

Project: Wells Ranch
Site: A Section 35
Well: Reveille A34-735
Wellbore: Reveille A34-735 OH
Design: APD - Rev 1

Northern Region - DJ Basin

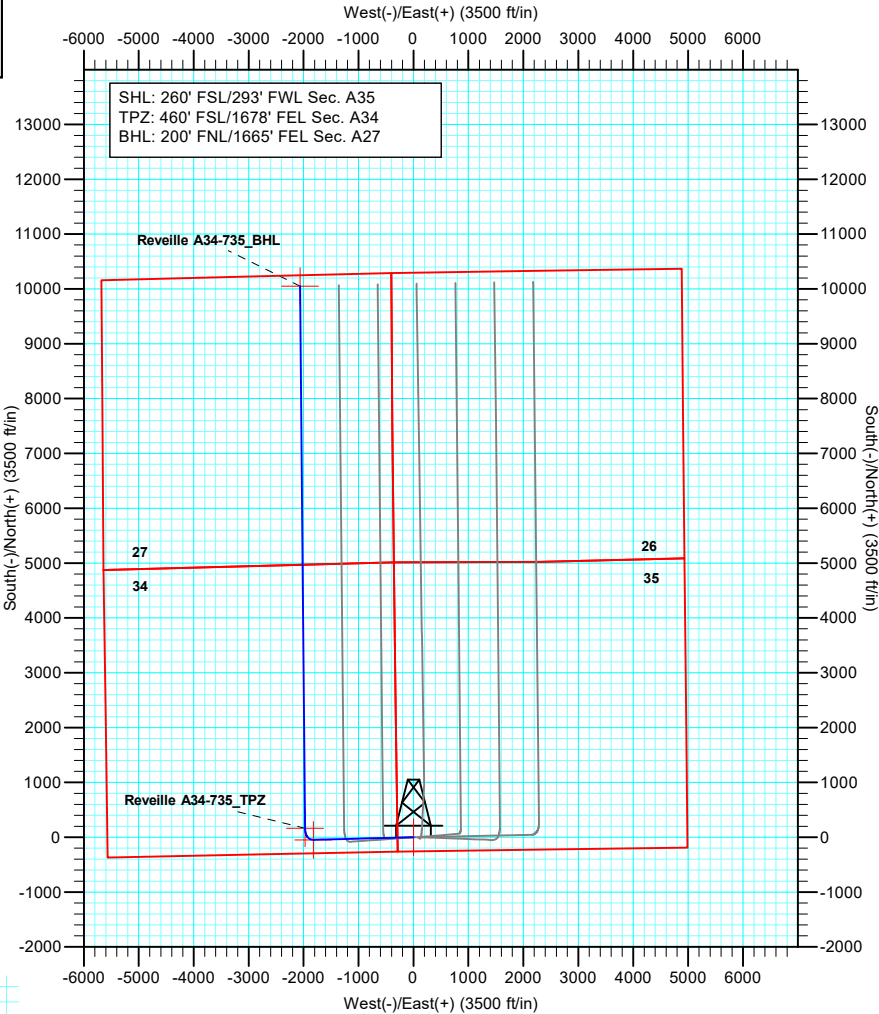
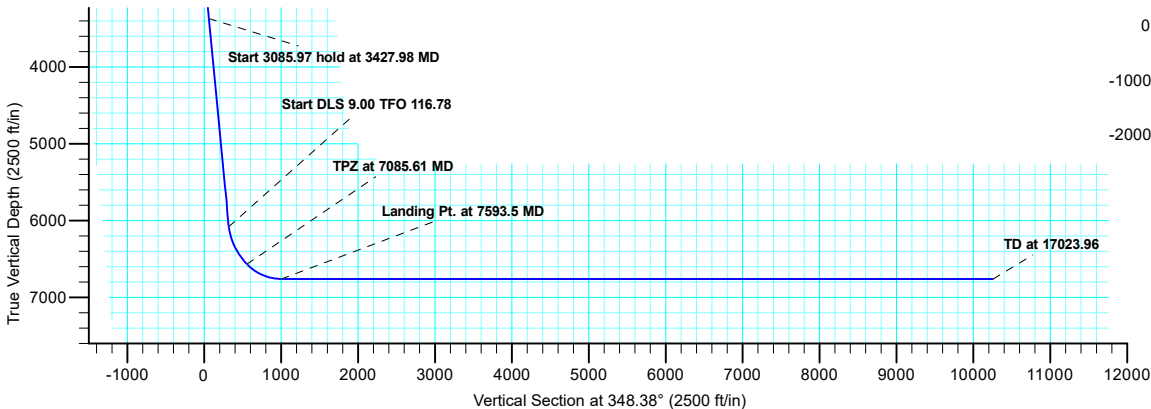
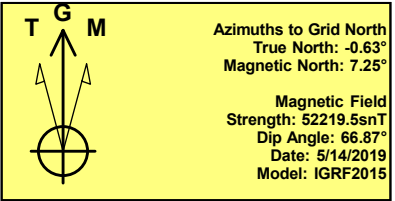
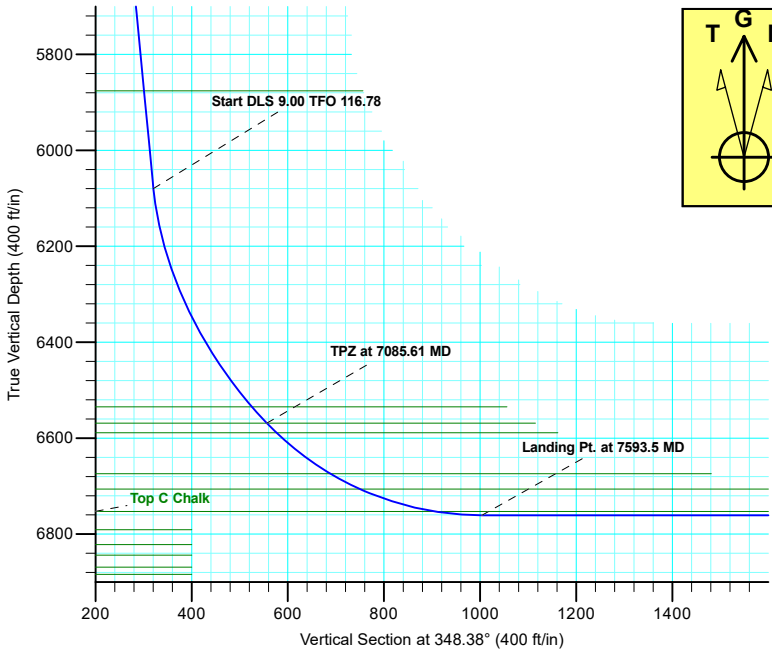
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: Colorado Northern Zone
System Datum: Mean Sea Level

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	2000.00	0.00	0.00	2000.00	0.00	0.00	0.00	0.00	0.00
3	3427.98	28.56	268.51	3369.58	-9.05	-348.47	2.00	268.51	61.30
4	6513.95	28.56	268.51	6080.05	-47.36	-1823.29	0.00	0.00	320.74
5	7085.61	44.29	359.46	6569.00	163.01	-1971.91	9.00	116.78	556.72
6	7593.50	90.00	359.46	6761.07	618.69	-1976.23	9.00	0.00	1003.94
7	17023.96	90.00	359.46	6761.00	10048.73	-2065.67	0.00	0.00	10258.84

WELL DETAILS: Reveille A34-735

+N/-S	+E/-W	Ground Level: Northing	Ground Level: Easting	Ground Level: Latitude	Ground Level: Longitude	Slot
0.00	0.00	1403285.15	3271193.42	40.4363299	-104.5257300	



Plan: APD - Rev 1 (Reveille A34-735/Reveille A34-735 OH)

Created By: Shelly C. Peterkin Date: 11:58, July 22 2019

Northern Region - DJ Basin

Wells Ranch

A Section 35

Reveille A34-735

Reveille A34-735 OH

Plan: APD - Rev 1

Standard Planning Report

22 July, 2019

Noble Energy, Inc.

Planning Report

Database:	EDMP	Local Co-ordinate Reference:	Well Reveille A34-735
Company:	Northern Region - DJ Basin	TVD Reference:	KB @ 4681.00ft (Original Well Elev)
Project:	Wells Ranch	MD Reference:	KB @ 4681.00ft (Original Well Elev)
Site:	A Section 35	North Reference:	Grid
Well:	Reveille A34-735	Survey Calculation Method:	Minimum Curvature
Wellbore:	Reveille A34-735 OH		
Design:	APD - Rev 1		

Project	Wells Ranch, 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		A Section 35			
Site Position:		Northing:	1,403,359.25 usft	Latitude:	40.4364500
From:	Map	Easting:	3,273,942.97 usft	Longitude:	-104.5158500
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence:	0.64 °

Well	Reveille A34-735					
Well Position	+N/-S	-74.10 ft	Northing:	1,403,285.15 usft	Latitude:	40.4363300
	+E/-W	-2,749.56 ft	Easting:	3,271,193.42 usft	Longitude:	-104.5257300
Position Uncertainty		0.00 ft	Wellhead Elevation:	0.00 ft	Ground Level:	4,651.00 ft

Wellbore	Reveille A34-735 OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	5/14/2019	7.88	66.87	52,219.53456060

Design	APD - Rev 1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	348.38

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	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	
3,427.98	28.56	268.51	3,369.58	-9.05	-348.47	2.00	2.00	0.00	268.51	
6,513.95	28.56	268.51	6,080.05	-47.36	-1,823.29	0.00	0.00	0.00	0.00	
7,085.61	44.29	359.46	6,569.00	163.01	-1,971.91	9.00	2.75	15.91	116.78	Reveille A34-735_TP;
7,593.50	90.00	359.46	6,761.07	618.69	-1,976.23	9.00	9.00	0.00	0.00	
17,023.96	90.00	359.46	6,761.00	10,048.73	-2,065.67	0.00	0.00	0.00	0.00	Reveille A34-735_BH

Noble Energy, Inc.

Planning Report

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Company:	Northern Region - DJ Basin	TVD Reference:	KB @ 4681.00ft (Original Well Elev)
Project:	Wells Ranch	MD Reference:	KB @ 4681.00ft (Original Well Elev)
Site:	A Section 35	North Reference:	Grid
Well:	Reveille A34-735	Survey Calculation Method:	Minimum Curvature
Wellbore:	Reveille A34-735 OH		
Design:	APD - Rev 1		

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
287.00	0.00	0.00	287.00	0.00	0.00	0.00	0.00	0.00	0.00
Pierre									
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
416.00	0.00	0.00	416.00	0.00	0.00	0.00	0.00	0.00	0.00
Upper Pierre Aquifer Top									
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
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
1,459.00	0.00	0.00	1,459.00	0.00	0.00	0.00	0.00	0.00	0.00
Upper Pierre Aquifer Base									
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
Start Build 2.00									
2,100.00	2.00	268.51	2,099.98	-0.05	-1.74	0.31	2.00	2.00	0.00
2,200.00	4.00	268.51	2,199.84	-0.18	-6.98	1.23	2.00	2.00	0.00
2,300.00	6.00	268.51	2,299.45	-0.41	-15.69	2.76	2.00	2.00	0.00
2,400.00	8.00	268.51	2,398.70	-0.72	-27.87	4.90	2.00	2.00	0.00
2,500.00	10.00	268.51	2,497.47	-1.13	-43.51	7.65	2.00	2.00	0.00
2,600.00	12.00	268.51	2,595.62	-1.63	-62.58	11.01	2.00	2.00	0.00
2,700.00	14.00	268.51	2,693.06	-2.21	-85.07	14.96	2.00	2.00	0.00
2,800.00	16.00	268.51	2,789.64	-2.88	-110.94	19.52	2.00	2.00	0.00
2,900.00	18.00	268.51	2,885.27	-3.64	-140.17	24.66	2.00	2.00	0.00
3,000.00	20.00	268.51	2,979.82	-4.49	-172.71	30.38	2.00	2.00	0.00
3,100.00	22.00	268.51	3,073.17	-5.42	-208.53	36.68	2.00	2.00	0.00
3,200.00	24.00	268.51	3,165.21	-6.43	-247.59	43.55	2.00	2.00	0.00
3,300.00	26.00	268.51	3,255.84	-7.53	-289.84	50.99	2.00	2.00	0.00
3,400.00	28.00	268.51	3,344.94	-8.71	-335.22	58.97	2.00	2.00	0.00
3,427.98	28.56	268.51	3,369.58	-9.05	-348.47	61.30	2.00	2.00	0.00
Start 3085.97 hold at 3427.98 MD									
3,500.00	28.56	268.51	3,432.83	-9.94	-382.89	67.36	0.00	0.00	0.00
3,600.00	28.56	268.51	3,520.67	-11.19	-430.68	75.76	0.00	0.00	0.00
3,631.12	28.56	268.51	3,548.00	-11.57	-445.55	78.38	0.00	0.00	0.00
Parkman									
3,700.00	28.56	268.51	3,608.50	-12.43	-478.47	84.17	0.00	0.00	0.00
3,800.00	28.56	268.51	3,696.33	-13.67	-526.26	92.58	0.00	0.00	0.00
3,900.00	28.56	268.51	3,784.16	-14.91	-574.05	100.98	0.00	0.00	0.00
4,000.00	28.56	268.51	3,871.99	-16.15	-621.84	109.39	0.00	0.00	0.00
4,100.00	28.56	268.51	3,959.83	-17.39	-669.64	117.80	0.00	0.00	0.00

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Planning Report

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Project:	Wells Ranch	MD Reference:	KB @ 4681.00ft (Original Well Elev)
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Wellbore:	Reveille A34-735 OH		
Design:	APD - Rev 1		

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)
4,200.00	28.56	268.51	4,047.66	-18.63	-717.43	126.21	0.00	0.00	0.00
4,300.00	28.56	268.51	4,135.49	-19.88	-765.22	134.61	0.00	0.00	0.00
4,400.00	28.56	268.51	4,223.32	-21.12	-813.01	143.02	0.00	0.00	0.00
4,423.54	28.56	268.51	4,244.00	-21.41	-824.26	145.00	0.00	0.00	0.00
Sussex									
4,500.00	28.56	268.51	4,311.15	-22.36	-860.80	151.43	0.00	0.00	0.00
4,600.00	28.56	268.51	4,398.99	-23.60	-908.59	159.83	0.00	0.00	0.00
4,700.00	28.56	268.51	4,486.82	-24.84	-956.38	168.24	0.00	0.00	0.00
4,800.00	28.56	268.51	4,574.65	-26.08	-1,004.17	176.65	0.00	0.00	0.00
4,900.00	28.56	268.51	4,662.48	-27.32	-1,051.97	185.05	0.00	0.00	0.00
5,000.00	28.56	268.51	4,750.31	-28.56	-1,099.76	193.46	0.00	0.00	0.00
5,100.00	28.56	268.51	4,838.15	-29.81	-1,147.55	201.87	0.00	0.00	0.00
5,108.94	28.56	268.51	4,846.00	-29.92	-1,151.82	202.62	0.00	0.00	0.00
Shannon									
5,200.00	28.56	268.51	4,925.98	-31.05	-1,195.34	210.28	0.00	0.00	0.00
5,300.00	28.56	268.51	5,013.81	-32.29	-1,243.13	218.68	0.00	0.00	0.00
5,400.00	28.56	268.51	5,101.64	-33.53	-1,290.92	227.09	0.00	0.00	0.00
5,500.00	28.56	268.51	5,189.47	-34.77	-1,338.71	235.50	0.00	0.00	0.00
5,600.00	28.56	268.51	5,277.31	-36.01	-1,386.51	243.90	0.00	0.00	0.00
5,700.00	28.56	268.51	5,365.14	-37.25	-1,434.30	252.31	0.00	0.00	0.00
5,800.00	28.56	268.51	5,452.97	-38.49	-1,482.09	260.72	0.00	0.00	0.00
5,900.00	28.56	268.51	5,540.80	-39.74	-1,529.88	269.13	0.00	0.00	0.00
6,000.00	28.56	268.51	5,628.63	-40.98	-1,577.67	277.53	0.00	0.00	0.00
6,100.00	28.56	268.51	5,716.47	-42.22	-1,625.46	285.94	0.00	0.00	0.00
6,200.00	28.56	268.51	5,804.30	-43.46	-1,673.25	294.35	0.00	0.00	0.00
6,281.64	28.56	268.51	5,876.00	-44.47	-1,712.27	301.21	0.00	0.00	0.00
Teepee Buttes									
6,300.00	28.56	268.51	5,892.13	-44.70	-1,721.04	302.75	0.00	0.00	0.00
6,400.00	28.56	268.51	5,979.96	-45.94	-1,768.84	311.16	0.00	0.00	0.00
6,500.00	28.56	268.51	6,067.79	-47.18	-1,816.63	319.57	0.00	0.00	0.00
6,513.95	28.56	268.51	6,080.05	-47.36	-1,823.29	320.74	0.00	0.00	0.00
Start DLS 9.00 TFO 116.78									
6,550.00	27.24	274.85	6,111.91	-46.88	-1,840.13	324.60	9.00	-3.66	17.58
6,600.00	25.93	284.48	6,156.65	-43.18	-1,862.13	332.65	9.00	-2.62	19.26
6,650.00	25.31	294.80	6,201.75	-35.96	-1,882.43	343.81	9.00	-1.24	20.64
6,700.00	25.43	305.31	6,246.95	-25.27	-1,900.90	358.01	9.00	0.24	21.02
6,750.00	26.28	315.46	6,291.97	-11.17	-1,917.43	375.15	9.00	1.70	20.29
6,800.00	27.79	324.80	6,336.53	6.25	-1,931.92	395.13	9.00	3.02	18.68
6,850.00	29.86	333.09	6,380.35	26.89	-1,944.27	417.83	9.00	4.15	16.59
6,900.00	32.39	340.31	6,423.17	50.61	-1,954.42	443.10	9.00	5.05	14.43
6,950.00	35.27	346.52	6,464.71	77.27	-1,962.30	470.80	9.00	5.76	12.43
7,000.00	38.42	351.88	6,504.73	106.70	-1,967.86	500.75	9.00	6.31	10.71
7,039.37	41.06	355.58	6,535.00	131.71	-1,970.59	525.79	9.00	6.70	9.41
Sharon Springs									
7,050.00	41.79	356.52	6,542.97	138.72	-1,971.07	532.77	9.00	6.88	8.78
7,085.61	44.29	359.46	6,569.00	163.01	-1,971.91	556.72	9.00	7.02	8.25
TPZ at 7085.61 MD - Top A Chalk									
7,100.00	45.59	359.46	6,579.19	173.17	-1,972.01	566.70	9.00	9.00	0.00
7,114.18	46.86	359.46	6,589.00	183.41	-1,972.10	576.75	9.00	9.00	0.00
Top A Marl									
7,150.00	50.09	359.46	6,612.74	210.22	-1,972.36	603.06	9.00	9.00	0.00
7,200.00	54.59	359.46	6,643.29	249.79	-1,972.73	641.89	9.00	9.00	0.00
7,250.00	59.09	359.46	6,670.63	291.63	-1,973.13	682.96	9.00	9.00	0.00

Noble Energy, Inc.

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Project:	Wells Ranch	MD Reference:	KB @ 4681.00ft (Original Well Elev)
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Wellbore:	Reveille A34-735 OH		
Design:	APD - Rev 1		

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)
7,256.61	59.68	359.46	6,674.00	297.32	-1,973.18	688.54	9.00	9.00	0.00
Top B Chalk									
7,300.00	63.59	359.46	6,694.61	335.49	-1,973.55	726.00	9.00	9.00	0.00
7,326.74	65.99	359.46	6,706.00	359.68	-1,973.78	749.74	9.00	9.00	0.00
Top B Marl									
7,350.00	68.09	359.46	6,715.07	381.09	-1,973.98	770.76	9.00	9.00	0.00
7,400.00	72.59	359.46	6,731.89	428.16	-1,974.43	816.95	9.00	9.00	0.00
7,450.00	77.09	359.46	6,744.97	476.41	-1,974.88	864.30	9.00	9.00	0.00
7,492.00	80.86	359.46	6,753.00	517.62	-1,975.27	904.75	9.00	9.00	0.00
Top C Chalk									
7,500.00	81.59	359.46	6,754.22	525.53	-1,975.35	912.51	9.00	9.00	0.00
7,550.00	86.09	359.46	6,759.59	575.23	-1,975.82	961.28	9.00	9.00	0.00
7,593.50	90.00	359.46	6,761.07	618.69	-1,976.23	1,003.94	9.00	9.00	0.00
Landing Pt. at 7593.5 MD									
7,600.00	90.00	359.46	6,761.07	625.19	-1,976.29	1,010.32	0.00	0.00	0.00
7,700.00	90.00	359.46	6,761.07	725.18	-1,977.24	1,108.46	0.00	0.00	0.00
7,800.00	90.00	359.46	6,761.07	825.18	-1,978.19	1,206.60	0.00	0.00	0.00
7,900.00	90.00	359.46	6,761.07	925.18	-1,979.14	1,304.74	0.00	0.00	0.00
8,000.00	90.00	359.46	6,761.07	1,025.17	-1,980.09	1,402.87	0.00	0.00	0.00
8,100.00	90.00	359.46	6,761.07	1,125.17	-1,981.04	1,501.01	0.00	0.00	0.00
8,200.00	90.00	359.46	6,761.07	1,225.16	-1,981.98	1,599.15	0.00	0.00	0.00
8,300.00	90.00	359.46	6,761.07	1,325.16	-1,982.93	1,697.29	0.00	0.00	0.00
8,400.00	90.00	359.46	6,761.07	1,425.15	-1,983.88	1,795.43	0.00	0.00	0.00
8,500.00	90.00	359.46	6,761.07	1,525.15	-1,984.83	1,893.57	0.00	0.00	0.00
8,600.00	90.00	359.46	6,761.07	1,625.14	-1,985.78	1,991.70	0.00	0.00	0.00
8,700.00	90.00	359.46	6,761.07	1,725.14	-1,986.73	2,089.84	0.00	0.00	0.00
8,800.00	90.00	359.46	6,761.06	1,825.14	-1,987.67	2,187.98	0.00	0.00	0.00
8,900.00	90.00	359.46	6,761.06	1,925.13	-1,988.62	2,286.12	0.00	0.00	0.00
9,000.00	90.00	359.46	6,761.06	2,025.13	-1,989.57	2,384.26	0.00	0.00	0.00
9,100.00	90.00	359.46	6,761.06	2,125.12	-1,990.52	2,482.40	0.00	0.00	0.00
9,200.00	90.00	359.46	6,761.06	2,225.12	-1,991.47	2,580.53	0.00	0.00	0.00
9,300.00	90.00	359.46	6,761.06	2,325.11	-1,992.42	2,678.67	0.00	0.00	0.00
9,400.00	90.00	359.46	6,761.06	2,425.11	-1,993.36	2,776.81	0.00	0.00	0.00
9,500.00	90.00	359.46	6,761.06	2,525.10	-1,994.31	2,874.95	0.00	0.00	0.00
9,600.00	90.00	359.46	6,761.06	2,625.10	-1,995.26	2,973.09	0.00	0.00	0.00
9,700.00	90.00	359.46	6,761.06	2,725.10	-1,996.21	3,071.23	0.00	0.00	0.00
9,800.00	90.00	359.46	6,761.06	2,825.09	-1,997.16	3,169.37	0.00	0.00	0.00
9,900.00	90.00	359.46	6,761.06	2,925.09	-1,998.11	3,267.50	0.00	0.00	0.00
10,000.00	90.00	359.46	6,761.06	3,025.08	-1,999.05	3,365.64	0.00	0.00	0.00
10,100.00	90.00	359.46	6,761.05	3,125.08	-2,000.00	3,463.78	0.00	0.00	0.00
10,200.00	90.00	359.46	6,761.05	3,225.07	-2,000.95	3,561.92	0.00	0.00	0.00
10,300.00	90.00	359.46	6,761.05	3,325.07	-2,001.90	3,660.06	0.00	0.00	0.00
10,400.00	90.00	359.46	6,761.05	3,425.06	-2,002.85	3,758.20	0.00	0.00	0.00
10,500.00	90.00	359.46	6,761.05	3,525.06	-2,003.80	3,856.33	0.00	0.00	0.00
10,600.00	90.00	359.46	6,761.05	3,625.05	-2,004.74	3,954.47	0.00	0.00	0.00
10,700.00	90.00	359.46	6,761.05	3,725.05	-2,005.69	4,052.61	0.00	0.00	0.00
10,800.00	90.00	359.46	6,761.05	3,825.05	-2,006.64	4,150.75	0.00	0.00	0.00
10,900.00	90.00	359.46	6,761.05	3,925.04	-2,007.59	4,248.89	0.00	0.00	0.00
11,000.00	90.00	359.46	6,761.05	4,025.04	-2,008.54	4,347.03	0.00	0.00	0.00
11,100.00	90.00	359.46	6,761.05	4,125.03	-2,009.49	4,445.16	0.00	0.00	0.00
11,200.00	90.00	359.46	6,761.05	4,225.03	-2,010.43	4,543.30	0.00	0.00	0.00
11,300.00	90.00	359.46	6,761.05	4,325.02	-2,011.38	4,641.44	0.00	0.00	0.00
11,400.00	90.00	359.46	6,761.04	4,425.02	-2,012.33	4,739.58	0.00	0.00	0.00

Noble Energy, Inc.

Planning Report

Database:	EDMP	Local Co-ordinate Reference:	Well Reveille A34-735
Company:	Northern Region - DJ Basin	TVD Reference:	KB @ 4681.00ft (Original Well Elev)
Project:	Wells Ranch	MD Reference:	KB @ 4681.00ft (Original Well Elev)
Site:	A Section 35	North Reference:	Grid
Well:	Reveille A34-735	Survey Calculation Method:	Minimum Curvature
Wellbore:	Reveille A34-735 OH		
Design:	APD - Rev 1		

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)
11,500.00	90.00	359.46	6,761.04	4,525.01	-2,013.28	4,837.72	0.00	0.00	0.00
11,600.00	90.00	359.46	6,761.04	4,625.01	-2,014.23	4,935.86	0.00	0.00	0.00
11,700.00	90.00	359.46	6,761.04	4,725.01	-2,015.18	5,033.99	0.00	0.00	0.00
11,800.00	90.00	359.46	6,761.04	4,825.00	-2,016.12	5,132.13	0.00	0.00	0.00
11,900.00	90.00	359.46	6,761.04	4,925.00	-2,017.07	5,230.27	0.00	0.00	0.00
12,000.00	90.00	359.46	6,761.04	5,024.99	-2,018.02	5,328.41	0.00	0.00	0.00
12,100.00	90.00	359.46	6,761.04	5,124.99	-2,018.97	5,426.55	0.00	0.00	0.00
12,200.00	90.00	359.46	6,761.04	5,224.98	-2,019.92	5,524.69	0.00	0.00	0.00
12,300.00	90.00	359.46	6,761.04	5,324.98	-2,020.87	5,622.82	0.00	0.00	0.00
12,400.00	90.00	359.46	6,761.04	5,424.97	-2,021.81	5,720.96	0.00	0.00	0.00
12,500.00	90.00	359.46	6,761.04	5,524.97	-2,022.76	5,819.10	0.00	0.00	0.00
12,600.00	90.00	359.46	6,761.04	5,624.96	-2,023.71	5,917.24	0.00	0.00	0.00
12,700.00	90.00	359.46	6,761.03	5,724.96	-2,024.66	6,015.38	0.00	0.00	0.00
12,800.00	90.00	359.46	6,761.03	5,824.96	-2,025.61	6,113.52	0.00	0.00	0.00
12,900.00	90.00	359.46	6,761.03	5,924.95	-2,026.56	6,211.66	0.00	0.00	0.00
13,000.00	90.00	359.46	6,761.03	6,024.95	-2,027.50	6,309.79	0.00	0.00	0.00
13,100.00	90.00	359.46	6,761.03	6,124.94	-2,028.45	6,407.93	0.00	0.00	0.00
13,200.00	90.00	359.46	6,761.03	6,224.94	-2,029.40	6,506.07	0.00	0.00	0.00
13,300.00	90.00	359.46	6,761.03	6,324.93	-2,030.35	6,604.21	0.00	0.00	0.00
13,400.00	90.00	359.46	6,761.03	6,424.93	-2,031.30	6,702.35	0.00	0.00	0.00
13,500.00	90.00	359.46	6,761.03	6,524.92	-2,032.25	6,800.49	0.00	0.00	0.00
13,600.00	90.00	359.46	6,761.03	6,624.92	-2,033.19	6,898.62	0.00	0.00	0.00
13,700.00	90.00	359.46	6,761.03	6,724.92	-2,034.14	6,996.76	0.00	0.00	0.00
13,800.00	90.00	359.46	6,761.03	6,824.91	-2,035.09	7,094.90	0.00	0.00	0.00
13,900.00	90.00	359.46	6,761.02	6,924.91	-2,036.04	7,193.04	0.00	0.00	0.00
14,000.00	90.00	359.46	6,761.02	7,024.90	-2,036.99	7,291.18	0.00	0.00	0.00
14,100.00	90.00	359.46	6,761.02	7,124.90	-2,037.94	7,389.32	0.00	0.00	0.00
14,200.00	90.00	359.46	6,761.02	7,224.89	-2,038.88	7,487.45	0.00	0.00	0.00
14,300.00	90.00	359.46	6,761.02	7,324.89	-2,039.83	7,585.59	0.00	0.00	0.00
14,400.00	90.00	359.46	6,761.02	7,424.88	-2,040.78	7,683.73	0.00	0.00	0.00
14,500.00	90.00	359.46	6,761.02	7,524.88	-2,041.73	7,781.87	0.00	0.00	0.00
14,600.00	90.00	359.46	6,761.02	7,624.87	-2,042.68	7,880.01	0.00	0.00	0.00
14,700.00	90.00	359.46	6,761.02	7,724.87	-2,043.63	7,978.15	0.00	0.00	0.00
14,800.00	90.00	359.46	6,761.02	7,824.87	-2,044.58	8,076.28	0.00	0.00	0.00
14,900.00	90.00	359.46	6,761.02	7,924.86	-2,045.52	8,174.42	0.00	0.00	0.00
15,000.00	90.00	359.46	6,761.02	8,024.86	-2,046.47	8,272.56	0.00	0.00	0.00
15,100.00	90.00	359.46	6,761.02	8,124.85	-2,047.42	8,370.70	0.00	0.00	0.00
15,200.00	90.00	359.46	6,761.01	8,224.85	-2,048.37	8,468.84	0.00	0.00	0.00
15,300.00	90.00	359.46	6,761.01	8,324.84	-2,049.32	8,566.98	0.00	0.00	0.00
15,400.00	90.00	359.46	6,761.01	8,424.84	-2,050.27	8,665.12	0.00	0.00	0.00
15,500.00	90.00	359.46	6,761.01	8,524.83	-2,051.21	8,763.25	0.00	0.00	0.00
15,600.00	90.00	359.46	6,761.01	8,624.83	-2,052.16	8,861.39	0.00	0.00	0.00
15,700.00	90.00	359.46	6,761.01	8,724.83	-2,053.11	8,959.53	0.00	0.00	0.00
15,800.00	90.00	359.46	6,761.01	8,824.82	-2,054.06	9,057.67	0.00	0.00	0.00
15,900.00	90.00	359.46	6,761.01	8,924.82	-2,055.01	9,155.81	0.00	0.00	0.00
16,000.00	90.00	359.46	6,761.01	9,024.81	-2,055.96	9,253.95	0.00	0.00	0.00
16,100.00	90.00	359.46	6,761.01	9,124.81	-2,056.90	9,352.08	0.00	0.00	0.00
16,200.00	90.00	359.46	6,761.01	9,224.80	-2,057.85	9,450.22	0.00	0.00	0.00
16,300.00	90.00	359.46	6,761.01	9,324.80	-2,058.80	9,548.36	0.00	0.00	0.00
16,400.00	90.00	359.46	6,761.01	9,424.79	-2,059.75	9,646.50	0.00	0.00	0.00
16,500.00	90.00	359.46	6,761.00	9,524.79	-2,060.70	9,744.64	0.00	0.00	0.00
16,600.00	90.00	359.46	6,761.00	9,624.78	-2,061.65	9,842.78	0.00	0.00	0.00
16,700.00	90.00	359.46	6,761.00	9,724.78	-2,062.59	9,940.91	0.00	0.00	0.00
16,800.00	90.00	359.46	6,761.00	9,824.78	-2,063.54	10,039.05	0.00	0.00	0.00

Noble Energy, Inc.

Planning Report

Database:	EDMP	Local Co-ordinate Reference:	Well Reveille A34-735
Company:	Northern Region - DJ Basin	TVD Reference:	KB @ 4681.00ft (Original Well Elev)
Project:	Wells Ranch	MD Reference:	KB @ 4681.00ft (Original Well Elev)
Site:	A Section 35	North Reference:	Grid
Well:	Reveille A34-735	Survey Calculation Method:	Minimum Curvature
Wellbore:	Reveille A34-735 OH		
Design:	APD - Rev 1		

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)
16,900.00	90.00	359.46	6,761.00	9,924.77	-2,064.49	10,137.19	0.00	0.00	0.00
17,000.00	90.00	359.46	6,761.00	10,024.77	-2,065.44	10,235.33	0.00	0.00	0.00
17,023.96	90.00	359.46	6,761.00	10,048.73	-2,065.67	10,258.84	0.00	0.00	0.00
TD at 17023.96									

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
Reveille A34-735_SHL - plan hits target center - Point	0.00	0.00	0.00	0.00	0.00	1,403,285.15	3,271,193.42	40.4363300	-104.5257300
Reveille A34-735_KOP - plan hits target center - Point	0.00	0.00	6,080.05	-47.36	-1,823.29	1,403,237.79	3,269,370.13	40.4362548	-104.5322815
Reveille A34-735_TPZ - plan hits target center - Point	0.00	0.00	6,569.00	163.01	-1,971.91	1,403,448.16	3,269,221.51	40.4368366	-104.5328072
Reveille A34-735_BHL - plan hits target center - Point	0.00	0.00	6,761.00	10,048.73	-2,065.67	1,413,333.86	3,269,127.76	40.4639739	-104.5327566

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
287.00	287.00	Pierre				
416.00	416.00	Upper Pierre Aquifer Top				
1,459.00	1,459.00	Upper Pierre Aquifer Base				
3,631.12	3,548.00	Parkman				
4,423.54	4,244.00	Sussex				
5,108.94	4,846.00	Shannon				
6,281.64	5,876.00	Teepee Buttes				
7,039.37	6,535.00	Sharon Springs				
7,085.61	6,569.00	Top A Chalk				
7,114.18	6,589.00	Top A Marl				
7,256.61	6,674.00	Top B Chalk				
7,326.74	6,706.00	Top B Marl				
7,492.00	6,753.00	Top C Chalk				

Noble Energy, Inc.

Planning Report

Database:	EDMP	Local Co-ordinate Reference:	Well Reveille A34-735
Company:	Northern Region - DJ Basin	TVD Reference:	KB @ 4681.00ft (Original Well Elev)
Project:	Wells Ranch	MD Reference:	KB @ 4681.00ft (Original Well Elev)
Site:	A Section 35	North Reference:	Grid
Well:	Reveille A34-735	Survey Calculation Method:	Minimum Curvature
Wellbore:	Reveille A34-735 OH		
Design:	APD - Rev 1		

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
2,000.00	2,000.00	0.00	0.00	Start Build 2.00
3,427.98	3,369.58	-9.05	-348.47	Start 3085.97 hold at 3427.98 MD
6,513.95	6,080.05	-47.36	-1,823.29	Start DLS 9.00 TFO 116.78
7,085.61	6,569.00	163.01	-1,971.91	TPZ at 7085.61 MD
7,593.50	6,761.07	618.69	-1,976.23	Landing Pt. at 7593.5 MD
17,023.96	6,761.00	10,048.73	-2,065.67	TD at 17023.96

Northern Region - DJ Basin

Wells Ranch

A Section 35

Reveille A34-735

Reveille A34-735 OH

APD - Rev 1

Anticollision Summary Report

22 July, 2019

Noble Energy, Inc.
Anticollision Summary Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Reveille A34-735
Project:	Wells Ranch	TVD Reference:	KB @ 4681.00ft (Original Well Elev)
Reference Site:	A Section 35	MD Reference:	KB @ 4681.00ft (Original Well Elev)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Reveille A34-735	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Reveille A34-735 OH	Database:	EDMP
Reference Design:	APD - Rev 1	Offset TVD Reference:	Offset Datum

Reference	APD - Rev 1		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD + Stations Interval 100.00ft	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	7/22/2019		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.00	17,023.96	APD - Rev 1 (Reveille A34-735 OH)	2_MWD+IFR1+MS	A008Mb: IFR dec & multi-station analysis

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
A Section 21						
Culbreath 23-21 - Original Drilling - Original Drilling - As D	17,023.96	6,830.38	6,999.58	6,895.82	67.456	CC, ES, SF
Culbreath 33-21 (PA) - Original Drilling - Original Drilling -	17,023.96	6,798.00	5,962.53	5,747.65	27.748	CC, ES, SF
Harper A21-618 - Harper A21-618 OH - As-Drilled	17,023.96	14,584.41	711.04	576.72	5.294	CC, ES, SF
Harper A21-626 - Harper A21-626 OH - As-Drilled	17,023.96	14,665.97	1,250.49	1,114.14	9.172	CC, ES, SF
Harper A21-631 - Harper A21-631 OH - As-Drilled	17,023.96	14,547.36	1,632.25	1,498.23	12.179	CC, ES, SF
Harper A21-637 - Harper A21-637 OH - As-Drilled	17,023.96	17,023.96	1,954.35	1,791.92	12.032	CC, ES, SF
Harper A21-643 - Harper A21-643 OH - As-Drilled	17,023.96	14,820.58	2,429.24	2,291.73	17.666	CC, ES, SF
Harper A21-649 - Harper A21-649 OH - As-Drilled	17,023.96	14,726.52	2,787.13	2,653.43	20.845	CC, ES, SF
Harper A21-656 - Harper A21-656 OH - As-Drilled	17,023.96	14,929.21	3,154.75	3,016.32	22.789	CC, ES, SF
Harper A21-664 - Harper A21-664 OH - As-Drilled	17,023.96	14,967.00	3,641.66	3,506.03	26.849	CC, ES, SF
Harper A21-669 - Harper A21-669 OH - As-Drilled	17,023.96	14,928.00	3,967.82	3,832.65	29.353	CC, ES, SF
Harper A21-674 - Harper A21-674 OH - As-Drilled	17,023.96	15,813.00	4,386.02	4,238.83	29.800	CC, ES, SF
Harper A21-681 - Harper A21-681 OH - As-Drilled	17,023.96	14,865.00	4,804.51	4,672.53	36.403	CC, ES, SF
Kona A19-616 - Kona A19-616 - Kona A19-616 - As Drille	17,023.96	6,234.00	7,513.49	7,409.74	72.419	CC, ES, SF
Kona A19-624 - Kona A19-624 - Kona A19-624 - As Drille	17,023.96	6,378.12	7,465.20	7,362.69	72.826	CC, ES, SF
Kona A19-636 - Kona A19-636 - Kona A19-636 - As Drille	17,023.96	6,327.00	7,303.37	7,199.96	70.623	CC, ES, SF
Kona A19-646 - Original Drilling - Original Drilling - As Dr	17,023.96	6,327.00	7,763.04	7,665.29	79.411	CC, ES, SF
Kona A19-662 - Original Drilling - Original Drilling - As Dr	17,023.96	6,136.00	8,243.96	8,148.71	86.550	CC, ES, SF
Kona A19-670 - Kona A19-670 - Original Drilling - As Dril	17,023.96	6,325.00	8,189.25	8,094.68	86.596	CC, ES, SF
Kona A19-685 - Original Drilling - Original Drilling - As Dr	17,023.96	6,149.00	8,122.72	8,028.13	85.872	CC, ES, SF
McKee 12-21 (PA) - Original Drilling - Original Drilling - A	17,023.96	6,834.00	8,839.86	8,624.77	41.098	CC, ES, SF
McKee 21-21 (PA) - Original Drilling - Original Drilling - A	17,023.96	6,850.00	8,054.23	7,848.34	39.119	CC, ES, SF
McKee 22-21 - Original Drilling - Original Drilling - As Dril	17,023.96	6,898.52	7,619.10	7,520.04	76.909	CC, ES, SF
McKee 31-21 - Original Drilling - Original Drilling - As Dril	17,023.96	6,926.70	7,447.69	7,360.86	85.775	CC, ES, SF
McKee 32-21 - Original Drilling - Original Drilling - As Dril	17,023.96	6,871.95	6,535.23	6,439.91	68.563	CC, ES, SF
McKee 41-21 - Original Drilling - Original Drilling - As Dril	17,023.96	6,723.07	6,480.77	6,401.05	81.294	CC, ES, SF
McKee 42-21 - Original Drilling - Original Drilling - As Dril	17,023.96	6,842.14	5,306.40	5,216.05	58.729	CC, ES, SF
Rampart A33-730 - Rampart A33-730 - APD-Rev 1	7,000.00	17,711.59	4,926.77	4,809.06	41.853	SF
Rampart A33-730 - Rampart A33-730 - APD-Rev 1	16,691.47	8,119.49	4,901.73	4,790.53	44.080	CC
Rampart A33-730 - Rampart A33-730 - APD-Rev 1	16,800.00	8,100.00	4,902.77	4,790.39	43.625	ES
Rampart A33-740 - Rampart A33-740 - APD-Rev 0	7,050.00	17,491.25	5,571.90	5,454.54	47.477	SF
Rampart A33-740 - Rampart A33-740 - APD-Rev 0	7,300.00	17,305.53	5,566.49	5,450.27	47.894	ES
Rampart A33-740 - Rampart A33-740 - APD-Rev 0	7,447.49	17,155.99	5,566.04	5,450.80	48.300	CC
Rampart A33-750 - Rampart A33-750 - APD-Rev 0	7,000.00	17,070.33	6,243.58	6,127.22	53.655	SF
Rampart A33-750 - Rampart A33-750 - APD-Rev 0	16,674.79	7,482.67	6,227.46	6,119.92	57.905	CC
Rampart A33-750 - Rampart A33-750 - APD-Rev 0	16,700.00	7,482.67	6,227.51	6,119.72	57.771	ES
Rampart A33-760 - Rampart A33-760 - APD-Rev 1	7,000.00	16,923.02	6,879.37	6,763.39	59.316	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 Reveille A34-735
Project:	Wells Ranch	TVD Reference:	KB @ 4681.00ft (Original Well Elev)
Reference Site:	A Section 35	MD Reference:	KB @ 4681.00ft (Original Well Elev)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Reveille A34-735	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Reveille A34-735 OH	Database:	EDMP
Reference Design:	APD - Rev 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
Offset Well - Wellbore - Design						
A Section 21						
Rampart A33-760 - Rampart A33-760 - APD-Rev 1	7,300.00	16,705.82	6,871.03	6,756.11	59.787	ES
Rampart A33-760 - Rampart A33-760 - APD-Rev 1	16,667.24	7,348.64	6,862.40	6,756.41	64.748	CC
Rampart A33-770 - Rampart A33-770 - APD-Rev 0	7,000.00	16,766.67	7,565.10	7,449.00	65.165	SF
Rampart A33-770 - Rampart A33-770 - APD-Rev 0	16,673.56	7,185.36	7,547.86	7,442.88	71.895	CC
Rampart A33-770 - Rampart A33-770 - APD-Rev 0	16,800.00	7,122.13	7,548.43	7,442.60	71.330	ES
Sexton 43-21 (PA) - Original Drilling - Original Drilling - As	17,023.96	6,790.00	4,874.89	4,665.38	23.269	CC, ES, SF
Wells Trust 13-21 - Original Drilling - Original Drilling - As	17,023.96	6,898.45	8,501.26	8,394.68	79.760	CC, ES, SF
Wells Trust 14-21 - Original Drilling - Original Drilling - As	17,023.96	6,789.71	8,439.39	8,330.19	77.280	CC, ES, SF
Wells Trust 24-21 - Original Drilling - Original Drilling - As	17,023.96	6,850.31	7,595.53	7,486.61	69.733	CC, ES, SF
A Section 22						
Carpio 22-01 - Original Drilling - Original Drilling - As Drill	17,023.96	6,774.84	1,363.56	1,266.54	14.055	CC, ES, SF
Carpio 22-04-19 - Original Drilling - Original Drilling - As D	17,023.96	6,779.92	1,576.65	1,515.54	25.800	CC, ES, SF
Carpio 22-41 - Original Drilling - Original Drilling - As Drill	17,023.96	6,790.97	2,269.30	2,167.65	22.325	CC, ES, SF
Carpio 22-43 - Original Drilling - Original Drilling - As Drill	17,023.96	6,819.19	955.16	895.18	15.923	CC, ES, SF
Carpio 22-45 - Original Drilling - Original Drilling - As Drill	17,023.96	6,756.92	1,493.89	1,415.93	19.162	CC, ES, SF
Eisenstat 22-11 (PA) - Original Drilling - Original Drilling -	17,023.96	6,804.00	5,037.00	4,859.29	28.343	CC, ES, SF
Eisenstat 22-13 - Original Drilling - Original Drilling - As D	17,023.96	6,801.71	3,063.77	3,008.07	55.010	CC, ES, SF
Eisenstat 22-15 - Original Drilling - Original Drilling - As D	17,023.96	6,768.10	4,279.76	4,219.86	71.442	CC, ES, SF
Eisenstat 22-21 - Original Drilling - Original Drilling - As D	17,023.96	6,887.07	4,749.77	4,690.90	80.681	CC, ES, SF
Eisenstat 22-23 - Original Drilling - Original Drilling - As D	17,023.96	6,842.73	4,544.60	4,467.91	59.258	CC, ES, SF
Gill Land Assoc. 1 (PA) - Original Drilling - Original Drilling	17,023.96	6,805.00	3,561.81	3,379.68	19.557	CC, ES, SF
Gill Land Assoc. 22-02 (PA) - Original Drilling - Original D	17,023.96	6,815.00	3,759.55	3,581.85	21.157	CC, ES, SF
Gill Land Assoc. 22-03 - Original Drilling - Original Drilling	17,023.96	6,821.29	5,514.72	5,444.12	78.106	CC, ES, SF
Gill Land Assoc. 22-04 (PA) - Original Drilling - Original D	17,023.96	6,813.00	4,711.44	4,542.88	27.951	CC, ES, SF
Gruen 22-01 - Original Drilling - Original Drilling - As Drille	17,023.96	6,857.25	3,660.46	3,568.72	39.901	CC, ES, SF
Gruen 22-02 - Original Drilling - Original Drilling - As Drille	17,023.96	6,776.56	1,881.54	1,782.34	18.967	CC, ES, SF
Gruen 22-31 - Original Drilling - Original Drilling - As Drille	17,023.96	6,826.19	2,697.89	2,621.40	35.271	CC, ES, SF
Gruen 22-33 - Original Drilling - Original Drilling - As Drille	17,023.96	6,898.55	3,075.24	2,970.45	29.347	CC, ES, SF
Gruen 22-35 - Original Drilling - Original Drilling - As Drille	17,023.96	6,719.99	2,720.35	2,624.98	28.524	CC, ES, SF
Ottinger 22-01 - Original Drilling - Original Drilling - As Dr	17,023.96	6,828.91	2,247.26	2,191.59	40.367	CC, ES, SF

Noble Energy, Inc.
Anticollision Summary Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Reveille A34-735
Project:	Wells Ranch	TVD Reference:	KB @ 4681.00ft (Original Well Elev)
Reference Site:	A Section 35	MD Reference:	KB @ 4681.00ft (Original Well Elev)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Reveille A34-735	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Reveille A34-735 OH	Database:	EDMP
Reference Design:	APD - Rev 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
Offset Well - Wellbore - Design						
A Section 23						
Cecil 23-13 - Original Drilling - Original Drilling - As Drilled	17,023.96	6,710.29	5,953.24	5,853.08	59.436	CC, ES, SF
Champlin 23-02 (PA) - Original Drilling - Original Drilling -	17,023.96	6,764.00	3,189.38	2,981.63	15.352	CC, ES, SF
Champlin 23-03 - Original Drilling - Original Drilling - As D	17,023.96	6,700.00	3,541.66	3,431.96	32.286	CC, ES, SF
Champlin Amoco A 1 #308 - Original Drilling - Original Dr	17,023.96	6,739.00	3,368.56	3,147.11	15.211	CC, ES, SF
Cooper 23-1-17 - Original Drilling - Original Drilling - As Dr	17,023.96	6,704.72	7,592.98	7,495.80	78.137	CC, ES, SF
Cooper 23-1-19 - Original Drilling - Original Drilling - As D	17,023.96	6,622.73	6,196.11	6,100.42	64.755	CC, ES, SF
Cooper 23-12 - Original Drilling - Original Drilling - As Dri	17,023.96	6,721.02	6,908.86	6,812.50	71.698	CC, ES, SF
Cooper 23-1-20 - Original Drilling - Original Drilling - As D	17,023.96	6,728.08	5,362.72	5,259.44	51.921	CC, ES, SF
Cooper 23-15 - Original Drilling - Original Drilling - As Dri	17,023.96	6,606.24	7,056.62	6,956.02	70.147	CC, ES, SF
Foss 41-23D - Original Drilling - Original Drilling - As Drill	17,023.96	6,891.02	7,914.77	7,807.17	73.555	CC, ES, SF
Foss 42-23 - Original Drilling - Original Drilling - As Drilled	17,023.96	6,710.57	6,950.80	6,845.31	65.890	CC, ES, SF
J&L Farms 23-11 - Original Drilling - Original Drilling - As	17,023.96	6,764.33	5,280.33	5,203.13	68.394	CC, ES, SF
J&L Farms 23-12 - Original Drilling - Original Drilling - As	17,023.96	6,700.00	3,918.80	3,834.66	46.576	CC, ES, SF
J&L Farms 23-21 - Original Drilling - Original Drilling - As	17,023.96	6,644.27	6,225.94	6,137.04	70.036	CC, ES, SF
J&L Farms 23-22 - Original Drilling - Original Drilling - As	17,023.96	6,715.59	5,031.60	4,936.15	52.712	CC, ES, SF
McIntosh 33-23 - Original Drilling - Original Drilling - As D	17,023.96	7,019.00	5,342.91	5,232.74	48.495	CC, ES, SF
McIntosh 34-23 - Original Drilling - Original Drilling - As D	17,023.96	6,761.31	5,187.97	5,076.98	46.742	CC, ES, SF
McIntosh 43-23 - Original Drilling - Original Drilling - As D	17,023.96	6,724.47	6,861.09	6,752.12	62.964	CC, ES, SF
McIntosh 44-23 - Original Drilling - Original Drilling - As D	17,023.96	6,756.57	6,571.20	6,460.28	59.246	CC, ES, SF
Schroeder 23-31 - Original Drilling - Original Drilling - As	17,023.96	6,791.01	4,289.50	4,182.73	40.176	CC, ES, SF
Schroeder 23-33 - Original Drilling - Original Drilling - As	17,023.96	6,760.66	2,257.09	2,147.31	20.559	CC, ES, SF
A Section 24						
Larson A23-622 - Larson A23-622 OH - As-drilled	17,023.96	17,299.00	1,976.81	1,823.41	12.886	CC, ES, SF
Larson A23-627 - Larson A23-627 OH - As-drilled	17,023.96	17,330.00	2,176.17	2,012.49	13.295	CC, ES, SF
Larson A23-633 - Larson A23-633 OH - As-drilled	17,023.96	17,260.00	2,409.90	2,241.10	14.277	CC, ES, SF
Larson A23-639 - Larson A23-639 OH - As-drilled	17,023.96	17,355.00	2,712.34	2,538.33	15.587	CC, ES, SF
Larson A23-645 - Larson A23-645 OH - As-drilled	17,023.96	18,040.00	3,035.68	2,853.76	16.687	CC, ES, SF
Larson A23-651 - Larson A23-651 OH - As-drilled	17,023.96	18,045.00	3,300.04	3,116.88	18.017	CC, ES, SF
Larson A23-656 - Larson A23-656 OH - As-drilled	17,023.96	18,030.00	3,560.71	3,376.53	19.333	CC, ES, SF
Larson A23-662 - Larson A23-662 OH - As-drilled	17,023.96	18,100.00	3,929.24	3,744.78	21.302	CC, ES, SF
Larson A23-668 - Larson A23-668 OH - As-Drilled	17,023.96	17,400.00	4,295.33	4,119.74	24.462	CC, ES, SF
Larson A23-672 - Larson A23-672 OH - As-Drilled	17,023.96	17,415.00	4,548.24	4,372.87	25.935	CC, ES, SF
Larson A23-678 - Larson A23-678 OH - As-Drilled	17,023.96	17,106.00	4,909.86	4,735.85	28.216	CC, ES, SF
Larson A23-683 - Larson A23-683 OH - As-Drilled	17,023.96	17,368.00	5,193.55	5,017.92	29.572	CC, ES, SF
Larson AA19-618 - Larson AA19-618 OH - As-Drilled						Out of range
Larson AA19-624 - Larson AA19-624 OH - As-Drilled						Out of range
Larson AA19-624 - Larson AA19-624 ST01 - As-Drilled						Out of range
Larson AA19-630 - Larson AA19-630 OH - As-Drilled						Out of range
Larson AA19-635 - Larson AA19-635 OH - As-Drilled						Out of range
Larson Farms 01-24 - Original Drilling - Original Drilling -						Out of range
Larson Farms 02-24 - Original Drilling - Original Drilling -						Out of range
Larson Farms 03-24 - Original Drilling - Original Drilling -						Out of range
Larson Farms 04-24 - Original Drilling - Original Drilling -						Out of range
Larson Farms 05-24 - Original Drilling - Original Drilling -						Out of range
Larson Farms 06-24 - Original Drilling - Original Drilling -						Out of range
Larson Farms 07-24 - Original Drilling - Original Drilling -						Out of range
Peppler 24-32 - Original Drilling - Original Drilling - As Dri	17,023.96	6,442.99	7,830.73	7,722.69	72.483	CC, ES, SF
Roth 24-21 - Original Drilling - Original Drilling - As Drilled						Out of range

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

Noble Energy, Inc.
Anticollision Summary Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Reveille A34-735
Project:	Wells Ranch	TVD Reference:	KB @ 4681.00ft (Original Well Elev)
Reference Site:	A Section 35	MD Reference:	KB @ 4681.00ft (Original Well Elev)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Reveille A34-735	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Reveille A34-735 OH	Database:	EDMP
Reference Design:	APD - Rev 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
Offset Well - Wellbore - Design						
A Section 25						
Fairmeadows 03-25G - Original Drilling - Original Drilling						Out of range
Fairmeadows Land Co 1 - Original Drilling - Original Drilling						Out of range
Larsen 01-25G - Original Drilling - Original Drilling - As D	16,654.64	6,780.36	7,757.18	7,619.65	56.402	CC
Larsen 01-25G - Original Drilling - Original Drilling - As D	16,700.00	6,781.42	7,757.32	7,619.47	56.274	ES
Larsen 01-25G - Original Drilling - Original Drilling - As D	17,023.96	6,789.01	7,765.97	7,625.94	55.462	SF
Larson A25-01 - Original Drilling - Original Drilling - As Dr						Out of range
Larson A25-02 - Original Drilling - Original Drilling - As Dr						Out of range
Larson A25-03 - Original Drilling - Original Drilling - As Dr	16,643.40	6,714.00	8,923.16	8,705.11	40.922	CC
Larson A25-03 - Original Drilling - Original Drilling - As Dr	16,700.00	6,714.00	8,923.34	8,704.91	40.852	ES
Larson A25-03 - Original Drilling - Original Drilling - As Dr	17,023.96	6,714.00	8,931.28	8,710.73	40.496	SF
Larson A25-03X - Original Drilling - Original Drilling - As D	16,818.20	6,640.15	8,698.49	8,590.47	80.523	CC
Larson A25-03X - Original Drilling - Original Drilling - As D	16,900.00	6,639.50	8,698.88	8,590.31	80.125	ES
Larson A25-03X - Original Drilling - Original Drilling - As D	17,023.96	6,638.52	8,700.93	8,591.55	79.552	SF
Larson A25-05 - Original Drilling - Original Drilling - As Dr	15,263.49	6,781.46	7,611.08	7,514.34	78.677	CC
Larson A25-05 - Original Drilling - Original Drilling - As Dr	15,300.00	6,781.02	7,611.17	7,514.20	78.490	ES
Larson A25-05 - Original Drilling - Original Drilling - As Dr	17,023.96	6,760.17	7,812.00	7,705.84	73.587	SF
Larson A25-06 - Original Drilling - Original Drilling - As Dr	15,292.34	6,714.01	9,203.84	8,996.28	44.342	CC
Larson A25-06 - Original Drilling - Original Drilling - As Dr	15,400.00	6,714.01	9,204.47	8,996.20	44.194	ES
Larson A25-06 - Original Drilling - Original Drilling - As Dr	17,023.96	6,714.00	9,365.32	9,147.41	42.978	SF
Larson A25-06X - Original Drilling - Original Drilling - As D	15,230.31	6,516.90	8,844.40	8,745.22	89.178	CC
Larson A25-06X - Original Drilling - Original Drilling - As D	15,300.00	6,516.51	8,844.68	8,745.08	88.808	ES
Larson A25-06X - Original Drilling - Original Drilling - As D	17,023.96	6,500.00	9,024.44	8,915.91	83.153	SF
Larson A25-07 - Original Drilling - Original Drilling - As Dr						Out of range
Larson A25-08 - Original Drilling - Original Drilling - As Dr						Out of range
Larson A25-10 - Original Drilling - Original Drilling - Drilled						Out of range
Larson A25-11 - Original Drilling - Original Drilling - As Dr	14,000.61	6,701.02	9,052.00	8,854.51	45.837	CC
Larson A25-11 - Original Drilling - Original Drilling - As Dr	14,100.00	6,701.02	9,052.54	8,854.42	45.691	ES
Larson A25-11 - Original Drilling - Original Drilling - As Dr	16,100.00	6,701.01	9,292.26	9,082.64	44.330	SF
Larson A25-12 - Original Drilling - Original Drilling - As Dr	14,068.62	6,667.65	7,473.63	7,386.60	85.874	CC
Larson A25-12 - Original Drilling - Original Drilling - As Dr	14,100.00	6,667.77	7,473.69	7,386.47	85.681	ES
Larson A25-12 - Original Drilling - Original Drilling - As Dr	16,400.00	6,676.96	7,828.81	7,729.89	79.137	SF
Larson A25-13 - Original Drilling - Original Drilling - As Dr	12,855.46	6,763.03	7,575.01	7,496.44	96.409	CC
Larson A25-13 - Original Drilling - Original Drilling - As Dr	12,900.00	6,762.72	7,575.14	7,496.30	96.084	ES
Larson A25-13 - Original Drilling - Original Drilling - As Dr	15,500.00	6,746.07	8,023.32	7,931.57	87.450	SF
Larson A25-14 - Original Drilling - Original Drilling - As Dr	12,605.13	6,953.00	8,854.07	8,776.34	113.910	CC
Larson A25-14 - Original Drilling - Original Drilling - As Dr	12,700.00	6,953.00	8,854.58	8,776.26	113.065	ES
Larson A25-14 - Original Drilling - Original Drilling - As Dr	16,200.00	6,953.00	9,556.03	9,459.81	99.316	SF
Larson A25-15 - Original Drilling - Original Drilling - As Dr						Out of range
Larson A25-17 - Original Drilling - Original Drilling - As D						Out of range
Larson A25-19 - Original Drilling - Original Drilling - As Dr	16,052.87	6,337.19	8,171.16	8,070.67	81.315	CC
Larson A25-19 - Original Drilling - Original Drilling - As Dr	16,100.00	6,337.35	8,171.29	8,070.50	81.067	ES
Larson A25-19 - Original Drilling - Original Drilling - As Dr	17,023.96	6,340.43	8,228.66	8,122.27	77.343	SF
Larson A25-23 - Original Drilling - Original Drilling - As Dr						Out of range
Larson A25-25 - Original Drilling - Original Drilling - As Dr	13,296.30	6,643.76	8,251.75	8,170.61	101.694	CC
Larson A25-25 - Original Drilling - Original Drilling - As Dr	13,300.00	6,643.74	8,251.75	8,170.59	101.665	ES
Larson A25-25 - Original Drilling - Original Drilling - As Dr	16,300.00	6,625.73	8,781.41	8,684.97	91.051	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 Reveille A34-735
Project:	Wells Ranch	TVD Reference:	KB @ 4681.00ft (Original Well Elev)
Reference Site:	A Section 35	MD Reference:	KB @ 4681.00ft (Original Well Elev)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Reveille A34-735	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Reveille A34-735 OH	Database:	EDMP
Reference Design:	APD - Rev 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
Offset Well - Wellbore - Design						
A Section 26						
Barrett 11-26 (SI) - Original Drilling - Original Drilling - As	14,029.35	6,653.98	3,515.91	3,425.60	38.933	CC, ES
Barrett 11-26 (SI) - Original Drilling - Original Drilling - As	14,500.00	6,654.57	3,547.27	3,455.13	38.496	SF
Barrett 12-26 (SI) - Original Drilling - Original Drilling - As	14,013.38	6,745.64	2,198.69	2,112.92	25.632	CC, ES
Barrett 12-26 (SI) - Original Drilling - Original Drilling - As	14,100.00	6,746.56	2,200.40	2,114.37	25.578	SF
Brown-Orr 14-26 (SI) - Original Drilling - Original Drilling - As	12,447.64	6,716.35	2,119.21	2,043.86	28.128	CC, ES
Brown-Orr 14-26 (SI) - Original Drilling - Original Drilling - As	12,600.00	6,716.08	2,124.68	2,048.97	28.066	SF
Brown-Orr 24-26 - Original Drilling - Original Drilling - As	12,426.47	6,836.78	3,804.12	3,727.95	49.943	CC, ES
Brown-Orr 24-26 - Original Drilling - Original Drilling - As	13,100.00	6,851.13	3,863.26	3,784.30	48.927	SF
Carpio A26-04 - Original Drilling - Original Drilling - As Dr	16,633.85	6,726.97	2,294.74	2,187.80	21.459	CC, ES
Carpio A26-04 - Original Drilling - Original Drilling - As Dr	16,700.00	6,727.04	2,295.69	2,188.55	21.427	SF
Carpio A26-05 - Original Drilling - Original Drilling - As Dr	15,104.65	6,728.32	2,406.16	2,310.96	25.273	CC, ES
Carpio A26-05 - Original Drilling - Original Drilling - As Dr	15,200.00	6,727.78	2,408.05	2,312.55	25.214	SF
DCD Farm A26-02 - Original Drilling - Original Drilling - A	16,475.74	6,678.93	4,973.76	4,868.24	47.134	CC
DCD Farm A26-02 - Original Drilling - Original Drilling - A	16,500.00	6,679.01	4,973.82	4,868.16	47.072	ES
DCD Farm A26-02 - Original Drilling - Original Drilling - A	17,023.96	6,680.89	5,003.88	4,895.60	46.209	SF
DCD Farms 01-26 - Original Drilling - Original Drilling - As	15,263.57	6,811.89	6,267.58	6,170.65	64.665	CC
DCD Farms 01-26 - Original Drilling - Original Drilling - As	15,300.00	6,812.03	6,267.68	6,170.53	64.517	ES
DCD Farms 01-26 - Original Drilling - Original Drilling - As	16,700.00	6,817.16	6,430.07	6,325.99	61.778	SF
DCD Farms 02-26 (PA) - Original Drilling - Original Drilling	15,231.12	6,764.57	3,572.35	3,475.68	36.955	CC, ES
DCD Farms 02-26 (PA) - Original Drilling - Original Drilling	15,600.00	6,769.90	3,591.34	3,493.12	36.562	SF
DCD Farms A26-07 - Original Drilling - Original Drilling - A	15,505.36	6,709.21	4,935.36	4,837.23	50.294	CC, ES
DCD Farms A26-07 - Original Drilling - Original Drilling - A	16,400.00	6,711.67	5,015.74	4,913.46	49.039	SF
Pfeiffer 09-26 - Original Drilling - Original Drilling - As Dril	13,953.08	6,746.88	6,277.30	6,190.72	72.498	CC
Pfeiffer 09-26 - Original Drilling - Original Drilling - As Dril	14,000.00	6,746.42	6,277.48	6,190.61	72.268	ES
Pfeiffer 09-26 - Original Drilling - Original Drilling - As Dril	15,600.00	6,731.00	6,489.73	6,395.19	68.644	SF
Pfeiffer 10-26 - Wellbore #1 - Wellbore #1 - As Drilled	13,986.92	6,714.58	4,957.88	4,871.21	57.204	CC
Pfeiffer 10-26 - Wellbore #1 - Wellbore #1 - As Drilled	14,000.00	6,714.49	4,957.90	4,871.16	57.156	ES
Pfeiffer 10-26 - Wellbore #1 - Wellbore #1 - As Drilled	15,000.00	6,707.55	5,060.33	4,969.10	55.470	SF
Pfeiffer 15-26 - Wellbore #1 - Wellbore #1 - As Drilled	12,603.69	6,936.25	4,773.82	4,695.82	61.205	CC, ES
Pfeiffer 15-26 - Wellbore #1 - Wellbore #1 - As Drilled	13,600.00	6,954.58	4,876.64	4,794.07	59.061	SF
Pfeiffer 16-26 - Original Drilling - Original Drilling - As Dril	12,478.54	6,703.04	6,311.80	6,125.43	33.867	CC
Pfeiffer 16-26 - Original Drilling - Original Drilling - As Dril	12,500.00	6,703.04	6,311.84	6,125.34	33.844	ES
Pfeiffer 16-26 - Original Drilling - Original Drilling - As Dril	13,500.00	6,703.03	6,393.92	6,202.15	33.342	SF
Sidwell 26-1G4 - Original Drilling - Original Drilling - As D	16,513.68	6,664.12	6,323.10	6,216.94	59.563	CC, ES
Sidwell 26-1G4 - Original Drilling - Original Drilling - As D	17,023.96	6,671.23	6,343.65	6,234.48	58.107	SF
Sidwell A26-03 (PA) - Original Drilling - Original Drilling -	16,679.87	6,976.39	3,702.99	3,583.90	31.095	CC
Sidwell A26-03 (PA) - Original Drilling - Original Drilling -	16,700.00	6,976.41	3,703.04	3,583.85	31.068	ES
Sidwell A26-03 (PA) - Original Drilling - Original Drilling -	17,023.96	6,976.77	3,718.94	3,598.43	30.859	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 Reveille A34-735
Project:	Wells Ranch	TVD Reference:	KB @ 4681.00ft (Original Well Elev)
Reference Site:	A Section 35	MD Reference:	KB @ 4681.00ft (Original Well Elev)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Reveille A34-735	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Reveille A34-735 OH	Database:	EDMP
Reference Design:	APD - Rev 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
Offset Well - Wellbore - Design						
A Section 27						
Howard 02-27 (PA) - Original Drilling - Original Drilling - A	16,563.09	6,820.00	292.46	72.91	1.332	Level 3, CC, ES, SF
Howard 03-27 - Original Drilling - Original Drilling - As Dri	16,475.18	6,778.74	1,700.90	1,594.76	16.025	CC
Howard 03-27 - Original Drilling - Original Drilling - As Dri	16,500.00	6,778.69	1,701.08	1,594.61	15.977	ES
Howard 03-27 - Original Drilling - Original Drilling - As Dri	16,700.00	6,778.28	1,715.69	1,607.12	15.803	SF
Howard 04-27 (PA) - Original Drilling - Original Drilling - A	16,583.17	6,780.00	2,942.85	2,723.94	13.444	CC
Howard 04-27 (PA) - Original Drilling - Original Drilling - A	16,600.00	6,780.00	2,942.90	2,723.80	13.432	ES
Howard 04-27 (PA) - Original Drilling - Original Drilling - A	16,900.00	6,780.00	2,959.85	2,737.83	13.331	SF
Howard 08-27 - Original Drilling - Original Drilling - As Dri	15,169.60	6,771.88	1,004.51	908.72	10.486	CC, ES, SF
Howard 10-27 - Original Drilling - Original Drilling - As Dri	13,856.26	6,761.64	221.26	135.43	2.578	CC, ES, SF
Howard 15-27 - Original Drilling - Original Drilling - As Dri	12,691.07	6,761.10	378.74	303.51	5.034	CC
Howard 15-27 - Original Drilling - Original Drilling - As Dri	12,700.00	6,761.27	378.84	303.36	5.019	ES, SF
Howard 4B-27 (DA) - Original Drilling - Original Drilling - A	16,543.11	3,765.00	4,218.23	4,075.95	29.648	CC
Howard 4B-27 (DA) - Original Drilling - Original Drilling - A	16,600.00	3,765.00	4,218.61	4,075.82	29.544	ES
Howard 4B-27 (DA) - Original Drilling - Original Drilling - A	17,023.96	3,765.00	4,245.55	4,099.06	28.983	SF
Howard A27-01 - Original Drilling - Original Drilling - As D	16,562.45	6,775.98	1,035.89	929.28	9.717	CC, ES, SF
Howard A27-05 (SI) - Original Drilling - Original Drilling - A	15,182.76	6,793.39	2,929.36	2,833.46	30.545	CC
Howard A27-05 (SI) - Original Drilling - Original Drilling - A	15,200.00	6,793.15	2,929.41	2,833.32	30.485	ES
Howard A27-05 (SI) - Original Drilling - Original Drilling - A	15,800.00	6,785.04	2,993.67	2,892.36	29.549	SF
Howard A27-06 (PR) - Original Drilling - Original Drilling -	15,227.70	6,870.02	1,551.42	1,452.47	15.679	CC, ES
Howard A27-06 (PR) - Original Drilling - Original Drilling -	15,500.00	6,870.30	1,575.14	1,472.21	15.304	SF
Howard A27-07 - Original Drilling - Original Drilling - As D	15,157.84	6,819.89	201.60	105.81	2.105	CC, ES, SF
Howard A27-09 - Original Drilling - Original Drilling - As D	13,796.32	6,759.14	907.10	821.78	10.631	CC, ES, SF
Howard A27-16 - Original Drilling - Original Drilling - As D	12,526.05	6,755.57	1,185.91	1,109.81	15.582	CC, ES, SF
Howard A27-17D - Original Drilling - Original Drilling - As	15,970.54	6,878.57	451.49	345.68	4.267	CC, ES, SF

Noble Energy, Inc.
Anticollision Summary Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Reveille A34-735
Project:	Wells Ranch	TVD Reference:	KB @ 4681.00ft (Original Well Elev)
Reference Site:	A Section 35	MD Reference:	KB @ 4681.00ft (Original Well Elev)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Reveille A34-735	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Reveille A34-735 OH	Database:	EDMP
Reference Design:	APD - Rev 1	Offset TVD Reference:	Offset Datum

Summary

Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
A Section 28						
Ankeney 2-28 (SI) - Wellbore #1 - No Surveys	16,621.64	6,772.00	5,685.08	5,466.03	25.954	CC
Ankeney 2-28 (SI) - Wellbore #1 - No Surveys	16,700.00	6,772.00	5,685.62	5,465.83	25.869	ES
Ankeney 2-28 (SI) - Wellbore #1 - No Surveys	17,023.96	6,772.00	5,699.30	5,476.58	25.590	SF
Ankeney 28-01 (PA) - Wellbore #1 - Gyro Surveys	14,978.88	6,802.34	4,214.28	4,121.02	45.190	CC
Ankeney 28-01 (PA) - Wellbore #1 - Gyro Surveys	15,000.00	6,802.17	4,214.33	4,120.86	45.089	ES
Ankeney 28-01 (PA) - Wellbore #1 - Gyro Surveys	16,100.00	6,793.40	4,360.84	4,258.63	42.664	SF
Art Rohr 1 (PA) - Wellbore #1 - No Surveys	13,809.58	6,767.03	6,943.74	6,746.37	35.180	CC
Art Rohr 1 (PA) - Wellbore #1 - No Surveys	13,900.00	6,767.02	6,944.33	6,746.16	35.043	ES
Art Rohr 1 (PA) - Wellbore #1 - No Surveys	15,500.00	6,767.01	7,146.54	6,935.78	33.908	SF
Danley 1 (TA) - Wellbore #1 - Gyro Surveys	16,688.47	6,873.22	7,977.36	7,869.55	73.992	CC
Danley 1 (TA) - Wellbore #1 - Gyro Surveys	16,800.00	6,873.82	7,978.14	7,869.32	73.314	ES
Danley 1 (TA) - Wellbore #1 - Gyro Surveys	17,023.96	6,875.90	7,984.41	7,873.61	72.059	SF
Danley 12-28 (SI) - Wellbore #1 - Gyro Surveys	15,099.60	6,859.75	8,140.36	8,044.91	85.279	CC
Danley 12-28 (SI) - Wellbore #1 - Gyro Surveys	15,200.00	6,855.15	8,140.98	8,044.65	84.509	ES
Danley 12-28 (SI) - Wellbore #1 - Gyro Surveys	17,023.96	6,781.41	8,364.32	8,253.75	75.652	SF
Danley 13-28 (PR) - Wellbore #1 - Gyro Surveys	13,779.13	6,928.43	8,176.77	8,091.69	96.107	CC
Danley 13-28 (PR) - Wellbore #1 - Gyro Surveys	13,800.00	6,928.13	8,176.80	8,091.54	95.905	ES
Danley 13-28 (PR) - Wellbore #1 - Gyro Surveys	17,023.96	6,880.87	8,796.95	8,688.39	81.035	SF
Danley 14-28 (PR) - Wellbore #1 - Gyro Surveys	12,430.69	6,844.49	8,194.72	8,119.20	108.513	CC
Danley 14-28 (PR) - Wellbore #1 - Gyro Surveys	12,500.00	6,843.06	8,195.01	8,118.93	107.714	ES
Danley 14-28 (PR) - Wellbore #1 - Gyro Surveys	16,400.00	6,745.76	9,104.83	9,002.22	88.732	SF
Dewey 21-28 (TA) - Wellbore #1 - Gyro Surveys	16,335.96	7,038.81	6,887.27	6,782.67	65.845	CC
Dewey 21-28 (TA) - Wellbore #1 - Gyro Surveys	16,400.00	7,037.60	6,887.56	6,782.37	65.478	ES
Dewey 21-28 (TA) - Wellbore #1 - Gyro Surveys	17,023.96	7,025.84	6,921.53	6,810.89	62.560	SF
Dewey 22-28 (SI) - Wellbore #1 - Gyro Surveys	15,191.85	7,176.26	6,831.24	6,734.66	70.729	CC
Dewey 22-28 (SI) - Wellbore #1 - Gyro Surveys	15,300.00	7,168.45	6,832.09	6,734.54	70.033	ES
Dewey 22-28 (SI) - Wellbore #1 - Gyro Surveys	17,023.96	7,044.08	7,071.42	6,960.65	63.839	SF
Hannan Rohr 1 (PA) - Wellbore #1 - Gyro Surveys	12,409.26	6,751.46	6,899.57	6,824.54	91.950	CC
Hannan Rohr 1 (PA) - Wellbore #1 - Gyro Surveys	12,500.00	6,751.74	6,900.17	6,824.38	91.040	ES
Hannan Rohr 1 (PA) - Wellbore #1 - Gyro Surveys	15,400.00	6,760.79	7,519.88	7,423.73	78.209	SF
Rohr A 28-25 (SI) - Wellbore #1 - Gyro Surveys	13,286.58	7,023.03	7,385.08	7,303.69	90.734	CC
Rohr A 28-25 (SI) - Wellbore #1 - Gyro Surveys	13,400.00	7,021.07	7,385.96	7,303.59	89.671	ES
Rohr A 28-25 (SI) - Wellbore #1 - Gyro Surveys	16,500.00	6,967.48	8,053.72	7,949.59	77.337	SF
Wardlaw 16-28 (SI) - Wellbore #1 - Gyro Surveys	12,456.56	6,784.67	4,425.95	4,350.40	58.588	CC
Wardlaw 16-28 (SI) - Wellbore #1 - Gyro Surveys	12,500.00	6,785.08	4,426.16	4,350.22	58.288	ES
Wardlaw 16-28 (SI) - Wellbore #1 - Gyro Surveys	13,900.00	6,797.19	4,655.36	4,568.73	53.740	SF
Wardlaw 20-28 - Original Drilling - Original Drilling - As D	13,067.54	6,740.03	4,759.13	4,567.77	24.870	CC
Wardlaw 20-28 - Original Drilling - Original Drilling - As D	13,100.00	6,740.03	4,759.24	4,567.59	24.832	ES
Wardlaw 20-28 - Original Drilling - Original Drilling - As D	13,900.00	6,740.02	4,831.39	4,633.00	24.353	SF
Wardlaw 20-28 (SI) - Wellbore #1 - Gyro Surveys	13,100.95	6,771.62	4,750.15	4,669.97	59.248	CC, ES
Wardlaw 20-28 (SI) - Wellbore #1 - Gyro Surveys	14,700.00	6,795.66	5,012.02	4,919.70	54.292	SF
Wardlaw 33-28 (PA) - Wellbore #1 - Gyro Surveys	13,595.68	7,500.00	5,307.15	5,163.38	36.915	CC
Wardlaw 33-28 (PA) - Wellbore #1 - Gyro Surveys	13,700.00	7,500.00	5,308.17	5,161.67	36.232	ES
Wardlaw 33-28 (PA) - Wellbore #1 - Gyro Surveys	15,900.00	7,500.00	5,785.82	5,595.45	30.392	SF
Webster 09-28 (PR) - Original Drilling - Original Drilling -	13,867.16	6,755.03	4,470.98	4,273.41	22.630	CC
Webster 09-28 (PR) - Original Drilling - Original Drilling -	13,900.00	6,755.02	4,471.10	4,273.22	22.595	ES
Webster 09-28 (PR) - Original Drilling - Original Drilling -	14,600.00	6,755.02	4,530.64	4,326.73	22.218	SF
Webster 15-28 (SI) - Wellbore #1 - Gyro Surveys	12,529.07	6,785.43	5,763.08	5,687.12	75.872	CC
Webster 15-28 (SI) - Wellbore #1 - Gyro Surveys	12,600.00	6,785.20	5,763.51	5,686.94	75.271	ES
Webster 15-28 (SI) - Wellbore #1 - Gyro Surveys	14,800.00	6,778.33	6,194.36	6,101.93	67.017	SF
Webster 9-28 (PR) - Wellbore #1 - Gyro Surveys	13,906.87	6,777.25	4,455.61	4,369.49	51.735	CC, ES
Webster 9-28 (PR) - Wellbore #1 - Gyro Surveys	15,200.00	6,782.24	4,639.47	4,543.19	48.191	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 Reveille A34-735
Project:	Wells Ranch	TVD Reference:	KB @ 4681.00ft (Original Well Elev)
Reference Site:	A Section 35	MD Reference:	KB @ 4681.00ft (Original Well Elev)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Reveille A34-735	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Reveille A34-735 OH	Database:	EDMP
Reference Design:	APD - Rev 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
Offset Well - Wellbore - Design						
A Section 33						
Achziger 11-33 (PR) - Wellbore #1 - Gyro Surveys	8,666.79	6,829.75	6,684.25	6,631.08	125.711	CC
Achziger 11-33 (PR) - Wellbore #1 - Gyro Surveys	8,700.00	6,828.90	6,684.34	6,631.02	125.370	ES
Achziger 11-33 (PR) - Wellbore #1 - Gyro Surveys	12,600.00	6,729.55	7,754.95	7,679.06	102.183	SF
Achziger 14-33 (PA) - Wellbore #1 - No Surveys	7,077.62	6,507.25	6,919.78	6,763.75	44.348	CC
Achziger 14-33 (PA) - Wellbore #1 - No Surveys	7,150.00	6,556.74	6,920.54	6,763.35	44.028	ES
Achziger 14-33 (PA) - Wellbore #1 - No Surveys	8,000.00	6,705.07	6,983.49	6,821.44	43.093	SF
Briggs 15-33 (SI) - Wellbore #1 - Gyro Surveys	7,344.77	6,888.09	5,605.17	5,555.59	113.051	CC
Briggs 15-33 (SI) - Wellbore #1 - Gyro Surveys	7,350.00	6,890.05	5,605.18	5,555.58	113.022	ES
Briggs 15-33 (SI) - Wellbore #1 - Gyro Surveys	10,600.00	6,925.79	6,523.38	6,459.47	102.067	SF
Ehrlich 19-33 (PR) - Wellbore #1 - Gyro Survey	7,836.03	6,725.30	7,708.26	7,657.64	152.275	CC, ES
Ehrlich 19-33 (PR) - Wellbore #1 - Gyro Survey	13,000.00	6,696.19	9,278.10	9,200.61	119.741	SF
French 09-33 (SI) - Original Drilling - Original Drilling - As	8,582.37	6,649.29	4,248.81	4,196.12	80.642	CC
French 09-33 (SI) - Original Drilling - Original Drilling - As	8,600.00	6,649.54	4,248.85	4,196.08	80.523	ES
French 09-33 (SI) - Original Drilling - Original Drilling - As	10,500.00	6,674.42	4,661.42	4,597.74	73.198	SF
Hammerbeck 16-33 (PA) - Original Drilling - Original Drilling	7,077.05	6,424.49	4,184.82	4,136.51	86.624	CC, ES
Hammerbeck 16-33 (PA) - Original Drilling - Original Drilling	9,000.00	6,544.84	4,572.14	4,516.51	82.189	SF
Hammerbeck 20-33 - Wellbore #1 - Gyro Surveys	7,892.43	6,585.76	4,953.08	4,902.58	98.080	CC
Hammerbeck 20-33 - Wellbore #1 - Gyro Surveys	7,900.00	6,585.82	4,953.08	4,902.56	98.043	ES
Hammerbeck 20-33 - Wellbore #1 - Gyro Surveys	15,500.00	15,500.00	9,077.49	8,967.89	82.826	SF
Noffsinger 11-33 (PR) - Wellbore #1 - Gyro Surveys	11,331.07	6,742.12	8,326.38	8,258.63	122.886	CC
Noffsinger 11-33 (PR) - Wellbore #1 - Gyro Surveys	11,400.00	6,741.01	8,326.67	8,258.39	121.953	ES
Noffsinger 11-33 (PR) - Wellbore #1 - Gyro Surveys	15,800.00	6,700.00	9,449.82	9,352.39	96.993	SF
Noffsinger 12-33 (PR) - Wellbore #1 - Gyro Surveys	9,600.15	6,771.66	8,136.01	8,078.73	142.037	CC, ES
Noffsinger 12-33 (PR) - Wellbore #1 - Gyro Surveys	14,500.00	6,777.37	9,497.54	9,409.82	108.272	SF
Noffsinger 21-33 (PA) - Wellbore #1 - No Surveys	11,356.05	6,745.04	6,900.58	6,721.36	38.503	CC
Noffsinger 21-33 (PA) - Wellbore #1 - No Surveys	11,400.00	6,745.04	6,900.72	6,721.16	38.431	ES
Noffsinger 21-33 (PA) - Wellbore #1 - No Surveys	13,200.00	6,745.03	7,142.70	6,949.62	36.993	SF
Noffsinger 22-33 (PR) - Wellbore #1 - Gyro Surveys	11,385.94	6,452.63	5,359.28	5,292.11	79.792	CC
Noffsinger 22-33 (PR) - Wellbore #1 - Gyro Surveys	11,400.00	6,453.03	5,359.29	5,292.02	79.657	ES
Noffsinger 22-33 (PR) - Wellbore #1 - Gyro Surveys	13,600.00	6,501.23	5,798.35	5,715.39	69.892	SF
Noffsinger 31-33 (PR) - Wellbore #1 - Gyro Surveys	11,346.71	6,755.32	5,474.56	5,406.73	80.705	CC
Noffsinger 31-33 (PR) - Wellbore #1 - Gyro Surveys	11,400.00	6,755.33	5,474.82	5,406.55	80.200	ES
Noffsinger 31-33 (PR) - Wellbore #1 - Gyro Surveys	13,600.00	6,755.66	5,920.15	5,836.27	70.580	SF
Noffsinger 32-33 (PR) - Wellbore #1 - Gyro Surveys	9,572.06	6,923.22	5,695.68	5,638.68	99.919	CC
Noffsinger 32-33 (PR) - Wellbore #1 - Gyro Surveys	9,600.00	6,922.65	5,695.75	5,638.57	99.620	ES
Noffsinger 32-33 (PR) - Wellbore #1 - Gyro Surveys	12,400.00	6,865.50	6,358.83	6,283.61	84.540	SF
Sitzman 12-33 (PR) - Wellbore #1 - Gyro Surveys	8,517.65	6,757.36	8,271.85	8,219.38	157.641	CC, ES
Sitzman 12-33 (PR) - Wellbore #1 - Gyro Surveys	14,000.00	6,763.74	9,923.69	9,840.02	118.607	SF
Sitzman 13-33 (SI) - Wellbore #1 - Gyro Surveys	7,071.90	6,515.53	8,270.69	8,222.24	170.687	CC, ES
Sitzman 13-33 (SI) - Wellbore #1 - Gyro Surveys	12,500.00	6,706.41	9,952.80	9,878.29	133.591	SF
Sughrue 41-33 (SI) - Original Drilling - Original Drilling -	11,343.71	6,565.12	4,187.89	4,120.07	61.754	CC
Sughrue 41-33 (SI) - Original Drilling - Original Drilling -	11,400.00	6,565.60	4,188.27	4,119.98	61.329	ES
Sughrue 41-33 (SI) - Original Drilling - Original Drilling -	12,800.00	6,578.05	4,433.84	4,355.20	56.382	SF
Webster 10-33 (PA) - Wellbore #1 - Gyro Surveys	8,618.26	6,864.00	5,547.78	5,495.02	105.158	CC, ES
Webster 10-33 (PA) - Wellbore #1 - Gyro Surveys	11,600.00	6,900.03	6,298.20	6,228.23	90.008	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 Reveille A34-735
Project:	Wells Ranch	TVD Reference:	KB @ 4681.00ft (Original Well Elev)
Reference Site:	A Section 35	MD Reference:	KB @ 4681.00ft (Original Well Elev)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Reveille A34-735	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Reveille A34-735 OH	Database:	EDMP
Reference Design:	APD - Rev 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
Offset Well - Wellbore - Design						
A Section 34						
Barthol A34-05X - Original Drilling - Original Drilling - As D	10,036.31	6,740.00	3,065.65	3,005.83	51.248	CC, ES
Barthol A34-05X - Original Drilling - Original Drilling - As D	11,000.00	6,726.27	3,213.52	3,146.54	47.978	SF
Ehlich A34-01 - Original Drilling - Original Drilling - As Dr	11,078.90	6,734.73	1,113.44	1,047.51	16.888	CC, ES, SF
Howard A34-03 (PA) - Original Drilling - Original Drilling -	11,222.33	6,761.05	1,661.17	1,482.27	9.285	CC, ES
Howard A34-03 (PA) - Original Drilling - Original Drilling -	11,400.00	6,761.04	1,670.65	1,489.87	9.241	SF
Howard BC A34-02 - Original Drilling - Original Drilling - A	11,095.57	6,753.66	552.00	485.62	8.316	CC
Howard BC A34-02 - Original Drilling - Original Drilling - A	11,100.00	6,753.72	552.02	485.55	8.305	ES
Howard BC A34-02 - Original Drilling - Original Drilling - A	11,200.00	6,755.13	561.79	493.67	8.246	SF
Landwehr A34-03X - Original Drilling - Original Drilling - A	11,387.56	6,784.99	1,722.07	1,653.91	25.266	CC
Landwehr A34-03X - Original Drilling - Original Drilling - A	11,400.00	6,784.89	1,722.11	1,653.81	25.215	ES
Landwehr A34-03X - Original Drilling - Original Drilling - A	11,700.00	6,782.27	1,750.18	1,678.89	24.549	SF
Landwehr A34-04 - Original Drilling - Original Drilling - As	11,402.68	6,826.50	3,209.13	3,140.93	47.056	CC, ES
Landwehr A34-04 - Original Drilling - Original Drilling - As	12,400.00	6,859.11	3,360.37	3,284.29	44.169	SF
Petrikin A34-05 (PA) - Original Drilling - Original Drilling -	9,876.31	6,738.06	2,978.63	2,808.38	17.496	CC
Petrikin A34-05 (PA) - Original Drilling - Original Drilling -	9,900.00	6,738.06	2,978.72	2,808.30	17.478	ES
Petrikin A34-05 (PA) - Original Drilling - Original Drilling -	10,300.00	6,738.05	3,008.61	2,835.14	17.343	SF
Petrikin A34-06 - Original Drilling - Original Drilling - As D	9,912.04	6,768.59	1,644.93	1,586.04	27.931	CC, ES
Petrikin A34-06 - Original Drilling - Original Drilling - As D	10,300.00	6,770.70	1,690.06	1,627.79	27.138	SF
Petrikin A34-07 (PA) - Original Drilling - Original Drilling -	9,983.75	6,723.06	319.35	148.80	1.873	CC, ES
Petrikin A34-07 (PA) - Original Drilling - Original Drilling -	10,000.00	6,723.06	319.76	148.82	1.871	SF
Petrikin A34-08 - Original Drilling - Original Drilling - As D	10,000.00	6,722.33	1,112.14	1,052.75	18.729	ES, SF
Petrikin A34-08 - Original Drilling - Original Drilling - As D	10,000.58	6,722.31	1,112.14	1,052.76	18.729	CC
Petrikin A34-09 - Original Drilling - Original Drilling - As D	8,698.75	6,771.80	1,131.83	1,078.22	21.112	CC, ES
Petrikin A34-09 - Original Drilling - Original Drilling - As D	8,700.00	6,771.76	1,131.83	1,078.22	21.112	SF
Petrikin A34-10 - Original Drilling - Original Drilling - As D	8,706.56	6,744.53	136.62	82.83	2.540	CC, ES, SF
Petrikin A34-11 - Original Drilling - Original Drilling - As D	8,666.41	6,722.84	1,608.70	1,555.64	30.318	CC, ES
Petrikin A34-11 - Original Drilling - Original Drilling - As D	9,000.00	6,721.98	1,642.92	1,587.64	29.721	SF
Petrikin A34-12 (PA) - Original Drilling - Original Drilling -	8,681.04	6,834.02	2,856.42	2,803.36	53.828	CC
Petrikin A34-12 (PA) - Original Drilling - Original Drilling -	8,700.00	6,834.38	2,856.49	2,803.33	53.732	ES
Petrikin A34-12 (PA) - Original Drilling - Original Drilling -	9,600.00	6,851.34	3,000.56	2,941.98	51.226	SF
Petrikin A34-13 - Original Drilling - Original Drilling - As D	7,195.12	6,553.90	2,916.67	2,867.67	59.534	CC
Petrikin A34-13 - Original Drilling - Original Drilling - As D	7,200.00	6,556.51	2,916.67	2,867.66	59.510	ES
Petrikin A34-13 - Original Drilling - Original Drilling - As D	7,800.00	6,696.79	2,969.89	2,919.08	58.452	SF
Petrikin A34-14 (PA) - Original Drilling - Original Drilling -	7,306.36	6,652.58	2,180.69	2,131.01	43.894	CC, ES
Petrikin A34-14 (PA) - Original Drilling - Original Drilling -	7,550.00	6,723.56	2,192.83	2,142.42	43.501	SF
Petrikin A34-15 - Original Drilling - Original Drilling - As D	7,342.19	6,674.95	316.76	267.09	6.378	CC, ES
Petrikin A34-15 - Original Drilling - Original Drilling - As D	7,350.00	6,677.56	316.84	267.14	6.375	SF
Petrikin A34-16 (PA) - Original Drilling - Original Drilling -	4,636.23	4,411.68	491.42	458.33	14.853	CC, ES
Petrikin A34-16 (PA) - Original Drilling - Original Drilling -	4,900.00	4,646.38	506.21	471.15	14.441	SF
Petrikin A34-25 - Original Drilling - Original Drilling - As D	8,077.97	6,697.90	2,219.95	2,168.77	43.381	CC, ES
Petrikin A34-25 - Original Drilling - Original Drilling - As D	8,600.00	6,679.88	2,280.44	2,226.79	42.510	SF
Reveille A33-720 - Reveille A33-720 OH - APD - Rev 1	6,493.41	4,567.78	3,533.66	3,492.81	86.491	CC
Reveille A33-720 - Reveille A33-720 OH - APD - Rev 1	6,513.95	4,587.94	3,533.66	3,492.62	86.095	ES
Reveille A33-720 - Reveille A33-720 OH - APD - Rev 1	17,023.96	17,576.35	4,246.80	4,073.01	24.437	SF
Reveille A34-746 - Reveille A34-746 OH - APD - Rev 1	7,170.33	6,993.66	709.60	658.52	13.892	CC
Reveille A34-746 - Reveille A34-746 OH - APD - Rev 1	17,023.96	16,817.91	710.74	538.27	4.121	ES, SF
Reveille A34-757 - Reveille A34-757 OH - APD - Rev 1	17,004.20	16,629.17	1,416.20	1,244.58	8.252	CC
Reveille A34-757 - Reveille A34-757 OH - APD - Rev 1	17,023.96	16,626.69	1,416.37	1,244.50	8.241	ES, SF
Reveille A34-768 - Reveille A34-768 OH - APD - Rev 1	16,994.47	16,563.42	2,123.83	1,951.05	12.292	CC
Reveille A34-768 - Reveille A34-768 OH - APD - Rev 1	17,023.96	16,558.98	2,124.09	1,950.97	12.269	ES, SF
Reveille A34-778 - Reveille A34-778 OH - APD - Rev 1	6,885.07	5,909.56	2,811.35	2,763.92	59.278	CC
Reveille A34-778 - Reveille A34-778 OH - APD - Rev 1	17,023.96	16,607.30	2,831.60	2,659.95	16.497	ES, SF
Reveille A34-788 - Reveille A34-788 OH - APD - Rev 1	6,687.06	5,268.95	3,272.20	3,227.10	72.551	CC

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 Reveille A34-735
Project:	Wells Ranch	TVD Reference:	KB @ 4681.00ft (Original Well Elev)
Reference Site:	A Section 35	MD Reference:	KB @ 4681.00ft (Original Well Elev)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Reveille A34-735	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Reveille A34-735 OH	Database:	EDMP
Reference Design:	APD - Rev 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
A Section 34						
Reveille A34-788 - Reveille A34-788 OH - APD - Rev 1	6,700.00	5,280.60	3,272.27	3,227.07	72.386	ES
Reveille A34-788 - Reveille A34-788 OH - APD - Rev 1	17,023.96	17,226.69	3,539.26	3,364.96	20.306	SF
A Section 35						
Hoffner 13-35 - Original Drilling - Original Drilling - As Dri	2,269.41	2,272.56	1,889.00	1,873.33	120.560	CC
Hoffner 13-35 - Original Drilling - Original Drilling - As Dri	2,400.00	2,397.50	1,889.52	1,872.96	114.082	ES
Hoffner 13-35 - Original Drilling - Original Drilling - As Dri	8,800.00	6,753.98	2,063.25	2,009.55	38.421	SF
Hoffner 14-35 (SI) - Original Drilling - Original Drilling - As	1,783.67	1,773.74	253.07	240.88	20.760	CC
Hoffner 14-35 (SI) - Original Drilling - Original Drilling - As	2,014.50	2,005.46	253.66	239.84	18.349	ES
Hoffner 14-35 (SI) - Original Drilling - Original Drilling - As	2,400.00	2,386.98	277.09	260.61	16.813	SF
Hoffner 24-35 (SI) - Original Drilling - Original Drilling - As	1,190.81	1,129.82	1,706.70	1,698.89	218.485	CC
Hoffner 24-35 (SI) - Original Drilling - Original Drilling - As	2,003.33	1,944.29	1,707.24	1,693.68	125.863	ES
Hoffner 24-35 (SI) - Original Drilling - Original Drilling - As	7,600.00	6,671.29	3,591.72	3,541.81	71.966	SF
Hoffner 33-35 - Original Drilling - Original Drilling - As Dri	100.00	29.53	3,581.60	3,581.42	10,000.000	CC
Hoffner 33-35 - Original Drilling - Original Drilling - As Dri	1,200.00	1,108.62	3,586.28	3,578.51	461.455	ES
Hoffner 33-35 - Original Drilling - Original Drilling - As Dri	10,100.00	6,785.43	5,482.98	5,424.86	94.329	SF
Hoffner 34-35 - Original Drilling - Original Drilling - As Dri	100.00	22.00	3,237.37	3,237.20	10,000.000	CC, ES
Hoffner 34-35 - Original Drilling - Original Drilling - As Dri	9,200.00	9,200.00	5,389.27	5,326.93	86.450	SF
Hoffner 44-35 - Wellbore #1 - Wellbore #1- As Drilled	2,023.29	2,000.00	4,527.11	4,513.29	327.461	CC, ES
Hoffner 44-35 - Wellbore #1 - Wellbore #1- As Drilled	10,100.00	6,722.81	7,009.09	6,952.33	123.492	SF
Reveille A34-714 - Reveille A34-714 OH - APD - Rev 1	2,409.78	2,414.62	47.14	30.57	2.845	CC, ES
Reveille A34-714 - Reveille A34-714 OH - APD - Rev 1	2,500.00	2,504.70	48.67	31.47	2.830	SF
Reveille A34-725 - Reveille A34-725 OH - APD - Rev 1	2,516.42	2,519.44	22.26	5.04	1.292	Level 3, CC
Reveille A34-725 - Reveille A34-725 OH - APD - Rev 1	2,900.00	2,905.92	22.61	3.08	1.158	Level 2, ES, SF
Reveille A35-750 - Reveille A35-750 OH - APD - Rev 2	2,000.00	1,996.00	136.40	122.54	9.842	CC, ES
Reveille A35-750 - Reveille A35-750 OH - APD - Rev 2	2,100.00	2,089.44	140.39	125.87	9.667	SF
Reveille A35-762 - Reveille A35-762 OH - APD - Rev 2	2,000.00	1,996.00	114.13	100.27	8.235	CC, ES
Reveille A35-762 - Reveille A35-762 OH - APD - Rev 2	2,100.00	2,092.22	117.42	102.88	8.076	SF
Reveille A35-772 - Reveille A35-772 OH - APD - Rev 2	2,000.00	1,997.00	91.86	78.00	6.627	CC, ES
Reveille A35-772 - Reveille A35-772 OH - APD - Rev 2	2,100.00	2,093.89	95.19	80.64	6.545	SF
Reveille A35-783 - Reveille A35-783 OH - APD - Rev 1	2,000.00	2,002.00	69.59	55.71	5.014	CC, ES
Reveille A35-783 - Reveille A35-783 OH - APD - Rev 1	2,100.00	2,102.02	71.34	56.75	4.890	SF
Sharkey 31-35 - Original Drilling - Original Drilling - As Dr	11,333.58	6,707.35	4,974.85	4,907.17	73.503	CC, ES
Sharkey 31-35 - Original Drilling - Original Drilling - As Dr	12,600.00	6,723.81	5,133.49	5,060.18	70.025	SF
Sharkey 32-35 - Original Drilling - Original Drilling - As Dr	100.00	21.06	4,217.39	4,217.23	10,000.000	CC
Sharkey 32-35 - Original Drilling - Original Drilling - As Dr	2,032.20	2,002.71	4,221.54	4,207.67	304.428	ES
Sharkey 32-35 - Original Drilling - Original Drilling - As Dr	11,400.00	6,650.73	5,310.64	5,246.33	82.574	SF
Wardlaw 35-21 (SI) - Original Drilling - Original Drilling - A	11,107.22	6,738.68	3,615.40	3,548.95	54.408	CC, ES
Wardlaw 35-21 (SI) - Original Drilling - Original Drilling - A	11,700.00	6,734.44	3,663.67	3,594.98	53.334	SF
Wardlaw 35-22 - Original Drilling - Original Drilling - As D	11,425.57	6,713.46	2,323.19	2,254.88	34.013	CC, ES
Wardlaw 35-22 - Original Drilling - Original Drilling - As D	11,600.00	6,716.47	2,329.72	2,260.90	33.851	SF
Wardlaw 35-23 (PA) - Original Drilling - Original Drilling -	9,970.01	6,718.23	2,260.47	2,198.42	36.427	CC, ES
Wardlaw 35-23 (PA) - Original Drilling - Original Drilling -	10,100.00	6,712.01	2,264.20	2,201.90	36.349	SF
Wardlaw 35-24 - Original Drilling - Original Drilling - As D	100.00	35.82	3,485.40	3,485.21	10,000.000	CC
Wardlaw 35-24 - Original Drilling - Original Drilling - As D	2,100.00	2,071.71	3,487.29	3,472.95	243.103	ES
Wardlaw 35-24 - Original Drilling - Original Drilling - As D	10,700.00	6,794.11	3,704.72	3,642.16	59.214	SF
Wardlaw 35-25 - Original Drilling - Original Drilling - As D	10,423.64	6,727.73	3,015.18	2,953.11	48.579	CC, ES
Wardlaw 35-25 - Original Drilling - Original Drilling - As D	10,900.00	6,739.40	3,052.56	2,988.84	47.911	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 Reveille A34-735
Project:	Wells Ranch	TVD Reference:	KB @ 4681.00ft (Original Well Elev)
Reference Site:	A Section 35	MD Reference:	KB @ 4681.00ft (Original Well Elev)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Reveille A34-735	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Reveille A34-735 OH	Database:	EDMP
Reference Design:	APD - Rev 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
A Section 36						
Devries State A36-17 (Exist.) - Wellbore #1 - Wellbore #1	0.00	0.00	9,761.26			
Devries State A36-17 (Exist.) - Wellbore #1 - Wellbore #1	2,000.00	1,964.62	9,765.78	9,752.17	717.708	ES
Devries State A36-17 (Exist.) - Wellbore #1 - Wellbore #1	3,200.00	3,051.05	9,999.88	9,978.33	464.107	SF
Devries State A36-21 - Wellbore #1 - Wellbore #1 - As Dr	2,035.94	2,072.55	7,904.03	7,889.93	560.705	CC, ES
Devries State A36-21 - Wellbore #1 - Wellbore #1 - As Dr	12,400.00	6,919.66	9,983.86	9,912.38	139.680	SF
Devries State A36-23 - Wellbore #1 - Wellbore #1 - As Dr	2,021.48	2,031.23	9,080.65	9,066.74	652.642	CC, ES
Devries State A36-23 - Wellbore #1 - Wellbore #1 - As Dr	4,600.00	4,262.45	9,980.48	9,949.65	323.740	SF
Devries State A36-25 - Wellbore #1 - Wellbore #1 - As Dr	2,006.45	1,968.07	6,412.29	6,398.64	469.723	CC, ES
Devries State A36-25 - Wellbore #1 - Wellbore #1 - As Dr	12,700.00	6,586.66	9,489.46	9,421.76	140.164	SF
Scholfield A36-19 (Exist.) - Wellbore #1 - Wellbore #1 - A	2,008.87	1,987.17	7,190.13	7,176.42	524.320	CC, ES
Scholfield A36-19 (Exist.) - Wellbore #1 - Wellbore #1 - A	14,200.00	6,701.59	8,840.75	8,760.45	110.106	SF
Scholfield A36-20 - Wellbore #1 - Wellbore #1 - As Drilled	2,071.70	2,169.71	6,621.88	6,607.31	454.426	CC
Scholfield A36-20 - Wellbore #1 - Wellbore #1 - As Drilled	2,100.00	2,191.08	6,622.03	6,607.28	449.074	ES
Scholfield A36-20 - Wellbore #1 - Wellbore #1 - As Drilled	13,500.00	6,611.82	9,086.32	9,012.53	123.143	SF
Scholfield State A36-4X - Wellbore #1 - Wellbore #1 - As	2,002.56	1,968.62	7,123.38	7,109.76	522.679	CC, ES
Scholfield State A36-4X - Wellbore #1 - Wellbore #1 - As	13,000.00	13,000.00	7,651.58	7,552.78	77.450	SF
Scholfield State A36-69HN - Original Drilling - Original Dr	2,008.20	1,986.25	7,271.82	7,260.07	618.910	CC, ES
Scholfield State A36-69HN - Original Drilling - Original Dr	14,900.00	6,048.01	8,103.09	8,022.55	100.608	SF
Scholfield State A36-79HN - Wellbore #1 - Original Drillin	3,786.95	10,444.02	6,204.10	6,117.36	71.521	CC
Scholfield State A36-79HN - Wellbore #1 - Original Drillin	3,800.00	10,444.02	6,204.12	6,117.25	71.418	ES
Scholfield State A36-79HN - Wellbore #1 - Original Drillin	12,200.00	12,200.00	6,930.51	6,815.19	60.100	SF
Sinjin E 36-9 (SI) - Wellbore #1 - No Surveys						Out of range
State A36-05 - Wellbore #1 - Wellbore #1 - As Drilled	2,029.65	2,046.69	6,428.86	6,414.87	459.627	CC, ES
State A36-05 - Wellbore #1 - Wellbore #1 - As Drilled	13,400.00	6,722.36	8,317.63	8,242.64	110.919	SF
State A36-06 - Wellbore #1 - Wellbore #1 - As Drilled	457.83	390.83	7,542.42	7,539.82	2,900.371	CC
State A36-06 - Wellbore #1 - Wellbore #1 - As Drilled	2,002.00	1,939.88	7,546.37	7,532.82	556.999	ES
State A36-06 - Wellbore #1 - Wellbore #1 - As Drilled	14,400.00	6,570.50	9,970.06	9,890.68	125.598	SF
State A36-07 - Wellbore #1 - Wellbore #1 - As Drilled	100.00	23.46	8,917.63	8,917.46	10,000.000	CC
State A36-07 - Wellbore #1 - Wellbore #1 - As Drilled	2,000.00	1,918.59	8,928.25	8,914.76	662.136	ES
State A36-07 - Wellbore #1 - Wellbore #1 - As Drilled	5,100.00	5,035.58	9,986.94	9,951.18	279.284	SF
State A36-08 - Wellbore #1 - Wellbore #1 - As Drilled						Out of range
State A36-09 - Wellbore #1 - Wellbore #1 - As Drilled	2,017.80	2,024.71	9,771.44	9,757.56	704.018	CC, ES
State A36-09 - Wellbore #1 - Wellbore #1 - As Drilled	3,100.00	3,060.82	9,972.11	9,950.88	469.620	SF
State A36-10 - Wellbore #1 - Wellbore #1 - As Drilled	2,014.08	1,997.02	8,483.32	8,469.54	615.903	CC, ES
State A36-10 - Wellbore #1 - Wellbore #1 - As Drilled	5,900.00	5,400.00	9,979.51	9,939.48	249.279	SF
State A36-11 - Wellbore #1 - Wellbore #1 - As Drilled	368.27	295.44	7,168.55	7,166.63	3,738.957	CC
State A36-11 - Wellbore #1 - Wellbore #1 - As Drilled	2,000.00	1,884.56	7,172.77	7,159.45	538.497	ES
State A36-11 - Wellbore #1 - Wellbore #1 - As Drilled	13,000.00	6,771.28	9,962.07	9,890.24	138.703	SF
State A36-12 - Wellbore #1 - Wellbore #1 - As Drilled	1,040.26	969.26	5,908.63	5,901.94	883.416	CC
State A36-12 - Wellbore #1 - Wellbore #1 - As Drilled	2,024.32	2,001.52	5,911.65	5,897.84	428.185	ES
State A36-12 - Wellbore #1 - Wellbore #1 - As Drilled	12,400.00	6,761.65	8,427.88	8,359.74	123.674	SF
State A36-13 - Wellbore #1 - Wellbore #1 - As Drilled	100.00	23.47	5,682.07	5,681.90	10,000.000	CC, ES
State A36-13 - Wellbore #1 - Wellbore #1 - As Drilled	11,600.00	6,665.62	8,631.56	8,569.18	138.372	SF
State A36-14 - Wellbore #1 - Wellbore #1 - As Drilled	2,000.00	1,942.00	6,966.91	6,921.14	152.194	CC
State A36-14 - Wellbore #1 - Wellbore #1 - As Drilled	2,100.00	2,041.98	6,968.66	6,920.53	144.802	ES
State A36-14 - Wellbore #1 - Wellbore #1 - As Drilled	9,100.00	6,703.06	9,083.27	8,918.56	55.148	SF
State A36-15 - Wellbore #1 - Wellbore #1 - As Drilled	100.00	32.90	8,326.29	8,326.11	10,000.000	CC
State A36-15 - Wellbore #1 - Wellbore #1 - As Drilled	1,500.00	1,385.81	8,333.07	8,323.43	864.107	ES
State A36-15 - Wellbore #1 - Wellbore #1 - As Drilled	6,100.00	5,800.00	9,998.56	9,956.32	236.680	SF
State A36-16 - Wellbore #1 - Wellbore #1 - As Drilled	690.19	636.21	9,634.00	9,629.71	2,243.844	CC
State A36-16 - Wellbore #1 - Wellbore #1 - As Drilled	2,014.51	2,009.32	9,634.62	9,620.79	696.803	ES
State A36-16 - Wellbore #1 - Wellbore #1 - As Drilled	3,427.98	3,250.20	9,972.28	9,949.25	433.091	SF
State A36-3 (Exist.) - Wellbore #1 - Wellbore #1	2,000.32	1,964.14	8,260.12	8,246.43	603.251	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 Reveille A34-735
Project:	Wells Ranch	TVD Reference:	KB @ 4681.00ft (Original Well Elev)
Reference Site:	A Section 35	MD Reference:	KB @ 4681.00ft (Original Well Elev)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Reveille A34-735	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Reveille A34-735 OH	Database:	EDMP
Reference Design:	APD - Rev 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
Offset Well - Wellbore - Design						
A Section 36						
State A36-3 (Exist.) - Wellbore #1 - Wellbore #1	15,500.00	6,400.01	9,896.39	9,809.54	113.946	SF
State A36-99HZ - Original Drilling - As Drilled	100.00	69.00	7,278.82	7,278.57	10,000.000	CC
State A36-99HZ - Original Drilling - As Drilled	2,013.62	2,012.28	7,280.77	7,268.07	573.100	ES
State A36-99HZ - Original Drilling - As Drilled	14,700.00	6,131.01	8,107.00	8,026.80	101.089	SF
AA Section 30						
Shadow A26-622 - Original Drilling - Original Drilling - As	12,640.64	17,520.00	4,990.69	4,907.47	59.966	CC
Shadow A26-622 - Original Drilling - Original Drilling - As	12,700.00	17,520.00	4,991.04	4,907.46	59.716	ES
Shadow A26-622 - Original Drilling - Original Drilling - As	15,700.00	17,520.00	5,853.77	5,731.95	48.050	SF
Shadow A26-627 - Original Drilling - Original Drilling - As	13,033.59	17,590.00	4,854.46	4,768.50	56.469	CC, ES
Shadow A26-627 - Original Drilling - Original Drilling - As	16,200.00	17,590.00	5,795.86	5,662.23	43.373	SF
Shadow A26-632 - Original Drilling - Original Drilling - As	13,333.66	17,781.00	4,861.02	4,776.53	57.534	CC
Shadow A26-632 - Original Drilling - Original Drilling - As	13,400.00	17,781.00	4,861.47	4,776.23	57.037	ES
Shadow A26-632 - Original Drilling - Original Drilling - As	16,600.00	17,781.00	5,856.49	5,707.06	39.192	SF
Shadow A26-637 - Original Drilling - Original Drilling - As	13,619.39	17,626.00	4,858.40	4,775.43	58.557	CC
Shadow A26-637 - Original Drilling - Original Drilling - As	13,700.00	17,626.00	4,859.07	4,775.22	57.950	ES
Shadow A26-637 - Original Drilling - Original Drilling - As	16,900.00	17,626.00	5,862.29	5,713.05	39.280	SF
Shadow A26-646 - Original Drilling - Original Drilling - As	14,298.39	17,659.00	4,858.61	4,768.64	53.998	CC
Shadow A26-646 - Original Drilling - Original Drilling - As	14,300.00	17,659.00	4,858.61	4,768.63	53.992	ES
Shadow A26-646 - Original Drilling - Original Drilling - As	17,023.96	17,659.00	5,570.90	5,427.12	38.746	SF
Shadow A26-656 - Original Drilling - Original Drilling - As	14,941.34	17,347.00	5,232.15	5,131.97	52.228	CC
Shadow A26-656 - Original Drilling - Original Drilling - As	15,000.00	17,347.00	5,232.48	5,131.87	52.009	ES
Shadow A26-656 - Original Drilling - Original Drilling - As	17,023.96	17,347.00	5,631.40	5,504.95	44.535	SF
Shadow A26-663 - Original Drilling - Original Drilling - As	15,498.13	17,466.00	5,087.54	4,983.01	48.673	CC
Shadow A26-663 - Original Drilling - Original Drilling - As	15,500.00	17,466.00	5,087.54	4,983.00	48.669	ES
Shadow A26-663 - Original Drilling - Original Drilling - As	17,023.96	17,466.00	5,311.42	5,188.43	43.186	SF
Shadow A26-672 - Original Drilling - Original Drilling - As	15,990.19	17,710.00	4,848.08	4,745.29	47.169	CC
Shadow A26-672 - Original Drilling - Original Drilling - As	16,000.00	17,710.00	4,848.09	4,745.23	47.133	ES
Shadow A26-672 - Original Drilling - Original Drilling - As	17,023.96	17,710.00	4,957.07	4,835.70	40.845	SF
Shadow A26-676 - Original Drilling - Original Drilling - As	16,276.11	17,725.00	4,857.30	4,746.39	43.792	CC
Shadow A26-676 - Original Drilling - Original Drilling - As	16,300.00	17,725.00	4,857.36	4,746.27	43.722	ES
Shadow A26-676 - Original Drilling - Original Drilling - As	17,023.96	17,725.00	4,914.54	4,794.81	41.049	SF
Shadow A26-685 - Original Drilling - Original Drilling - As	13,100.00	17,810.00	6,211.32	5,912.71	20.801	SF
Shadow A26-685 - Original Drilling - Original Drilling - As	16,964.68	17,810.00	4,862.59	4,746.41	41.854	CC
Shadow A26-685 - Original Drilling - Original Drilling - As	17,023.96	17,810.00	4,862.95	4,745.92	41.553	ES
Shadow A26-690 - Original Drilling - Original Drilling - As	15,000.00	17,780.00	5,316.34	5,186.32	40.889	SF
Shadow A26-690 - Original Drilling - Original Drilling - As	17,023.96	17,780.00	4,845.74	4,734.02	43.377	CC, ES
Shadow State A26-614 - Original Drilling - Original Drilling	12,104.12	17,675.00	4,859.19	4,779.27	60.805	CC, ES
Shadow State A26-614 - Original Drilling - Original Drilling	15,100.00	17,675.00	5,708.50	5,589.63	48.022	SF
Shadow State A26-618 - Original Drilling - Original Drilling	12,351.42	17,415.00	5,025.92	4,945.22	62.282	CC
Shadow State A26-618 - Original Drilling - Original Drilling	12,400.00	17,415.00	5,026.15	4,945.12	62.027	ES
Shadow State A26-618 - Original Drilling - Original Drilling	15,700.00	17,415.00	6,039.28	5,910.31	46.830	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 Reveille A34-735
Project:	Wells Ranch	TVD Reference:	KB @ 4681.00ft (Original Well Elev)
Reference Site:	A Section 35	MD Reference:	KB @ 4681.00ft (Original Well Elev)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Reveille A34-735	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Reveille A34-735 OH	Database:	EDMP
Reference Design:	APD - Rev 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
Offset Well - Wellbore - Design						
B Section 01						
Lucci B01-69HNL - Original Drilling - Original Drilling - As	1,892.43	1,852.64	5,657.64	5,645.94	483.552	CC
Lucci B01-69HNL - Original Drilling - Original Drilling - As	2,000.00	1,943.95	5,657.88	5,645.47	455.942	ES
Lucci B01-69HNL - Original Drilling - Original Drilling - As	11,400.00	6,043.00	8,912.83	8,856.34	157.786	SF
Lucci B01-99HZ - Original Drilling - Original Drilling - As	100.00	51.37	5,712.64	5,712.42	10,000.000	CC
Lucci B01-99HZ - Original Drilling - Original Drilling - As	500.00	424.93	5,713.82	5,711.52	2,487.474	ES
Lucci B01-99HZ - Original Drilling - Original Drilling - As	11,200.00	5,918.00	9,098.46	9,044.30	167.982	SF
Lucci BC B 1-14 (PA) - Wellbore #1 - Gyro Surveys	2,017.81	1,980.58	7,338.35	7,324.60	533.731	CC
Lucci BC B 01-13 (PA) - Wellbore #1 - Gyro Surveys	2,100.00	2,113.98	7,338.97	7,324.46	506.083	ES
Lucci BC B 01-13 (PA) - Wellbore #1 - Gyro Surveys	7,200.00	6,313.32	9,094.01	9,044.82	184.877	SF
Lucci BC B 1-14 (PA) - Wellbore #1 - Gyro Surveys	100.00	14.15	8,475.63	8,475.48	10,000.000	CC
Lucci BC B 1-14 (PA) - Wellbore #1 - Gyro Surveys	2,000.00	1,871.55	8,480.38	8,467.08	637.686	ES
Lucci BC B 1-14 (PA) - Wellbore #1 - Gyro Surveys	6,300.00	5,768.19	9,968.50	9,924.37	225.870	SF
Lucci BC B 1-15 (PA) - Wellbore #1 - Gyro Surveys	100.00	12.67	9,531.05	9,530.91	10,000.000	CC
Lucci BC B 1-15 (PA) - Wellbore #1 - Gyro Surveys	2,008.46	1,948.63	9,535.70	9,522.10	701.149	ES
Lucci BC B 1-15 (PA) - Wellbore #1 - Gyro Surveys	3,800.00	3,447.54	9,995.80	9,970.60	396.572	SF
Lucci BC B 1-16 (PA) - Wellbore #1 - Wellbore #1						Out of range
Lucci State B03-69HNL - Original Drilling - Original Drilling	6,946.65	13,919.64	386.28	197.33	2.044	CC
Lucci State B03-69HNL - Original Drilling - Original Drilling	7,000.00	13,923.16	391.70	189.00	1.932	ES
Lucci State B03-69HNL - Original Drilling - Original Drilling	7,050.00	13,923.71	406.25	194.18	1.916	SF
SLW Ranch B01-62-1HN - Original Drilling - As Drilled	3,617.89	11,286.02	8,466.83	8,377.92	95.230	CC, ES
SLW Ranch B01-62-1HN - Original Drilling - As Drilled	7,400.00	11,286.02	9,327.04	9,222.71	89.398	SF
SLW Ranch B01-63-1HN - Original Drilling - As Drilled	3,565.69	11,250.02	8,066.39	7,987.07	101.698	CC
SLW Ranch B01-63-1HN - Original Drilling - As Drilled	3,600.00	11,250.02	8,066.46	7,987.01	101.519	ES
SLW Ranch B01-63-1HN - Original Drilling - As Drilled	8,900.00	11,250.02	9,861.94	9,757.26	94.210	SF
SLW Ranch B01-64-1HN - Original Drilling - As Drilled	3,629.29	11,274.02	7,762.76	7,691.88	109.518	CC, ES
SLW Ranch B01-64-1HN - Original Drilling - As Drilled	9,700.00	11,274.02	9,968.56	9,864.91	96.177	SF
SLW Ranch B01-66-1HN - Original Drilling - Original Drill	3,616.80	11,201.02	7,217.91	7,149.20	105.059	CC, ES
SLW Ranch B01-66-1HN - Original Drilling - Original Drill	10,900.00	11,201.02	9,909.46	9,788.63	82.016	SF
SLW Ranch B01-67-1HN - Original Drilling - As Drilled - S	3,593.58	11,165.02	7,006.54	6,951.63	127.593	CC
SLW Ranch B01-67-1HN - Original Drilling - As Drilled - S	3,600.00	11,165.02	7,006.54	6,951.60	127.519	ES
SLW Ranch B01-67-1HN - Original Drilling - As Drilled - S	11,700.00	11,165.02	9,998.11	9,878.55	83.622	SF
SLW Ranch B01-68-1HN - Original Drilling - Original Drill	3,549.71	11,204.02	6,841.42	6,802.31	174.912	CC
SLW Ranch B01-68-1HN - Original Drilling - Original Drill	3,600.00	11,204.02	6,841.61	6,802.24	173.787	ES
SLW Ranch B01-68-1HN - Original Drilling - Original Drill	11,800.00	11,204.02	9,624.16	9,546.10	123.292	SF
SLW Ranch B01-69-1HN - Original Drilling - As Drilled	3,506.18	11,247.02	6,743.34	6,702.80	166.323	CC, ES
SLW Ranch B01-69-1HN - Original Drilling - As Drilled	13,000.00	11,247.02	9,990.72	9,874.21	85.751	SF
SLW Ranch B12-69-1HN - Wellbore #1 - Wellbore #1- As						Out of range

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

Noble Energy, Inc.
Anticollision Summary Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Reveille A34-735
Project:	Wells Ranch	TVD Reference:	KB @ 4681.00ft (Original Well Elev)
Reference Site:	A Section 35	MD Reference:	KB @ 4681.00ft (Original Well Elev)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Reveille A34-735	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Reveille A34-735 OH	Database:	EDMP
Reference Design:	APD - Rev 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
Offset Well - Wellbore - Design						
B Section 02						
Baker B02-04 - Wellbore #1 - Original Drilling - As Drilled	100.00	54.45	949.71	949.49	4,274.088	CC
Baker B02-04 - Wellbore #1 - Original Drilling - As Drilled	1,800.00	1,750.55	959.20	947.03	78.822	ES
Baker B02-04 - Wellbore #1 - Original Drilling - As Drilled	3,300.00	3,200.69	1,128.99	1,106.42	50.025	SF
Baker B02-05 - Wellbore #1 - Wellbore #1-As Drilled	1,917.59	1,875.69	2,382.57	2,369.54	182.800	CC
Baker B02-05 - Wellbore #1 - Wellbore #1-As Drilled	2,100.00	2,053.25	2,383.23	2,368.93	166.703	ES
Baker B02-05 - Wellbore #1 - Wellbore #1-As Drilled	6,750.00	6,232.11	3,382.25	3,333.54	69.438	SF
Bucklen 01-02 - Wellbore #1 - Wellbore #1- As Drilled	2,002.69	1,933.42	5,030.63	5,017.08	371.080	CC
Bucklen 01-02 - Wellbore #1 - Wellbore #1- As Drilled	2,300.00	2,219.67	5,031.48	5,015.90	322.979	ES
Bucklen 01-02 - Wellbore #1 - Wellbore #1- As Drilled	6,950.00	6,416.88	5,556.80	5,505.61	108.573	SF
Bucklen B02-12 - Wellbore #1 - Wellbore #1-As drilled	1,975.55	1,919.92	3,566.57	3,553.17	266.030	CC
Bucklen B02-12 - Wellbore #1 - Wellbore #1-As drilled	2,100.00	2,024.86	3,567.00	3,552.79	251.032	ES
Bucklen B02-12 - Wellbore #1 - Wellbore #1-As drilled	6,900.00	6,276.63	4,318.75	4,268.71	86.300	SF
Buckmur B02-14 - Wellbore #1 - Wellbore #1- As Drilled	1,606.83	1,541.89	5,205.98	5,195.23	484.251	CC
Buckmur B02-14 - Wellbore #1 - Wellbore #1- As Drilled	1,800.00	1,699.50	5,206.73	5,194.74	434.287	ES
Buckmur B02-14 - Wellbore #1 - Wellbore #1- As Drilled	7,000.00	6,242.68	6,302.53	6,252.75	126.606	SF
Buckmur B02-25 - Wellbore #1 - Wellbore #1- As Drilled	1,706.20	1,645.24	4,300.28	4,288.83	375.422	CC
Buckmur B02-25 - Wellbore #1 - Wellbore #1- As Drilled	2,300.00	2,315.36	4,300.85	4,284.96	270.756	ES
Buckmur B02-25 - Wellbore #1 - Wellbore #1- As Drilled	6,950.00	6,401.82	5,193.77	5,143.23	102.751	SF
Cougar B02-67-1HN - Original Drilling - Original Drilling -	100.00	83.40	907.39	907.13	3,440.256	CC
Cougar B02-67-1HN - Original Drilling - Original Drilling -	500.00	477.36	908.44	905.78	341.473	ES
Cougar B02-67-1HN - Original Drilling - Original Drilling -	6,600.00	5,817.03	2,859.69	2,815.37	64.522	SF
Cougar B02-68-1HN - Original Drilling - Original Drilling -	100.00	80.77	927.06	926.80	3,628.002	CC
Cougar B02-68-1HN - Original Drilling - Original Drilling -	200.00	178.08	927.44	926.67	1,203.744	ES
Cougar B02-68-1HN - Original Drilling - Original Drilling -	5,300.00	5,300.00	2,079.87	2,045.19	59.959	SF
Cougar B02-69-1HN - Original Drilling - Original Drilling -	2,712.07	2,822.34	838.30	821.59	50.170	CC, ES
Cougar B02-69-1HN - Original Drilling - Original Drilling -	3,300.00	3,297.16	917.59	897.49	45.665	SF
Foe A35-73HN - Original Drilling - Original Drilling - As Dr	1,642.35	1,595.40	3,454.82	3,446.00	391.654	CC, ES
Foe A35-73HN - Original Drilling - Original Drilling - As Dr	12,200.00	11,176.02	5,676.63	5,540.46	41.687	SF
Foe B02-02 - Wellbore #1 - Wellbore #1- As Drilled	1,069.06	999.08	3,137.20	3,130.29	453.659	CC
Foe B02-02 - Wellbore #1 - Wellbore #1- As Drilled	1,600.00	1,506.51	3,138.48	3,127.89	296.423	ES
Foe B02-02 - Wellbore #1 - Wellbore #1- As Drilled	7,350.00	6,665.70	5,146.61	5,096.62	102.947	SF
Foe B02-07 - Wellbore #1 - Wellbore #1-As Drilled	100.00	25.64	3,643.09	3,642.92	10,000.000	CC
Foe B02-07 - Wellbore #1 - Wellbore #1-As Drilled	2,023.68	1,977.53	3,648.10	3,634.34	265.131	ES
Foe B02-07 - Wellbore #1 - Wellbore #1-As Drilled	7,250.00	6,543.59	5,487.32	5,437.53	110.206	SF
Foemeyer B02-17 - Original Drilling - Original Drilling - As	441.52	374.52	3,790.45	3,787.97	1,526.642	CC
Foemeyer B02-17 - Original Drilling - Original Drilling - As	2,035.90	2,011.87	3,792.60	3,778.68	272.631	ES
Foemeyer B02-17 - Original Drilling - Original Drilling - As	7,200.00	6,500.01	5,660.72	5,611.62	115.295	SF
Fritzler B02-03 - Wellbore #1 - Original Drilling	2,000.00	1,931.00	2,036.24	1,990.68	44.697	CC
Fritzler B02-03 - Wellbore #1 - Original Drilling	2,100.00	2,030.98	2,037.79	1,989.88	42.538	ES
Fritzler B02-03 - Wellbore #1 - Original Drilling	7,300.00	6,625.61	3,995.93	3,836.60	25.081	SF
Fritzler B02-06 - Original Drilling - Original Drilling	2,000.00	1,936.00	2,666.82	2,621.16	58.410	CC
Fritzler B02-06 - Original Drilling - Original Drilling	2,100.00	2,035.98	2,667.74	2,619.74	55.571	ES
Fritzler B02-06 - Original Drilling - Original Drilling	7,100.00	6,515.19	4,194.36	4,036.63	26.593	SF
Fritzler B2-19 - Original Drilling - Original Drilling	2,000.00	1,948.00	1,656.30	1,610.41	36.088	CC
Fritzler B2-19 - Original Drilling - Original Drilling	2,100.00	2,047.98	1,657.18	1,608.94	34.349	ES
Fritzler B2-19 - Original Drilling - Original Drilling	7,085.61	6,517.00	3,249.60	3,092.24	20.651	SF
Lonewolf B02-65HC - Original Drilling - As Drilled	4,287.86	4,514.18	3,083.08	3,052.41	100.546	CC
Lonewolf B02-65HC - Original Drilling - As Drilled	4,300.00	4,519.49	3,083.10	3,052.36	100.276	ES
Lonewolf B02-65HC - Original Drilling - As Drilled	6,750.00	6,251.01	3,517.85	3,469.14	72.220	SF
Lonewolf B02-65HC - Original Drilling - ST01 - ST01 As D	4,287.60	4,514.01	3,082.37	3,051.22	98.946	CC
Lonewolf B02-65HC - Original Drilling - ST01 - ST01 As D	4,300.00	4,519.43	3,082.40	3,051.16	98.678	ES
Lonewolf B02-65HC - Original Drilling - ST01 - ST01 As D	6,750.00	6,251.01	3,517.32	3,468.09	71.455	SF
Lonewolf B02-65HC - Wellbore #3 - Wellbore #3	4,287.86	4,514.18	3,083.08	3,052.41	100.545	CC

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 Reveille A34-735
Project:	Wells Ranch	TVD Reference:	KB @ 4681.00ft (Original Well Elev)
Reference Site:	A Section 35	MD Reference:	KB @ 4681.00ft (Original Well Elev)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Reveille A34-735	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Reveille A34-735 OH	Database:	EDMP
Reference Design:	APD - Rev 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
Offset Well - Wellbore - Design						
B Section 02						
Lonewolf B02-65HC - Wellbore #3 - Wellbore #3	4,300.00	4,519.49	3,083.10	3,052.36	100.275	ES
Lonewolf B02-65HC - Wellbore #3 - Wellbore #3	6,750.00	6,251.01	3,517.85	3,469.14	72.219	SF
M&M 02-23 - Wellbore #1 - Wellbore #1- As Drilled	2,871.24	3,988.22	5,996.69	5,970.83	231.934	CC
M&M 02-23 - Wellbore #1 - Wellbore #1- As Drilled	2,900.00	4,005.72	5,996.79	5,970.73	230.161	ES
M&M 02-23 - Wellbore #1 - Wellbore #1- As Drilled	6,850.00	6,333.08	7,017.17	6,964.63	133.560	SF
Meyer B02-01 - Original Drilling - Original Drilling - As Drill	1,558.30	1,485.31	4,414.09	4,403.72	425.900	CC
Meyer B02-01 - Original Drilling - Original Drilling - As Drill	2,000.00	1,916.19	4,415.60	4,402.15	328.258	ES
Meyer B02-01 - Original Drilling - Original Drilling - As Drill	7,450.00	6,549.98	6,444.74	6,395.42	130.666	SF
Meyer B02-08 - Wellbore #1 - Wellbore #1-As Drilled	440.63	366.64	4,848.74	4,846.29	1,976.695	CC
Meyer B02-08 - Wellbore #1 - Wellbore #1-As Drilled	2,000.00	1,915.48	4,855.56	4,842.10	360.959	ES
Meyer B02-08 - Wellbore #1 - Wellbore #1-As Drilled	7,250.00	6,500.01	6,759.55	6,710.25	137.113	SF
Meyer B02-09 - Wellbore #1 - Wellbore #1-As Drilled	2,055.79	2,060.13	5,553.34	5,539.17	391.877	CC
Meyer B02-09 - Wellbore #1 - Wellbore #1-As Drilled	2,100.00	2,110.45	5,553.58	5,539.07	382.957	ES
Meyer B02-09 - Wellbore #1 - Wellbore #1-As Drilled	7,250.00	6,463.66	7,327.85	7,278.16	147.489	SF
Meyer B02-16 (PA) - Wellbore #1 - Gyro Surveys	100.00	12.29	6,467.75	6,467.60	10,000.000	CC
Meyer B02-16 (PA) - Wellbore #1 - Gyro Surveys	2,009.82	1,943.32	6,471.58	6,457.99	476.253	ES
Meyer B02-16 (PA) - Wellbore #1 - Gyro Surveys	7,150.00	6,400.00	8,048.91	7,999.11	161.626	SF
Pherson 02-02 - Wellbore #1 - Wellbore #1-As Drilled	1,576.90	1,521.91	3,910.01	3,899.45	370.165	CC
Pherson 02-02 - Wellbore #1 - Wellbore #1-As Drilled	2,100.00	2,075.89	3,910.47	3,896.10	272.254	ES
Pherson 02-02 - Wellbore #1 - Wellbore #1-As Drilled	6,950.00	6,352.64	5,120.93	5,071.26	103.102	SF
Trebor B02-10 - Wellbore #1 - Wellbore #1 - As Drilled	2,007.63	1,949.61	4,459.19	4,445.36	322.562	CC, ES
Trebor B02-10 - Wellbore #1 - Wellbore #1 - As Drilled	7,100.00	6,292.56	6,144.06	6,095.06	125.396	SF
Trebor B02-15 - Wellbore #1 - Wellbore #1- As Drilled	1,853.87	1,782.93	5,564.35	5,551.88	446.288	CC
Trebor B02-15 - Wellbore #1 - Wellbore #1- As Drilled	2,000.00	1,915.42	5,564.51	5,551.06	413.610	ES
Trebor B02-15 - Wellbore #1 - Wellbore #1- As Drilled	6,950.00	6,905.96	6,850.50	6,798.55	131.863	SF
Wolfpack B02-62-1HN - Original Drilling - Original Drilling	807.58	757.59	4,163.70	4,159.27	937.938	CC, ES
Wolfpack B02-62-1HN - Original Drilling - Original Drilling	6,800.00	6,800.00	5,268.66	5,216.87	101.731	SF
Wolfpack B02-63-1HN - Original Drilling - Original Drilling	669.99	619.99	4,141.17	4,137.41	1,101.935	CC
Wolfpack B02-63-1HN - Original Drilling - Original Drilling	700.00	642.84	4,141.19	4,137.29	1,060.255	ES
Wolfpack B02-63-1HN - Original Drilling - Original Drilling	6,700.00	6,045.00	4,869.56	4,821.77	101.906	SF
Wolfpack B02-64-1HN - Original Drilling - Original Drilling	3,447.81	3,369.93	3,915.47	3,892.24	168.537	CC
Wolfpack B02-64-1HN - Original Drilling - Original Drilling	3,500.00	3,401.01	3,915.80	3,892.24	166.227	ES
Wolfpack B02-64-1HN - Original Drilling - Original Drilling	6,650.00	6,000.01	4,234.82	4,187.23	88.986	SF
Wolfpack B02-65-1HN - Original Drilling - Original Drilling	4,513.36	4,742.67	3,402.45	3,370.87	107.740	CC, ES
Wolfpack B02-65-1HN - Original Drilling - Original Drilling	6,700.00	6,062.01	3,761.70	3,715.15	80.805	SF
Wolfpack B02-65HN - Original Drilling - Original Drilling -	3,836.71	4,066.53	3,033.98	3,007.41	114.201	CC, ES
Wolfpack B02-65HN - Original Drilling - Original Drilling -	6,550.00	6,062.01	3,513.18	3,467.18	76.373	SF
Wolfpack B02-66-1HN - Original Drilling - Original Drilling	4,954.46	5,210.57	2,809.87	2,773.27	76.776	CC
Wolfpack B02-66-1HN - Original Drilling - Original Drilling	5,000.00	5,230.13	2,810.10	2,773.18	76.117	ES
Wolfpack B02-66-1HN - Original Drilling - Original Drilling	6,550.00	6,108.01	3,046.32	2,998.69	63.961	SF
Wolfpack PC B03-63-1HN - Original Drilling - Original Dri	100.00	49.29	4,120.22	4,120.01	10,000.000	CC
Wolfpack PC B03-63-1HN - Original Drilling - Original Dri	4,000.00	3,611.47	4,163.16	4,103.02	69.215	ES
Wolfpack PC B03-63-1HN - Original Drilling - Original Dri	6,600.00	5,485.68	4,436.55	4,343.73	47.795	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 Reveille A34-735
Project:	Wells Ranch	TVD Reference:	KB @ 4681.00ft (Original Well Elev)
Reference Site:	A Section 35	MD Reference:	KB @ 4681.00ft (Original Well Elev)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Reveille A34-735	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Reveille A34-735 OH	Database:	EDMP
Reference Design:	APD - Rev 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
Offset Well - Wellbore - Design						
B Section 03						
Annie B3-9 - Wellbore #1 - Wellbore #1- As Drilled	4,729.15	4,447.43	3,783.44	3,749.79	112.433	CC
Annie B3-9 - Wellbore #1 - Wellbore #1- As Drilled	4,800.00	4,489.78	3,783.76	3,749.60	110.788	ES
Annie B3-9 - Wellbore #1 - Wellbore #1- As Drilled	6,900.00	6,497.02	4,017.13	3,965.53	77.857	SF
Clemons 2-3 - Wellbore #1 - Wellbore #1- As Drilled	6,674.12	6,184.33	1,115.88	1,067.35	22.991	CC, ES
Clemons 2-3 - Wellbore #1 - Wellbore #1- As Drilled	6,800.00	6,291.32	1,129.92	1,080.29	22.768	SF
Clemons 42-3 - Wellbore #1 - Wellbore #1- As Drilled	4,542.45	4,220.46	2,460.30	2,428.39	77.102	CC
Clemons 42-3 - Wellbore #1 - Wellbore #1- As Drilled	4,600.00	4,258.02	2,460.57	2,428.24	76.123	ES
Clemons 42-3 - Wellbore #1 - Wellbore #1- As Drilled	6,700.00	6,192.75	2,642.59	2,592.89	53.179	SF
Schoenleber 16-3 - Wellbore #1 - Wellbore #1- As Drilled	4,970.15	4,662.50	4,746.82	4,711.17	133.160	CC
Schoenleber 16-3 - Wellbore #1 - Wellbore #1- As Drilled	5,100.00	4,758.68	4,747.55	4,710.91	129.561	ES
Schoenleber 16-3 - Wellbore #1 - Wellbore #1- As Drilled	6,850.00	6,162.42	4,914.88	4,864.60	97.752	SF
Sitzman 03-01 - Wellbore #1 - Wellbore #1- As Drilled	6,546.75	6,008.94	4,904.11	4,855.72	101.357	CC
Sitzman 03-01 - Wellbore #1 - Wellbore #1- As Drilled	6,550.00	6,014.42	4,904.12	4,855.70	101.281	ES
Sitzman 03-01 - Wellbore #1 - Wellbore #1- As Drilled	7,000.00	6,515.53	5,048.22	4,996.28	97.188	SF
B Section 04						
Bauer 1 (PA) - Wellbore #1 - No Surveys	6,995.36	6,448.09	8,330.00	8,175.34	53.860	CC
Bauer 1 (PA) - Wellbore #1 - No Surveys	7,000.00	6,451.73	8,330.01	8,175.26	53.830	ES
Bauer 1 (PA) - Wellbore #1 - No Surveys	7,550.00	6,706.59	8,405.08	8,243.95	52.164	SF
Bauer 2 (PA) - Wellbore #1 - No Surveys	6,965.15	6,421.01	5,726.20	5,644.51	70.092	CC, ES
Bauer 2 (PA) - Wellbore #1 - No Surveys	7,500.00	6,698.22	5,821.09	5,735.62	68.105	SF
Bauer 21-4 (PR) - Wellbore #1 - Gyro Surveys	6,987.03	6,441.13	7,026.09	6,978.04	146.236	CC
Bauer 21-4 (PR) - Wellbore #1 - Gyro Surveys	7,000.00	6,553.41	7,026.17	6,977.91	145.595	ES
Bauer 21-4 (PR) - Wellbore #1 - Gyro Surveys	11,200.00	6,680.64	8,676.43	8,610.61	131.829	SF

Noble Energy, Inc.
Anticollision Summary Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well Reveille A34-735
Project:	Wells Ranch	TVD Reference:	KB @ 4681.00ft (Original Well Elev)
Reference Site:	A Section 35	MD Reference:	KB @ 4681.00ft (Original Well Elev)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Reveille A34-735	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Reveille A34-735 OH	Database:	EDMP
Reference Design:	APD - Rev 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
Offset Well - Wellbore - Design						
B Section 05						
Ehrlich 1 (TA) - Wellbore #1 - Gyro Surveys						Out of range
Ehrlich 5E-323 (PR) - Wellbore #1 - Permitted-PDC						Out of range
Ehrlich 5E-423 (DG) - Wellbore #1 - Permitted-PDC						Out of range
Ehrlich 5J-203 (PR) - Wellbore #1 - Permitted-PDC						Out of range
Ehrlich 5J-223 (PR) - Wellbore #1 - Permitted-PDC						Out of range
Ehrlich 5J-243 (PR) - Wellbore #1 - Permitted-PDC						Out of range
Ehrlich 5J-303 (PR) - Wellbore #1 - Permitted-PDC						Out of range
Ehrlich 5J-323 (PR) - Wellbore #1 - Permitted-PDC						Out of range
Ehrlich 5M-243 (PR) - Wellbore #1 - Permitted-PDC						Out of range
Ehrlich 5M-343 (PR) - Wellbore #1 - Permitted-PDC						Out of range
Mininger Pfeif 41-5 (SI) - Wellbore #1 - Gyro Surveys	7,003.61	6,470.86	9,578.14	9,530.02	199.026	CC, ES
Mininger Pfeif 41-5 (SI) - Wellbore #1 - Gyro Surveys	8,900.00	6,726.30	9,970.35	9,915.54	181.913	SF
Noffsinger 21-5 (TA) - Wellbore #1 - Gyro Surveys						Out of range
Noffsinger 31-5 (TA) - Wellbore #1 - Gyro Surveys						Out of range
Snowmass 10N (DG) - Wellbore #1 - Permitted-PDC	6,830.71	16,156.48	4,667.45	4,488.92	26.143	CC
Snowmass 10N (DG) - Wellbore #1 - Permitted-PDC	6,850.00	16,156.48	4,667.77	4,488.72	26.069	ES
Snowmass 10N (DG) - Wellbore #1 - Permitted-PDC	7,500.00	16,156.48	4,957.86	4,761.71	25.276	SF
Snowmass 1C (DG) - Wellbore #1 - Permitted-PDC	7,027.07	14,787.56	3,688.36	3,614.65	50.039	CC
Snowmass 1C (DG) - Wellbore #1 - Permitted-PDC	7,050.00	14,787.56	3,688.75	3,614.17	49.466	ES
Snowmass 1C (DG) - Wellbore #1 - Permitted-PDC	9,800.00	14,787.56	4,964.20	4,778.95	26.798	SF
Snowmass 2N (DG) - Wellbore #1 - Permitted-PDC	6,979.82	14,729.08	3,752.35	3,664.21	42.572	CC
Snowmass 2N (DG) - Wellbore #1 - Permitted-PDC	7,000.00	14,729.08	3,752.66	3,663.77	42.218	ES
Snowmass 2N (DG) - Wellbore #1 - Permitted-PDC	9,500.00	14,729.08	4,965.80	4,780.86	26.851	SF
Snowmass 3N (DG) - Wellbore #1 - Permitted-PDC	6,951.24	15,299.73	3,805.50	3,704.79	37.788	CC
Snowmass 3N (DG) - Wellbore #1 - Permitted-PDC	7,000.00	15,299.73	3,807.31	3,704.71	37.107	ES
Snowmass 3N (DG) - Wellbore #1 - Permitted-PDC	9,300.00	15,299.73	4,964.32	4,770.52	25.616	SF
Snowmass 4N (DG) - Wellbore #1 - Permitted-PDC	6,937.63	15,736.33	3,892.18	3,777.70	33.998	CC
Snowmass 4N (DG) - Wellbore #1 - Permitted-PDC	6,950.00	15,736.33	3,892.30	3,777.34	33.858	ES
Snowmass 4N (DG) - Wellbore #1 - Permitted-PDC	9,100.00	15,736.33	4,993.33	4,794.64	25.131	SF
Snowmass 5N (DG) - Wellbore #1 - Permitted-PDC	6,908.85	15,406.96	3,981.44	3,857.34	32.081	CC
Snowmass 5N (DG) - Wellbore #1 - Permitted-PDC	6,950.00	15,406.96	3,982.79	3,857.24	31.723	ES
Snowmass 5N (DG) - Wellbore #1 - Permitted-PDC	8,800.00	15,406.96	4,953.81	4,761.46	25.754	SF
Snowmass 6N (DG) - Wellbore #1 - Permitted-PDC	6,895.38	15,878.12	4,110.70	3,971.96	29.630	CC
Snowmass 6N (DG) - Wellbore #1 - Permitted-PDC	6,900.00	15,878.12	4,110.71	3,971.82	29.596	ES
Snowmass 6N (DG) - Wellbore #1 - Permitted-PDC	8,600.00	15,878.12	5,010.87	4,812.92	25.314	SF
Snowmass 7N (DG) - Wellbore #1 - Permitted-PDC	6,868.68	15,556.58	4,217.64	4,071.18	28.797	CC
Snowmass 7N (DG) - Wellbore #1 - Permitted-PDC	6,900.00	15,556.58	4,218.45	4,071.02	28.613	ES
Snowmass 7N (DG) - Wellbore #1 - Permitted-PDC	8,300.00	15,556.58	4,965.70	4,773.63	25.854	SF
Snowmass 8N (DG) - Wellbore #1 - Permitted-PDC	6,863.41	16,001.51	4,336.32	4,179.17	27.593	CC
Snowmass 8N (DG) - Wellbore #1 - Permitted-PDC	6,900.00	16,001.51	4,337.44	4,179.17	27.404	ES
Snowmass 8N (DG) - Wellbore #1 - Permitted-PDC	8,100.00	16,001.51	4,976.89	4,781.13	25.424	SF
Snowmass 9N (DG) - Wellbore #1 - Permitted-PDC	6,838.78	15,681.01	4,482.99	4,316.75	26.968	CC
Snowmass 9N (DG) - Wellbore #1 - Permitted-PDC	6,850.00	15,681.01	4,483.09	4,316.55	26.919	ES
Snowmass 9N (DG) - Wellbore #1 - Permitted-PDC	7,700.00	15,681.01	4,891.04	4,700.75	25.703	SF