.2185298	-104.5969347

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
509.00	509.00	Pierre			
673.00	673.00	Upper Pierre Aquifer Top			
1,571.00	1,571.00	Upper Pierre Aquifer Base			
3,706.00	3,706.00	Parkman			
4,108.00	4,108.00	Sussex			
4,892.00	4,892.00	Shannon			
6,060.94	6,060.00	Teepee Buttes			
6,773.12	6,708.00	Sharon Springs			
6,880.73	6,772.00	Top A Chalk			
6,912.47	6,788.00	Top A Marl			
6,914.55	6,789.00	Top B Chalk			
7,033.52	6,836.00	Top B Marl			

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
5850	5850	0	0	Start Build 5.58
6310	6307	8	-1	Start DLS 9.00 TFO 5.67
7233	6867	48	-5	TPZ/LP at 7233.01 MD
17,419	6867	680	-20	TD at 17418.52 MD

Checked By: _____ Approved By: _____ Date: _____

Northern Region - DJ Basin

Mustang
D Section 19
Independence D18-767

Independence D18-767
Plan 1

Anticollision Summary Report

20 September, 2018

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 1	**Offset TVD Reference:**	Offset Datum

Reference Plan 1

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 10,000.00 ft	**Error Surface:**	Pedal Curve
Warning Levels Evaluated at:	2.00 **Sigma**	**Casing Method:**	Not applied

Survey Tool Program **Date** 9/20/2018

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.00	17,418.52	Plan 1 (Independence D18-767)	2_MWD+IFR1+MS	A008Mb: IFR dec & multi-station analysis

Summary

Site Name Offset Well - Wellbore - Design	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	17,416.58	6,857.47	2,128.68	2,013.38	18.461	CC
Dechant 07-01-17 - Dechant 07-01-17 - Dechant 07-01-1	17,418.52	6,857.48	2,128.68	2,013.36	18.459	ES, SF
Dechant 07-11 - Dechant 07-11 - Dechant 07-11 - As Dril	17,010.19	6,800.00	2,809.49	2,697.54	25.095	CC, ES
Dechant 07-11 - Dechant 07-11 - Dechant 07-11 - As Dril	17,300.00	6,812.43	2,824.36	2,710.51	24.809	SF
Dechant 07-13 - Dechant 07-13 - Dechant 07-13 - As Dri	15,688.59	6,838.54	1,563.34	1,461.73	15.386	CC
Dechant 07-13 - Dechant 07-13 - Dechant 07-13 - As Dri	15,700.00	6,838.80	1,563.38	1,461.69	15.374	ES
Dechant 07-13 - Dechant 07-13 - Dechant 07-13 - As Dri	15,800.00	6,841.07	1,567.30	1,464.99	15.319	SF
Dechant 07-14 - Dechant 07-14 - Dechant 07-14 - As Dri	15,552.15	6,832.00	2,890.36	2,753.93	21.185	CC, ES
Dechant 07-14 - Dechant 07-14 - Dechant 07-14 - As Dri	15,900.00	6,832.00	2,911.22	2,772.57	20.998	SF
Dechant 07-15 - Dechant 07-15 - Dechant 07-15 - As Dri	16,316.06	6,844.00	2,104.42	1,961.89	14.765	CC, ES
Dechant 07-15 - Dechant 07-15 - Dechant 07-15 - As Dri	16,500.00	6,844.00	2,112.44	1,968.76	14.702	SF
Dechant 18-07 - Dechant 18-07 - Dechant 18-07 - As Dri	16,406.31	6,879.96	262.39	154.92	2.442	CC, ES, SF
Dechant D07-09 - Dechant D07-09 - Dechant D07-09 - A	14,343.76	6,812.94	2,840.80	2,749.63	31.160	CC, ES
Dechant D07-09 - Dechant D07-09 - Dechant D07-09 - A	14,800.00	6,811.47	2,877.20	2,783.28	30.636	SF
Dechant D07-10 - Dechant D07-10 - Dechant D07-10 - A	14,221.57	6,951.78	1,723.01	1,632.22	18.978	CC, ES
Dechant D07-10 - Dechant D07-10 - Dechant D07-10 - A	14,400.00	6,957.19	1,732.22	1,640.38	18.861	SF
Dechant D07-11 - Dechant D07-11 - Dechant D07-11 - A	14,361.97	6,867.24	157.00	65.52	1.716	CC, ES, SF
Dechant D07-12 - Dechant D07-12 - Dechant D07-12 - A	14,256.31	6,843.58	1,062.59	971.89	11.715	CC, ES
Dechant D07-12 - Dechant D07-12 - Dechant D07-12 - A	14,300.00	6,844.35	1,063.49	972.48	11.685	SF
Dechant D07-13 - Dechant D07-13 - Dechant D07-13 - A	13,076.36	6,925.05	853.66	771.80	10.428	CC, ES
Dechant D07-13 - Dechant D07-13 - Dechant D07-13 - A	13,100.00	6,924.73	853.99	771.97	10.412	SF
Dechant D07-14 - Dechant D07-14 - Dechant D07-14 - A	13,057.06	6,864.35	263.99	182.46	3.238	CC, ES, SF
Dechant D07-15 - Dechant D07-15 - Dechant D07-15 - A	12,864.52	6,888.39	1,378.89	1,298.71	17.198	CC, ES
Dechant D07-15 - Dechant D07-15 - Dechant D07-15 - A	13,000.00	6,890.35	1,385.53	1,304.57	17.115	SF
Dechant D07-16 - Dechant D07-16 - Dechant D07-16 - A	13,008.86	6,838.91	2,966.25	2,885.11	36.558	CC, ES
Dechant D07-16 - Dechant D07-16 - Dechant D07-16 - A	13,500.00	6,834.63	3,006.63	2,922.51	35.744	SF
Dechant D07-20 - Dechant D07-20 - Dechant D07-20 - A	14,856.85	6,879.12	392.02	296.67	4.111	CC, ES, SF
Dechant D07-21 - Dechant D07-21 - Dechant D07-21 - A	14,770.98	6,868.52	964.74	870.10	10.193	CC, ES
Dechant D07-21 - Dechant D07-21 - Dechant D07-21 - A	14,800.00	6,868.52	965.18	870.34	10.178	SF
Dechant D07-22 - Dechant D07-22 - Dechant D07-22 - A	14,888.83	6,940.84	2,190.52	2,094.73	22.869	CC
Dechant D07-22 - Dechant D07-22 - Dechant D07-22 - A	14,900.00	6,941.49	2,190.55	2,094.68	22.849	ES
Dechant D07-22 - Dechant D07-22 - Dechant D07-22 - A	15,100.00	6,953.15	2,200.64	2,103.47	22.648	SF
Dechant D07-23 - Dechant D07-23 - Dechant D07-23 - A	13,413.96	6,846.55	2,183.05	2,098.84	25.924	CC, ES
Dechant D07-23 - Dechant D07-23 - Dechant D07-23 - A	13,700.00	6,850.52	2,201.71	2,115.74	25.611	SF
Dechant D07-24 - Dechant D07-24 - Dechant D07-24 - A	13,662.63	6,862.72	897.18	811.07	10.419	CC, ES
Dechant D07-24 - Dechant D07-24 - Dechant D07-24 - A	13,700.00	6,864.16	897.96	811.60	10.398	SF
Dechant D07-25 - Dechant D07-25 - Dechant D07-25 - A	13,720.81	6,875.54	310.23	223.67	3.584	CC, ES, SF

CC - Min centre to center distance or covergent 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 1	**Offset TVD Reference:**	Offset Datum

Summary

Site Name Offset Well - Wellbore - Design	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
D Section 07						
Dechant D07-32 - Dechant D07-32 - Dechant D07-32 - A	14,869.44	6,885.72	1,436.18	1,340.76	15.050	CC, ES
Dechant D07-32 - Dechant D07-32 - Dechant D07-32 - A	15,000.00	6,886.85	1,442.11	1,345.90	14.990	SF
Dechant D07-33 - Dechant D07-33 - Dechant D07-33 - A	13,680.95	6,804.00	1,554.71	1,468.57	18.049	CC
Dechant D07-33 - Dechant D07-33 - Dechant D07-33 - A	13,700.00	6,804.89	1,554.82	1,468.54	18.019	ES
Dechant D07-33 - Dechant D07-33 - Dechant D07-33 - A	13,800.00	6,808.81	1,559.25	1,472.29	17.931	SF
Dechant D18-27D - Dechant D18-27D - Dechant D18-27	11,500.00	7,287.78	2,237.40	2,130.73	20.976	SF
Dechant D18-27D - Dechant D18-27D - Dechant D18-27	12,200.00	7,298.83	2,097.83	2,005.51	22.724	ES
Dechant D18-27D - Dechant D18-27D - Dechant D18-27	12,282.31	7,300.21	2,096.21	2,005.88	23.205	CC
Dechant D18-30D - Wellbore #1 - Wellbore #1- As Drilled	11,800.00	7,247.76	1,715.95	1,612.00	16.508	SF
Dechant D18-30D - Wellbore #1 - Wellbore #1- As Drilled	12,300.00	7,253.60	1,615.62	1,524.47	17.724	ES
Dechant D18-30D - Wellbore #1 - Wellbore #1- As Drilled	12,384.30	7,254.63	1,613.42	1,524.59	18.164	CC
HSR Barbour 04-07 - HSR Barbour 04-07 - HSR Barbour	17,195.26	6,897.75	942.55	829.44	8.333	CC
HSR Barbour 04-07 - HSR Barbour 04-07 - HSR Barbour	17,200.00	6,897.74	942.56	829.42	8.331	ES, SF
HSR Parkman 06-07 - HSR Parkman 06-07 - HSR Parkm	15,463.55	6,872.51	96.71	-3.28	0.967	Level 1, CC, ES, SF
HSR Petrie 03-07 - HSR Petrie 03-07 - HSR Petrie 03-07	17,113.42	6,925.04	104.37	-8.76	0.923	Level 1, CC, ES, SF
HSR Safran 05-07 - HSR Safran 05-07 - HSR Safran 05-	15,552.31	6,913.13	1,175.24	1,074.41	11.655	CC, ES
HSR Safran 05-07 - HSR Safran 05-07 - HSR Safran 05-	15,600.00	6,913.43	1,176.21	1,075.04	11.626	SF
Two E Ranch 07-01 - Two E Ranch 07-01 - Two E Ranch	16,923.10	6,870.58	1,574.59	1,463.16	14.130	CC, ES
Two E Ranch 07-01 - Two E Ranch 07-01 - Two E Ranch	17,000.00	6,872.25	1,576.47	1,464.52	14.082	SF
Two E Ranches 1 - Two E Ranches 1 - Two E Ranches 1	15,595.16	4,625.00	2,727.51	2,628.55	27.562	CC
Two E Ranches 1 - Two E Ranches 1 - Two E Ranches 1	15,600.00	4,625.00	2,727.52	2,628.52	27.552	ES
Two E Ranches 1 - Two E Ranches 1 - Two E Ranches 1	16,000.00	4,625.00	2,757.39	2,655.74	27.126	SF

CC - Min centre to center distance or covergent 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 1	**Offset TVD Reference:**	Offset Datum

Summary

Site Name Offset Well - Wellbore - Design	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
D Section 17						
Butterball D19-27D - Wellbore #1 - Gyro Surveys	7,192.76	7,050.36	2,178.35	2,127.54	42.870	CC
Butterball D19-27D - Wellbore #1 - Gyro Surveys	7,200.00	7,050.68	2,178.36	2,127.51	42.832	ES
Butterball D19-27D - Wellbore #1 - Gyro Surveys	8,500.00	7,032.94	2,539.43	2,471.21	37.225	SF
Guttersen State D16-33 (SI) - Wellbore #1 - No Surveys	8,546.26	6,802.00	8,771.91	8,683.89	99.657	CC
Guttersen State D16-33 (SI) - Wellbore #1 - No Surveys	8,600.00	6,802.00	8,772.08	8,683.82	99.395	ES
Guttersen State D16-33 (SI) - Wellbore #1 - No Surveys	12,700.00	6,802.00	9,705.67	9,595.38	88.002	SF
HSR LDS 6-17 (SI) - Wellbore #1 - No Surveys	10,371.29	6,800.00	5,290.17	5,192.06	53.921	CC
HSR LDS 6-17 (SI) - Wellbore #1 - No Surveys	10,400.00	6,800.00	5,290.25	5,191.95	53.821	ES
HSR LDS 6-17 (SI) - Wellbore #1 - No Surveys	11,800.00	6,800.00	5,479.70	5,373.09	51.401	SF
HSR LDS B5-17 (SI) - Wellbore #1 - No Surveys	10,529.09	6,801.00	4,185.16	4,086.02	42.215	CC, ES
HSR LDS B5-17 (SI) - Wellbore #1 - No Surveys	11,400.00	6,801.00	4,274.81	4,170.47	40.968	SF
HSR Mike Gutteresen 16-17X (SI) - Wellbore #1 - No Su	7,631.49	6,807.00	8,073.70	7,988.80	95.100	CC, ES
HSR Mike Gutteresen 16-17X (SI) - Wellbore #1 - No Su	11,400.00	6,807.00	8,909.90	8,807.78	87.250	SF
HSR Weeks 10-17 - Wellbore #1 - Gyro Surveys	9,032.15	9,032.15	6,761.25	6,698.94	108.519	CC
HSR Weeks 10-17 - Wellbore #1 - Gyro Surveys	9,100.00	9,100.00	6,761.59	6,698.70	107.521	ES
HSR Weeks 10-17 - Wellbore #1 - Gyro Surveys	13,600.00	13,600.00	8,159.41	8,058.92	81.195	SF
HSR Weeks 15-17 (SI) - Wellbore #1 - No Surveys	7,731.73	6,805.00	6,785.77	6,700.63	79.703	CC, ES
HSR Weeks 15-17 (SI) - Wellbore #1 - No Surveys	10,400.00	6,805.00	7,291.53	7,194.79	75.378	SF
HSR Weeks 9-17 - Wellbore #1 - Gyro Surveys	9,089.25	6,828.91	7,881.00	7,826.58	144.809	CC
HSR Weeks 9-17 - Wellbore #1 - Gyro Surveys	9,100.00	6,828.90	7,881.01	7,826.53	144.664	ES
HSR Weeks 9-17 - Wellbore #1 - Gyro Surveys	13,500.00	6,826.46	9,031.33	8,953.42	115.924	SF
HSR-LDS 3-17 (SI) - Wellbore #1 - No Surveys	11,695.44	6,795.00	5,302.36	5,195.31	49.531	CC
HSR-LDS 3-17 (SI) - Wellbore #1 - No Surveys	11,700.00	6,795.00	5,302.36	5,195.28	49.517	ES
HSR-LDS 3-17 (SI) - Wellbore #1 - No Surveys	13,000.00	6,795.00	5,460.49	5,345.26	47.388	SF
HSR-LDS 4-17 (SI) - Wellbore #1 - No Surveys	11,523.61	6,797.00	4,173.90	4,068.04	39.430	CC, ES
HSR-LDS 4-17 (SI) - Wellbore #1 - No Surveys	12,400.00	6,797.00	4,264.91	4,153.64	38.330	SF
LDS 18-17 (SI) - Wellbore #1 - No Surveys	11,026.76	6,800.00	4,971.94	4,869.49	48.532	CC, ES
LDS 18-17 (SI) - Wellbore #1 - No Surveys	12,300.00	6,800.00	5,132.38	5,022.19	46.577	SF
LDS D17-13 - Wellbore #1 - Gyro Surveys	7,405.76	6,700.00	3,841.26	3,793.01	79.616	CC, ES
LDS D17-13 - Wellbore #1 - Gyro Surveys	8,500.00	6,708.27	3,994.06	3,942.62	77.637	SF
LDS D17-18 (SI) - Wellbore #1 - No Surveys	11,080.85	6,798.00	6,277.97	6,175.17	61.071	CC
LDS D17-18 (SI) - Wellbore #1 - No Surveys	11,100.00	6,798.00	6,278.00	6,175.07	60.994	ES
LDS D17-18 (SI) - Wellbore #1 - No Surveys	13,000.00	6,798.00	6,564.76	6,450.17	57.290	SF
LDS D17-20 - Wellbore #1 - No Surveys	9,547.43	6,806.00	4,821.93	4,728.78	51.766	CC
LDS D17-20 - Wellbore #1 - No Surveys	9,600.00	6,806.00	4,822.22	4,728.77	51.604	ES
LDS D17-20 - Wellbore #1 - No Surveys	10,800.00	6,806.00	4,981.96	4,881.86	49.769	SF
LDS D17-21 - Wellbore #1 - No Surveys	9,493.38	6,802.00	5,966.64	5,873.83	64.291	CC
LDS D17-21 - Wellbore #1 - No Surveys	9,500.00	6,802.00	5,966.64	5,873.80	64.266	ES
LDS D17-21 - Wellbore #1 - No Surveys	11,400.00	6,802.00	6,263.86	6,160.34	60.510	SF
LDS D17-22 (SI) - Wellbore #1 - No Surveys	9,868.55	6,797.00	7,377.73	7,282.77	77.697	CC
LDS D17-22 (SI) - Wellbore #1 - No Surveys	9,900.00	6,797.00	7,377.79	7,282.65	77.544	ES
LDS D17-22 (SI) - Wellbore #1 - No Surveys	12,700.00	6,797.00	7,902.40	7,790.90	70.873	SF
LDS D17-24D - Wellbore #1 - LDS D17-24D - As Drilled	8,457.26	6,904.61	6,051.54	5,993.72	104.655	CC
LDS D17-24D - Wellbore #1 - LDS D17-24D - As Drilled	8,500.00	6,904.19	6,051.69	5,993.70	104.348	ES
LDS D17-24D - Wellbore #1 - LDS D17-24D - As Drilled	11,000.00	6,873.75	6,563.98	6,494.75	94.814	SF
LDS D17-25D - Wellbore #1 - LDS D17-25D - As Drilled	8,717.95	7,040.76	4,807.65	4,749.54	82.739	CC, ES
LDS D17-25D - Wellbore #1 - LDS D17-25D - As Drilled	10,800.00	7,037.95	5,239.13	5,167.36	73.002	SF
LDS D17-31D - LDS D17-31D - LDS D17-31D - As Drille	11,019.71	6,992.47	3,449.94	3,373.35	45.045	CC, ES
LDS D17-31D - LDS D17-31D - LDS D17-31D - As Drille	11,600.00	6,989.97	3,498.40	3,419.10	44.117	SF
LDS D17-32D - LDS D17-32D - LDS D17-32D - As Drille	9,887.94	6,844.28	3,423.73	3,364.87	58.172	CC
LDS D17-32D - LDS D17-32D - LDS D17-32D - As Drille	9,900.00	6,844.27	3,423.75	3,364.83	58.108	ES
LDS D17-32D - LDS D17-32D - LDS D17-32D - As Drille	10,700.00	6,843.66	3,518.71	3,455.77	55.902	SF
LDS D17-33 - LDS D17-33 - LDS D17-33 - As Drilled	8,477.97	6,785.70	3,657.74	3,605.85	70.489	CC

CC - Min centre to center distance or covergent 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 1	**Offset TVD Reference:**	Offset Datum

Summary

Site Name Offset Well - Wellbore - Design	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
D Section 17						
LDS D17-33 - LDS D17-33 - LDS D17-33 - As Drilled	8,500.00	6,785.54	3,657.81	3,605.83	70.366	ES
LDS D17-33 - LDS D17-33 - LDS D17-33 - As Drilled	9,600.00	6,776.90	3,825.96	3,769.12	67.315	SF
LDS D17-7 - Wellbore #1 - No Surveys	10,381.49	6,796.00	6,665.64	6,567.50	67.920	CC
LDS D17-7 - Wellbore #1 - No Surveys	10,400.00	6,796.00	6,665.67	6,567.41	67.838	ES
LDS D17-7 - Wellbore #1 - No Surveys	12,600.00	6,796.00	7,025.14	6,913.69	63.038	SF
LDS D20-29D - Wellbore #1 - LDS D20-29D - As Drilled	100.00	58.34	3,838.68	3,838.45	10,000.000	CC
LDS D20-29D - Wellbore #1 - LDS D20-29D - As Drilled	800.00	722.60	3,839.76	3,835.78	964.602	ES
LDS D20-29D - Wellbore #1 - LDS D20-29D - As Drilled	8,500.00	6,974.07	5,048.38	4,996.38	97.083	SF
LDS D20-30D - Wellbore #1 - LDS D20-30D - As Drilled	6,903.32	6,822.36	3,349.20	3,301.22	69.806	CC, ES
LDS D20-30D - Wellbore #1 - LDS D20-30D - As Drilled	7,500.00	6,901.11	3,397.71	3,348.09	68.480	SF
LDS RED D17-11 (SI) - Wellbore #1 - No Surveys	9,045.11	6,803.00	5,628.41	5,538.01	62.262	CC
LDS RED D17-11 (SI) - Wellbore #1 - No Surveys	9,100.00	6,803.00	5,628.68	5,538.00	62.073	ES
LDS RED D17-11 (SI) - Wellbore #1 - No Surveys	10,800.00	6,803.00	5,895.65	5,795.92	59.117	SF
LDS Red D17-12 - Wellbore #1 - No Surveys	9,241.91	6,806.00	3,973.35	3,881.90	43.445	CC, ES
LDS Red D17-12 - Wellbore #1 - No Surveys	10,100.00	6,806.00	4,064.95	3,968.98	42.356	SF
LDS Red D17-14X (SI) - Wellbore #1 - No Surveys	7,870.92	6,807.00	5,663.83	5,578.27	66.202	CC
LDS Red D17-14X (SI) - Wellbore #1 - No Surveys	7,900.00	6,807.00	5,663.90	5,578.26	66.136	ES
LDS Red D17-14X (SI) - Wellbore #1 - No Surveys	9,600.00	6,807.00	5,921.88	5,829.14	63.858	SF
LDS Red D17-3J - Wellbore #1 - Gyro Surveys	8,090.09	6,846.46	4,405.31	4,354.68	87.006	CC
LDS Red D17-3J - Wellbore #1 - Gyro Surveys	8,100.00	6,846.48	4,405.32	4,354.66	86.949	ES
LDS Red D17-3J - Wellbore #1 - Gyro Surveys	9,700.00	6,849.01	4,690.26	4,632.89	81.756	SF
LDS White D17-1 - Wellbore #1 - Gyro Surveys	11,710.80	6,703.77	8,083.91	8,012.80	113.690	CC
LDS White D17-1 - Wellbore #1 - Gyro Surveys	11,800.00	6,703.35	8,084.40	8,012.67	112.699	ES
LDS White D17-1 - Wellbore #1 - Gyro Surveys	15,400.00	6,687.32	8,885.92	8,793.02	95.646	SF
LDS White D17-2 - Wellbore #1 - No Surveys	11,702.09	6,793.00	6,782.73	6,675.65	63.343	CC, ES
LDS White D17-2 - Wellbore #1 - No Surveys	13,800.00	6,793.00	7,099.77	6,979.54	59.054	SF
LDS White D17-8 - Wellbore #1 - No Surveys	10,357.61	6,791.00	8,011.71	7,913.76	81.799	CC
LDS White D17-8 - Wellbore #1 - No Surveys	10,400.00	6,791.00	8,011.82	7,913.61	81.575	ES
LDS White D17-8 - Wellbore #1 - No Surveys	13,500.00	6,791.00	8,605.93	8,489.09	73.651	SF
Thomson D20-31D - Wellbore #1 - Gyro Surveys	5,185.18	5,407.13	3,409.68	3,356.52	64.150	CC
Thomson D20-31D - Wellbore #1 - Gyro Surveys	5,300.00	5,493.39	3,410.19	3,356.33	63.307	ES
Thomson D20-31D - Wellbore #1 - Gyro Surveys	6,750.00	6,907.82	3,516.30	3,453.47	55.969	SF
Weeks 20-17 (SI) - Wellbore #1 - Gyro Surveys	8,298.53	6,822.61	7,295.25	7,243.90	142.095	CC
Weeks 20-17 (SI) - Wellbore #1 - Gyro Surveys	8,300.00	6,822.60	7,295.25	7,243.90	142.079	ES
Weeks 20-17 (SI) - Wellbore #1 - Gyro Surveys	12,400.00	6,817.55	8,369.14	8,297.75	117.226	SF

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 1	**Offset TVD Reference:**	Offset Datum

Summary

Site Name Offset Well - Wellbore - Design	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 - Horton D18-20D - Horton D18-20D - A	9,589.36	7,195.21	288.31	213.01	3.829	CC
Horton D18-20D - Horton D18-20D - Horton D18-20D - A	9,600.00	7,195.06	288.50	211.09	3.727	ES
Horton D18-20D - Horton D18-20D - Horton D18-20D - A	9,700.00	7,193.67	308.80	213.68	3.246	SF
Horton D18-22D - Horton D18-22D - Horton D18-22D - A	9,547.48	6,924.75	2,208.42	2,146.18	35.483	CC, ES
Horton D18-22D - Horton D18-22D - Horton D18-22D - A	10,100.00	6,922.63	2,276.48	2,209.64	34.054	SF
LSWD 1 - LSWD 1 - LSWD 1 - As Drilled	11,817.78	6,855.00	581.32	472.88	5.361	CC, ES, SF
Mick D18-03 - Mick D18-03 - Mick D18-03 - As Drilled	11,859.93	6,868.97	420.93	348.20	5.788	CC, ES, SF
Mick D18-04 - Wellbore #1 - Wellbore #1- As Drilled	11,819.85	6,846.26	1,102.92	1,030.50	15.231	CC, ES
Mick D18-04 - Wellbore #1 - Wellbore #1- As Drilled	11,900.00	6,846.14	1,105.82	1,032.93	15.170	SF
Mick D18-05 - Wellbore #1 - Wellbore #1- As Drilled	10,530.54	6,806.64	1,077.27	1,013.88	16.993	CC, ES
Mick D18-05 - Wellbore #1 - Wellbore #1- As Drilled	10,600.00	6,806.70	1,079.51	1,015.71	16.921	SF
Mick D18-06 - Mick D18-06 - Mick D18-06 - As Drilled	10,524.28	6,855.35	390.57	327.02	6.146	CC, ES, SF
Mick D18-11 - Mick D18-11 - Mick D18-11 - As Drilled	8,812.36	6,847.59	225.68	172.07	4.210	CC, ES, SF
Mick D18-12 - Wellbore #1 - Wellbore #1- As Drilled	8,994.86	6,818.41	888.03	833.64	16.327	CC
Mick D18-12 - Wellbore #1 - Wellbore #1- As Drilled	9,000.00	6,818.46	888.05	833.63	16.320	ES
Mick D18-12 - Wellbore #1 - Wellbore #1- As Drilled	9,100.00	6,819.46	894.24	839.38	16.302	SF
Mick D18-13 - Wellbore #1 - Wellbore #1- As Drilled	7,756.59	6,874.86	965.39	915.74	19.445	CC, ES
Mick D18-13 - Wellbore #1 - Wellbore #1- As Drilled	7,800.00	6,874.68	966.36	916.60	19.418	SF
Mick D18-14 - Mick D18-14 - Mick D18-14 - As Drilled	7,659.24	6,852.53	236.98	187.65	4.804	CC, ES, SF
Mick D18-19 - Mick D18-19 - Mick D18-19 - As Drilled	11,197.56	6,805.49	246.11	178.24	3.626	CC
Mick D18-19 - Mick D18-19 - Mick D18-19 - As Drilled	11,200.00	6,805.49	246.12	178.24	3.625	ES, SF
Mick D18-25 - Mick D18-25 - Mick D18-25 - As Drilled	8,285.57	6,803.20	283.48	232.27	5.536	CC, ES, SF
Scooter D18-02 - Scooter D18-02 - Scooter D18-02 - As	11,610.73	6,821.39	1,447.78	1,376.98	20.449	CC, ES
Scooter D18-02 - Scooter D18-02 - Scooter D18-02 - As	11,800.00	6,824.35	1,460.09	1,388.25	20.324	SF
Scooter D18-07 - Scooter D18-07 - Scooter D18-07 - As	10,300.54	6,848.26	1,461.03	1,398.90	23.518	CC, ES
Scooter D18-07 - Scooter D18-07 - Scooter D18-07 - As	10,500.00	6,841.14	1,474.56	1,411.41	23.352	SF
Scooter D18-10 - Scooter D18-10 - Scooter D18-10 - As	8,815.99	6,842.80	1,488.70	1,435.09	27.767	CC, ES
Scooter D18-10 - Scooter D18-10 - Scooter D18-10 - As	9,000.00	6,840.63	1,500.03	1,445.61	27.565	SF
Scooter D18-15 - Scooter D18-15 - Scooter D18-15 - As	7,670.27	6,792.73	1,596.84	1,547.72	32.506	CC, ES
Scooter D18-15 - Scooter D18-15 - Scooter D18-15 - As	7,800.00	6,790.84	1,602.10	1,552.66	32.400	SF
Scooter D18-16 - Scooter D18-16 - Scooter D18-16 - As	7,711.71	6,811.00	2,848.54	2,763.41	33.459	CC, ES
Scooter D18-16 - Scooter D18-16 - Scooter D18-16 - As	8,000.00	6,811.00	2,863.10	2,777.13	33.305	SF
Scooter D18-17 JI - Scooter D18-17 JI - Scooter D18-17	10,894.43	6,942.07	2,210.35	2,143.19	32.915	CC
Scooter D18-17 JI - Scooter D18-17 JI - Scooter D18-17	10,900.00	6,942.09	2,210.35	2,143.17	32.901	ES
Scooter D18-17 JI - Scooter D18-17 JI - Scooter D18-17	11,200.00	6,943.11	2,231.37	2,162.79	32.538	SF
Scooter D18-1JI - Scooter D18-1JI - Scooter D18-1JI - A	11,421.20	7,145.57	2,970.38	2,895.29	39.558	CC
Scooter D18-1JI - Scooter D18-1JI - Scooter D18-1JI - A	11,500.00	7,146.30	2,971.42	2,894.93	38.846	ES
Scooter D18-1JI - Scooter D18-1JI - Scooter D18-1JI - A	12,900.00	7,159.21	3,318.10	3,216.75	32.737	SF
Scooter D18-4J - Scooter D18-4J - Scooter D18-4J - As	8,562.76	6,929.71	2,484.91	2,432.21	47.147	CC, ES
Scooter D18-4J - Scooter D18-4J - Scooter D18-4J - As	9,000.00	6,929.95	2,523.09	2,468.50	46.217	SF
Scooter D18-78-1HN - Original Drilling - Original Drilling -	12,182.13	6,886.91	606.61	535.26	8.502	CC, ES
Scooter D18-78-1HN - Original Drilling - Original Drilling -	12,200.00	6,887.09	606.87	535.42	8.493	SF
Scooter D18-78-1HN - Original Drilling - ST01 - Original D	7,566.10	11,301.77	609.32	505.08	5.845	ES, SF
Scooter D18-78-1HN - Original Drilling - ST01 - Original D	10,437.26	8,426.33	587.83	516.03	8.187	CC
Scooter D18-79-1HN - Original Drilling - Original Drilling -	7,500.00	11,265.00	1,263.84	1,158.27	11.972	SF
Scooter D18-79-1HN - Original Drilling - Original Drilling -	7,600.00	11,228.57	1,262.20	1,157.18	12.018	ES
Scooter D18-79-1HN - Original Drilling - Original Drilling -	11,506.16	7,320.23	1,234.98	1,164.57	17.542	CC
Scooter D18-79HN - Original Drilling - Original Drilling - A	7,500.00	11,410.00	1,686.11	1,580.46	15.959	SF
Scooter D18-79HN - Original Drilling - Original Drilling - A	8,300.00	10,651.00	1,673.28	1,578.10	17.580	ES
Scooter D18-79HN - Original Drilling - Original Drilling - A	11,136.72	7,836.41	1,652.00	1,581.21	23.336	CC
Scooter D18-8JI - Scooter D18-8JI - Scooter D18-8JI - A	10,343.48	7,036.75	2,853.11	2,777.29	37.628	CC, ES
Scooter D18-8JI - Scooter D18-8JI - Scooter D18-8JI - A	10,900.00	7,035.02	2,906.88	2,827.56	36.645	SF
Scooter D18-9JI - Scooter D18-9JI - Scooter D18-9JI - A	9,167.62	6,831.68	2,990.25	2,932.90	52.136	CC

CC - Min centre to center distance or covergent 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 1	**Offset TVD Reference:**	Offset Datum

Summary

Site Name Offset Well - Wellbore - Design	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
D Section 18						
Scooter D18-9JI - Scooter D18-9JI - Scooter D18-9JI - A	9,200.00	6,831.56	2,990.43	2,932.87	51.961	ES
Scooter D18-9JI - Scooter D18-9JI - Scooter D18-9JI - A	9,900.00	6,828.99	3,078.63	3,017.10	50.035	SF
Shianne D18-29D - Shianne D18-29D - Shianne D18-29D	12,255.38	6,932.20	265.64	187.71	3.409	CC, ES, SF

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 1	**Offset TVD Reference:**	Offset Datum

Summary

Site Name Offset Well - Wellbore - Design	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	5,879.57	5,925.56	2,962.95	2,921.57	71.588	CC, ES
Butterball 13-19 - Butterball 13-19 - Butterball 13-19 - As	6,550.00	6,598.15	3,053.25	3,007.15	66.240	SF
Butterball 14-19 - Butterball 14-19 - Butterball 14-19 - As	5,652.49	5,619.49	4,225.48	4,185.95	106.879	CC
Butterball 14-19 - Butterball 14-19 - Butterball 14-19 - As	5,850.00	5,809.68	4,225.81	4,184.90	103.305	ES
Butterball 14-19 - Butterball 14-19 - Butterball 14-19 - As	6,600.00	6,619.89	4,360.89	4,314.55	94.106	SF
Butterball 23-19 - Butterball 23-19 - Butterball 23-19 - As	100.00	44.83	2,854.31	2,854.11	10,000.000	CC
Butterball 23-19 - Butterball 23-19 - Butterball 23-19 - As	5,867.55	5,877.41	2,857.47	2,816.33	69.448	ES
Butterball 23-19 - Butterball 23-19 - Butterball 23-19 - As	6,500.00	6,465.00	2,949.98	2,904.55	64.940	SF
Butterball B04-19 - Butterball B04-19 - Butterball B04-19	5,854.25	5,834.43	3,742.29	3,701.31	91.309	CC, ES
Butterball B04-19 - Butterball B04-19 - Butterball B04-19	6,550.00	6,530.68	3,844.66	3,798.80	83.845	SF
Butterball D18-75HN - Original Drilling - Original Drilling -	11,943.22	11,572.61	902.92	762.70	6.439	CC
Butterball D18-75HN - Original Drilling - Original Drilling -	12,500.00	12,107.00	910.10	757.05	5.946	ES, SF
Butterball D19-17D - Butterball D19-17D - Butterball D19	986.06	962.12	583.95	576.91	82.949	CC
Butterball D19-17D - Butterball D19-17D - Butterball D19	1,200.00	1,175.63	584.36	575.14	63.375	ES
Butterball D19-17D - Butterball D19-17D - Butterball D19	8,100.00	7,452.68	3,186.21	3,067.01	26.729	SF
Butterball D19-18D - Butterball D19-18D - Butterball D19	1,467.20	1,442.13	554.56	544.31	54.087	CC
Butterball D19-18D - Butterball D19-18D - Butterball D19	1,700.00	1,673.57	555.56	543.08	44.515	ES
Butterball D19-18D - Butterball D19-18D - Butterball D19	6,350.00	6,406.48	864.13	815.09	17.620	SF
Butterball D19-19D - Butterball D19-19D - Butterball D19	707.92	680.94	575.66	571.14	127.509	CC
Butterball D19-19D - Butterball D19-19D - Butterball D19	800.00	764.64	576.22	571.09	112.211	ES
Butterball D19-19D - Butterball D19-19D - Butterball D19	6,350.00	6,393.69	1,229.85	1,184.94	27.388	SF
Butterball D19-20D - Butterball D19-20D - Butterball D19	3,421.21	3,467.76	2,073.12	2,039.64	61.914	CC
Butterball D19-20D - Butterball D19-20D - Butterball D19	3,500.00	3,531.80	2,073.40	2,039.12	60.478	ES
Butterball D19-20D - Butterball D19-20D - Butterball D19	6,400.00	6,490.85	2,167.45	2,111.94	39.043	SF
Butterball D19-22D - Wellbore #1 - Wellbore #1 - As Drill	5,098.41	5,136.28	2,963.03	2,920.01	68.877	CC
Butterball D19-22D - Wellbore #1 - Wellbore #1 - As Drill	5,862.16	5,927.17	2,964.39	2,916.63	62.060	ES
Butterball D19-22D - Wellbore #1 - Wellbore #1 - As Drill	6,550.00	6,569.83	3,052.12	3,000.19	58.780	SF
Butterball D19-75HN - Original Drilling - Original Drilling -	3,273.40	3,271.47	1,210.61	1,188.68	55.194	CC
Butterball D19-75HN - Original Drilling - Original Drilling -	6,517.46	6,532.60	1,223.22	1,178.63	27.432	ES
Butterball D19-75HN - Original Drilling - Original Drilling -	6,700.00	6,645.27	1,234.27	1,188.69	27.081	SF
Butterball D24-19 - Butterball D24-19 - Butterball D24-19	4,749.50	4,714.23	4,091.16	4,058.06	123.566	CC
Butterball D24-19 - Butterball D24-19 - Butterball D24-19	5,860.83	5,869.23	4,094.94	4,053.83	99.600	ES
Butterball D24-19 - Butterball D24-19 - Butterball D24-19	6,600.00	6,567.60	4,235.26	4,189.15	91.852	SF
Butterball H24-69HN - Original Drilling - Original Drilling -	7,140.70	8,257.06	70.62	44.03	2.656	CC
Butterball H24-69HN - Original Drilling - Original Drilling -	7,150.00	8,257.48	71.30	40.73	2.332	ES
Butterball H24-69HN - Original Drilling - Original Drilling -	7,200.00	8,259.77	94.26	42.51	1.821	SF
Champlin 366 Amoco F 1 - Wellbore #1 - Wellbore #1 - A	5,853.19	5,821.55	3,814.03	3,773.12	93.225	CC, ES
Champlin 366 Amoco F 1 - Wellbore #1 - Wellbore #1 - A	6,600.00	6,535.23	3,939.33	3,893.36	85.677	SF
Dechant D19-32D - Dechant D19-32D - Dechant D19-32	202.04	174.04	551.60	550.67	596.051	CC
Dechant D19-32D - Dechant D19-32D - Dechant D19-32	400.00	366.32	552.48	550.17	239.508	ES
Dechant D19-32D - Dechant D19-32D - Dechant D19-32	12,900.00	12,900.00	8,494.10	8,285.89	40.796	SF
Graznak 01-19 - Graznak 01-19 - Graznak 01-19 - As Dr	5,850.00	5,816.00	3,576.03	3,504.53	50.020	CC, ES
Graznak 01-19 - Graznak 01-19 - Graznak 01-19 - As Dr	6,550.00	6,500.45	3,693.50	3,613.59	46.220	SF
Higgins D19-720 - Original Drilling - Original Drilling - As	6,905.61	6,793.25	2,782.07	2,738.48	63.829	CC, ES
Higgins D19-720 - Original Drilling - Original Drilling - As	7,200.00	6,875.15	2,795.13	2,750.98	63.305	SF
Higgins D19-720 - Sidetrack Curve/Horizontal - ST01 - A	6,833.37	6,724.24	2,791.59	2,748.23	64.377	CC
Higgins D19-720 - Sidetrack Curve/Horizontal - ST01 - A	6,850.00	6,730.93	2,791.62	2,748.22	64.318	ES
Higgins D19-720 - Sidetrack Curve/Horizontal - ST01 - A	7,150.00	6,753.37	2,806.41	2,762.47	63.873	SF
Independence D18-712(Killed) - Independence D18-712	2,200.00	2,182.00	2,431.97	2,416.73	159.555	CC, ES
Independence D18-712(Killed) - Independence D18-712	17,418.52	17,711.07	3,493.24	3,310.14	19.078	SF
Independence D18-717 - Independence D18-717 - Plan 1	2,600.00	2,583.00	2,407.65	2,389.53	132.920	CC, ES
Independence D18-717 - Independence D18-717 - Plan 1	17,418.52	17,337.68	3,149.41	2,966.93	17.259	SF
Independence D18-725 - Independence D18-725 - Plan 1	5,850.00	5,833.00	2,385.65	2,344.23	57.605	CC

CC - Min centre to center distance or covergent 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 1	**Offset TVD Reference:**	Offset Datum

Summary

Site Name Offset Well - Wellbore - Design	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
D Section 19						
Independence D18-725 - Independence D18-725 - Plan 1	6,450.00	6,442.42	2,389.52	2,343.85	52.318	ES
Independence D18-725 - Independence D18-725 - Plan 1	17,418.52	17,381.03	2,609.83	2,427.83	14.340	SF
Independence D18-732 - Independence D18-732 - Plan 1	7,129.90	7,117.40	1,970.73	1,921.87	40.333	CC
Independence D18-732 - Independence D18-732 - Plan 1	7,150.00	7,131.54	1,970.76	1,921.84	40.286	ES
Independence D18-732 - Independence D18-732 - Plan 1	17,418.52	17,359.33	2,169.61	1,987.12	11.889	SF
Independence D18-739 - Independence D18-739 - Plan 1	7,213.65	7,323.51	1,648.78	1,598.87	33.033	CC
Independence D18-739 - Independence D18-739 - Plan 1	17,418.52	17,519.91	1,712.19	1,528.61	9.327	ES, SF
Independence D18-744 - Independence D18-744 - Plan 1	7,208.33	7,337.94	1,236.50	1,186.41	24.683	CC
Independence D18-744 - Independence D18-744 - Plan 1	17,418.52	17,533.81	1,344.91	1,161.45	7.331	ES, SF
Independence D18-759 - Independence D18-759 - Plan 1	2,300.00	2,299.00	22.00	5.98	1.373	Level 3, CC, ES, SF
Independence D30-711 - Independence D30-711 - Plan 1	2,200.00	2,181.00	2,439.60	2,424.36	160.093	CC
Independence D30-711 - Independence D30-711 - Plan 1	2,300.00	2,249.72	2,440.12	2,424.28	154.038	ES
Independence D30-711 - Independence D30-711 - Plan 1	8,600.00	6,467.37	3,451.85	3,399.88	66.424	SF
Independence D30-718 - Independence D30-718 - Plan 2	2,200.00	2,180.00	2,417.33	2,402.10	158.669	CC
Independence D30-718 - Independence D30-718 - Plan 2	2,300.00	2,253.87	2,417.76	2,401.91	152.477	ES
Independence D30-718 - Independence D30-718 - Plan 2	8,100.00	6,466.30	3,051.69	3,001.86	61.238	SF
Independence D30-724 - Independence D30-724 - Plan 1	2,200.00	2,179.00	2,395.07	2,379.84	157.245	CC
Independence D30-724 - Independence D30-724 - Plan 1	2,300.00	2,264.84	2,395.30	2,379.40	150.678	ES
Independence D30-724 - Independence D30-724 - Plan 1	7,500.00	6,839.73	2,589.55	2,540.42	52.714	SF
Independence D30-731 - Independence D30-731 - Plan 1	6,866.51	7,451.17	2,227.83	2,179.33	45.935	CC, ES
Independence D30-731 - Independence D30-731 - Plan 1	7,200.00	7,160.11	2,234.23	2,185.25	45.611	SF
Independence D30-737 - Independence D30-737 - Plan 1	6,958.45	7,378.37	1,739.30	1,690.29	35.490	CC, ES
Independence D30-737 - Independence D30-737 - Plan 1	7,100.00	7,273.61	1,741.08	1,691.90	35.401	SF
Independence D30-743 - Independence D30-743 - Plan 1	6,952.72	7,447.51	1,369.39	1,319.89	27.665	CC, ES
Independence D30-743 - Independence D30-743 - Plan 1	7,050.00	7,373.92	1,370.41	1,320.83	27.641	SF
Independence D30-758 - Independence D30-758 - Plan 1	2,111.69	2,124.69	153.27	138.55	10.412	CC
Independence D30-758 - Independence D30-758 - Plan 1	2,200.00	2,212.36	153.29	137.94	9.986	ES
Independence D30-758 - Independence D30-758 - Plan 1	2,400.00	2,402.24	160.51	143.80	9.603	SF
Independence D30-765 - Independence D30-765 - Plan 1	7,411.52	7,024.22	92.26	42.56	1.856	CC, ES, SF
Independence D30-770 - Independence D30-770 - Plan 1	2,200.00	2,200.00	149.95	134.64	9.796	CC, ES
Independence D30-770 - Independence D30-770 - Plan 1	7,081.32	7,211.18	308.45	259.50	6.302	SF
Independence D30-777 - Independence D30-777 - Plan 2	2,200.00	2,200.00	154.98	139.67	10.125	CC, ES
Independence D30-777 - Independence D30-777 - Plan 2	2,400.00	2,389.78	161.40	144.73	9.681	SF
Independence State D30-784 - Independence State D30	2,200.00	2,200.00	162.97	147.67	10.647	CC, ES
Independence State D30-784 - Independence State D30	2,400.00	2,389.75	169.11	152.43	10.144	SF
LDS White D19-10 - LDS White D19-10 - LDS White D19	5,854.58	5,825.96	3,028.94	2,987.96	73.913	CC, ES
LDS White D19-10 - LDS White D19-10 - LDS White D19	6,550.00	6,492.78	3,141.51	3,095.78	68.707	SF
LDS White D19-15 - LDS White D19-15 - LDS White D19	4,684.72	4,645.48	4,367.71	4,335.09	133.899	CC
LDS White D19-15 - LDS White D19-15 - LDS White D19	4,800.00	4,733.88	4,368.09	4,334.75	131.012	ES
LDS White D19-15 - LDS White D19-15 - LDS White D19	6,600.00	6,569.44	4,511.34	4,465.25	97.863	SF
LDS White D19-16 - Wellbore #1 - Wellbore #1 - As Drill	5,325.93	5,287.33	4,896.26	4,859.11	131.769	CC
LDS White D19-16 - Wellbore #1 - Wellbore #1 - As Drill	5,850.93	5,816.37	4,896.63	4,855.74	119.760	ES
LDS White D19-16 - Wellbore #1 - Wellbore #1 - As Drill	6,700.00	6,623.90	5,077.34	5,030.79	109.068	SF
Mile High 02-19 - Wellbore #1 - Wellbore #1 - As Drilled	4,481.98	4,438.96	2,116.91	2,085.71	67.847	CC
Mile High 02-19 - Wellbore #1 - Wellbore #1 - As Drilled	4,600.00	4,541.01	2,117.55	2,085.57	66.217	ES
Mile High 02-19 - Wellbore #1 - Wellbore #1 - As Drilled	6,550.00	6,482.61	2,217.02	2,171.38	48.580	SF
Sean D19-09 - Wellbore #1 - Wellbore #1 - As Drilled	5,850.00	5,806.00	3,979.16	3,842.30	29.075	CC
Sean D19-09 - Wellbore #1 - Wellbore #1 - As Drilled	5,900.00	5,855.98	3,980.06	3,842.03	28.834	ES
Sean D19-09 - Wellbore #1 - Wellbore #1 - As Drilled	6,700.00	6,612.62	4,127.13	3,971.28	26.483	SF
Turk Blue D19-02J - Turk Blue D19-02J - Turk Blue D19-	5,855.05	5,828.59	511.88	470.93	12.501	CC, ES
Turk Blue D19-02J - Turk Blue D19-02J - Turk Blue D19-	5,974.77	5,944.70	518.76	476.98	12.417	SF
Turk Blue D19-04 - Turk Blue D19-04 - Turk Blue D19-04	3,553.79	3,543.25	1,051.29	1,026.54	42.487	CC
Turk Blue D19-04 - Turk Blue D19-04 - Turk Blue D19-04	6,350.00	6,333.17	1,053.22	1,008.76	23.693	ES

CC - Min centre to center distance or covergent 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 1	**Offset TVD Reference:**	Offset Datum

Summary

Site Name Offset Well - Wellbore - Design	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
D Section 19						
Turk Blue D19-04 - Turk Blue D19-04 - Turk Blue D19-04	6,650.00	6,608.70	1,068.39	1,022.02	23.039	SF
Turk Blue D19-05 - Turk Blue D19-05 - Turk Blue D19-05	5,907.61	5,972.50	2,030.89	1,989.30	48.832	CC, ES
Turk Blue D19-05 - Turk Blue D19-05 - Turk Blue D19-05	6,500.00	6,561.54	2,080.65	2,034.92	45.491	SF
Turk Blue D19-06 - Turk Blue D19-06 - Turk Blue D19-06	3,776.83	3,734.92	1,612.50	1,586.32	61.609	CC
Turk Blue D19-06 - Turk Blue D19-06 - Turk Blue D19-06	3,900.00	3,840.68	1,613.11	1,586.12	59.781	ES
Turk Blue D19-06 - Turk Blue D19-06 - Turk Blue D19-06	6,400.00	6,365.01	1,695.94	1,651.20	37.907	SF
Turk White D19-01 - Wellbore #1 - Wellbore #1 - As Drill	5,942.02	5,936.43	2,952.31	2,910.69	70.938	CC
Turk White D19-01 - Wellbore #1 - Wellbore #1 - As Drill	6,000.00	5,989.78	2,952.55	2,910.54	70.283	ES
Turk White D19-01 - Wellbore #1 - Wellbore #1 - As Drill	7,000.00	6,780.54	3,013.64	2,965.84	63.038	SF
Turk White D19-02 - Wellbore #1 - Wellbore #1 - As Drill	2,347.79	2,294.17	1,452.42	1,436.37	90.493	CC
Turk White D19-02 - Wellbore #1 - Wellbore #1 - As Drill	5,400.00	5,333.06	1,467.35	1,429.77	39.049	ES
Turk White D19-02 - Wellbore #1 - Wellbore #1 - As Drill	6,800.00	6,671.37	1,529.89	1,482.91	32.567	SF
Turk White D19-08 - Wellbore #1 - Wellbore #1 - As Drill	2,049.45	2,003.54	3,253.40	3,239.45	233.288	CC
Turk White D19-08 - Wellbore #1 - Wellbore #1 - As Drill	5,852.76	5,812.07	3,256.99	3,216.12	79.703	ES
Turk White D19-08 - Wellbore #1 - Wellbore #1 - As Drill	6,700.00	6,632.53	3,372.30	3,325.73	72.412	SF

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 1	**Offset TVD Reference:**	Offset Datum

Summary

Site Name Offset Well - Wellbore - Design	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
D Section 20						
Bohlender D20-2J - Wellbore #1 - No Surveys	5,850.00	5,801.00	4,596.31	4,524.95	64.409	CC
Bohlender D20-2J - Wellbore #1 - No Surveys	5,900.00	5,850.98	4,596.73	4,524.75	63.865	ES
Bohlender D20-2J - Wellbore #1 - No Surveys	6,950.00	6,756.13	4,724.14	4,641.00	56.821	SF
Bohlender D20-3 - Wellbore #1 - Gyro Surveys	5,891.78	5,876.79	5,382.90	5,341.64	130.443	CC
Bohlender D20-3 - Wellbore #1 - Gyro Surveys	5,900.00	5,883.38	5,382.91	5,341.59	130.278	ES
Bohlender D20-3 - Wellbore #1 - Gyro Surveys	8,700.00	6,794.52	5,855.13	5,802.93	112.164	SF
Bohlender D20-4 (P&A) - Wellbore #1 - No Surveys	5,850.00	5,803.00	4,025.23	3,888.43	29.425	CC
Bohlender D20-4 (P&A) - Wellbore #1 - No Surveys	6,500.00	6,442.64	4,033.47	3,881.62	26.561	ES
Bohlender D20-4 (P&A) - Wellbore #1 - No Surveys	7,100.00	6,806.16	4,074.18	3,913.56	25.366	SF
Bohlender D20-6 - Wellbore#1 - Gyro Surveys	5,702.66	5,651.76	5,594.09	5,554.30	140.592	CC
Bohlender D20-6 - Wellbore#1 - Gyro Surveys	5,850.00	5,764.21	5,594.77	5,554.06	137.439	ES
Bohlender D20-6 - Wellbore#1 - Gyro Surveys	7,000.00	6,720.55	5,752.17	5,704.60	120.917	SF
Butterball D19-27D - Butterball D19-27D - Butterball D19	7,192.76	7,050.36	2,178.35	2,127.54	42.870	CC
Butterball D19-27D - Butterball D19-27D - Butterball D19	7,200.00	7,050.68	2,178.36	2,127.51	42.832	ES
Butterball D19-27D - Butterball D19-27D - Butterball D19	8,500.00	7,032.94	2,539.43	2,471.21	37.226	SF
Duncan D20-1 (P&A) - Wellbore #1 - No Surveys	5,850.00	5,802.00	8,195.54	8,058.76	59.919	CC
Duncan D20-1 (P&A) - Wellbore #1 - No Surveys	6,550.00	6,486.45	8,204.65	8,051.76	53.664	ES
Duncan D20-1 (P&A) - Wellbore #1 - No Surveys	7,233.01	6,819.00	8,239.44	8,078.36	51.150	SF
Duncan D20-10 - Wellbore #1 - Gyro Surveys	5,736.73	5,700.00	7,719.61	7,679.51	192.510	CC
Duncan D20-10 - Wellbore #1 - Gyro Surveys	5,850.00	5,783.54	7,719.83	7,679.03	189.231	ES
Duncan D20-10 - Wellbore #1 - Gyro Surveys	7,000.00	6,784.77	7,925.71	7,877.91	165.808	SF
Duncan D20-11 (SI) - Wellbore #1 - No Surveys	5,850.00	5,808.00	6,139.93	6,068.51	85.967	CC, ES
Duncan D20-11 (SI) - Wellbore #1 - No Surveys	6,950.00	6,763.13	6,342.15	6,258.97	76.251	SF
Duncan D20-12 (SI) - Wellbore #1 - No Surveys	5,850.00	5,806.00	4,973.12	4,901.72	69.647	CC, ES
Duncan D20-12 (SI) - Wellbore #1 - No Surveys	6,800.00	6,681.34	5,143.70	5,061.56	62.622	SF
Duncan D20-13 (SI) - Wellbore #1 - No Surveys	5,850.00	5,811.00	5,950.53	5,879.08	83.285	CC, ES
Duncan D20-13 (SI) - Wellbore #1 - No Surveys	6,800.00	6,686.34	6,163.81	6,081.64	75.011	SF
Duncan D20-14 (SI) - Wellbore #1 - Gyro Surveys	4,797.76	4,752.85	6,339.33	6,305.94	189.847	CC
Duncan D20-14 (SI) - Wellbore #1 - Gyro Surveys	5,850.00	5,770.98	6,340.09	6,299.37	155.711	ES
Duncan D20-14 (SI) - Wellbore #1 - Gyro Surveys	6,900.00	6,609.08	6,582.80	6,535.88	140.293	SF
Duncan D20-15 (P&A) - Wellbore #1 - Gyro Surveys	5,795.64	5,756.33	7,768.96	7,728.44	191.694	CC
Duncan D20-15 (P&A) - Wellbore #1 - Gyro Surveys	5,850.00	5,802.10	7,769.00	7,728.11	190.035	ES
Duncan D20-15 (P&A) - Wellbore #1 - Gyro Surveys	6,950.00	6,761.39	8,005.86	7,958.24	168.138	SF
Duncan D20-16 (SI) - Wellbore #1 - Gyro Surveys	5,884.51	6,021.66	9,215.21	9,173.49	220.910	CC
Duncan D20-16 (SI) - Wellbore #1 - Gyro Surveys	5,900.00	6,028.97	9,215.28	9,173.48	220.481	ES
Duncan D20-16 (SI) - Wellbore #1 - Gyro Surveys	7,000.00	6,675.31	9,435.50	9,388.12	199.158	SF
Duncan D20-2 - Wellbore #1 - Gyro Surveys	5,428.04	5,370.89	6,746.70	6,708.89	178.442	CC
Duncan D20-2 - Wellbore #1 - Gyro Surveys	5,500.00	5,400.00	6,746.86	6,708.69	176.766	ES
Duncan D20-2 - Wellbore #1 - Gyro Surveys	10,600.00	6,806.27	7,968.77	7,908.54	132.305	SF
Duncan D20-7 - Wellbore #1 - Gyro Surveys	5,862.36	5,828.74	7,147.44	7,106.49	174.511	CC
Duncan D20-7 - Wellbore #1 - Gyro Surveys	5,900.00	5,859.40	7,147.64	7,106.44	173.492	ES
Duncan D20-7 - Wellbore #1 - Gyro Surveys	10,100.00	6,828.81	8,485.83	8,428.45	147.872	SF
Duncan D20-8 - Wellbore #1 - Gyro Surveys	1,914.14	1,885.34	8,234.11	8,221.04	630.373	CC
Duncan D20-8 - Wellbore #1 - Gyro Surveys	2,200.00	2,112.87	8,235.32	8,220.43	553.032	ES
Duncan D20-8 - Wellbore #1 - Gyro Surveys	10,800.00	6,821.30	9,995.08	9,934.62	165.308	SF
Duncan D20-9 (P&A) - Wellbore #1 - Gyro Surveys	5,854.75	5,825.83	8,643.40	8,602.45	211.067	CC, ES
Duncan D20-9 (P&A) - Wellbore #1 - Gyro Surveys	9,400.00	6,832.08	9,944.42	9,890.26	183.625	SF
E Ranches (P&A) - Wellbore #1 - No Surveys	5,850.00	5,803.00	6,164.28	6,027.48	45.061	CC
E Ranches (P&A) - Wellbore #1 - No Surveys	5,900.00	5,852.98	6,165.18	6,027.20	44.683	ES
E Ranches (P&A) - Wellbore #1 - No Surveys	6,850.00	6,708.22	6,390.14	6,232.05	40.419	SF
Guttersen 10-20 - Wellbore #1 - Gyro Surveys	5,862.06	5,848.35	7,053.47	7,012.42	171.805	CC, ES
Guttersen 10-20 - Wellbore #1 - Gyro Surveys	6,900.00	6,685.30	7,206.50	7,159.50	153.316	SF
LDS D20-30D - LDS D20-30D - LDS D20-30D - As Drille	6,906.95	6,808.90	3,346.61	3,297.21	67.743	CC, ES

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

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 1	**Offset TVD Reference:**	Offset Datum

Summary

Site Name Offset Well - Wellbore - Design	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
D Section 20						
LDS D20-30D - LDS D20-30D - LDS D20-30D - As Drille	7,600.00	6,888.13	3,412.62	3,361.12	66.259 SF	

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 1	**Offset TVD Reference:**	Offset Datum

Summary

Site Name Offset Well - Wellbore - Design	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
D Section 29						
Guttersen D29-30D - Wellbore #1 - Design #1	5,850.00	6,000.26	6,017.05	5,973.17	137.145	CC, ES
Guttersen D29-30D - Wellbore #1 - Design #1	6,700.00	6,806.87	6,191.41	6,142.22	125.849	SF
Guttersen D29-31D - Wellbore #1 - Guttersen D29-31D	5,625.72	5,675.09	7,090.43	7,051.04	179.996	CC
Guttersen D29-31D - Wellbore #1 - Guttersen D29-31D	5,850.00	5,877.80	7,091.05	7,050.22	173.642	ES
Guttersen D29-31D - Wellbore #1 - Guttersen D29-31D	6,750.00	6,737.92	7,305.42	7,258.75	156.543	SF
Guttersen D29-33D - Wellbore #1 - Guttersen D29-33D -	872.00	863.00	8,388.36	8,383.80	1,839.715	CC
Guttersen D29-33D - Wellbore #1 - Guttersen D29-33D -	900.00	863.00	8,388.41	8,383.75	1,800.087	ES
Guttersen D29-33D - Wellbore #1 - Guttersen D29-33D -	6,900.00	6,930.59	9,812.06	9,762.88	199.520	SF
Guttersen D29-65HN - Original Drilling - Original Drilling	5,904.50	6,316.00	8,350.02	8,308.82	202.664	CC, ES
Guttersen D29-65HN - Original Drilling - Original Drilling	6,600.00	6,379.00	8,474.59	8,430.76	193.343	SF
Guttersen D29-67HN - Original Drilling - Original Drilling	3,540.66	3,523.07	7,194.26	7,170.95	308.711	CC
Guttersen D29-67HN - Original Drilling - Original Drilling	5,853.63	5,859.19	7,202.85	7,163.15	181.422	ES
Guttersen D29-67HN - Original Drilling - Original Drilling	6,550.00	6,221.01	7,319.38	7,276.03	168.864	SF
Guttersen D29-69HN - Original Drilling - Original Drilling	5,826.43	5,983.97	6,177.31	6,133.07	139.614	CC
Guttersen D29-69HN - Original Drilling - Original Drilling	5,850.00	5,990.91	6,177.34	6,133.00	139.312	ES
Guttersen D29-69HN - Original Drilling - Original Drilling	6,600.00	6,358.55	6,315.65	6,268.04	132.665	SF
Guttersen D29-722 - Guttersen D29-722 - Prelim - Rev 1	9,626.31	17,638.72	7,948.73	7,823.39	63.418	CC
Guttersen D29-722 - Guttersen D29-722 - Prelim - Rev 1	9,700.00	17,638.72	7,949.07	7,823.31	63.210	ES
Guttersen D29-722 - Guttersen D29-722 - Prelim - Rev 1	11,400.00	17,638.72	8,144.21	8,010.31	60.823	SF
Guttersen D29-730 - Guttersen D29-730 - Prelim - Rev 1	9,624.74	17,556.91	7,335.72	7,210.98	58.806	CC
Guttersen D29-730 - Guttersen D29-730 - Prelim - Rev 1	9,700.00	17,556.91	7,336.11	7,210.96	58.619	ES
Guttersen D29-730 - Guttersen D29-730 - Prelim - Rev 1	11,100.00	17,556.91	7,482.59	7,351.13	56.920	SF
Guttersen D29-738 - Guttersen D29-738 - Prelim - Rev 1	9,623.12	17,779.88	6,702.70	6,577.62	53.586	CC
Guttersen D29-738 - Guttersen D29-738 - Prelim - Rev 1	9,700.00	17,779.88	6,703.14	6,577.59	53.390	ES
Guttersen D29-738 - Guttersen D29-738 - Prelim - Rev 1	11,000.00	17,779.88	6,842.66	6,710.63	51.826	SF
Guttersen D29-746 - Guttersen D29-746 - Prelim - Rev 1	9,621.62	17,495.86	6,118.77	5,993.73	48.934	CC, ES
Guttersen D29-746 - Guttersen D29-746 - Prelim - Rev 1	10,700.00	17,495.86	6,213.07	6,082.85	47.712	SF
Guttersen D29-754 - Guttersen D29-754 - Prelim - Rev 1	9,620.18	17,718.83	5,531.98	5,406.53	44.098	CC, ES
Guttersen D29-754 - Guttersen D29-754 - Prelim - Rev 1	10,500.00	17,718.83	5,601.51	5,472.10	43.286	SF
Guttersen D29-770 - Guttersen D29-770 - Prelim - Rev 1	9,618.63	17,536.90	4,897.90	4,772.93	39.191	CC, ES
Guttersen D29-770 - Guttersen D29-770 - Prelim - Rev 1	10,300.00	17,536.90	4,945.07	4,816.80	38.552	SF
Guttersen D29-778 - Guttersen D29-778 - Prelim - Rev 1	9,617.17	17,670.79	4,285.09	4,159.51	34.121	CC, ES
Guttersen D29-778 - Guttersen D29-778 - Prelim - Rev 1	10,100.00	17,670.79	4,312.21	4,184.44	33.751	SF
Guttersen D29-786 - Guttersen D29-786 - Prelim - Rev 1	9,615.78	17,553.42	3,705.84	3,581.05	29.698	CC, ES
Guttersen D29-786 - Guttersen D29-786 - Prelim - Rev 1	9,900.00	17,553.42	3,716.72	3,590.72	29.498	SF
Guttersen D29-99HZ - Wellbore #1 - MWD Surveys	5,876.87	6,177.01	9,652.47	9,610.66	230.861	CC, ES
Guttersen D29-99HZ - Wellbore #1 - MWD Surveys	6,700.00	6,290.01	9,853.77	9,808.99	220.044	SF
Guttersen D30-68-1HN - Original Drilling - Original Drillin	6,212.54	10,109.95	5,887.01	5,775.86	52.968	CC, ES
Guttersen D30-68-1HN - Original Drilling - Original Drillin	6,450.00	10,110.62	5,907.06	5,794.68	52.562	SF
Guttersen D30-69-1HN - Original Drilling - Original Drillin	6,299.23	10,339.02	5,187.13	5,070.20	44.361	CC
Guttersen D30-69-1HN - Original Drilling - Original Drillin	6,310.02	10,339.02	5,187.14	5,070.15	44.337	ES
Guttersen D30-69-1HN - Original Drilling - Original Drillin	6,450.00	10,339.02	5,204.59	5,086.85	44.204	SF
Guttersen State D29-714 - Guttersen D29-714 - Prelim -	9,627.73	17,532.66	8,501.69	8,376.67	68.004	CC
Guttersen State D29-714 - Guttersen D29-714 - Prelim -	9,700.00	17,532.66	8,502.00	8,376.56	67.778	ES
Guttersen State D29-714 - Guttersen D29-714 - Prelim -	11,800.00	17,532.66	8,774.82	8,639.02	64.617	SF
Guttersen State Y05-719 - Guttersen Y05-719 - Prelim -						Out of range
Guttersen Y05-726 - Guttersen Y05-726 - Prelim - Rev 1						Out of range
Guttersen Y05-734 - Guttersen Y05-734 - Prelim - Rev 1	5,922.09	6,550.00	9,704.27	9,659.53	216.880	CC, ES
Guttersen Y05-734 - Guttersen Y05-734 - Prelim - Rev 1	6,700.00	6,600.00	9,836.75	9,789.42	207.870	SF
Guttersen Y05-749 - Guttersen Y05-749 - Prelim - Rev 1	4,690.85	4,737.70	9,076.57	9,043.11	271.325	CC
Guttersen Y05-749 - Guttersen Y05-749 - Prelim - Rev 1	5,850.00	5,868.42	9,080.15	9,038.30	216.932	ES
Guttersen Y05-749 - Guttersen Y05-749 - Prelim - Rev 1	6,750.00	6,350.00	9,274.85	9,228.25	199.055	SF
Guttersen Y05-756 - Guttersen Y05-756 - Prelim - Rev 1	5,902.84	6,300.00	8,734.77	8,691.36	201.241	CC, ES

CC - Min centre to center distance or covergent 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 1	**Offset TVD Reference:**	Offset Datum

Summary

Site Name Offset Well - Wellbore - Design	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
D Section 29						
Guttersen Y05-756 - Guttersen Y05-756 - Prelim - Rev 1	6,650.00	6,350.00	8,867.79	8,821.76	192.655	SF
Guttersen Y05-771 - Guttersen Y05-771 - Prelim - Rev 1	5,864.09	6,041.92	8,219.52	8,176.89	192.816	CC, ES
Guttersen Y05-771 - Guttersen Y05-771 - Prelim - Rev 1	6,600.00	6,350.00	8,343.44	8,297.15	180.255	SF
Guttersen Y05-779 - Guttersen Y05- 779 - Prelim - Rev 1	5,909.67	6,350.00	7,961.07	7,917.43	182.403	CC, ES
Guttersen Y05-779 - Guttersen Y05- 779 - Prelim - Rev 1	6,750.00	6,450.00	8,157.61	8,110.93	174.751	SF
Guttersen Y05-786 - Guttersen Y05-786 - Prelim - Rev 1	5,903.28	6,300.00	7,690.25	7,646.79	176.945	CC, ES
Guttersen Y05-786 - Guttersen Y05-786 - Prelim - Rev 1	6,600.00	6,400.00	7,810.89	7,764.82	169.528	SF
Jessie D29-1J - Wellbore #1 - Gyro Surveys	5,784.31	5,751.69	9,089.35	9,048.92	224.849	CC
Jessie D29-1J - Wellbore #1 - Gyro Surveys	5,850.00	5,800.00	9,089.45	9,048.62	222.628	ES
Jessie D29-1J - Wellbore #1 - Gyro Surveys	6,950.00	6,704.55	9,363.93	9,316.57	197.736	SF
Jessie D29-4J - Wellbore #1 - Gyro Surveys						Out of range
Kate Red D29-03J - Kate Red D29-03J - Kate Red D29-0	5,864.62	5,968.56	9,483.14	9,441.67	228.701	CC, ES
Kate Red D29-03J - Kate Red D29-03J - Kate Red D29-0	6,850.00	6,751.13	9,768.20	9,720.87	206.413	SF
Kate Red D29-11 - Wellbore #1 - Gyro Surveys	5,858.49	5,901.84	9,663.36	9,622.12	234.295	CC, ES
Kate Red D29-11 - Wellbore #1 - Gyro Surveys	6,900.00	6,890.14	9,966.31	9,918.44	208.201	SF
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	3,157.54	3,117.75	7,329.45	7,307.65	336.160	CC
Kate Red D29-2J - Wellbore #1 - Kate Red D29-2J	3,300.00	3,224.14	7,329.80	7,307.12	323.113	ES
Kate Red D29-2J - Wellbore #1 - Kate Red D29-2J	6,850.00	6,653.60	7,664.85	7,617.87	163.142	SF
Kate Red D29-3 - Wellbore #1 - Kate Red D29-3	2,275.80	2,233.93	7,664.51	7,648.95	492.365	CC
Kate Red D29-3 - Wellbore #1 - Kate Red D29-3	4,700.00	4,600.00	7,667.25	7,634.75	235.869	ES
Kate Red D29-3 - Wellbore #1 - Kate Red D29-3	6,900.00	6,705.68	7,962.34	7,915.08	168.493	SF
Kate Red D29-5 - Wellbore #1 - Gyro Surveys	4,756.53	4,721.57	7,864.44	7,831.27	237.081	CC
Kate Red D29-5 - Wellbore #1 - Gyro Surveys	4,800.00	4,744.56	7,864.49	7,831.09	235.413	ES
Kate Red D29-5 - Wellbore #1 - Gyro Surveys	6,800.00	6,660.02	8,124.34	8,077.43	173.196	SF
Kate Red D29-6 - Wellbore #1 - Gyro Surveys	4,704.51	4,663.80	8,645.57	8,612.83	264.074	CC
Kate Red D29-6 - Wellbore #1 - Gyro Surveys	4,800.00	4,700.00	8,645.87	8,612.66	260.364	ES
Kate Red D29-6 - Wellbore #1 - Gyro Surveys	6,850.00	6,700.00	8,950.86	8,903.73	189.903	SF
Kate White D29-1 - Wellbore #1 - Gyro Surveys	2,249.19	2,222.22	9,720.36	9,704.95	630.523	CC
Kate White D29-1 - Wellbore #1 - Gyro Surveys	5,850.00	5,761.23	9,739.96	9,699.27	239.407	ES
Kate White D29-1 - Wellbore #1 - Gyro Surveys	6,950.00	6,762.53	9,983.48	9,935.90	209.813	SF
Kate White D29-15 - Wellbore #1 - Gyro Surveys						Out of range
Kate White D29-16 - Wellbore #1 - Gyro Surveys						Out of range
Kate White D29-7 - Wellbore #1 - Gyro Surveys	5,889.45	6,148.07	9,704.11	9,661.89	229.823	CC
Kate White D29-7 - Wellbore #1 - Gyro Surveys	5,900.00	6,157.61	9,704.16	9,661.86	229.436	ES
Kate White D29-7 - Wellbore #1 - Gyro Surveys	6,900.00	6,700.00	9,956.93	9,909.62	210.492	SF
Kate White D29-8 - 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 1	**Offset TVD Reference:**	Offset Datum

Summary

Site Name Offset Well - Wellbore - Design	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	5,851.53	5,914.45	5,045.97	5,001.10	112.447	CC, ES
Adams D30-27D - Adams D30-27D - Adams D30-27D - A	6,600.00	6,615.32	5,186.04	5,136.54	104.750	SF
Adams D30-29D - Wellbore #1 - Wellbore #1 - As Drilled	5,866.45	6,002.90	4,917.16	4,870.77	106.005	CC, ES
Adams D30-29D - Wellbore #1 - Wellbore #1 - As Drilled	6,550.00	6,637.25	5,022.00	4,971.50	99.452	SF
Adams D30-30D - Adams D30-30D OH - As Drilled	2,125.28	2,161.16	4,794.02	4,772.40	221.706	CC
Adams D30-30D - Adams D30-30D OH - As Drilled	2,400.00	2,366.85	4,796.63	4,770.51	183.660	ES
Adams D30-30D - Adams D30-30D OH - As Drilled	6,400.00	6,673.29	5,089.24	4,971.17	43.104	SF
Adams D30-31D - Adams D30-31D Gyros - Gyros	100.00	50.14	5,002.70	5,002.49	10,000.000	CC
Adams D30-31D - Adams D30-31D Gyros - Gyros	300.00	225.85	5,003.87	5,002.41	3,417.896	ES
Adams D30-31D - Adams D30-31D Gyros - Gyros	6,500.00	6,933.87	6,274.76	6,177.70	64.645	SF
Corbin D30-23D - Corbin D30-23D - Corbin D30-23D - As	4,521.84	4,829.08	9,331.03	9,246.44	110.297	CC
Corbin D30-23D - Corbin D30-23D - Corbin D30-23D - As	4,800.00	4,996.23	9,333.39	9,244.75	105.295	ES
Corbin D30-23D - Corbin D30-23D - Corbin D30-23D - As	6,450.00	6,713.75	9,428.68	9,326.23	92.029	SF
Corbin Red D30-04J - Corbin Red D30-04J - Corbin Red	5,362.03	5,338.58	8,626.18	8,588.72	230.274	CC
Corbin Red D30-04J - Corbin Red D30-04J - Corbin Red	5,850.00	5,811.80	8,628.09	8,587.23	211.163	ES
Corbin Red D30-04J - Corbin Red D30-04J - Corbin Red	6,750.00	6,300.00	8,886.46	8,840.97	195.380	SF
Corbin Red D30-09 - Corbin Red D30-09 - Corbin Red D	4,789.45	4,769.87	8,560.30	8,526.85	255.880	CC
Corbin Red D30-09 - Corbin Red D30-09 - Corbin Red D	5,500.00	5,422.97	8,563.41	8,525.14	223.747	ES
Corbin Red D30-09 - Corbin Red D30-09 - Corbin Red D	6,750.00	6,514.97	8,809.51	8,763.23	190.353	SF
Corbin Red D30-15 - Corbin Red D30-15 - Corbin Red D	5,450.78	5,434.64	9,531.63	9,493.51	250.074	CC
Corbin Red D30-15 - Corbin Red D30-15 - Corbin Red D	5,500.00	5,461.62	9,531.69	9,493.30	248.315	ES
Corbin Red D30-15 - Corbin Red D30-15 - Corbin Red D	6,650.00	6,400.00	9,715.77	9,670.14	212.925	SF
Corbin Red D30-16 - Corbin Red D30-16 - Corbin Red D	0.00	0.00	9,850.03			
Corbin Red D30-16 - Corbin Red D30-16 - Corbin Red D	3,900.00	3,824.23	9,867.75	9,840.80	366.193	ES
Corbin Red D30-16 - Corbin Red D30-16 - Corbin Red D	6,450.00	6,434.57	9,997.70	9,952.50	221.186	SF
Dechant D30-17D - Dechant D30-17D - Dechant D30-17	139.26	108.48	5,004.54	5,004.08	10,000.000	CC
Dechant D30-17D - Dechant D30-17D - Dechant D30-17	200.00	141.25	5,004.68	5,003.88	6,223.557	ES
Dechant D30-17D - Dechant D30-17D - Dechant D30-17	7,600.00	7,600.00	7,696.39	7,607.44	86.526	SF
Dechant D30-20D - Dechant D30-20D - Dechant D30-20	5,861.93	6,017.00	7,411.54	7,365.50	160.984	CC, ES
Dechant D30-20D - Dechant D30-20D - Dechant D30-20	6,650.00	6,755.83	7,575.45	7,524.56	148.865	SF
Dechant D30-24D - Dechant D30-24D - Dechant D30-24	5,800.90	5,900.00	8,824.87	8,782.43	207.947	CC
Dechant D30-24D - Dechant D30-24D - Dechant D30-24	5,850.00	5,900.00	8,825.01	8,782.41	207.172	ES
Dechant D30-24D - Dechant D30-24D - Dechant D30-24	6,750.00	6,596.61	9,082.67	9,035.00	190.531	SF
Dechant D30-25D - Dechant D30-25D - Dechant D30-25	5,871.42	6,222.43	8,790.51	8,738.85	170.158	CC, ES
Dechant D30-25D - Dechant D30-25D - Dechant D30-25	6,650.00	6,656.13	8,959.63	8,904.35	162.084	SF
Dechant D31-27D - Dechant D31-27D - Dechant D31-27	374.30	358.32	9,800.11	9,797.92	4,471.709	CC
Dechant D31-27D - Dechant D31-27D - Dechant D31-27	400.00	366.93	9,800.13	9,797.82	4,235.758	ES
Dechant D31-27D - Dechant D31-27D - Dechant D31-27	3,800.00	2,900.00	9,996.24	9,950.40	218.045	SF
Dechant D31-28D - Dechant D31-28D - Dechant D31-28	963.34	947.48	9,838.23	9,831.88	1,547.095	CC
Dechant D31-28D - Dechant D31-28D - Dechant D31-28	1,000.00	952.14	9,838.29	9,831.79	1,511.923	ES
Dechant D31-28D - Dechant D31-28D - Dechant D31-28	6,200.00	6,210.80	9,998.81	9,954.34	224.802	SF
Dechant D31-29D - Dechant D31-29D - Dechant D31-29	0.00	0.00	9,824.19			
Dechant D31-29D - Dechant D31-29D - Dechant D31-29	1,100.00	1,044.94	9,829.45	9,822.25	1,363.694	ES
Dechant D31-29D - Dechant D31-29D - Dechant D31-29	4,000.00	4,000.00	9,976.12	9,934.64	240.489	SF
Dechant D31-77HN - Original Drilling - Original Drilling - A	1,634.31	1,631.34	9,897.76	9,889.39	1,182.822	CC
Dechant D31-77HN - Original Drilling - Original Drilling - A	1,970.11	1,971.67	9,897.76	9,886.98	917.778	ES
Dechant D31-77HN - Original Drilling - Original Drilling - A	3,600.00	2,515.00	9,993.33	9,974.92	542.858	SF
Hanson D30-11 - Hanson D30-11 - Hanson D30-11 - As D	3,581.59	3,556.50	7,976.08	7,951.18	320.416	CC
Hanson D30-11 - Hanson D30-11 - Hanson D30-11 - As D	3,700.00	3,627.56	7,976.50	7,950.94	312.038	ES
Hanson D30-11 - Hanson D30-11 - Hanson D30-11 - As D	7,100.00	7,100.00	8,541.04	8,492.23	174.996	SF
Hanson D30-12 - Hanson D30-12 - Hanson D30-12 - As	5,850.37	5,828.30	7,959.42	7,918.47	194.341	CC, ES
Hanson D30-12 - Hanson D30-12 - Hanson D30-12 - As	6,750.00	6,795.81	8,192.52	8,145.20	173.133	SF
Hanson D30-13 - Hanson D30-13 - Hanson D30-13 - As	5,772.72	5,758.18	9,526.25	9,485.84	235.745	CC

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 1	**Offset TVD Reference:**	Offset Datum

Summary

Site Name Offset Well - Wellbore - Design	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
D Section 30						
Hanson D30-13 - Hanson D30-13 - Hanson D30-13 - As	5,850.00	5,800.00	9,526.38	9,485.55	233.310	ES
Hanson D30-13 - Hanson D30-13 - Hanson D30-13 - As	6,800.00	6,703.26	9,807.62	9,760.56	208.412	SF
Hanson D30-14 - Hanson D30-14 - Hanson D30-14 - As	5,853.88	5,877.97	9,373.98	9,332.78	227.501	CC, ES
Hanson D30-14 - Hanson D30-14 - Hanson D30-14 - As	6,800.00	6,481.53	9,663.33	9,617.00	208.594	SF
Hettinger C Unit 1 - Hettinger C Unit 1 - Hettinger C Unit	5,853.63	5,847.13	6,101.47	6,060.39	148.522	CC, ES
Hettinger C Unit 1 - Hettinger C Unit 1 - Hettinger C Unit	6,750.00	6,689.02	6,326.65	6,279.68	134.694	SF
Hettinger D30-02 - Hettinger D30-02 - Hettinger D30-02 -	5,850.00	5,812.00	5,499.57	5,428.11	76.963	CC, ES
Hettinger D30-02 - Hettinger D30-02 - Hettinger D30-02 -	6,700.00	6,618.62	5,701.82	5,620.47	70.090	SF
Hettinger D30-03 - Hettinger D30-03 - Hettinger D30-03 -	5,868.69	5,931.70	5,274.78	5,233.40	127.474	CC, ES
Hettinger D30-03 - Hettinger D30-03 - Hettinger D30-03 -	6,700.00	6,699.70	5,472.68	5,425.81	116.779	SF
Hettinger D30-04 - Hettinger D30-04 - Hettinger D30-04 -	5,884.69	6,024.92	5,343.13	5,301.37	127.950	CC, ES
Hettinger D30-04 - Hettinger D30-04 - Hettinger D30-04 -	6,700.00	6,704.77	5,532.29	5,485.40	117.975	SF
Hettinger D30-05 - Hettinger D30-05 - Hettinger D30-05 -	5,859.81	5,898.33	7,081.86	7,040.66	171.897	CC, ES
Hettinger D30-05 - Hettinger D30-05 - Hettinger D30-05 -	6,650.00	6,617.15	7,252.76	7,206.35	156.286	SF
Hettinger D30-06 - Hettinger D30-06 - Hettinger D30-06 -	5,866.56	5,952.46	6,981.54	6,940.14	168.618	CC, ES
Hettinger D30-06 - Hettinger D30-06 - Hettinger D30-06 -	6,700.00	6,700.00	7,175.81	7,128.99	153.257	SF
Hettinger D30-08 - Hettinger D30-08 - Hettinger D30-08 -	2,108.92	2,079.96	7,352.14	7,337.72	510.017	CC
Hettinger D30-08 - Hettinger D30-08 - Hettinger D30-08 -	5,100.00	5,016.13	7,358.85	7,323.45	207.850	ES
Hettinger D30-08 - Hettinger D30-08 - Hettinger D30-08 -	6,750.00	6,673.35	7,595.00	7,548.15	162.126	SF
Leslie E Hanson Gas Unit 1 - Leslie E Hanson Gas Unit	5,850.00	5,830.00	8,874.53	8,802.92	123.922	CC, ES
Leslie E Hanson Gas Unit 1 - Leslie E Hanson Gas Unit	6,800.00	6,705.34	9,152.50	9,070.17	111.167	SF
McWilliams D29-32 - McWilliams D29-32 - McWilliams D	4,547.46	4,522.88	8,051.85	8,020.17	254.128	CC
McWilliams D29-32 - McWilliams D29-32 - McWilliams D	4,600.00	4,552.64	8,051.92	8,019.95	251.810	ES
McWilliams D29-32 - McWilliams D29-32 - McWilliams D	6,800.00	6,572.02	8,334.78	8,288.20	178.968	SF
McWilliams D30-07 - McWilliams D30-07 - McWilliams D	5,850.00	5,820.00	6,791.19	6,719.66	94.946	CC, ES
McWilliams D30-07 - McWilliams D30-07 - McWilliams D	6,750.00	6,662.40	7,029.72	6,947.87	85.887	SF
McWilliams D30-18 - McWilliams D30-18 - McWilliams D	3,188.13	3,156.50	6,183.06	6,161.00	280.225	CC
McWilliams D30-18 - McWilliams D30-18 - McWilliams D	5,863.24	5,911.97	6,201.58	6,160.33	150.322	ES
McWilliams D30-18 - McWilliams D30-18 - McWilliams D	6,700.00	6,639.76	6,400.92	6,354.30	137.310	SF
McWilliams D30-19 - McWilliams D30-19 - McWilliams D	170.23	139.23	6,109.52	6,108.83	8,864.259	CC
McWilliams D30-19 - McWilliams D30-19 - McWilliams D	5,856.07	5,861.57	6,112.31	6,070.66	146.752	ES
McWilliams D30-19 - McWilliams D30-19 - McWilliams D	6,750.00	6,698.88	6,348.31	6,299.78	130.824	SF
McWilliams D30-21 - McWilliams D30-21 - McWilliams D	5,898.96	6,249.79	7,832.39	7,789.87	184.197	CC
McWilliams D30-21 - McWilliams D30-21 - McWilliams D	5,900.00	6,250.66	7,832.39	7,789.86	184.168	ES
McWilliams D30-21 - McWilliams D30-21 - McWilliams D	6,650.00	6,542.33	7,988.47	7,942.34	173.170	SF
McWilliams D30-22 - McWilliams D30-22 - McWilliams D	3,050.36	3,023.53	7,618.78	7,597.68	361.146	CC
McWilliams D30-22 - McWilliams D30-22 - McWilliams D	5,881.03	6,082.19	7,627.21	7,585.32	182.058	ES
McWilliams D30-22 - McWilliams D30-22 - McWilliams D	6,750.00	6,531.40	7,857.86	7,811.54	169.627	SF

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 1	**Offset TVD Reference:**	Offset Datum

Summary

Site Name Offset Well - Wellbore - Design	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
H Section 24						
Gurtler 24-09J - Original Drilling - Original Drilling - As Dr	5,647.51	5,623.61	3,622.20	3,582.70	91.700	CC
Gurtler 24-09J - Original Drilling - Original Drilling - As Dr	5,857.54	5,852.75	3,622.42	3,581.37	88.233	ES
Gurtler 24-09J - Original Drilling - Original Drilling - As Dr	6,600.00	6,585.62	3,726.91	3,680.73	80.698	SF
Gurtler 24-10J - Original Drilling - Original Drilling - As Dr	5,916.65	6,074.58	4,458.10	4,416.10	106.134	CC, ES
Gurtler 24-10J - Original Drilling - Original Drilling - As Dr	6,700.00	6,673.93	4,565.21	4,518.45	97.648	SF
Gurtler 24-11J - Original Drilling - Original Drilling - As Dr	5,908.14	6,060.83	5,689.06	5,647.13	135.667	CC, ES
Gurtler 24-11J - Original Drilling - Original Drilling - As Dr	6,900.00	7,124.79	5,856.27	5,807.52	120.112	SF
Gurtler 24-12J - Original Drilling - Original Drilling - As Dr	5,815.57	5,847.06	6,743.14	6,702.28	165.028	CC
Gurtler 24-12J - Original Drilling - Original Drilling - As Dr	5,850.00	5,864.67	6,743.19	6,702.14	164.287	ES
Gurtler 24-12J - Original Drilling - Original Drilling - As Dr	6,750.00	6,500.01	6,844.06	6,797.82	148.026	SF
Gurtler 24-12J - Original Drilling - ST01 - ST01 Original D	5,814.54	5,846.20	6,737.96	6,698.09	169.015	CC
Gurtler 24-12J - Original Drilling - ST01 - ST01 Original D	5,850.00	5,876.01	6,737.99	6,697.89	168.041	ES
Gurtler 24-12J - Original Drilling - ST01 - ST01 Original D	6,950.00	7,270.62	6,887.89	6,838.28	138.852	SF
Gurtler 24-13J - Original Drilling - Original Drilling - As Dr	5,983.66	6,461.99	7,407.46	7,363.64	169.047	CC
Gurtler 24-13J - Original Drilling - Original Drilling - As Dr	6,000.00	6,466.69	7,407.48	7,363.57	168.724	ES
Gurtler 24-13J - Original Drilling - Original Drilling - As Dr	6,700.00	6,600.00	7,501.21	7,454.22	159.626	SF
Gurtler 24-15J - Original Drilling - Original Drilling - As Dr	5,135.92	5,126.49	5,434.94	5,399.01	151.280	CC
Gurtler 24-15J - Original Drilling - Original Drilling - As Dr	5,200.00	5,164.37	5,435.09	5,398.81	149.780	ES
Gurtler 24-15J - Original Drilling - Original Drilling - As Dr	6,700.00	6,600.00	5,600.90	5,554.42	120.509	SF
Gurtler 24-16J - Original Drilling - Original Drilling - As Dr	3,628.66	3,600.00	4,840.23	4,815.06	192.285	CC
Gurtler 24-16J - Original Drilling - Original Drilling - As Dr	3,700.00	3,643.90	4,840.40	4,814.82	189.220	ES
Gurtler 24-16J - Original Drilling - Original Drilling - As Dr	6,600.00	6,611.07	4,976.59	4,930.35	107.612	SF
Gurtler H24-14 - Original Drilling - Original Drilling - As D	5,857.66	5,899.30	6,354.72	6,313.51	154.205	CC, ES
Gurtler H24-14 - Original Drilling - Original Drilling - As D	6,850.00	6,899.50	6,557.43	6,509.54	136.906	SF
Gurtler H24-21 (PA) - Original Drilling - Original Drilling -	5,895.34	5,987.31	4,768.88	4,727.24	114.524	CC
Gurtler H24-21 (PA) - Original Drilling - Original Drilling -	5,900.00	5,992.67	4,768.88	4,727.21	114.427	ES
Gurtler H24-21 (PA) - Original Drilling - Original Drilling -	7,000.00	6,930.83	4,983.71	4,935.38	103.133	SF
Gurtler H24-23 - Original Drilling - Original Drilling - As D	5,292.38	5,276.12	4,520.26	4,483.26	122.190	CC
Gurtler H24-23 - Original Drilling - Original Drilling - As D	5,851.98	5,841.82	4,520.82	4,479.85	110.337	ES
Gurtler H24-23 - Original Drilling - Original Drilling - As D	6,650.00	6,611.12	4,653.53	4,607.15	100.327	SF
Gurtler H24-24 - Original Drilling - Original Drilling - As D	5,913.42	6,111.98	5,338.29	5,296.12	126.598	CC, ES
Gurtler H24-24 - Original Drilling - Original Drilling - As D	6,750.00	7,021.12	5,453.88	5,405.69	113.171	SF
Gurtler H24-99HZ - Wellbore #1 - Original Drilling	5,879.29	5,944.32	3,478.63	3,438.46	86.600	CC, ES
Gurtler H24-99HZ - Wellbore #1 - Original Drilling	6,400.00	6,151.00	3,538.52	3,495.88	82.990	SF
Gurtler H25-27 - Gurtler H25-27 Gyros - Gyros	720.15	638.15	4,863.62	4,859.22	1,104.188	CC
Gurtler H25-27 - Gurtler H25-27 Gyros - Gyros	800.00	700.00	4,863.87	4,858.96	991.283	ES
Gurtler H25-27 - Gurtler H25-27 Gyros - Gyros	6,750.00	6,624.68	5,751.02	5,703.88	122.001	SF
Gurtler Russell L1 (PA) - Original Drilling - Original Drillin	5,875.30	5,983.28	6,501.03	6,459.43	156.281	CC
Gurtler Russell L1 (PA) - Original Drilling - Original Drillin	5,900.00	6,005.59	6,501.18	6,459.42	155.661	ES
Gurtler Russell L1 (PA) - Original Drilling - Original Drillin	7,150.00	6,875.11	6,851.74	6,797.24	125.717	SF
HSR Brutschy 04-24 - Original Drilling - Original Drilling -	657.66	689.52	5,985.80	5,981.43	1,371.383	CC
HSR Brutschy 04-24 - Original Drilling - Original Drilling -	6,450.00	6,513.68	6,016.89	5,971.46	132.459	ES
HSR Brutschy 04-24 - Original Drilling - Original Drilling -	9,500.00	6,807.76	6,841.57	6,786.26	123.700	SF
HSR Epstein 05-24 - Original Drilling - Original Drilling - A	2,046.37	2,067.50	5,630.31	5,616.14	397.296	CC
HSR Epstein 05-24 - Original Drilling - Original Drilling - A	6,350.00	6,488.50	5,630.61	5,585.62	125.151	ES
HSR Epstein 05-24 - Original Drilling - Original Drilling - A	12,800.00	12,800.00	9,210.90	9,126.98	109.764	SF
HSR Hoffman 03-24 - Original Drilling - Original Drilling -	3,959.81	3,975.96	4,700.64	4,672.93	169.670	CC
HSR Hoffman 03-24 - Original Drilling - Original Drilling -	6,400.00	6,376.28	4,710.62	4,663.77	100.538	ES
HSR Hoffman 03-24 - Original Drilling - Original Drilling -	7,200.00	6,837.00	4,786.53	4,733.01	89.449	SF
HSR Sarchet 02-24 - Original Drilling - Original Drilling - A	6,342.35	6,365.85	3,370.68	3,326.14	75.684	CC
HSR Sarchet 02-24 - Original Drilling - Original Drilling - A	6,400.00	6,420.95	3,370.97	3,326.05	75.031	ES
HSR Sarchet 02-24 - Original Drilling - Original Drilling - A	7,050.00	6,857.32	3,437.25	3,389.07	71.334	SF
HSR Sarchet 06-24 - HSR Sarchet 06-24 OH - As Drilled	5,903.00	5,903.00	4,875.02	4,833.58	117.649	CC

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 1	**Offset TVD Reference:**	Offset Datum

Summary

Site Name Offset Well - Wellbore - Design	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
H Section 24						
HSR Sarchet 06-24 - HSR Sarchet 06-24 OH - As Drilled	5,974.77	6,037.14	4,875.59	4,833.42	115.615	ES
HSR Sarchet 06-24 - HSR Sarchet 06-24 OH - As Drilled	8,500.00	8,500.00	5,832.19	5,775.50	102.878	SF
HSR Traurig 01-24 - Original Drilling - Original Drilling - A	406.61	406.83	2,468.94	2,466.47	998.869	CC
HSR Traurig 01-24 - Original Drilling - Original Drilling - A	6,450.00	6,445.61	2,469.88	2,424.69	54.656	ES
HSR Traurig 01-24 - Original Drilling - Original Drilling - A	6,950.00	6,814.71	2,506.24	2,458.39	52.380	SF
Nopens D19-31 - Original Drilling - Original Drilling - As D	5,949.26	6,012.25	2,007.61	1,965.70	47.893	CC
Nopens D19-31 - Original Drilling - Original Drilling - As D	5,974.77	6,035.57	2,007.75	1,965.66	47.699	ES
Nopens D19-31 - Original Drilling - Original Drilling - As D	6,600.00	6,608.61	2,051.27	2,005.02	44.351	SF
Nopens H24-08 - Original Drilling - Original Drilling - As D	5,933.18	6,026.89	2,739.49	2,697.57	65.350	CC, ES
Nopens H24-08 - Original Drilling - Original Drilling - As D	6,650.00	6,682.83	2,810.31	2,763.64	60.222	SF
Sarchet H24-22 - Original Drilling - Original Drilling - As D	5,887.51	5,934.84	3,611.72	3,570.28	87.154	CC
Sarchet H24-22 - Original Drilling - Original Drilling - As D	5,900.00	5,948.31	3,611.75	3,570.22	86.963	ES
Sarchet H24-22 - Original Drilling - Original Drilling - As D	6,850.00	6,889.62	3,762.08	3,714.19	78.557	SF
Weld County Lumber 01 - Original Drilling - Original Drilli	5,902.56	5,936.14	3,450.56	3,409.04	83.099	CC, ES
Weld County Lumber 01 - Original Drilling - Original Drilli	6,800.00	6,712.08	3,537.10	3,489.93	74.987	SF

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 1	**Offset TVD Reference:**	Offset Datum

Summary

Site Name Offset Well - Wellbore - Design	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
H Section 25						
Dechant 21-25 - Original Drilling - Original Drilling - As D	5,865.87	6,100.00	7,455.47	7,409.97	163.854	CC, ES
Dechant 21-25 - Original Drilling - Original Drilling - As D	6,800.00	6,774.51	7,689.15	7,638.50	151.804	SF
Dechant D30-33D - Original Drilling - Original Drilling - As	5,851.35	5,959.87	8,979.23	8,933.14	194.832	CC, ES
Dechant D30-33D - Original Drilling - Original Drilling - As	6,850.00	6,905.07	9,297.10	9,244.87	178.020	SF
Dechant D31-30D - Original Drilling - Original Drilling - As	1,210.57	1,206.16	9,404.63	9,396.36	1,136.893	CC
Dechant D31-30D - Original Drilling - Original Drilling - As	1,300.00	1,253.00	9,404.92	9,396.15	1,072.747	ES
Dechant D31-30D - Original Drilling - Original Drilling - As	6,100.00	4,279.01	9,982.24	9,942.27	249.761	SF
Dechant H25-64-1HN - Original Drilling - Original Drilling	5,971.64	11,317.01	8,810.89	8,682.26	68.497	CC
Dechant H25-64-1HN - Original Drilling - Original Drilling	6,000.00	11,317.01	8,811.02	8,682.24	68.421	ES
Dechant H25-64-1HN - Original Drilling - Original Drilling	6,450.00	11,317.01	8,839.99	8,709.06	67.519	SF
Dechant H25-65HN - Original Drilling - Original Drilling	6,050.92	11,344.01	7,919.21	7,792.54	62.521	CC
Dechant H25-65HN - Original Drilling - Original Drilling	6,100.00	11,344.01	7,919.36	7,792.44	62.395	ES
Dechant H25-65HN - Original Drilling - Original Drilling	6,450.00	11,344.01	7,943.91	7,815.28	61.756	SF
HSR Cohn 03-25 - Original Drilling - Original Drilling - As	100.00	100.00	7,424.21	7,423.91	10,000.000	CC
HSR Cohn 03-25 - Original Drilling - Original Drilling - As	5,863.75	5,940.79	7,461.82	7,420.44	180.339	ES
HSR Cohn 03-25 - Original Drilling - Original Drilling - As	7,000.00	7,034.95	7,779.92	7,731.32	160.075	SF
HSR Crowe 06-25 - Original Drilling - Original Drilling - A	0.00	0.00	8,417.26			
HSR Crowe 06-25 - Original Drilling - Original Drilling - A	2,400.00	2,350.13	8,426.29	8,409.88	513.457	ES
HSR Crowe 06-25 - Original Drilling - Original Drilling - A	6,800.00	6,700.00	8,675.65	8,628.56	184.253	SF
HSR Dechant 04-25 - Original Drilling - Original Drilling -	5,877.74	6,500.00	8,157.13	8,095.22	131.759	CC, ES
HSR Dechant 04-25 - Original Drilling - Original Drilling -	6,700.00	7,292.10	8,283.82	8,218.00	125.859	SF
HSR Dechant 05-25 - Original Drilling - Original Drilling -	5,864.35	5,978.63	9,154.41	9,112.92	220.654	CC, ES
HSR Dechant 05-25 - Original Drilling - Original Drilling -	6,900.00	6,900.00	9,424.84	9,376.89	196.527	SF
KY Blue D30-32 - Original Drilling - Original Drilling - As D	5,885.81	6,121.40	7,802.01	7,759.94	185.435	CC, ES
KY Blue D30-32 - Original Drilling - Original Drilling - As D	6,750.00	6,737.18	8,019.05	7,971.95	170.265	SF
KY Blue H25-04J - Original Drilling - Original Drilling - As	6,312.24	7,400.00	9,552.99	9,530.72	428.994	CC, ES
KY Blue H25-04J - Original Drilling - Original Drilling - As	6,850.00	7,400.00	9,770.58	9,746.66	408.556	SF
KY Blue H25-09 - Original Drilling - Original Drilling - As D	5,317.60	5,300.00	8,431.19	8,393.99	226.654	CC
KY Blue H25-09 - Original Drilling - Original Drilling - As D	5,900.00	6,173.04	8,431.38	8,389.02	199.055	ES
KY Blue H25-09 - Original Drilling - Original Drilling - As D	6,750.00	6,732.82	8,645.29	8,598.15	183.392	SF
KY Blue H25-10 - Original Drilling - Original Drilling - As D	5,876.14	6,079.30	8,771.30	8,729.34	209.021	CC, ES
KY Blue H25-10 - Original Drilling - Original Drilling - As D	6,850.00	6,741.61	9,047.09	8,999.71	190.942	SF
KY Blue H25-11 - Original Drilling - Original Drilling - As D	2,634.53	2,634.97	9,477.17	9,458.90	518.847	CC
KY Blue H25-11 - Original Drilling - Original Drilling - As D	5,900.00	5,960.12	9,480.39	9,421.03	159.708	ES
KY Blue H25-11 - Original Drilling - Original Drilling - As D	7,050.00	6,908.90	9,896.89	9,819.33	127.602	SF
KY Blue H25-12 - Original Drilling - Original Drilling - As D						Out of range
KY Blue H25-14 - Original Drilling - Original Drilling - As D						Out of range
KY Blue H25-15 - Original Drilling - Original Drilling - As D						Out of range
KY H25-24 - Original Drilling - Original Drilling - As Drilled	5,808.03	5,800.01	9,698.35	9,657.65	238.290	CC
KY H25-24 - Original Drilling - Original Drilling - As Drilled	5,850.00	5,831.12	9,698.37	9,657.41	236.787	ES
KY H25-24 - Original Drilling - Original Drilling - As Drilled	6,850.00	6,642.72	9,990.57	9,943.61	212.716	SF
Moore UPRC H25-01 - Original Drilling - Original Drilling	5,600.00	5,576.03	5,798.12	5,758.97	148.123	CC
Moore UPRC H25-01 - Original Drilling - Original Drilling	5,700.00	5,633.70	5,798.41	5,758.71	146.042	ES
Moore UPRC H25-01 - Original Drilling - Original Drilling	6,750.00	6,655.78	6,033.56	5,986.77	128.928	SF
Moore UPRC H25-02 - Original Drilling - Original Drilling	5,859.30	5,900.00	6,553.57	6,512.36	159.010	CC, ES
Moore UPRC H25-02 - Original Drilling - Original Drilling	6,950.00	6,930.69	6,887.77	6,839.61	143.031	SF
Moser 25-32 - Original Drilling - Original Drilling - As Drill	5,876.10	6,018.59	7,938.38	7,896.68	190.361	CC, ES
Moser 25-32 - Original Drilling - Original Drilling - As Drill	6,750.00	6,645.40	8,143.27	8,096.49	174.077	SF
Moser 25-42 - Original Drilling - Original Drilling - As Drill	5,857.40	5,880.84	7,061.20	7,020.00	171.389	CC, ES
Moser 25-42 - Original Drilling - Original Drilling - As Drill	6,700.00	6,628.65	7,253.51	7,206.87	155.520	SF
UPRR 53 Pan Am T#2 - Original Drilling - Original Drilling	644.71	668.72	8,134.83	8,130.60	1,918.914	CC
UPRR 53 Pan Am T#2 - Original Drilling - Original Drilling	5,863.72	5,963.93	8,151.63	8,110.19	196.711	ES
UPRR 53 Pan Am T#2 - Original Drilling - Original Drilling	6,850.00	7,100.00	8,358.01	8,309.45	172.129	SF

CC - Min centre to center distance or covergent 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 1	**Offset TVD Reference:**	Offset Datum

Summary

Site Name Offset Well - Wellbore - Design	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
H Section 25						
UPRR 53 Pan Am UT T#1 - Original Drilling - Original Dr	5,872.17	5,972.94	6,901.08	6,859.48	165.883	CC, ES
UPRR 53 Pan Am UT T#1 - Original Drilling - Original Dr	6,700.00	6,582.63	7,084.60	7,038.09	152.313	SF
Von Feldt 1-25B - Original Drilling - Original Drilling - As D						Out of range

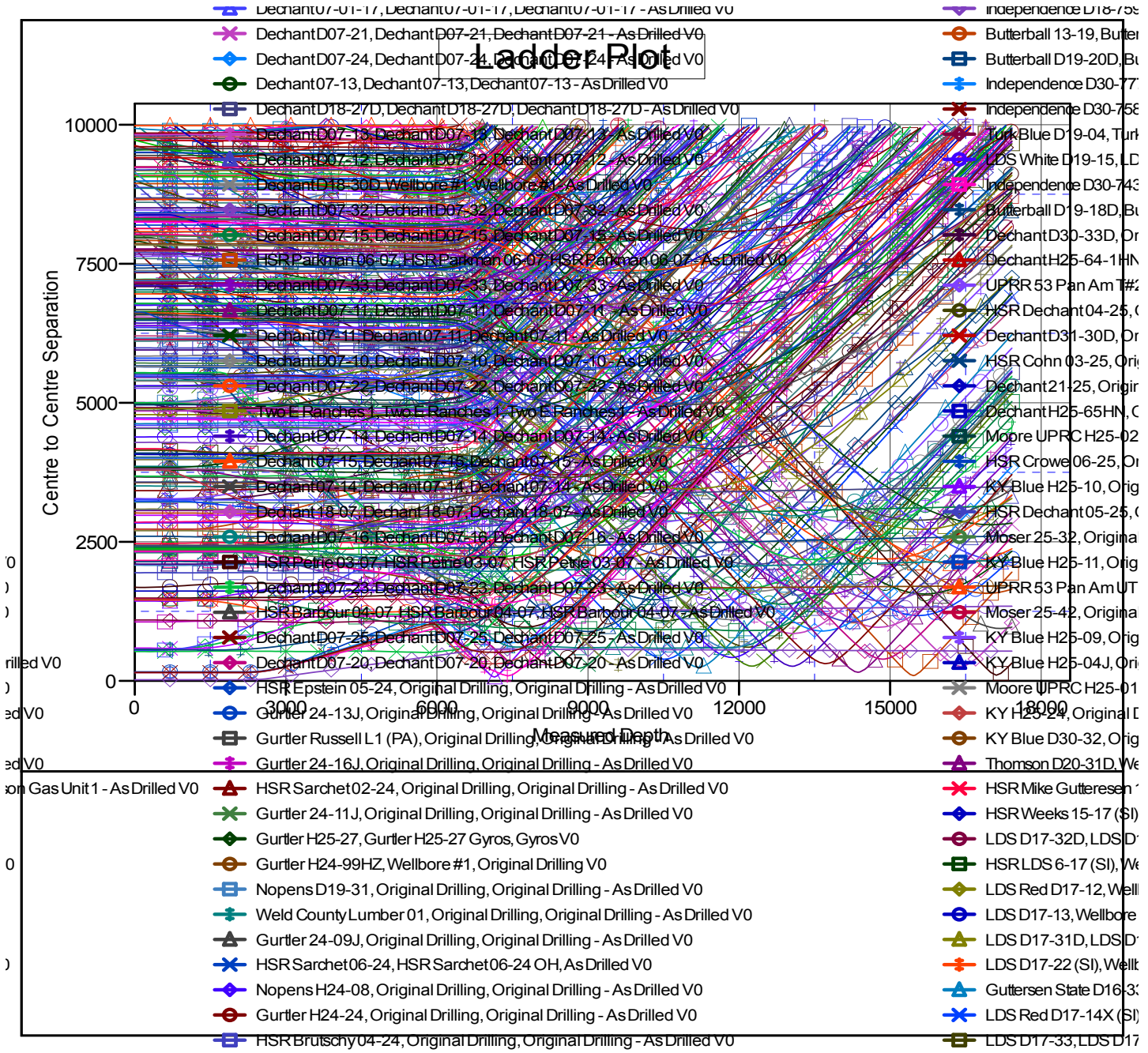
Noble Energy, Inc.

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 1	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to Well @ 4817.00ft
Offset Depths are relative to Offset Datum
Central Meridian is -105.5000000

Coordinates are relative to: Independence D18-767
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.58°



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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 1	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to Well @ 4817.00ft
Offset Depths are relative to Offset Datum
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Coordinate System is US State Plane 1983, Colorado Northern Zone
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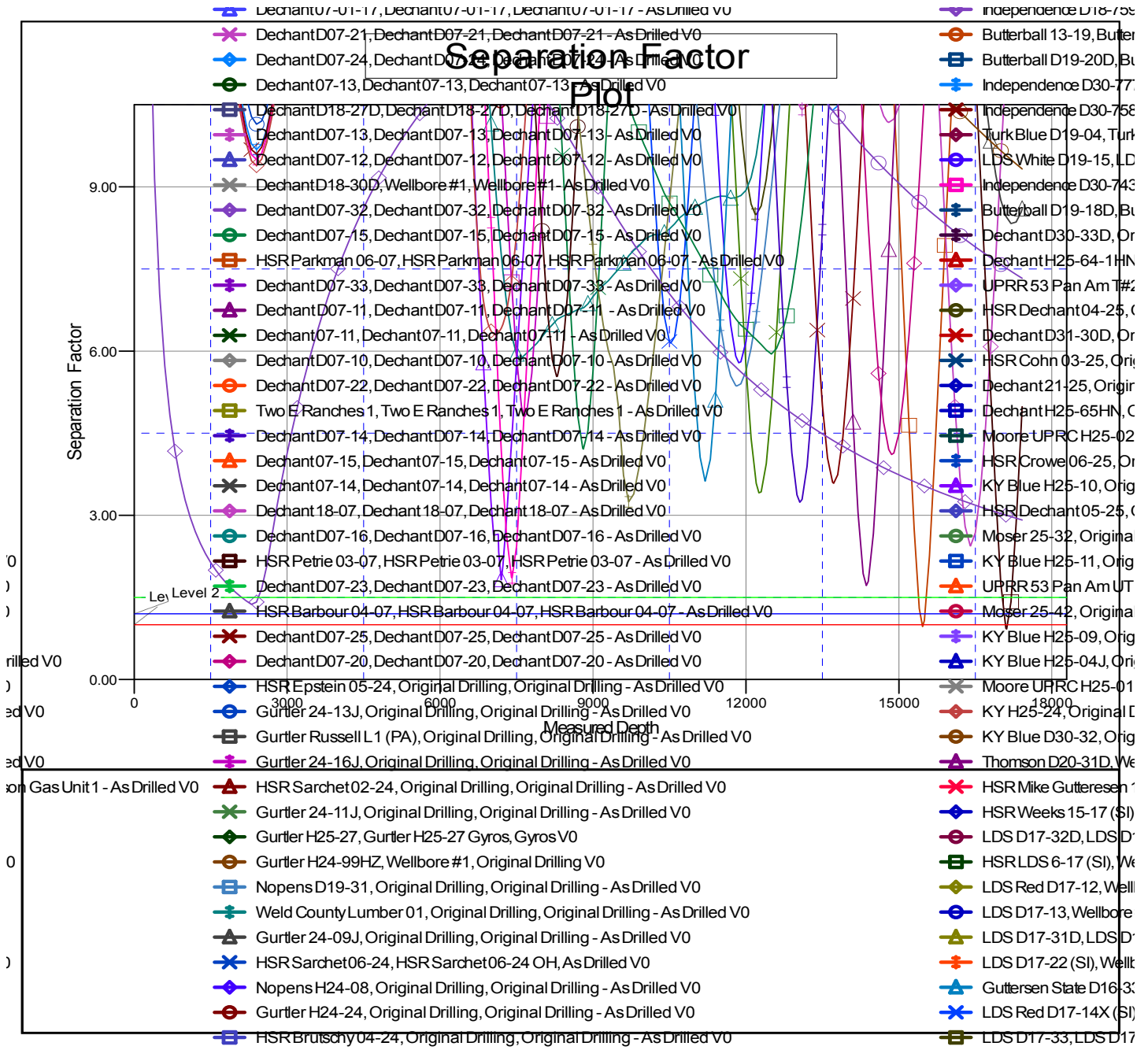

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation