

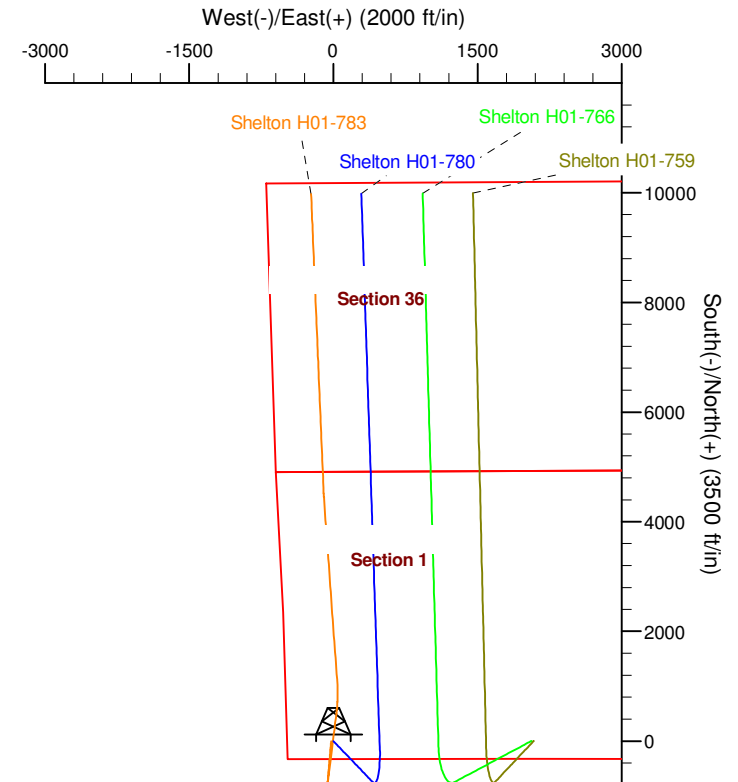
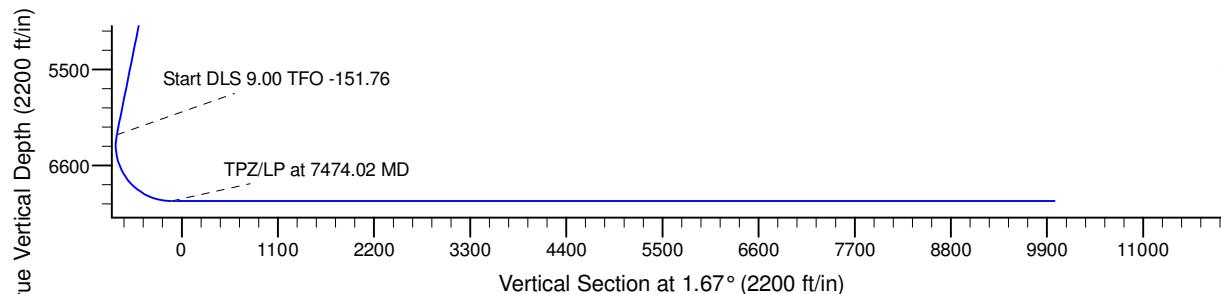
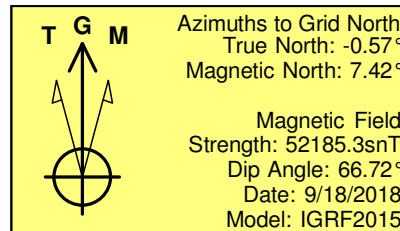
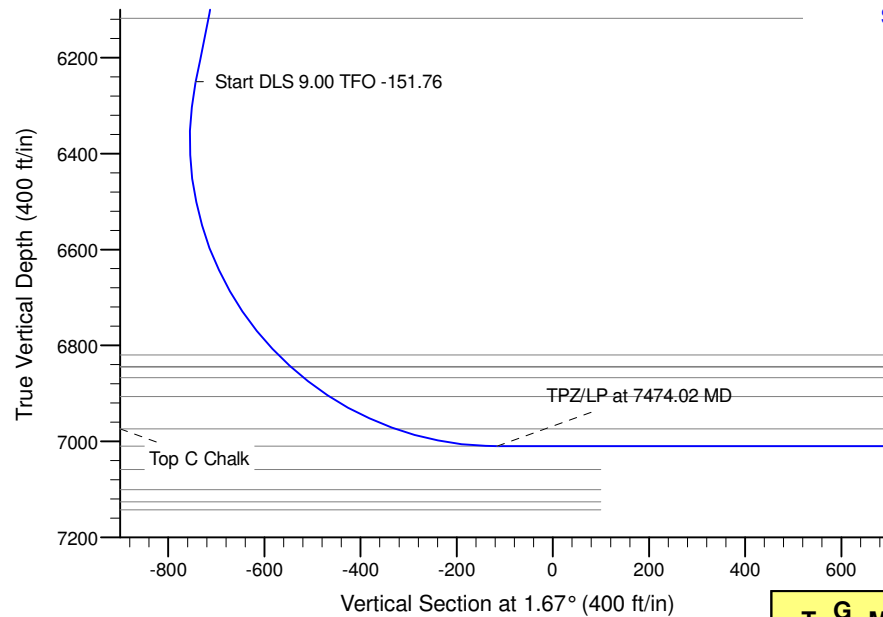
Project: Mustang
Site: H Section 01
Well: Shelton H01-780
Wellbore: Wellbore #1
Design: Plan #1

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	2200.00	0.00	0.00	2200.00	0.00	0.00	0.00	0.00	0.00	
3	2850.96	13.02	151.29	2845.37	-64.59	35.37	2.00	151.29	-63.53	
4	6346.09	13.02	151.29	6250.66	-755.18	413.57	0.00	0.00	-742.77	
5	7474.02	90.00	358.92	7010.00	-129.94	483.16	9.00	-151.76	-115.77	TPZ Shelton State H1-780
6	17587.35	90.00	358.92	7010.00	9981.57	291.78	0.00	0.00	9985.84	BHL Shelton State H1-780



WELL DETAILS: Shelton H01-780

	Northing	Easting	Latitude	Longitude
0.00	0.00	1334421.13	4835.00 40.2480309	-104.6189490

Plan: Plan #1 (Shelton H01-780/Wellbore #1)

Created By: Colby Baxter Date: 8:07, October 03 2018

Checked: _____ Date: _____

Reviewed: _____ Date: _____

Approved: _____ Date: _____

Northern Region - DJ Basin

Mustang

H Section 01

Shelton H01-780

Wellbore #1

Plan: Plan #1

Standard Survey Report

02 October, 2018

Noble Energy, Inc.

Survey Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Shelton H01-780
Project:	Mustang	TVD Reference:	KB @ 4865.00ft
Site:	H Section 01	MD Reference:	KB @ 4865.00ft
Well:	Shelton H01-780	North Reference:	Grid
Wellbore:	Wellbore #1	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	H Section 01				
Site Position:		Northing:	1,334,244.42 usft	Latitude:	40.2479754
From:	Map	Easting:	3,229,641.33 usft	Longitude:	-104.6772988
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence:	0.53 °

Well	Shelton H01-780					
Well Position	+N/-S	0.00 ft	Northing:	1,334,421.13 usft	Latitude:	40.2480309
	+E/-W	0.00 ft	Easting:	3,245,927.84 usft	Longitude:	-104.6189490
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	4,835.00 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	9/18/2018	7.99	66.72	52,185.32050325

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	1.67	

Survey Tool Program	Date	10/2/2018			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0.00	17,587.22	Plan #1 (Wellbore #1)	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

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Shelton H01-780
Project:	Mustang	TVD Reference:	KB @ 4865.00ft
Site:	H Section 01	MD Reference:	KB @ 4865.00ft
Well:	Shelton H01-780	North Reference:	Grid
Wellbore:	Wellbore #1	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	2.00	151.29	2,299.98	-1.53	0.84	-1.51	2.00	2.00	0.00	
2,400.00	4.00	151.29	2,399.84	-6.12	3.35	-6.02	2.00	2.00	0.00	
2,500.00	6.00	151.29	2,499.45	-13.76	7.54	-13.54	2.00	2.00	0.00	
2,600.00	8.00	151.29	2,598.70	-24.45	13.39	-24.05	2.00	2.00	0.00	
2,700.00	10.00	151.29	2,697.47	-38.17	20.91	-37.55	2.00	2.00	0.00	
2,800.00	12.00	151.29	2,795.62	-54.91	30.07	-54.01	2.00	2.00	0.00	
2,850.96	13.02	151.29	2,845.37	-64.59	35.37	-63.53	2.00	2.00	0.00	
2,900.00	13.02	151.29	2,893.15	-74.28	40.68	-73.06	0.00	0.00	0.00	
3,000.00	13.02	151.29	2,990.58	-94.04	51.50	-92.49	0.00	0.00	0.00	
3,100.00	13.02	151.29	3,088.01	-113.80	62.32	-111.93	0.00	0.00	0.00	
3,200.00	13.02	151.29	3,185.44	-133.55	73.14	-131.36	0.00	0.00	0.00	
3,300.00	13.02	151.29	3,282.87	-153.31	83.96	-150.79	0.00	0.00	0.00	
3,400.00	13.02	151.29	3,380.30	-173.07	94.78	-170.23	0.00	0.00	0.00	
3,500.00	13.02	151.29	3,477.73	-192.83	105.60	-189.66	0.00	0.00	0.00	
3,600.00	13.02	151.29	3,575.16	-212.59	116.42	-209.10	0.00	0.00	0.00	
3,700.00	13.02	151.29	3,672.59	-232.35	127.25	-228.53	0.00	0.00	0.00	
3,800.00	13.02	151.29	3,770.02	-252.11	138.07	-247.97	0.00	0.00	0.00	
3,900.00	13.02	151.29	3,867.45	-271.87	148.89	-267.40	0.00	0.00	0.00	
4,000.00	13.02	151.29	3,964.88	-291.62	159.71	-286.83	0.00	0.00	0.00	
4,100.00	13.02	151.29	4,062.31	-311.38	170.53	-306.27	0.00	0.00	0.00	
4,200.00	13.02	151.29	4,159.74	-331.14	181.35	-325.70	0.00	0.00	0.00	
4,300.00	13.02	151.29	4,257.16	-350.90	192.17	-345.14	0.00	0.00	0.00	
4,400.00	13.02	151.29	4,354.59	-370.66	202.99	-364.57	0.00	0.00	0.00	
4,500.00	13.02	151.29	4,452.02	-390.42	213.81	-384.00	0.00	0.00	0.00	
4,600.00	13.02	151.29	4,549.45	-410.18	224.63	-403.44	0.00	0.00	0.00	
4,700.00	13.02	151.29	4,646.88	-429.94	235.45	-422.87	0.00	0.00	0.00	
4,800.00	13.02	151.29	4,744.31	-449.69	246.27	-442.31	0.00	0.00	0.00	
4,900.00	13.02	151.29	4,841.74	-469.45	257.10	-461.74	0.00	0.00	0.00	
5,000.00	13.02	151.29	4,939.17	-489.21	267.92	-481.17	0.00	0.00	0.00	
5,100.00	13.02	151.29	5,036.60	-508.97	278.74	-500.61	0.00	0.00	0.00	
5,200.00	13.02	151.29	5,134.03	-528.73	289.56	-520.04	0.00	0.00	0.00	

Noble Energy, Inc.

Survey Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Shelton H01-780
Project:	Mustang	TVD Reference:	KB @ 4865.00ft
Site:	H Section 01	MD Reference:	KB @ 4865.00ft
Well:	Shelton H01-780	North Reference:	Grid
Wellbore:	Wellbore #1	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)
5,300.00	13.02	151.29	5,231.46	-548.49	300.38	-539.48	0.00	0.00	0.00
5,400.00	13.02	151.29	5,328.89	-568.25	311.20	-558.91	0.00	0.00	0.00
5,500.00	13.02	151.29	5,426.32	-588.00	322.02	-578.34	0.00	0.00	0.00
5,600.00	13.02	151.29	5,523.75	-607.76	332.84	-597.78	0.00	0.00	0.00
5,700.00	13.02	151.29	5,621.18	-627.52	343.66	-617.21	0.00	0.00	0.00
5,800.00	13.02	151.29	5,718.61	-647.28	354.48	-636.65	0.00	0.00	0.00
5,900.00	13.02	151.29	5,816.04	-667.04	365.30	-656.08	0.00	0.00	0.00
6,000.00	13.02	151.29	5,913.47	-686.80	376.12	-675.51	0.00	0.00	0.00
6,100.00	13.02	151.29	6,010.90	-706.56	386.95	-694.95	0.00	0.00	0.00
6,200.00	13.02	151.29	6,108.33	-726.32	397.77	-714.38	0.00	0.00	0.00
6,300.00	13.02	151.29	6,205.75	-746.07	408.59	-733.82	0.00	0.00	0.00
6,346.09	13.02	151.29	6,250.66	-755.18	413.57	-742.77	0.00	0.00	0.00
6,400.00	9.04	136.53	6,303.57	-763.58	419.41	-751.00	9.00	-7.39	-27.38
6,500.00	6.55	67.96	6,402.83	-767.15	430.12	-754.26	9.00	-2.49	-68.57
6,600.00	12.86	26.91	6,501.45	-755.06	440.46	-741.87	9.00	6.32	-41.05
6,700.00	21.20	14.96	6,597.01	-727.61	450.19	-714.14	9.00	8.34	-11.95
6,800.00	29.91	9.65	6,687.15	-685.47	459.06	-671.76	9.00	8.71	-5.31
6,900.00	38.75	6.59	6,769.65	-629.68	466.85	-615.77	9.00	8.84	-3.06
7,000.00	47.64	4.53	6,842.49	-561.62	473.37	-547.55	9.00	8.89	-2.07
7,100.00	56.56	2.98	6,903.86	-482.97	478.46	-468.78	9.00	8.92	-1.55
7,200.00	65.49	1.72	6,952.26	-395.65	482.00	-381.40	9.00	8.93	-1.26
7,300.00	74.43	0.63	6,986.50	-301.82	483.89	-287.55	9.00	8.94	-1.09
7,400.00	83.38	359.63	7,005.73	-203.79	484.10	-189.56	9.00	8.95	-1.00
7,474.02	90.00	358.92	7,010.00	-129.94	483.16	-115.77	9.00	8.95	-0.96
7,500.00	90.00	358.92	7,010.00	-103.97	482.67	-89.82	0.00	0.00	0.00
7,600.00	90.00	358.92	7,010.00	-3.99	480.78	10.06	0.00	0.00	0.00
7,700.00	90.00	358.92	7,010.00	96.00	478.88	109.95	0.00	0.00	0.00
7,800.00	90.00	358.92	7,010.00	195.98	476.99	209.83	0.00	0.00	0.00
7,900.00	90.00	358.92	7,010.00	295.96	475.10	309.72	0.00	0.00	0.00
8,000.00	90.00	358.92	7,010.00	395.94	473.21	409.60	0.00	0.00	0.00
8,100.00	90.00	358.92	7,010.00	495.92	471.32	509.48	0.00	0.00	0.00
8,200.00	90.00	358.92	7,010.00	595.91	469.42	609.37	0.00	0.00	0.00
8,300.00	90.00	358.92	7,010.00	695.89	467.53	709.25	0.00	0.00	0.00
8,400.00	90.00	358.92	7,010.00	795.87	465.64	809.14	0.00	0.00	0.00
8,500.00	90.00	358.92	7,010.00	895.85	463.75	909.02	0.00	0.00	0.00
8,600.00	90.00	358.92	7,010.00	995.83	461.85	1,008.90	0.00	0.00	0.00
8,700.00	90.00	358.92	7,010.00	1,095.82	459.96	1,108.79	0.00	0.00	0.00
8,800.00	90.00	358.92	7,010.00	1,195.80	458.07	1,208.67	0.00	0.00	0.00
8,900.00	90.00	358.92	7,010.00	1,295.78	456.18	1,308.56	0.00	0.00	0.00
9,000.00	90.00	358.92	7,010.00	1,395.76	454.28	1,408.44	0.00	0.00	0.00
9,100.00	90.00	358.92	7,010.00	1,495.74	452.39	1,508.32	0.00	0.00	0.00
9,200.00	90.00	358.92	7,010.00	1,595.73	450.50	1,608.21	0.00	0.00	0.00
9,300.00	90.00	358.92	7,010.00	1,695.71	448.61	1,708.09	0.00	0.00	0.00

Noble Energy, Inc.

Survey Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Shelton H01-780
Project:	Mustang	TVD Reference:	KB @ 4865.00ft
Site:	H Section 01	MD Reference:	KB @ 4865.00ft
Well:	Shelton H01-780	North Reference:	Grid
Wellbore:	Wellbore #1	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)
9,400.00	90.00	358.92	7,010.00	1,795.69	446.71	1,807.98	0.00	0.00	0.00
9,500.00	90.00	358.92	7,010.00	1,895.67	444.82	1,907.86	0.00	0.00	0.00
9,600.00	90.00	358.92	7,010.00	1,995.65	442.93	2,007.75	0.00	0.00	0.00
9,700.00	90.00	358.92	7,010.00	2,095.64	441.04	2,107.63	0.00	0.00	0.00
9,800.00	90.00	358.92	7,010.00	2,195.62	439.14	2,207.51	0.00	0.00	0.00
9,900.00	90.00	358.92	7,010.00	2,295.60	437.25	2,307.40	0.00	0.00	0.00
10,000.00	90.00	358.92	7,010.00	2,395.58	435.36	2,407.28	0.00	0.00	0.00
10,100.00	90.00	358.92	7,010.00	2,495.57	433.47	2,507.17	0.00	0.00	0.00
10,200.00	90.00	358.92	7,010.00	2,595.55	431.58	2,607.05	0.00	0.00	0.00
10,300.00	90.00	358.92	7,010.00	2,695.53	429.68	2,706.93	0.00	0.00	0.00
10,400.00	90.00	358.92	7,010.00	2,795.51	427.79	2,806.82	0.00	0.00	0.00
10,500.00	90.00	358.92	7,010.00	2,895.49	425.90	2,906.70	0.00	0.00	0.00
10,600.00	90.00	358.92	7,010.00	2,995.48	424.01	3,006.59	0.00	0.00	0.00
10,700.00	90.00	358.92	7,010.00	3,095.46	422.11	3,106.47	0.00	0.00	0.00
10,800.00	90.00	358.92	7,010.00	3,195.44	420.22	3,206.35	0.00	0.00	0.00
10,900.00	90.00	358.92	7,010.00	3,295.42	418.33	3,306.24	0.00	0.00	0.00
11,000.00	90.00	358.92	7,010.00	3,395.40	416.44	3,406.12	0.00	0.00	0.00
11,100.00	90.00	358.92	7,010.00	3,495.39	414.54	3,506.01	0.00	0.00	0.00
11,200.00	90.00	358.92	7,010.00	3,595.37	412.65	3,605.89	0.00	0.00	0.00
11,300.00	90.00	358.92	7,010.00	3,695.35	410.76	3,705.77	0.00	0.00	0.00
11,400.00	90.00	358.92	7,010.00	3,795.33	408.87	3,805.66	0.00	0.00	0.00
11,500.00	90.00	358.92	7,010.00	3,895.31	406.97	3,905.54	0.00	0.00	0.00
11,600.00	90.00	358.92	7,010.00	3,995.30	405.08	4,005.43	0.00	0.00	0.00
11,700.00	90.00	358.92	7,010.00	4,095.28	403.19	4,105.31	0.00	0.00	0.00
11,800.00	90.00	358.92	7,010.00	4,195.26	401.30	4,205.20	0.00	0.00	0.00
11,900.00	90.00	358.92	7,010.00	4,295.24	399.41	4,305.08	0.00	0.00	0.00
12,000.00	90.00	358.92	7,010.00	4,395.23	397.51	4,404.96	0.00	0.00	0.00
12,100.00	90.00	358.92	7,010.00	4,495.21	395.62	4,504.85	0.00	0.00	0.00
12,200.00	90.00	358.92	7,010.00	4,595.19	393.73	4,604.73	0.00	0.00	0.00
12,300.00	90.00	358.92	7,010.00	4,695.17	391.84	4,704.62	0.00	0.00	0.00
12,400.00	90.00	358.92	7,010.00	4,795.15	389.94	4,804.50	0.00	0.00	0.00
12,500.00	90.00	358.92	7,010.00	4,895.14	388.05	4,904.38	0.00	0.00	0.00
12,600.00	90.00	358.92	7,010.00	4,995.12	386.16	5,004.27	0.00	0.00	0.00
12,700.00	90.00	358.92	7,010.00	5,095.10	384.27	5,104.15	0.00	0.00	0.00
12,800.00	90.00	358.92	7,010.00	5,195.08	382.37	5,204.04	0.00	0.00	0.00
12,900.00	90.00	358.92	7,010.00	5,295.06	380.48	5,303.92	0.00	0.00	0.00
13,000.00	90.00	358.92	7,010.00	5,395.05	378.59	5,403.80	0.00	0.00	0.00
13,100.00	90.00	358.92	7,010.00	5,495.03	376.70	5,503.69	0.00	0.00	0.00
13,200.00	90.00	358.92	7,010.00	5,595.01	374.80	5,603.57	0.00	0.00	0.00
13,300.00	90.00	358.92	7,010.00	5,694.99	372.91	5,703.46	0.00	0.00	0.00
13,400.00	90.00	358.92	7,010.00	5,794.97	371.02	5,803.34	0.00	0.00	0.00
13,500.00	90.00	358.92	7,010.00	5,894.96	369.13	5,903.23	0.00	0.00	0.00
13,600.00	90.00	358.92	7,010.00	5,994.94	367.24	6,003.11	0.00	0.00	0.00

Noble Energy, Inc.

Survey Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Shelton H01-780
Project:	Mustang	TVD Reference:	KB @ 4865.00ft
Site:	H Section 01	MD Reference:	KB @ 4865.00ft
Well:	Shelton H01-780	North Reference:	Grid
Wellbore:	Wellbore #1	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)
13,700.00	90.00	358.92	7,010.00	6,094.92	365.34	6,102.99	0.00	0.00	0.00
13,800.00	90.00	358.92	7,010.00	6,194.90	363.45	6,202.88	0.00	0.00	0.00
13,900.00	90.00	358.92	7,010.00	6,294.89	361.56	6,302.76	0.00	0.00	0.00
14,000.00	90.00	358.92	7,010.00	6,394.87	359.67	6,402.65	0.00	0.00	0.00
14,100.00	90.00	358.92	7,010.00	6,494.85	357.77	6,502.53	0.00	0.00	0.00
14,200.00	90.00	358.92	7,010.00	6,594.83	355.88	6,602.41	0.00	0.00	0.00
14,300.00	90.00	358.92	7,010.00	6,694.81	353.99	6,702.30	0.00	0.00	0.00
14,400.00	90.00	358.92	7,010.00	6,794.80	352.10	6,802.18	0.00	0.00	0.00
14,500.00	90.00	358.92	7,010.00	6,894.78	350.20	6,902.07	0.00	0.00	0.00
14,600.00	90.00	358.92	7,010.00	6,994.76	348.31	7,001.95	0.00	0.00	0.00
14,700.00	90.00	358.92	7,010.00	7,094.74	346.42	7,101.83	0.00	0.00	0.00
14,800.00	90.00	358.92	7,010.00	7,194.72	344.53	7,201.72	0.00	0.00	0.00
14,900.00	90.00	358.92	7,010.00	7,294.71	342.63	7,301.60	0.00	0.00	0.00
15,000.00	90.00	358.92	7,010.00	7,394.69	340.74	7,401.49	0.00	0.00	0.00
15,100.00	90.00	358.92	7,010.00	7,494.67	338.85	7,501.37	0.00	0.00	0.00
15,200.00	90.00	358.92	7,010.00	7,594.65	336.96	7,601.26	0.00	0.00	0.00
15,300.00	90.00	358.92	7,010.00	7,694.63	335.07	7,701.14	0.00	0.00	0.00
15,400.00	90.00	358.92	7,010.00	7,794.62	333.17	7,801.02	0.00	0.00	0.00
15,500.00	90.00	358.92	7,010.00	7,894.60	331.28	7,900.91	0.00	0.00	0.00
15,600.00	90.00	358.92	7,010.00	7,994.58	329.39	8,000.79	0.00	0.00	0.00
15,700.00	90.00	358.92	7,010.00	8,094.56	327.50	8,100.68	0.00	0.00	0.00
15,800.00	90.00	358.92	7,010.00	8,194.54	325.60	8,200.56	0.00	0.00	0.00
15,900.00	90.00	358.92	7,010.00	8,294.53	323.71	8,300.44	0.00	0.00	0.00
16,000.00	90.00	358.92	7,010.00	8,394.51	321.82	8,400.33	0.00	0.00	0.00
16,100.00	90.00	358.92	7,010.00	8,494.49	319.93	8,500.21	0.00	0.00	0.00
16,200.00	90.00	358.92	7,010.00	8,594.47	318.03	8,600.10	0.00	0.00	0.00
16,300.00	90.00	358.92	7,010.00	8,694.46	316.14	8,699.98	0.00	0.00	0.00
16,400.00	90.00	358.92	7,010.00	8,794.44	314.25	8,799.86	0.00	0.00	0.00
16,500.00	90.00	358.92	7,010.00	8,894.42	312.36	8,899.75	0.00	0.00	0.00
16,600.00	90.00	358.92	7,010.00	8,994.40	310.46	8,999.63	0.00	0.00	0.00
16,700.00	90.00	358.92	7,010.00	9,094.38	308.57	9,099.52	0.00	0.00	0.00
16,800.00	90.00	358.92	7,010.00	9,194.37	306.68	9,199.40	0.00	0.00	0.00
16,900.00	90.00	358.92	7,010.00	9,294.35	304.79	9,299.29	0.00	0.00	0.00
17,000.00	90.00	358.92	7,010.00	9,394.33	302.90	9,399.17	0.00	0.00	0.00
17,100.00	90.00	358.92	7,010.00	9,494.31	301.00	9,499.05	0.00	0.00	0.00
17,200.00	90.00	358.92	7,010.00	9,594.29	299.11	9,598.94	0.00	0.00	0.00
17,300.00	90.00	358.92	7,010.00	9,694.28	297.22	9,698.82	0.00	0.00	0.00
17,400.00	90.00	358.92	7,010.00	9,794.26	295.33	9,798.71	0.00	0.00	0.00
17,500.00	90.00	358.92	7,010.00	9,894.24	293.43	9,898.59	0.00	0.00	0.00
17,587.35	90.00	358.92	7,010.00	9,981.57	291.78	9,985.84	0.00	0.00	0.00

Noble Energy, Inc.

Survey Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Shelton H01-780
Project:	Mustang	TVD Reference:	KB @ 4865.00ft
Site:	H Section 01	MD Reference:	KB @ 4865.00ft
Well:	Shelton H01-780	North Reference:	Grid
Wellbore:	Wellbore #1	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
SHL Shelton State H1-7i - plan hits target center - Point	0.00	0.00	0.00	0.00	0.00	1,334,421.13	3,245,927.84	40.2480309	-104.6189490
KOP Shelton State H1-7 - plan hits target center - Point	0.00	0.00	6,250.66	-755.18	413.57	1,333,665.95	3,246,341.41	40.2459467	-104.6174943
TPZ Shelton State H1-7i - plan hits target center - Point	0.00	0.00	7,010.00	-129.94	483.16	1,334,291.19	3,246,411.00	40.2476610	-104.6172228
BHL Shelton State H1-7i - plan hits target center - Point	0.00	0.00	7,010.00	9,981.57	291.78	1,344,402.68	3,246,219.62	40.2754219	-104.6175479

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
516.00	516.00	Pierre				
695.00	695.00	Upper Pierre Aquifer Top				
1,648.00	1,648.00	Upper Pierre Aquifer Base				
3,895.44	3,863.00	Parkman				
4,524.61	4,476.00	Sussex				
5,238.97	5,172.00	Shannon				
6,209.93	6,118.00	Teepee Buttes				
6,967.51	6,820.00	Sharon Springs				
7,002.25	6,844.00	Top A Marl				
7,003.74	6,845.00	Top A Chalk				
7,037.60	6,867.00	Top B Chalk				
7,105.73	6,907.00	Top B Marl				
7,258.28	6,974.00	Top C Chalk				
7,474.02	7,010.00	Top C Marl				

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
2200	2200	0	0	Start Build 2.00	
6346	6251	-755	414	Start DLS 9.00 TFO -151.76	
7474	7010	-130	483	TPZ/LP at 7474.02 MD	
17,587	7010	9982	292	TD at 17587.35 MD	

Checked By: _____ Approved By: _____ Date: _____

Northern Region - DJ Basin

Mustang

H Section 01

Shelton H01-780

Wellbore #1

Plan #1

Anticollision Summary Report

02 October, 2018

Noble Energy, Inc.
Anticollision Summary Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Shelton H01-780
Project:	Mustang	TVD Reference:	KB @ 4865.00ft
Reference Site:	H Section 01	MD Reference:	KB @ 4865.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Shelton H01-780	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	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	10/2/2018		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.00	17,587.22	Plan #1 (Wellbore #1)	2_MWD+IFR1+MS	A008Mb: IFR dec & multi-station analysis

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
G Section 25						
Heartland State H01-74-1HN(PR) - As Drilled - MWD Su	13,759.79	11,050.00	2,503.79	2,390.87	22.174	CC
Heartland State H01-74-1HN(PR) - As Drilled - MWD Su	13,800.00	11,053.62	2,504.11	2,390.78	22.097	ES, SF
G Section 36						
MARK STATE PC G #36-79HN(PR) - Wellbore #1 - Well	13,059.14	11,313.00	901.58	762.61	6.487	SF
MARK STATE PC G #36-79HN(PR) - Wellbore #1 - Well	17,106.03	7,261.00	857.16	746.57	7.750	CC, ES
OTIS STATE G #36-19(PR) - Wellbore #1 - Wellbore #1	16,725.37	6,938.61	132.61	25.68	1.240	Level 3, CC, ES, SF
PEDRO STATE G #36-18(SI) - Wellbore #1 - Wellbore #1	16,448.16	6,970.00	1,677.70	-842.43	0.666	Level 1, CC, ES, SF
PEDRO STATE G #36-20(SI) - Wellbore #1 - Wellbore #1	15,200.62	6,946.00	309.80	-2,192.23	0.124	Level 1, CC, ES, SF
PEDRO STATE G #36-21(SI) - Wellbore #1 - Wellbore #1	15,165.90	6,967.00	1,627.22	-881.90	0.649	Level 1, CC, ES, SF
PEDRO STATE G #36-24(SI) - Wellbore #1 - Gyro Surve	13,825.99	6,936.37	1,623.52	1,538.92	19.191	CC, ES
PEDRO STATE G #36-24(SI) - Wellbore #1 - Gyro Surve	14,000.00	6,936.57	1,632.82	1,547.07	19.042	SF
PEDRO STATE H #01-30D(PA) - Wellbore #1 - Wellbore	13,136.29	6,967.00	237.28	-2,256.52	0.095	Level 1, CC, ES, SF
STATE #4(PA) - Wellbore #1 - Wellbore #1	13,838.79	6,957.00	317.41	-2,178.10	0.127	Level 1, CC, ES, SF
STATE R G #36-12(PA) - Wellbore #1 - Wellbore #1	14,492.58	6,947.00	276.73	-2,220.23	0.111	Level 1, CC, ES, SF
STATE R G #36-14(PA) - Wellbore #1 - Wellbore #1	13,199.26	6,972.00	947.99	-1,548.02	0.380	Level 1, CC
STATE R G #36-14(PA) - Wellbore #1 - Wellbore #1	13,200.00	6,972.00	947.99	-1,548.03	0.380	Level 1, ES, SF
STATE R G #36-3(PA) - Wellbore #1 - Wellbore #1	17,187.68	6,961.00	1,025.48	-1,497.32	0.406	Level 1, CC, SF
STATE R G #36-3(PA) - Wellbore #1 - Wellbore #1	17,200.00	6,961.00	1,025.55	-1,497.36	0.406	Level 1, ES
STATE R G #36-4(PA) - Wellbore #1 - Wellbore #1	17,167.13	6,927.96	411.21	300.86	3.726	CC, ES, SF
STATE R G #36-5(SI) - Wellbore #1 - Wellbore #1	15,720.43	6,932.00	293.60	-2,207.56	0.117	Level 1, CC, ES, SF
STATE R G #36-6(PA) - Wellbore #1 - Wellbore #1	15,876.50	6,959.00	991.44	-1,520.38	0.395	Level 1, CC, ES, SF
STATE RG #36-13(PA) - Wellbore #1 - Wellbore #1	13,177.23	6,969.00	252.26	-2,242.54	0.101	Level 1, CC, ES, SF
State RG 36-11(PA) - Wellbore #1 - Gyro Surveys	14,503.66	6,944.94	995.85	906.11	11.097	CC, ES
State RG 36-11(PA) - Wellbore #1 - Gyro Surveys	14,600.00	6,945.03	1,000.50	910.16	11.075	SF

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

Noble Energy, Inc.
Anticollision Summary Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Shelton H01-780
Project:	Mustang	TVD Reference:	KB @ 4865.00ft
Reference Site:	H Section 01	MD Reference:	KB @ 4865.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Shelton H01-780	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	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)	Between Ellipses (ft)	Separation Factor	Warning
H Section 01						
Collins 1-1 - Wellbore #1 - Wellbore #1 - As Drilled	11,899.19	6,996.55	3,480.08	3,409.31	49.174	CC
Collins 1-1 - Wellbore #1 - Wellbore #1 - As Drilled	11,900.00	6,996.54	3,480.08	3,409.30	49.170	ES
Collins 1-1 - Wellbore #1 - Wellbore #1 - As Drilled	12,700.00	6,988.92	3,571.02	3,495.36	47.200	SF
Houndskeeper 1-13 - Wellbore #1 - Wellbore #1 - As Dril	10,487.67	7,031.71	2,226.52	2,164.90	36.133	CC
Houndskeeper 1-13 - Wellbore #1 - Wellbore #1 - As Dril	10,500.00	7,031.82	2,226.55	2,164.86	36.088	ES
Houndskeeper 1-13 - Wellbore #1 - Wellbore #1 - As Dril	10,900.00	7,035.18	2,264.38	2,200.44	35.416	SF
Houndskeeper H01-17 - Wellbore #1 - Wellbore #1 - As D	11,081.09	7,050.01	3,044.88	2,979.43	46.519	CC
Houndskeeper H01-17 - Wellbore #1 - Wellbore #1 - As D	11,100.00	7,050.01	3,044.94	2,979.36	46.430	ES
Houndskeeper H01-17 - Wellbore #1 - Wellbore #1 - As D	11,800.00	7,050.01	3,128.60	3,058.97	44.936	SF
Houndskeeper H01-22 - Wellbore #1 - Wellbore #1 - As D	9,939.39	6,981.83	2,904.27	2,845.95	49.802	CC, ES
Houndskeeper H01-22 - Wellbore #1 - Wellbore #1 - As D	10,600.00	6,979.13	2,978.45	2,916.62	48.168	SF
Houndskeeper H01-27 - Wellbore #1 - Wellbore #1 - As D	12,416.31	7,117.64	2,743.44	2,665.14	35.036	CC, ES
Houndskeeper H01-27 - Wellbore #1 - Wellbore #1 - As D	13,000.00	7,119.15	2,804.85	2,721.76	33.759	SF
Houndskeeper H01-28 - Wellbore #1 - Wellbore #1 - As D	12,419.62	7,152.34	1,650.86	1,573.64	21.380	CC, ES
Houndskeeper H01-28 - Wellbore #1 - Wellbore #1 - As D	12,600.00	7,155.32	1,660.68	1,582.58	21.264	SF
Houndskeeper PC H01-21D - Wellbore #1 - Wellbore #1	9,820.98	7,191.77	1,682.99	1,623.04	28.074	CC, ES
Houndskeeper PC H01-21D - Wellbore #1 - Wellbore #1	10,400.00	7,193.31	1,779.81	1,712.03	26.257	SF
HSR-HARTMAN #4-1(PR) - Wellbore #1 - Gyro Surveys	12,046.88	6,970.52	524.02	452.29	7.306	CC, ES, SF
HSR-KOSKELA #5-1(PR) - Wellbore #1 - No Surveys	10,422.75	6,963.00	212.81	115.18	2.180	CC, ES, SF
HSR-LAURICE #6-1(PR) - Wellbore #1 - No Surveys	10,440.69	6,963.00	1,037.79	940.05	10.618	CC, ES
HSR-LAURICE #6-1(PR) - Wellbore #1 - No Surveys	10,500.00	6,963.00	1,039.48	941.37	10.596	SF
LJS R H01-02 - Wellbore #1 - Wellbore #1 - As Drilled	11,734.41	7,017.28	2,086.21	2,016.56	29.951	CC, ES
LJS R H01-02 - Wellbore #1 - Wellbore #1 - As Drilled	12,000.00	7,016.09	2,103.05	2,031.71	29.480	SF
LJS R H01-08 - Wellbore #1 - Wellbore #1 - As Drilled	10,514.47	7,000.48	3,549.16	3,487.46	57.525	CC, ES
LJS R H01-08 - Wellbore #1 - Wellbore #1 - As Drilled	11,500.00	6,995.47	3,683.45	3,616.24	54.804	SF
Shelton 22-1(PR) - Wellbore #1 - Wellbore #1	9,964.25	7,136.50	389.38	330.13	6.572	CC, ES, SF
Shelton 31-01(PR) - Wellbore #1 - Gyro Surveys	11,146.41	7,090.97	898.70	828.74	12.845	CC, ES, SF
Shelton D07-30 - Wellbore #1 - Wellbore #1 - As Drilled	7,384.34	6,976.89	4,010.26	3,960.78	81.052	CC, ES
Shelton D07-30 - Wellbore #1 - Wellbore #1 - As Drilled	8,000.00	6,983.55	4,065.37	4,015.04	80.778	SF
Shelton H #12-29(PR) - Wellbore #1 - No Surveys	7,443.45	6,985.27	268.56	182.28	3.113	CC, ES, SF
Shelton H 1-12X(PR) - Wellbore #1 - No Surveys	9,310.28	6,979.00	347.01	255.29	3.783	CC, ES, SF
Shelton H01-23 - Wellbore #1 - Wellbore #1 - As Drilled	8,000.00	8,000.00	2,915.45	2,861.54	54.085	SF
Shelton H01-23 - Wellbore #1 - Wellbore #1 - As Drilled	8,463.28	7,019.07	2,878.57	2,826.83	55.630	CC, ES
Shelton H01-24 - Wellbore #1 - Wellbore #1 - As Drilled	8,607.16	6,993.44	1,596.84	1,544.65	30.598	CC, ES
Shelton H01-24 - Wellbore #1 - Wellbore #1 - As Drilled	8,800.00	6,994.80	1,608.44	1,555.55	30.411	SF
Shelton H01-759 - Wellbore #1 - Plan #1	7,452.43	7,512.25	1,106.55	1,055.84	21.818	CC
Shelton H01-759 - Wellbore #1 - Plan #1	17,587.35	17,622.99	1,160.73	981.46	6.474	ES, SF
Shelton H01-766 - Wellbore #1 - Plan #1	7,462.57	7,570.49	610.78	559.49	11.909	CC
Shelton H01-766 - Wellbore #1 - Plan #1	17,587.35	17,688.67	637.86	458.80	3.562	ES, SF
Shelton H01-783 - Wellbore #1 - Plan #1	2,000.00	1,999.00	22.61	8.74	1.630	CC
Shelton H01-783 - Wellbore #1 - Plan #1	2,100.00	2,098.91	22.77	8.21	1.563	ES, SF
Shelton H13-715 - Shelton H13-715 - Plan #1	7,296.87	7,081.31	3,777.83	3,728.32	76.303	CC, ES
Shelton H13-715 - Shelton H13-715 - Plan #1	7,300.00	7,079.02	3,777.83	3,728.32	76.302	SF
Shelton H13-724 - Shelton H13-724 - Plan #1	7,253.38	7,315.46	3,187.07	3,136.91	63.532	CC, ES
Shelton H13-724 - Shelton H13-724 - Plan #1	7,300.00	7,289.86	3,187.45	3,137.27	63.521	SF
Shelton H13-730 - Shelton H13-730 - Plan #1	7,250.00	7,468.75	2,878.47	2,827.31	56.262	SF
Shelton H13-730 - Shelton H13-730 - Plan #1	7,272.65	7,456.48	2,878.33	2,827.17	56.262	CC, ES
Shelton H13-734 - Shelton H13-734 - Plan #1	7,189.57	7,400.00	2,564.37	2,513.69	50.605	CC, ES
Shelton H13-734 - Shelton H13-734 - Plan #1	7,200.00	7,400.00	2,564.40	2,513.71	50.593	SF
Shelton H13-744 - Shelton H13-744 - Plan #1	7,300.00	7,117.58	1,932.95	1,883.17	38.831	SF
Shelton H13-744 - Shelton H13-744 - Plan #1	7,450.00	6,969.86	1,930.05	1,880.44	38.909	ES
Shelton H13-744 - Shelton H13-744 - Plan #1	7,463.24	6,958.13	1,930.03	1,880.45	38.925	CC
Shelton H13-753 - Shelton H13-753 - Plan #1	7,244.36	7,274.14	1,317.30	1,267.41	26.405	CC, ES

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

Noble Energy, Inc.
Anticollision Summary Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Shelton H01-780
Project:	Mustang	TVD Reference:	KB @ 4865.00ft
Reference Site:	H Section 01	MD Reference:	KB @ 4865.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Shelton H01-780	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMP
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
H Section 01						
Shelton H13-753 - Shelton H13-753 - Plan #1	7,250.00	7,270.24	1,317.31	1,267.42	26.404	SF
Shelton H13-763 - Shelton H13-763 - Plan #1	7,235.31	7,340.93	695.74	645.04	13.724	CC, ES, SF
Shelton H13-768 - Shelton H13-768 - Plan #1	2,200.00	2,200.00	151.81	136.51	9.918	CC, ES
Shelton H13-768 - Shelton H13-768 - Plan #1	7,474.02	7,102.49	358.00	307.25	7.055	SF
Shelton H13-773 - Shelton H13-773 - Plan #1	7,184.50	7,226.90	68.59	18.43	1.367	Level 3, CC, ES, SF
Shelton H13-782 - Shelton H13-782 - Plan #1	2,200.00	2,201.00	151.84	136.53	9.918	CC, ES
Shelton H13-782 - Shelton H13-782 - Plan #1	2,400.00	2,401.16	158.44	141.74	9.489	SF
Shelton H3-615 - Wellbore #1 - Plan #1	2,200.00	2,203.00	173.82	158.50	11.348	CC, ES
Shelton H3-615 - Wellbore #1 - Plan #1	2,500.00	2,503.55	183.15	165.76	10.533	SF
Shelton H3-625 - Wellbore #1 - Plan #1	2,200.00	2,204.00	177.63	162.30	11.594	CC, ES
Shelton H3-625 - Wellbore #1 - Plan #1	2,500.00	2,494.99	188.52	171.16	10.862	SF
Shelton H3-635 - Wellbore #1 - Plan #1	8,994.82	6,833.57	663.33	613.55	13.325	CC
Shelton H3-635 - Wellbore #1 - Plan #1	9,000.00	6,833.18	663.35	613.54	13.318	ES, SF
Shelton H3-645 - Wellbore #1 - Plan #1	9,592.62	6,750.00	672.27	620.62	13.016	CC
Shelton H3-645 - Wellbore #1 - Plan #1	9,600.00	6,750.00	672.31	620.60	13.003	ES
Shelton H3-645 - Wellbore #1 - Plan #1	9,700.00	6,750.00	680.79	628.36	12.985	SF
Shelton H3-655 - Wellbore #1 - Plan #1	10,194.72	6,771.44	674.10	618.71	12.171	CC
Shelton H3-655 - Wellbore #1 - Plan #1	10,200.00	6,771.68	674.12	618.69	12.161	ES
Shelton H3-655 - Wellbore #1 - Plan #1	10,300.00	6,776.12	682.24	626.06	12.145	SF
Shelton H3-665 - Wellbore #1 - Plan #1	10,969.19	6,850.00	676.64	616.33	11.220	CC, ES
Shelton H3-665 - Wellbore #1 - Plan #1	11,000.00	6,850.00	677.34	616.68	11.166	SF
Shelton H3-675 - Wellbore #1 - Plan #1	11,572.14	6,733.31	687.83	624.77	10.908	CC, ES
Shelton H3-675 - Wellbore #1 - Plan #1	11,600.00	6,731.70	688.39	625.09	10.875	SF
Shelton H3-683 - Wellbore #1 - Plan #1	12,090.52	6,700.00	697.44	630.93	10.486	CC
Shelton H3-683 - Wellbore #1 - Plan #1	12,100.00	6,700.00	697.50	630.90	10.473	ES, SF
UPRC #1-12J(PA) - Wellbore #1 - No Surveys	9,395.38	6,979.00	329.78	286.37	7.598	CC, ES
UPRC #1-12J(PA) - Wellbore #1 - No Surveys	9,400.00	6,979.00	329.81	286.39	7.596	SF
UPRC #1-13J(SI) - Wellbore #1 - No Surveys	2,200.00	2,167.00	470.28	443.71	17.703	CC
UPRC #1-13J(SI) - Wellbore #1 - No Surveys	8,082.88	6,977.00	501.79	414.57	5.753	ES, SF
UPRC 1-09J - Wellbore #1 - Wellbore #1 - As Drilled	9,282.28	7,000.01	3,537.09	3,482.08	64.310	CC
UPRC 1-09J - Wellbore #1 - Wellbore #1 - As Drilled	9,300.00	7,000.01	3,537.13	3,482.04	64.212	ES
UPRC 1-09J - Wellbore #1 - Wellbore #1 - As Drilled	10,300.00	7,000.01	3,680.59	3,620.68	61.440	SF
UPRC 1-10J - Wellbore #1 - Wellbore #1 - As Drilled	9,229.02	7,000.01	2,107.55	2,052.79	38.489	CC, ES
UPRC 1-10J - Wellbore #1 - Wellbore #1 - As Drilled	9,600.00	7,000.01	2,139.95	2,083.48	37.896	SF
UPRC 1-15J - Wellbore #1 - Wellbore #1 - As Drilled	7,625.61	7,000.01	2,026.90	1,977.10	40.700	CC, ES
UPRC 1-15J - Wellbore #1 - Wellbore #1 - As Drilled	7,700.00	7,000.01	2,028.26	1,978.37	40.655	SF
UPRC 1-16J - Wellbore #1 - Wellbore #1 - As Drilled	7,842.15	6,994.57	3,501.49	3,451.40	69.902	CC, ES
UPRC 1-16J - Wellbore #1 - Wellbore #1 - As Drilled	8,600.00	6,994.01	3,582.56	3,530.55	68.874	SF
UPRR 39 PAN AM G #1(PR) - Wellbore #1 - No Surveys	8,562.03	6,985.00	97.07	8.38	1.095	Level 2, CC, ES, SF

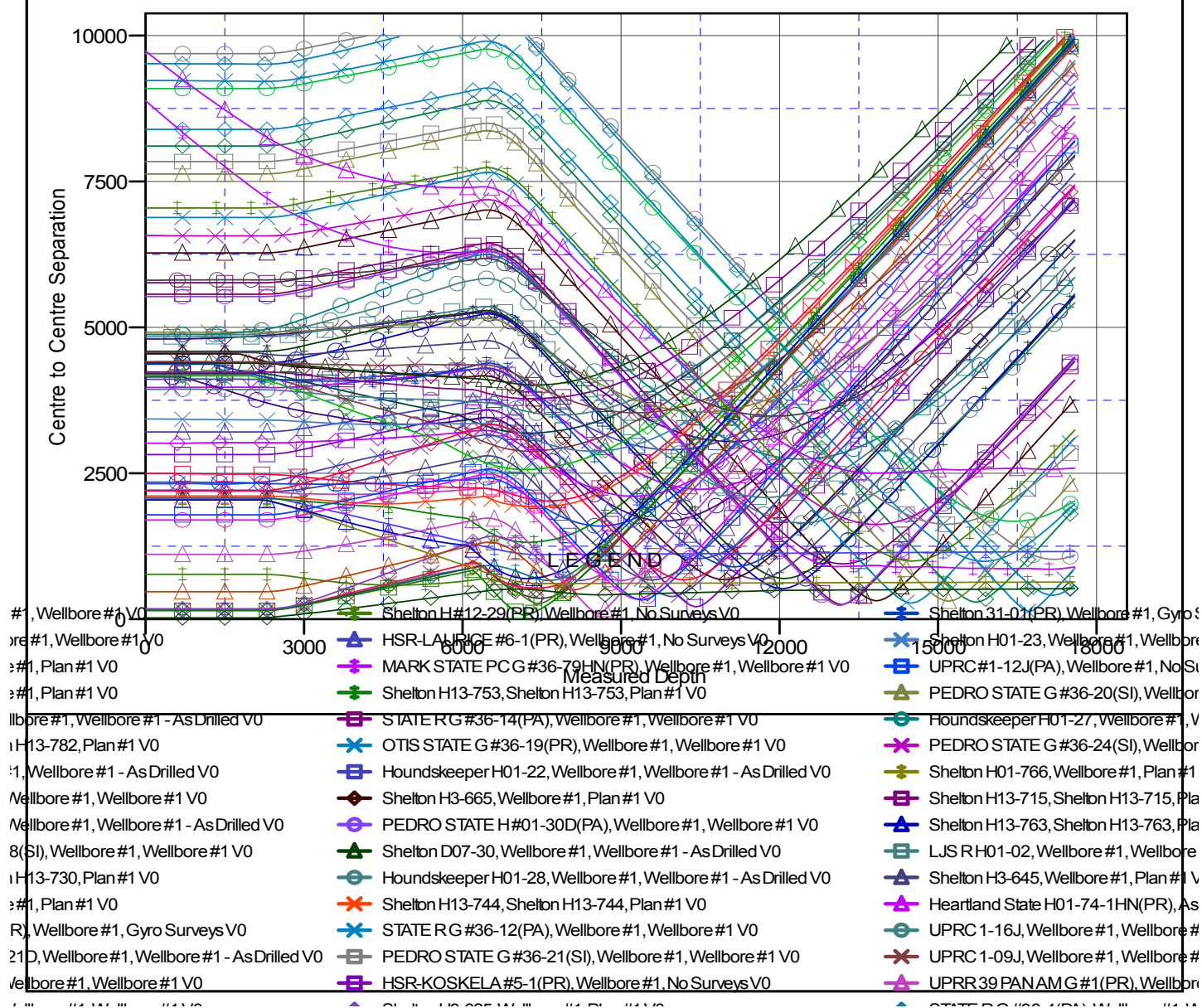
Anticollision Summary Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Shelton H01-780
Project:	Mustang	TVD Reference:	KB @ 4865.00ft
Reference Site:	H Section 01	MD Reference:	KB @ 4865.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Shelton H01-780	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMP
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Coordinates are relative to: Shelton H01-780

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.57°



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

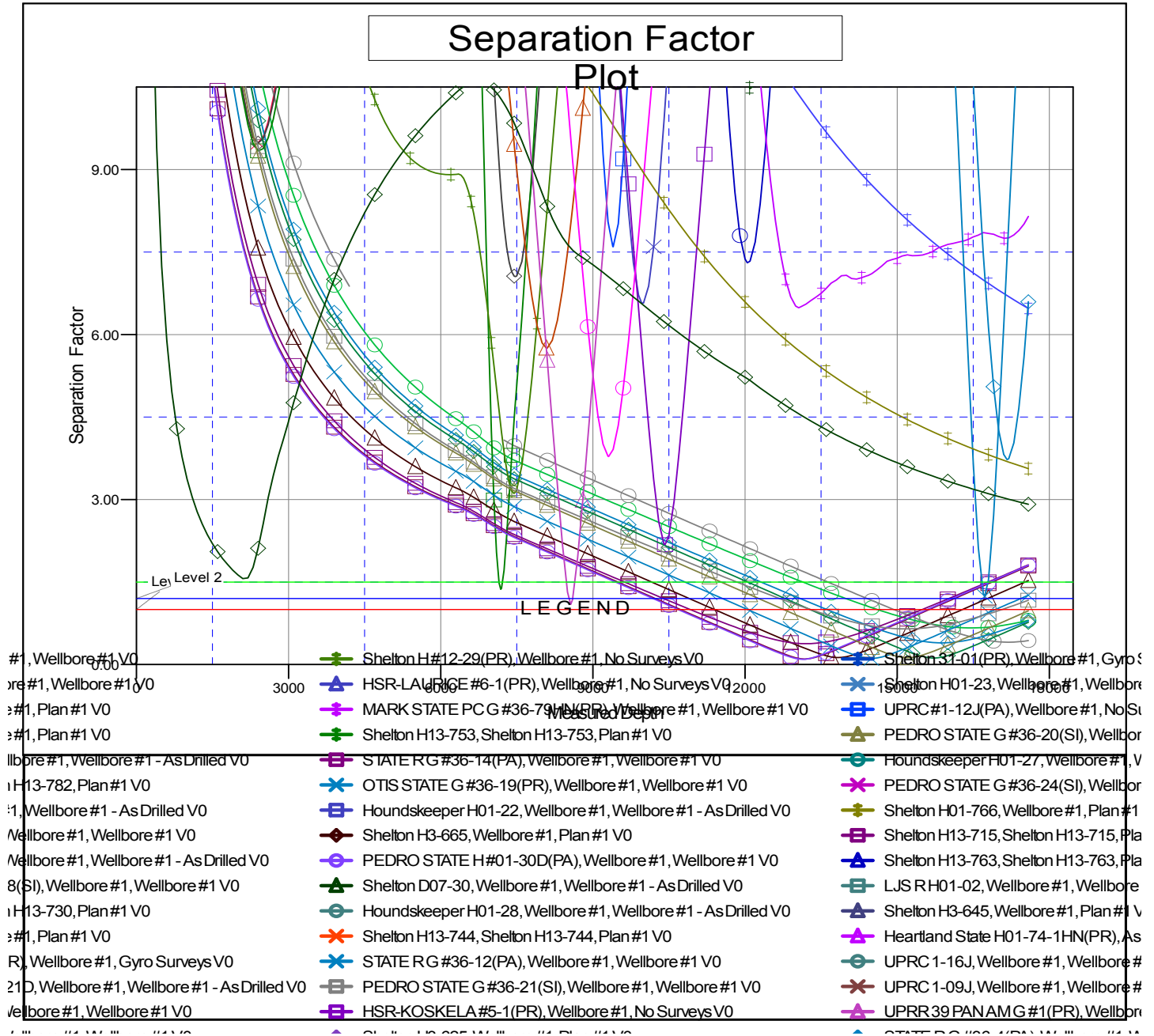
Noble Energy, Inc.

Anticollision Summary Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Shelton H01-780
Project:	Mustang	TVD Reference:	KB @ 4865.00ft
Reference Site:	H Section 01	MD Reference:	KB @ 4865.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Shelton H01-780	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMP
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to KB @ 4865.00ft
Offset Depths are relative to Offset Datum
Central Meridian is -105.5000000

Coordinates are relative to: Shelton H01-780
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.57°



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