

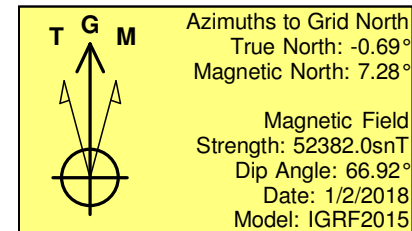
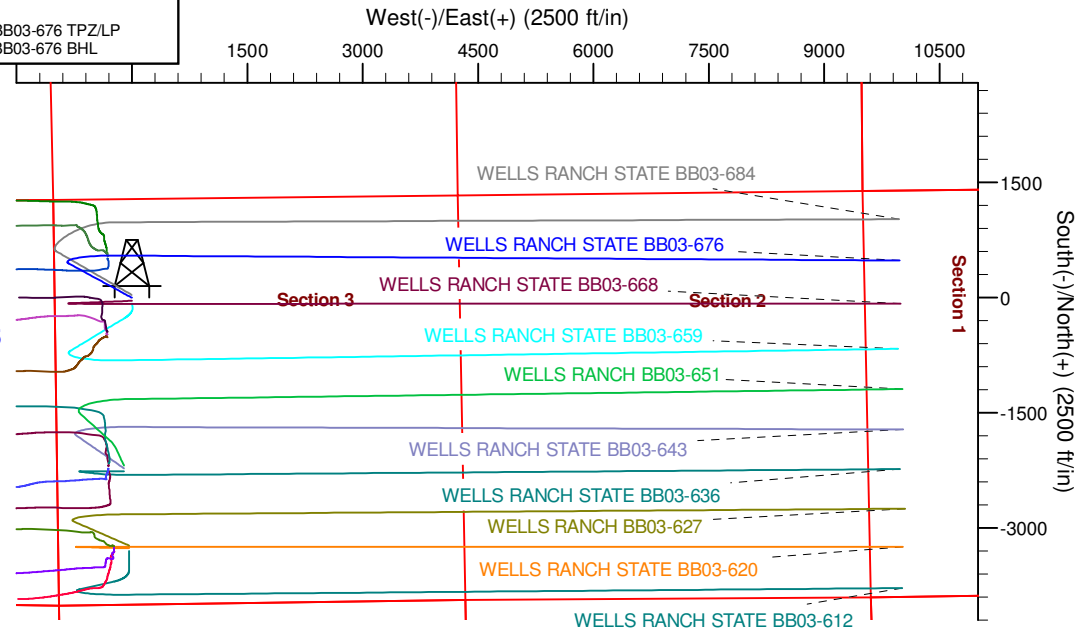
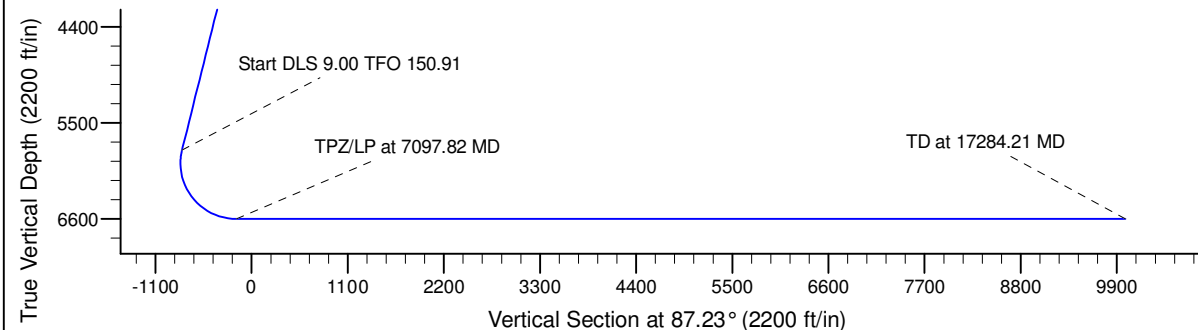
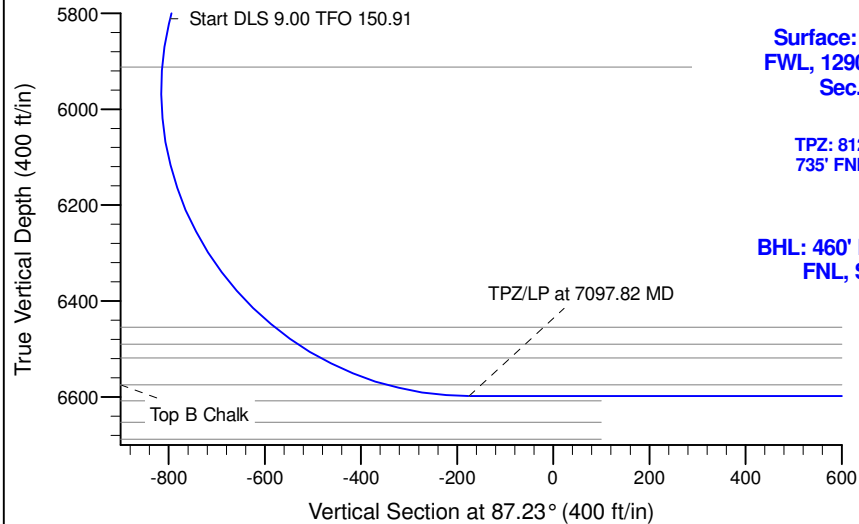
Project: Wells Ranch
Site: BB Section 03
Well: WELLS RANCH STATE BB03-676
Wellbore: Wellbore #1
Design: Plan 1

Northern Region - DJ Basin

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

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	2200.00	0.00	0.00	2200.00	0.00	0.00	0.00	0.00	0.00	
3	3011.34	16.23	298.48	3000.54	54.42	-100.32	2.00	298.48	-97.56	
4	5939.28	16.23	298.48	5811.83	444.55	-819.50	0.00	0.00	-797.02	
5	7097.82	90.00	90.36	6598.00	548.46	-201.85	9.00	150.91	-175.06	WELLS RANCH BB03-676 TPZ/LP
6	17284.21	90.00	90.36	6598.00	483.86	9984.34	0.00	0.00	9996.06	WELLS RANCH BB03-676 BHL



WELL DETAILS: WELLS RANCH STATE BB03-676

	Northing	Easting	Latitude	Longitude
0.00	0.00	1402062.21	4750.00 40.4321200	-104.4289600

Plan: Plan 1 (WELLS RANCH STATE BB03-676/Wellbore #1)

Created By: Colby Baxter Date: 9:40, March 07 2018

Checked: _____ Date: _____

Reviewed: _____ Date: _____

Approved: _____ Date: _____

Northern Region - DJ Basin

Wells Ranch

BB Section 03

WELLS RANCH STATE BB03-676

Wellbore #1

Plan: Plan 1

Standard Survey Report

06 March, 2018

Noble Energy, Inc.

Survey Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well WELLS RANCH STATE BB03-676
Project:	Wells Ranch	TVD Reference:	Well @ 4780.00ft
Site:	BB Section 03	MD Reference:	Well @ 4780.00ft
Well:	WELLS RANCH STATE BB03-676	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Plan 1	Database:	EDMP

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		BB Section 03					
Site Position:		Northing:	11,793.94	usft	Latitude:	36.1509298	
From:	Map	Easting:	1,597.09	usft	Longitude:	-115.6527898	
Position Uncertainty:	0.00	ft	Slot Radius:	13.200	in	Grid Convergence:	-6.56 °

Well	WELLS RANCH STATE BB03-676					
Well Position	+N/-S	0.00 ft	Northing:	1,402,062.21 usft	Latitude:	40.4321200
	+E/-W	0.00 ft	Easting:	3,298,147.16 usft	Longitude:	-104.4289600
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	4,750.00 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	1/2/2018	7.98	66.92	52,382.04398618

Design	Plan 1				
Audit Notes:					
Version:	Phase:	PLAN	Tie On Depth:	0.00	
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.00	0.00	0.00	87.23	

Survey Tool Program	Date	3/6/2018			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0.00	17,284.21	Plan 1 (Wellbore #1)	2_MWD+IFR1+MS	A008Mb: IFR dec & multi-station analysis	

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

Noble Energy, Inc.

Survey Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well WELLS RANCH STATE BB03-676
Project:	Wells Ranch	TVD Reference:	Well @ 4780.00ft
Site:	BB Section 03	MD Reference:	Well @ 4780.00ft
Well:	WELLS RANCH STATE BB03-676	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Plan 1	Database:	EDMP

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,300.00	2.00	298.48	2,299.98	0.83	-1.53	-1.49	2.00	2.00	0.00	
2,400.00	4.00	298.48	2,399.84	3.33	-6.13	-5.97	2.00	2.00	0.00	
2,500.00	6.00	298.48	2,499.45	7.48	-13.79	-13.42	2.00	2.00	0.00	
2,600.00	8.00	298.48	2,598.70	13.29	-24.51	-23.83	2.00	2.00	0.00	
2,700.00	10.00	298.48	2,697.47	20.75	-38.26	-37.21	2.00	2.00	0.00	
2,800.00	12.00	298.48	2,795.62	29.85	-55.03	-53.52	2.00	2.00	0.00	
2,900.00	14.00	298.48	2,893.06	40.58	-74.80	-72.75	2.00	2.00	0.00	
3,000.00	16.00	298.48	2,989.64	52.92	-97.55	-94.87	2.00	2.00	0.00	
3,011.34	16.23	298.48	3,000.54	54.42	-100.32	-97.56	2.00	2.00	0.00	
3,100.00	16.23	298.48	3,085.67	66.23	-122.09	-118.74	0.00	0.00	0.00	
3,200.00	16.23	298.48	3,181.68	79.56	-146.66	-142.63	0.00	0.00	0.00	
3,300.00	16.23	298.48	3,277.70	92.88	-171.22	-166.52	0.00	0.00	0.00	
3,400.00	16.23	298.48	3,373.71	106.20	-195.78	-190.41	0.00	0.00	0.00	
3,500.00	16.23	298.48	3,469.73	119.53	-220.34	-214.30	0.00	0.00	0.00	
3,600.00	16.23	298.48	3,565.75	132.85	-244.91	-238.19	0.00	0.00	0.00	
3,700.00	16.23	298.48	3,661.76	146.18	-269.47	-262.08	0.00	0.00	0.00	
3,800.00	16.23	298.48	3,757.78	159.50	-294.03	-285.97	0.00	0.00	0.00	
3,900.00	16.23	298.48	3,853.80	172.83	-318.60	-309.86	0.00	0.00	0.00	
4,000.00	16.23	298.48	3,949.81	186.15	-343.16	-333.75	0.00	0.00	0.00	
4,100.00	16.23	298.48	4,045.83	199.48	-367.72	-357.63	0.00	0.00	0.00	
4,200.00	16.23	298.48	4,141.84	212.80	-392.28	-381.52	0.00	0.00	0.00	
4,300.00	16.23	298.48	4,237.86	226.12	-416.85	-405.41	0.00	0.00	0.00	
4,400.00	16.23	298.48	4,333.88	239.45	-441.41	-429.30	0.00	0.00	0.00	
4,500.00	16.23	298.48	4,429.89	252.77	-465.97	-453.19	0.00	0.00	0.00	
4,600.00	16.23	298.48	4,525.91	266.10	-490.54	-477.08	0.00	0.00	0.00	
4,700.00	16.23	298.48	4,621.93	279.42	-515.10	-500.97	0.00	0.00	0.00	
4,800.00	16.23	298.48	4,717.94	292.75	-539.66	-524.86	0.00	0.00	0.00	
4,900.00	16.23	298.48	4,813.96	306.07	-564.22	-548.75	0.00	0.00	0.00	
5,000.00	16.23	298.48	4,909.97	319.40	-588.79	-572.64	0.00	0.00	0.00	
5,100.00	16.23	298.48	5,005.99	332.72	-613.35	-596.53	0.00	0.00	0.00	
5,200.00	16.23	298.48	5,102.01	346.04	-637.91	-620.42	0.00	0.00	0.00	

Noble Energy, Inc.

Survey Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well WELLS RANCH STATE BB03-676
Project:	Wells Ranch	TVD Reference:	Well @ 4780.00ft
Site:	BB Section 03	MD Reference:	Well @ 4780.00ft
Well:	WELLS RANCH STATE BB03-676	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Plan 1	Database:	EDMP

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
5,300.00	16.23	298.48	5,198.02	359.37	-662.48	-644.30	0.00	0.00	0.00
5,400.00	16.23	298.48	5,294.04	372.69	-687.04	-668.19	0.00	0.00	0.00
5,500.00	16.23	298.48	5,390.06	386.02	-711.60	-692.08	0.00	0.00	0.00
5,600.00	16.23	298.48	5,486.07	399.34	-736.17	-715.97	0.00	0.00	0.00
5,700.00	16.23	298.48	5,582.09	412.67	-760.73	-739.86	0.00	0.00	0.00
5,800.00	16.23	298.48	5,678.10	425.99	-785.29	-763.75	0.00	0.00	0.00
5,900.00	16.23	298.48	5,774.12	439.32	-809.85	-787.64	0.00	0.00	0.00
5,939.28	16.23	298.48	5,811.83	444.55	-819.50	-797.02	0.00	0.00	0.00
6,000.00	11.75	311.63	5,870.76	452.71	-831.59	-808.70	9.00	-7.38	21.65
6,100.00	7.81	1.81	5,969.45	466.29	-839.00	-815.44	9.00	-3.94	50.18
6,200.00	12.04	50.36	6,068.09	479.77	-830.73	-806.54	9.00	4.23	48.55
6,300.00	19.75	67.91	6,164.24	492.80	-807.00	-782.20	9.00	7.71	17.55
6,400.00	28.21	75.55	6,255.55	505.08	-768.37	-743.02	9.00	8.46	7.65
6,500.00	36.92	79.84	6,339.76	516.30	-715.81	-689.98	9.00	8.70	4.29
6,600.00	45.72	82.68	6,414.79	526.17	-650.61	-624.38	9.00	8.81	2.83
6,700.00	54.58	84.77	6,478.81	534.47	-574.37	-547.83	9.00	8.86	2.09
6,800.00	63.46	86.44	6,530.23	540.98	-488.98	-462.22	9.00	8.89	1.67
6,900.00	72.37	87.86	6,567.80	545.55	-396.52	-369.65	9.00	8.90	1.43
7,000.00	81.28	89.16	6,590.57	548.05	-299.29	-272.41	9.00	8.91	1.29
7,097.82	90.00	90.36	6,598.00	548.46	-201.85	-175.06	9.00	8.92	1.23
7,100.00	90.00	90.36	6,598.00	548.44	-199.67	-172.88	0.00	0.00	0.00
7,200.00	90.00	90.36	6,598.00	547.81	-99.67	-73.03	0.00	0.00	0.00
7,300.00	90.00	90.36	6,598.00	547.17	0.33	26.82	0.00	0.00	0.00
7,400.00	90.00	90.36	6,598.00	546.54	100.33	126.67	0.00	0.00	0.00
7,500.00	90.00	90.36	6,598.00	545.91	200.33	226.52	0.00	0.00	0.00
7,600.00	90.00	90.36	6,598.00	545.27	300.32	326.37	0.00	0.00	0.00
7,700.00	90.00	90.36	6,598.00	544.64	400.32	426.22	0.00	0.00	0.00
7,800.00	90.00	90.36	6,598.00	544.00	500.32	526.07	0.00	0.00	0.00
7,900.00	90.00	90.36	6,598.00	543.37	600.32	625.92	0.00	0.00	0.00
8,000.00	90.00	90.36	6,598.00	542.73	700.32	725.77	0.00	0.00	0.00
8,100.00	90.00	90.36	6,598.00	542.10	800.31	825.62	0.00	0.00	0.00
8,200.00	90.00	90.36	6,598.00	541.47	900.31	925.47	0.00	0.00	0.00
8,300.00	90.00	90.36	6,598.00	540.83	1,000.31	1,025.32	0.00	0.00	0.00
8,400.00	90.00	90.36	6,598.00	540.20	1,100.31	1,125.17	0.00	0.00	0.00
8,500.00	90.00	90.36	6,598.00	539.56	1,200.31	1,225.02	0.00	0.00	0.00
8,600.00	90.00	90.36	6,598.00	538.93	1,300.30	1,324.87	0.00	0.00	0.00
8,700.00	90.00	90.36	6,598.00	538.30	1,400.30	1,424.72	0.00	0.00	0.00
8,800.00	90.00	90.36	6,598.00	537.66	1,500.30	1,524.57	0.00	0.00	0.00
8,900.00	90.00	90.36	6,598.00	537.03	1,600.30	1,624.42	0.00	0.00	0.00
9,000.00	90.00	90.36	6,598.00	536.39	1,700.30	1,724.27	0.00	0.00	0.00
9,100.00	90.00	90.36	6,598.00	535.76	1,800.29	1,824.12	0.00	0.00	0.00
9,200.00	90.00	90.36	6,598.00	535.13	1,900.29	1,923.97	0.00	0.00	0.00
9,300.00	90.00	90.36	6,598.00	534.49	2,000.29	2,023.82	0.00	0.00	0.00

Noble Energy, Inc.

Survey Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well WELLS RANCH STATE BB03-676
Project:	Wells Ranch	TVD Reference:	Well @ 4780.00ft
Site:	BB Section 03	MD Reference:	Well @ 4780.00ft
Well:	WELLS RANCH STATE BB03-676	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Plan 1	Database:	EDMP

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
9,400.00	90.00	90.36	6,598.00	533.86	2,100.29	2,123.67	0.00	0.00	0.00
9,500.00	90.00	90.36	6,598.00	533.22	2,200.29	2,223.52	0.00	0.00	0.00
9,600.00	90.00	90.36	6,598.00	532.59	2,300.28	2,323.37	0.00	0.00	0.00
9,700.00	90.00	90.36	6,598.00	531.96	2,400.28	2,423.22	0.00	0.00	0.00
9,800.00	90.00	90.36	6,598.00	531.32	2,500.28	2,523.07	0.00	0.00	0.00
9,900.00	90.00	90.36	6,598.00	530.69	2,600.28	2,622.92	0.00	0.00	0.00
10,000.00	90.00	90.36	6,598.00	530.05	2,700.28	2,722.77	0.00	0.00	0.00
10,100.00	90.00	90.36	6,598.00	529.42	2,800.27	2,822.62	0.00	0.00	0.00
10,200.00	90.00	90.36	6,598.00	528.78	2,900.27	2,922.47	0.00	0.00	0.00
10,300.00	90.00	90.36	6,598.00	528.15	3,000.27	3,022.32	0.00	0.00	0.00
10,400.00	90.00	90.36	6,598.00	527.52	3,100.27	3,122.17	0.00	0.00	0.00
10,500.00	90.00	90.36	6,598.00	526.88	3,200.27	3,222.02	0.00	0.00	0.00
10,600.00	90.00	90.36	6,598.00	526.25	3,300.26	3,321.87	0.00	0.00	0.00
10,700.00	90.00	90.36	6,598.00	525.61	3,400.26	3,421.72	0.00	0.00	0.00
10,800.00	90.00	90.36	6,598.00	524.98	3,500.26	3,521.57	0.00	0.00	0.00
10,900.00	90.00	90.36	6,598.00	524.35	3,600.26	3,621.42	0.00	0.00	0.00
11,000.00	90.00	90.36	6,598.00	523.71	3,700.26	3,721.27	0.00	0.00	0.00
11,100.00	90.00	90.36	6,598.00	523.08	3,800.25	3,821.12	0.00	0.00	0.00
11,200.00	90.00	90.36	6,598.00	522.44	3,900.25	3,920.97	0.00	0.00	0.00
11,300.00	90.00	90.36	6,598.00	521.81	4,000.25	4,020.82	0.00	0.00	0.00
11,400.00	90.00	90.36	6,598.00	521.18	4,100.25	4,120.67	0.00	0.00	0.00
11,500.00	90.00	90.36	6,598.00	520.54	4,200.25	4,220.52	0.00	0.00	0.00
11,600.00	90.00	90.36	6,598.00	519.91	4,300.24	4,320.37	0.00	0.00	0.00
11,700.00	90.00	90.36	6,598.00	519.27	4,400.24	4,420.22	0.00	0.00	0.00
11,800.00	90.00	90.36	6,598.00	518.64	4,500.24	4,520.07	0.00	0.00	0.00
11,900.00	90.00	90.36	6,598.00	518.00	4,600.24	4,619.92	0.00	0.00	0.00
12,000.00	90.00	90.36	6,598.00	517.37	4,700.24	4,719.77	0.00	0.00	0.00
12,100.00	90.00	90.36	6,598.00	516.74	4,800.23	4,819.62	0.00	0.00	0.00
12,200.00	90.00	90.36	6,598.00	516.10	4,900.23	4,919.47	0.00	0.00	0.00
12,300.00	90.00	90.36	6,598.00	515.47	5,000.23	5,019.32	0.00	0.00	0.00
12,400.00	90.00	90.36	6,598.00	514.83	5,100.23	5,119.17	0.00	0.00	0.00
12,500.00	90.00	90.36	6,598.00	514.20	5,200.23	5,219.02	0.00	0.00	0.00
12,600.00	90.00	90.36	6,598.00	513.57	5,300.22	5,318.87	0.00	0.00	0.00
12,700.00	90.00	90.36	6,598.00	512.93	5,400.22	5,418.72	0.00	0.00	0.00
12,800.00	90.00	90.36	6,598.00	512.30	5,500.22	5,518.57	0.00	0.00	0.00
12,900.00	90.00	90.36	6,598.00	511.66	5,600.22	5,618.42	0.00	0.00	0.00
13,000.00	90.00	90.36	6,598.00	511.03	5,700.22	5,718.27	0.00	0.00	0.00
13,100.00	90.00	90.36	6,598.00	510.40	5,800.21	5,818.12	0.00	0.00	0.00
13,200.00	90.00	90.36	6,598.00	509.76	5,900.21	5,917.97	0.00	0.00	0.00
13,300.00	90.00	90.36	6,598.00	509.13	6,000.21	6,017.82	0.00	0.00	0.00
13,400.00	90.00	90.36	6,598.00	508.49	6,100.21	6,117.67	0.00	0.00	0.00
13,500.00	90.00	90.36	6,598.00	507.86	6,200.21	6,217.52	0.00	0.00	0.00
13,600.00	90.00	90.36	6,598.00	507.22	6,300.20	6,317.37	0.00	0.00	0.00

Noble Energy, Inc.

Survey Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well WELLS RANCH STATE BB03-676
Project:	Wells Ranch	TVD Reference:	Well @ 4780.00ft
Site:	BB Section 03	MD Reference:	Well @ 4780.00ft
Well:	WELLS RANCH STATE BB03-676	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Plan 1	Database:	EDMP

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
13,700.00	90.00	90.36	6,598.00	506.59	6,400.20	6,417.22	0.00	0.00	0.00
13,800.00	90.00	90.36	6,598.00	505.96	6,500.20	6,517.07	0.00	0.00	0.00
13,900.00	90.00	90.36	6,598.00	505.32	6,600.20	6,616.92	0.00	0.00	0.00
14,000.00	90.00	90.36	6,598.00	504.69	6,700.19	6,716.77	0.00	0.00	0.00
14,100.00	90.00	90.36	6,598.00	504.05	6,800.19	6,816.62	0.00	0.00	0.00
14,200.00	90.00	90.36	6,598.00	503.42	6,900.19	6,916.47	0.00	0.00	0.00
14,300.00	90.00	90.36	6,598.00	502.79	7,000.19	7,016.32	0.00	0.00	0.00
14,400.00	90.00	90.36	6,598.00	502.15	7,100.19	7,116.17	0.00	0.00	0.00
14,500.00	90.00	90.36	6,598.00	501.52	7,200.18	7,216.02	0.00	0.00	0.00
14,600.00	90.00	90.36	6,598.00	500.88	7,300.18	7,315.87	0.00	0.00	0.00
14,700.00	90.00	90.36	6,598.00	500.25	7,400.18	7,415.72	0.00	0.00	0.00
14,800.00	90.00	90.36	6,598.00	499.62	7,500.18	7,515.57	0.00	0.00	0.00
14,900.00	90.00	90.36	6,598.00	498.98	7,600.18	7,615.42	0.00	0.00	0.00
15,000.00	90.00	90.36	6,598.00	498.35	7,700.17	7,715.27	0.00	0.00	0.00
15,100.00	90.00	90.36	6,598.00	497.71	7,800.17	7,815.12	0.00	0.00	0.00
15,200.00	90.00	90.36	6,598.00	497.08	7,900.17	7,914.97	0.00	0.00	0.00
15,300.00	90.00	90.36	6,598.00	496.45	8,000.17	8,014.82	0.00	0.00	0.00
15,400.00	90.00	90.36	6,598.00	495.81	8,100.17	8,114.67	0.00	0.00	0.00
15,500.00	90.00	90.36	6,598.00	495.18	8,200.16	8,214.52	0.00	0.00	0.00
15,600.00	90.00	90.36	6,598.00	494.54	8,300.16	8,314.37	0.00	0.00	0.00
15,700.00	90.00	90.36	6,598.00	493.91	8,400.16	8,414.22	0.00	0.00	0.00
15,800.00	90.00	90.36	6,598.00	493.27	8,500.16	8,514.07	0.00	0.00	0.00
15,900.00	90.00	90.36	6,598.00	492.64	8,600.16	8,613.92	0.00	0.00	0.00
16,000.00	90.00	90.36	6,598.00	492.01	8,700.15	8,713.77	0.00	0.00	0.00
16,100.00	90.00	90.36	6,598.00	491.37	8,800.15	8,813.62	0.00	0.00	0.00
16,200.00	90.00	90.36	6,598.00	490.74	8,900.15	8,913.47	0.00	0.00	0.00
16,300.00	90.00	90.36	6,598.00	490.10	9,000.15	9,013.32	0.00	0.00	0.00
16,400.00	90.00	90.36	6,598.00	489.47	9,100.15	9,113.17	0.00	0.00	0.00
16,500.00	90.00	90.36	6,598.00	488.84	9,200.14	9,213.02	0.00	0.00	0.00
16,600.00	90.00	90.36	6,598.00	488.20	9,300.14	9,312.87	0.00	0.00	0.00
16,700.00	90.00	90.36	6,598.00	487.57	9,400.14	9,412.72	0.00	0.00	0.00
16,800.00	90.00	90.36	6,598.00	486.93	9,500.14	9,512.57	0.00	0.00	0.00
16,900.00	90.00	90.36	6,598.00	486.30	9,600.14	9,612.42	0.00	0.00	0.00
17,000.00	90.00	90.36	6,598.00	485.67	9,700.13	9,712.27	0.00	0.00	0.00
17,100.00	90.00	90.36	6,598.00	485.03	9,800.13	9,812.12	0.00	0.00	0.00
17,200.00	90.00	90.36	6,598.00	484.40	9,900.13	9,911.97	0.00	0.00	0.00
17,284.21	90.00	90.36	6,598.00	483.86	9,984.34	9,996.06	0.00	0.00	0.00

Noble Energy, Inc.

Survey Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well WELLS RANCH STATE BB03-676
Project:	Wells Ranch	TVD Reference:	Well @ 4780.00ft
Site:	BB Section 03	MD Reference:	Well @ 4780.00ft
Well:	WELLS RANCH STATE BB03-676	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Plan 1	Database:	EDMP

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
WELLS RANCH BB03-6 - plan hits target center - Point	0.00	0.00	6,598.00	548.46	-201.85	1,402,610.67	3,297,945.31	40.4336321	-104.4296612
WELLS RANCH BB03-6 - plan hits target center - Point	0.00	0.00	6,598.00	483.86	9,984.34	1,402,546.08	3,308,131.47	40.4331115	-104.3930751

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
525.00	525.00	Pierre				
566.00	566.00	Upper Pierre Aquifer Top				
1,624.00	1,624.00	Upper Pierre Aquifer Base				
3,569.02	3,536.00	Parkman				
4,327.22	4,264.00	Sussex				
4,965.66	4,877.00	Shannon				
6,041.94	5,912.00	Teepee Buttes				
6,660.58	6,455.00	Sharon Springs				
6,719.73	6,490.00	Top A Chalk				
6,775.76	6,519.00	Top A Marl				
6,925.36	6,575.00	Top B Chalk				

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
2200	2200	0	0	Start Build 2.00	
5939	5812	54	-100	Start DLS 9.00 TFO 150.91	
7098	6598	445	-820	TPZ/LP at 7097.82 MD	
17,284	6598	548	-202	TD at 17284.21 MD	

Checked By: _____ Approved By: _____ Date: _____

Northern Region - DJ Basin

Wells Ranch

BB Section 03

WELLS RANCH STATE BB03-676

Wellbore #1

Plan 1

Anticollision Summary Report

07 March, 2018

Noble Energy, Inc.
Anticollision Summary Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well WELLS RANCH STATE BB03-676
Project:	Wells Ranch	TVD Reference:	Well @ 4780.00ft
Reference Site:	BB Section 03	MD Reference:	Well @ 4780.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	WELLS RANCH STATE BB03-676	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMP
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Reference	Plan 1		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 10,000.00 ft	Error Surface:	Pedal Curve
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program	Date	3/7/2018		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.00	17,284.21	Plan 1 (Wellbore #1)	2_MWD+IFR1+MS	A008Mb: IFR dec & multi-station analysis

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
AA Section 34						
Wells Ranch 34E-232 - Original Drilling - Original Drilling	144.20	168.21	5,442.08	5,441.42	8,282.921	CC
Wells Ranch 34E-232 - Original Drilling - Original Drilling	200.00	190.57	5,442.25	5,441.31	5,818.776	ES
Wells Ranch 34E-232 - Original Drilling - Original Drilling	12,100.00	11,175.00	5,972.26	5,774.68	30.226	SF
AA Section 35						
Wells Ranch 14-35 - Wellbore #1 - Wellbore #1- As Drille	12,183.25	6,585.34	1,480.56	1,385.25	15.535	CC
Wells Ranch 14-35 - Wellbore #1 - Wellbore #1- As Drille	12,200.00	6,585.43	1,480.66	1,385.15	15.503	ES
Wells Ranch 14-35 - Wellbore #1 - Wellbore #1- As Drille	12,300.00	6,585.95	1,485.16	1,388.62	15.385	SF
Wells Ranch USX AA35-01 - Wellbore #1 - Wellbore #1-	15,980.16	6,633.58	5,494.80	5,354.38	39.131	CC
Wells Ranch USX AA35-01 - Wellbore #1 - Wellbore #1-	16,000.00	6,633.77	5,494.84	5,354.17	39.064	ES
Wells Ranch USX AA35-01 - Wellbore #1 - Wellbore #1-	17,284.21	6,645.66	5,647.41	5,494.43	36.916	SF
Wells Ranch USX AA35-02 - Wellbore #1 - Wellbore #1-	14,727.71	6,716.81	5,403.32	5,277.69	43.011	CC
Wells Ranch USX AA35-02 - Wellbore #1 - Wellbore #1-	14,800.00	6,716.30	5,403.80	5,277.31	42.720	ES
Wells Ranch USX AA35-02 - Wellbore #1 - Wellbore #1-	16,200.00	6,709.19	5,600.30	5,460.79	40.143	SF
Wells Ranch USX AA35-03 - Wellbore #1 - Wellbore #1-	13,628.49	6,624.63	5,555.53	5,443.16	49.438	CC
Wells Ranch USX AA35-03 - Wellbore #1 - Wellbore #1-	13,700.00	6,622.75	5,555.99	5,442.77	49.072	ES
Wells Ranch USX AA35-03 - Wellbore #1 - Wellbore #1-	15,400.00	6,583.55	5,830.98	5,702.18	45.273	SF
Wells Ranch USX AA35-04 - Wellbore #1 - Wellbore #1-	12,047.29	6,686.16	5,418.24	5,324.18	57.602	CC
Wells Ranch USX AA35-04 - Wellbore #1 - Wellbore #1-	12,100.00	6,686.42	5,418.50	5,323.82	57.231	ES
Wells Ranch USX AA35-04 - Wellbore #1 - Wellbore #1-	14,000.00	6,691.75	5,759.38	5,647.23	51.354	SF
Wells Ranch USX AA35-05 - Wellbore #1 - Wellbore #1-	12,122.85	6,606.68	4,171.56	4,076.85	44.042	CC
Wells Ranch USX AA35-05 - Wellbore #1 - Wellbore #1-	12,200.00	6,607.21	4,172.28	4,076.66	43.636	ES
Wells Ranch USX AA35-05 - Wellbore #1 - Wellbore #1-	13,300.00	6,615.12	4,334.46	4,228.66	40.967	SF
Wells Ranch USX AA35-06 - Wellbore #1 - Wellbore #1-	13,501.55	6,583.95	4,178.92	4,068.21	37.745	CC
Wells Ranch USX AA35-06 - Wellbore #1 - Wellbore #1-	13,600.00	6,583.65	4,180.08	4,068.21	37.363	ES
Wells Ranch USX AA35-06 - Wellbore #1 - Wellbore #1-	14,500.00	6,580.92	4,296.55	4,176.30	35.732	SF
Wells Ranch USX AA35-07 - Wellbore #1 - Wellbore #1-	14,832.93	6,608.07	4,189.11	4,062.52	33.091	CC
Wells Ranch USX AA35-07 - Wellbore #1 - Wellbore #1-	14,900.00	6,608.00	4,189.65	4,062.25	32.886	ES
Wells Ranch USX AA35-07 - Wellbore #1 - Wellbore #1-	15,700.00	6,608.19	4,277.91	4,142.96	31.700	SF
Wells Ranch USX AA35-08 - Wellbore #1 - Wellbore #1-	16,142.18	6,606.02	4,164.96	4,022.69	29.275	CC
Wells Ranch USX AA35-08 - Wellbore #1 - Wellbore #1-	16,200.00	6,606.19	4,165.36	4,022.39	29.135	ES
Wells Ranch USX AA35-08 - Wellbore #1 - Wellbore #1-	16,900.00	6,608.23	4,233.34	4,083.73	28.294	SF
Wells Ranch USX AA35-09 - Wellbore #1 - Wellbore #1-	16,295.97	6,609.70	2,936.57	2,792.44	20.374	CC
Wells Ranch USX AA35-09 - Wellbore #1 - Wellbore #1-	16,300.00	6,609.71	2,936.58	2,792.39	20.367	ES
Wells Ranch USX AA35-09 - Wellbore #1 - Wellbore #1-	16,700.00	6,610.63	2,964.24	2,816.22	20.026	SF
Wells Ranch USX AA35-10 - Wellbore #1 - Wellbore #1-	14,809.48	6,554.32	2,871.38	2,745.24	22.763	CC, ES
Wells Ranch USX AA35-10 - Wellbore #1 - Wellbore #1-	15,300.00	6,555.31	2,912.98	2,782.25	22.283	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 WELLS RANCH STATE BB03-676
Project:	Wells Ranch	TVD Reference:	Well @ 4780.00ft
Reference Site:	BB Section 03	MD Reference:	Well @ 4780.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	WELLS RANCH STATE BB03-676	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMP
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
AA Section 35						
Wells Ranch USX AA35-11 - Wellbore #1 - Wellbore #1-	13,511.51	6,603.01	2,751.03	2,640.14	24.810	CC, ES
Wells Ranch USX AA35-11 - Wellbore #1 - Wellbore #1-	14,000.00	6,600.95	2,794.06	2,678.56	24.191	SF
Wells Ranch USX AA35-12 - Wellbore #1 - Wellbore #1-	12,103.62	6,622.95	3,062.61	2,967.96	32.357	CC, ES
Wells Ranch USX AA35-12 - Wellbore #1 - Wellbore #1-	12,800.00	6,628.49	3,140.78	3,039.60	31.043	SF
Wells Ranch USX AA35-15 - Wellbore #1 - Wellbore #1-	14,932.21	6,533.06	1,596.28	1,468.72	12.515	CC, ES
Wells Ranch USX AA35-15 - Wellbore #1 - Wellbore #1-	15,100.00	6,533.47	1,605.07	1,475.95	12.430	SF
Wells Ranch USX AA35-16 - Wellbore #1 - Wellbore #1-	16,271.47	6,547.49	1,541.12	1,397.50	10.730	CC
Wells Ranch USX AA35-16 - Wellbore #1 - Wellbore #1-	16,300.00	6,547.43	1,541.39	1,397.42	10.706	ES
Wells Ranch USX AA35-16 - Wellbore #1 - Wellbore #1-	16,400.00	6,547.23	1,546.47	1,401.61	10.676	SF
Wells Ranch USX AA35-19 - Wellbore #1 - Wellbore #1-	12,923.85	6,642.24	4,927.92	4,823.80	47.328	CC
Wells Ranch USX AA35-19 - Wellbore #1 - Wellbore #1-	13,000.00	6,641.87	4,928.51	4,823.49	46.929	ES
Wells Ranch USX AA35-19 - Wellbore #1 - Wellbore #1-	14,400.00	6,635.01	5,144.26	5,026.29	43.607	SF
Wells Ranch USX AA35-23 - Wellbore #1 - Wellbore #1-	15,599.83	6,574.91	2,247.31	2,111.61	16.561	CC
Wells Ranch USX AA35-23 - Wellbore #1 - Wellbore #1-	15,600.00	6,574.91	2,247.31	2,111.61	16.561	ES
Wells Ranch USX AA35-23 - Wellbore #1 - Wellbore #1-	15,900.00	6,576.91	2,267.27	2,128.80	16.374	SF
Wells Ranch USX AA35-65HN - Plan A - Original Drilling	12,460.14	7,228.77	3,527.25	3,423.67	34.053	CC
Wells Ranch USX AA35-65HN - Plan A - Original Drilling	14,000.00	14,000.00	3,559.11	3,280.29	12.765	ES, SF

Noble Energy, Inc.
Anticollision Summary Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well WELLS RANCH STATE BB03-676
Project:	Wells Ranch	TVD Reference:	Well @ 4780.00ft
Reference Site:	BB Section 03	MD Reference:	Well @ 4780.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	WELLS RANCH STATE BB03-676	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMP
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
AA Section 36						
Wells Ranch 11-36 - Wells Ranch 11-36 - Wells Ranch 11-36	17,284.21	6,596.86	5,570.05	5,414.13	35.724	CC, ES, SF
Wells Ranch 12-36 - Wells Ranch 12-36 - Wells Ranch 12-36	17,284.21	6,621.17	4,157.38	4,001.48	26.667	CC, ES, SF
Wells Ranch 13-36 - Wells Ranch 13-36 - Wells Ranch 13-36	17,284.21	6,588.60	2,932.15	2,776.44	18.830	CC, ES, SF
Wells Ranch 14-36 - Wells Ranch 14-36 - Wells Ranch 14-36	17,255.62	6,562.78	1,452.81	1,297.24	9.339	CC
Wells Ranch 14-36 - Wells Ranch 14-36 - Wells Ranch 14-36	17,284.21	6,562.71	1,453.09	1,297.18	9.320	ES, SF
Wells Ranch 21-36 - Wells Ranch 21-36 - Wells Ranch 21-36	17,284.21	6,610.56	5,835.71	5,684.58	38.614	CC, ES, SF
Wells Ranch 22-36 - Wells Ranch 22-36 - Wells Ranch 22-36	17,284.21	6,531.67	4,659.51	4,512.25	31.642	CC, ES, SF
Wells Ranch 23-36 - Wells Ranch 23-36 - Wells Ranch 23-36	17,284.21	6,579.85	3,292.25	3,148.64	22.925	CC, ES, SF
Wells Ranch 24-36 - Wells Ranch 24-36 - Wells Ranch 24-36	17,284.21	6,572.33	2,132.83	2,021.93	19.232	CC, ES, SF
Wells Ranch 31-36 - Wells Ranch 31-36 - Wells Ranch 31-36	17,284.21	6,553.13	6,339.51	6,198.10	44.831	CC, ES, SF
Wells Ranch 32-36 - Wells Ranch 32-36 - Wells Ranch 32-36	17,284.21	6,580.63	5,205.27	5,073.03	39.362	CC, ES, SF
Wells Ranch 33-36 - Wells Ranch 33-36 - Wells Ranch 33-36	17,284.21	6,500.21	4,047.79	3,927.00	33.512	CC, ES, SF
Wells Ranch 34-36 - Original Drilling - Original Drilling - A	17,284.21	6,520.36	3,281.11	3,190.72	36.299	CC, ES, SF
Wells Ranch 36A - Wells Ranch 36A - Wells Ranch 36A	17,284.21	6,553.14	4,940.40	4,785.60	31.916	CC, ES, SF
Wells Ranch 36B - Wells Ranch 36B - Wells Ranch 36B	17,284.21	6,584.97	2,389.34	2,240.99	16.107	CC, ES, SF
Wells Ranch 36C - Wells Ranch 36C - Wells Ranch 36C	17,284.21	6,424.17	5,989.81	5,857.39	45.234	CC, ES, SF
Wells Ranch 36D - Wells Ranch 36D - Wells Ranch 36D	17,284.21	6,493.70	4,286.83	4,187.07	42.972	CC, ES, SF
Wells Ranch 36F - Wells Ranch 36F - Wells Ranch 36F	16,836.82	6,660.57	4,815.53	4,664.72	31.930	CC
Wells Ranch 36F - Wells Ranch 36F - Wells Ranch 36F	16,900.00	6,660.78	4,815.94	4,664.36	31.772	ES
Wells Ranch 36F - Wells Ranch 36F - Wells Ranch 36F	17,284.21	6,662.07	4,836.27	4,680.50	31.048	SF
Wells Ranch 36H - Wells Ranch 36H - Wells Ranch 36H	16,936.93	6,572.06	2,115.52	1,963.78	13.941	CC, ES
Wells Ranch 36H - Wells Ranch 36H - Wells Ranch 36H	17,100.00	6,572.66	2,121.80	1,968.36	13.829	SF
Wells Ranch 36J - Original Drilling - As Drilled	17,284.21	6,497.05	6,124.32	5,970.86	39.906	CC, ES, SF
Wells Ranch 36K - Wells Ranch 36K - Wells Ranch 36K	17,284.21	6,569.07	3,718.75	3,567.85	24.643	CC, ES, SF
Wells Ranch 36L - Wells Ranch 36L - Wells Ranch 36L	17,284.21	6,553.27	1,365.09	1,235.47	10.532	CC, ES, SF
Wells Ranch 36N - Wells Ranch 36N - Wells Ranch 36N	17,284.21	6,498.54	5,331.55	5,137.78	27.514	CC, ES, SF
Wells Ranch 36O - Wells Ranch 36O - Wells Ranch 36O	17,284.21	6,512.10	4,355.09	4,218.62	31.913	CC, ES, SF
Wells Ranch 36P - Wells Ranch 36P - Wells Ranch 36P	17,284.21	6,581.27	3,274.61	3,160.28	28.641	CC, ES, SF
Wells Ranch 36R - Wells Ranch 36R - Wells Ranch 36R	17,284.21	6,639.99	7,064.80	6,926.37	51.036	CC, ES, SF
Wells Ranch 36S - Wells Ranch 36S - Wells Ranch 36S	17,284.21	6,470.17	4,971.64	4,852.28	41.651	CC, ES, SF
Wells Ranch 36T - Wells Ranch 36T - Wells Ranch 36T	17,284.21	6,546.51	3,726.11	3,657.49	54.300	CC, ES, SF
Wells Ranch 36V - Wells Ranch 36V - Wells Ranch 36V	17,284.21	6,479.54	6,721.51	6,601.34	55.935	CC, ES, SF
Wells Ranch 41-36 - Wells Ranch 41-36 - Wells Ranch 41-36	17,284.21	6,532.70	6,949.30	6,818.48	53.122	CC, ES, SF
Wells Ranch 42-36 - Wells Ranch 42-36 - Wells Ranch 42-36	17,284.21	6,503.32	5,977.18	5,856.39	49.486	CC, ES, SF
Wells Ranch 43-36 - Wells Ranch 43-36 - Wells Ranch 43-36	17,284.21	6,503.24	5,102.17	4,998.14	49.046	CC, ES, SF
Wells Ranch 44-36 - Wells Ranch 44-36 - Wells Ranch 44-36	17,284.21	6,516.93	4,558.90	4,486.49	62.962	CC, ES, SF
Wells Ranch AA35-62-1AHNC - Original Drilling - Origina	12,418.34	10,735.75	1,312.95	1,179.23	9.819	CC, ES
Wells Ranch AA35-62-1AHNC - Original Drilling - Origina	16,400.00	6,781.41	1,391.86	1,244.92	9.472	SF
Wells Ranch AA35-62-1BHNC - Original Drilling - Origina	12,071.97	11,192.00	971.53	838.13	7.283	CC
Wells Ranch AA35-62-1BHNC - Original Drilling - Origina	12,100.00	11,192.00	971.94	838.09	7.261	ES
Wells Ranch AA35-62-1BHNC - Original Drilling - Origina	16,900.00	16,900.00	1,118.88	909.33	5.340	SF
Wells Ranch AA35-62-1HNA - Original Drilling - Original	12,068.91	10,981.30	1,156.59	963.62	5.994	CC, ES, SF
Wells Ranch AA35-63-1AHNA - Original Drilling - Origina	12,051.26	11,115.00	1,965.95	1,836.33	15.168	CC
Wells Ranch AA35-63-1AHNA - Original Drilling - Origina	12,100.00	11,115.00	1,966.55	1,836.30	15.098	ES
Wells Ranch AA35-63-1AHNA - Original Drilling - Origina	16,600.00	6,782.96	2,085.30	1,938.78	14.232	SF
Wells Ranch AA35-63-1BHNA - Original Drilling - Origina	16,432.54	6,676.41	1,608.40	1,462.53	11.026	CC
Wells Ranch AA35-63-1BHNA - Original Drilling - Origina	16,500.00	6,657.00	1,608.96	1,462.47	10.983	ES
Wells Ranch AA35-63-1BHNA - Original Drilling - Origina	16,600.00	6,657.00	1,614.07	1,466.62	10.946	SF
Wells Ranch AA35-63-1HNC - Original Drilling - Original	12,051.13	11,250.19	1,819.96	1,690.29	14.036	CC, ES
Wells Ranch AA35-63-1HNC - Original Drilling - Original	15,800.00	15,800.00	1,879.49	1,709.35	11.047	SF
Wells Ranch AA35-64-1AHNA - Original Drilling - Origina	12,037.12	11,056.00	2,560.83	2,431.83	19.852	CC
Wells Ranch AA35-64-1AHNA - Original Drilling - Origina	14,600.00	14,600.00	2,591.47	2,405.52	13.936	ES, SF
Wells Ranch AA35-64-1BHNC - Original Drilling - Origina	12,040.97	11,178.00	2,368.42	2,239.32	18.346	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 WELLS RANCH STATE BB03-676
Project:	Wells Ranch	TVD Reference:	Well @ 4780.00ft
Reference Site:	BB Section 03	MD Reference:	Well @ 4780.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	WELLS RANCH STATE BB03-676	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMP
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Summary

Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
AA Section 36						
Wells Ranch AA35-64-1BHNC - Original Drilling - Origina	17,000.00	6,448.80	2,494.60	2,345.32	16.711	SF
Wells Ranch AA35-65-1AHNA - Original Drilling - Origina	12,025.53	11,065.00	3,214.83	3,085.00	24.761	CC
Wells Ranch AA35-65-1AHNA - Original Drilling - Origina	12,400.00	12,400.00	3,223.63	3,074.46	21.610	ES
Wells Ranch AA35-65-1AHNA - Original Drilling - Origina	15,300.00	15,300.00	3,265.93	3,082.27	17.783	SF
Wells Ranch AA35-65-1BHNC - Original Drilling - Origina	12,242.18	10,946.00	3,052.41	2,923.46	23.672	CC
Wells Ranch AA35-65-1BHNC - Original Drilling - Origina	14,000.00	14,000.00	3,077.63	2,899.01	17.230	ES, SF
Wells Ranch AA35-67-1AHNA - Original Drilling - Origina	12,035.61	11,190.00	3,946.70	3,818.05	30.676	CC
Wells Ranch AA35-66-1AHNC - Original Drilling - Origina	12,100.00	11,190.00	3,947.23	3,817.80	30.498	ES
Wells Ranch AA35-66-1AHNC - Original Drilling - Origina	17,100.00	17,100.00	4,076.56	3,890.63	21.925	SF
Wells Ranch AA35-67-1AHNA - Original Drilling - Origina	12,483.62	10,606.19	4,598.76	4,469.85	35.674	CC
Wells Ranch AA35-67-1AHNA - Original Drilling - Origina	12,500.00	10,600.30	4,598.78	4,469.74	35.639	ES
Wells Ranch AA35-67-1AHNA - Original Drilling - Origina	17,284.21	6,257.00	4,825.32	4,672.87	31.653	SF
Wells Ranch AA35-67-1BHNA - Original Drilling - Origina	12,004.95	11,059.00	4,320.41	4,191.72	33.574	CC
Wells Ranch AA35-67-1BHNA - Original Drilling - Origina	13,700.00	13,700.00	4,341.68	4,166.57	24.794	ES, SF
Wells Ranch AA35-67-1HNC - Original Drilling - Original	12,335.70	10,871.34	4,481.13	4,352.07	34.721	CC
Wells Ranch AA35-67-1HNC - Original Drilling - Original	13,600.00	13,600.00	4,507.99	4,335.94	26.202	ES
Wells Ranch AA35-67-1HNC - Original Drilling - Original	14,800.00	14,800.00	4,528.96	4,341.87	24.208	SF
Wells Ranch AA35-68-1AHNA - Original Drilling - Origina	11,982.18	11,169.00	5,227.61	5,098.77	40.574	CC
Wells Ranch AA35-68-1AHNA - Original Drilling - Origina	15,100.00	15,100.00	5,273.57	5,087.76	28.381	ES, SF
Wells Ranch AA35-68-1BHNC - Original Drilling - Origina	12,165.17	11,126.59	5,064.39	4,935.33	39.240	CC
Wells Ranch AA35-68-1BHNC - Original Drilling - Origina	13,800.00	13,800.00	5,083.32	4,909.73	29.284	ES
Wells Ranch AA35-68-1BHNC - Original Drilling - Origina	15,200.00	15,200.00	5,104.52	4,922.01	27.970	SF
Wells Ranch AA35-69-1AHNC - Original Drilling - Origina	11,965.37	11,299.00	5,978.82	5,849.91	46.381	CC
Wells Ranch AA35-69-1AHNC - Original Drilling - Origina	12,600.00	12,600.00	5,984.87	5,834.16	39.710	ES
Wells Ranch AA35-69-1AHNC - Original Drilling - Origina	17,284.21	6,501.35	6,057.28	5,903.84	39.477	SF
Wells Ranch AA35-69-1BHNC - Original Drilling - Origina	11,971.81	11,322.00	5,636.58	5,507.39	43.630	CC
Wells Ranch AA35-69-1BHNC - Original Drilling - Origina	13,800.00	13,800.00	5,663.90	5,488.59	32.309	ES
Wells Ranch AA35-69-1BHNC - Original Drilling - Origina	17,000.00	17,000.00	5,713.55	5,528.55	30.883	SF
Wells Ranch AA35-69-1HNB - Original Drilling - Original	12,326.66	10,891.96	5,811.83	5,682.74	45.020	CC
Wells Ranch AA35-69-1HNB - Original Drilling - Original	13,600.00	13,600.00	5,822.27	5,650.16	33.829	ES, SF
Wells Ranch USX AA35-14 - Wellbore #1 - Wellbore #1 -	13,511.08	6,576.01	1,444.45	1,344.65	14.473	CC, ES
Wells Ranch USX AA35-14 - Wellbore #1 - Wellbore #1 -	13,700.00	6,576.01	1,456.76	1,355.29	14.357	SF
BB Section 01						
Wells Ranch 14-01 - Original Drilling - Original Drilling - A	17,284.21	6,481.22	3,637.39	3,482.32	23.457	CC, ES, SF
Wells Ranch 23-01 - Original Drilling - Original Drilling - A	17,284.21	6,334.64	2,867.55	2,734.10	21.488	CC, ES, SF
Wells Ranch 24-01 - Original Drilling - Original Drilling - A	17,284.21	6,464.24	4,027.54	3,882.08	27.688	CC, ES, SF
Wells Ranch USX BB01-01 - Original Drilling - Original D	17,284.21	6,441.68	4,264.54	4,213.87	84.168	CC, ES, SF
Wells Ranch USX BB01-02 - Original Drilling - Original D	17,284.21	6,551.21	2,861.07	2,807.67	53.574	CC, ES, SF
Wells Ranch USX BB01-03 - Original Drilling - Original D	17,284.21	6,496.70	1,559.81	1,506.33	29.164	CC, ES, SF
Wells Ranch USX BB01-04 - Original Drilling - Original D	17,284.21	6,532.16	397.37	325.90	5.560	CC, ES, SF
Wells Ranch USX BB01-05 - Original Drilling - Original D	17,284.21	6,511.82	990.36	837.21	6.467	CC, ES, SF
Wells Ranch USX BB01-06 - Original Drilling - Original D	17,284.21	6,524.11	1,985.76	1,880.78	18.915	CC, ES, SF
Wells Ranch USX BB01-07 - Original Drilling - Original D	17,284.21	6,506.03	3,114.58	3,037.72	40.524	CC, ES, SF
Wells Ranch USX BB01-08 - Original Drilling - Original D	17,284.21	6,538.23	4,440.73	4,377.93	70.711	CC, ES, SF
Wells Ranch USX BB01-09 - Original Drilling - Original D	17,284.21	6,346.64	4,908.08	4,818.61	54.857	CC, ES, SF
Wells Ranch USX BB01-10 - Original Drilling - Original D	17,284.21	6,360.03	3,702.62	3,593.74	34.007	CC, ES, SF
Wells Ranch USX BB01-12 - Original Drilling - Original D	17,284.21	6,433.44	2,418.53	2,264.06	15.657	CC, ES, SF
Wells Ranch USX BB01-15 - Original Drilling - Original D	17,284.21	6,465.34	4,657.17	4,529.88	36.587	CC, ES, SF
Wells Ranch USX BB01-16 - Original Drilling - Original D	17,284.21	6,534.97	5,526.80	5,412.91	48.528	CC, ES, SF
Wells Ranch USX BB01-17 - Original Drilling - Original D	17,284.21	6,531.97	3,767.55	3,712.58	68.534	CC, ES, SF
Wells Ranch USX BB01-19 - Original Drilling - Original D	17,284.21	6,512.86	1,093.88	1,024.75	15.823	CC, ES, SF
Wells Ranch USX BB01-23 - Original Drilling - Original D	17,284.21	6,446.41	4,819.13	4,713.08	45.439	CC, ES, 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 WELLS RANCH STATE BB03-676
Project:	Wells Ranch	TVD Reference:	Well @ 4780.00ft
Reference Site:	BB Section 03	MD Reference:	Well @ 4780.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	WELLS RANCH STATE BB03-676	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMP
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
BB Section 02						
Wells Ranch 11-2 - Wellbore #1 - Gyro Surveys	12,419.16	6,538.85	18.81	-79.08	0.192	Level 1, CC, ES, SF
Wells Ranch 12-2 SI - Wellbore #1 - No Surveys	12,253.42	6,518.00	1,136.83	1,006.64	8.732	CC, ES
Wells Ranch 12-2 SI - Wellbore #1 - No Surveys	12,300.00	6,518.00	1,137.79	1,007.15	8.710	SF
Wells Ranch 13-2 - No Surveys - No Surveys	12,252.31	6,528.00	2,423.05	2,292.79	18.601	CC
Wells Ranch 13-2 - No Surveys - No Surveys	12,300.00	6,528.00	2,423.52	2,292.74	18.531	ES
Wells Ranch 13-2 - No Surveys - No Surveys	12,600.00	6,528.00	2,447.87	2,314.42	18.343	SF
Wells Ranch 14-2 - Wellbore #1 - Gyro Surveys	12,269.86	6,343.22	3,780.17	3,684.92	39.687	CC
Wells Ranch 14-2 - Wellbore #1 - Gyro Surveys	12,300.00	6,343.33	3,780.29	3,684.70	39.547	ES
Wells Ranch 14-2 - Wellbore #1 - Gyro Surveys	13,200.00	6,346.94	3,892.92	3,789.24	37.546	SF
Wells Ranch 21-2 SI - Wellbore #1 - Gyro Surveys	13,646.12	6,529.01	46.77	-65.48	0.417	Level 1, CC, ES, SF
Wells Ranch 22-2 SI - Wellbore #1 - No Surveys	13,755.83	6,518.00	926.63	778.84	6.270	CC, ES
Wells Ranch 22-2 SI - Wellbore #1 - No Surveys	13,800.00	6,518.00	927.68	779.52	6.261	SF
Wells Ranch 23-2 - Wellbore #1 - No Surveys	13,592.28	6,508.00	2,456.37	2,310.60	16.851	CC
Wells Ranch 23-2 - Wellbore #1 - No Surveys	13,600.00	6,508.00	2,456.38	2,310.52	16.841	ES
Wells Ranch 23-2 - Wellbore #1 - No Surveys	13,900.00	6,508.00	2,475.57	2,326.96	16.659	SF
Wells Ranch 24-2 - Wellbore #1 - No Surveys	13,435.14	6,498.00	3,585.18	3,486.42	36.300	CC
Wells Ranch 24-2 - Wellbore #1 - No Surveys	13,500.00	6,498.00	3,585.77	3,486.27	36.039	ES
Wells Ranch 24-2 - Wellbore #1 - No Surveys	14,200.00	6,498.00	3,665.86	3,560.24	34.707	SF
Wells Ranch 31-2 - Wellbore #1 - Gyro Surveys	15,062.72	6,528.34	48.01	-81.07	0.372	Level 1, CC, ES, SF
Wells Ranch 32-2 - Wellbore #1 - No Surveys	14,880.39	6,532.00	1,058.62	897.35	6.564	CC
Wells Ranch 32-2 - Wellbore #1 - No Surveys	14,900.00	6,532.00	1,058.81	897.33	6.557	ES, SF
Wells Ranch 33-2 - Wellbore #1 - Gyro Surveys	15,104.79	6,100.00	2,670.97	2,544.49	21.118	CC, ES
Wells Ranch 33-2 - Wellbore #1 - Gyro Surveys	15,500.00	6,100.00	2,700.05	2,570.07	20.773	SF
Wells Ranch 34-2 SI - Wellbore #1 - No Surveys	15,136.30	6,508.00	3,571.58	3,407.46	21.761	CC
Wells Ranch 34-2 SI - Wellbore #1 - No Surveys	15,200.00	6,508.00	3,572.15	3,407.30	21.669	ES
Wells Ranch 34-2 SI - Wellbore #1 - No Surveys	15,700.00	6,508.00	3,615.80	3,446.41	21.347	SF
Wells Ranch 41-2 - Wellbore #1 - Gyro Surveys	15,993.85	6,528.67	18.40	-121.79	0.131	Level 1, CC, ES, SF
Wells Ranch 42-2 SI - Wellbore #1 - No Surveys	15,999.62	6,518.00	906.47	731.90	5.193	CC
Wells Ranch 42-2 SI - Wellbore #1 - No Surveys	16,000.00	6,518.00	906.47	731.90	5.193	ES, SF
Wells Ranch 43-2 TA - Wellbore #1 - Gyro Surveys	16,020.07	6,403.76	2,639.47	2,499.62	18.874	CC, ES
Wells Ranch 43-2 TA - Wellbore #1 - Gyro Surveys	16,300.00	6,400.15	2,654.27	2,511.82	18.633	SF
Wells Ranch 44-2 - Wellbore #1 - No Surveys	16,065.90	6,508.00	3,546.86	3,371.59	20.236	CC
Wells Ranch 44-2 - Wellbore #1 - No Surveys	16,100.00	6,508.00	3,547.03	3,371.36	20.192	ES
Wells Ranch 44-2 - Wellbore #1 - No Surveys	16,600.00	6,508.00	3,586.85	3,406.64	19.904	SF

Noble Energy, Inc.
Anticollision Summary Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well WELLS RANCH STATE BB03-676
Project:	Wells Ranch	TVD Reference:	Well @ 4780.00ft
Reference Site:	BB Section 03	MD Reference:	Well @ 4780.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	WELLS RANCH STATE BB03-676	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMP
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
BB Section 03						
U P R R PAN AM 1 PA - Wellbore #1 - No Surveys	6,986.59	6,567.40	110.00	27.60	1.335	Level 3, CC, ES, SF
Wells 43-3 PA - Wellbore #1 - No Surveys	11,072.85	6,518.00	2,380.86	2,264.13	20.396	CC
Wells 43-3 PA - Wellbore #1 - No Surveys	11,100.00	6,518.00	2,381.02	2,263.99	20.347	ES
Wells 43-3 PA - Wellbore #1 - No Surveys	11,400.00	6,518.00	2,403.23	2,283.45	20.064	SF
Wells 34-3 - Wellbore #1 - Gyro Surveys	9,569.86	6,600.00	3,819.33	3,752.67	57.295	CC
Wells 34-3 - Wellbore #1 - Gyro Surveys	9,600.00	6,600.00	3,819.45	3,752.50	57.043	ES
Wells 34-3 - Wellbore #1 - Gyro Surveys	12,400.00	12,400.00	4,753.62	4,649.05	45.458	SF
Wells Rach USX BB 3-14 - Wellbore #1 - Gyro Surveys	2,249.16	2,222.27	3,554.36	3,538.93	230.315	CC, ES
Wells Rach USX BB 3-14 - Wellbore #1 - Gyro Surveys	10,000.00	6,458.47	4,318.25	4,251.08	64.293	SF
Wells Ranch 12-03 - Original Drilling - Original Drilling - A	2,654.31	2,644.27	790.20	771.86	43.095	CC
Wells Ranch 12-03 - Original Drilling - Original Drilling - A	2,700.00	2,690.31	790.27	771.61	42.351	ES
Wells Ranch 12-03 - Original Drilling - Original Drilling - A	7,100.00	6,624.43	1,283.33	1,234.95	26.523	SF
Wells Ranch 21-3 TA - Wellbore #1 - No Surveys	8,254.67	6,568.00	93.44	4.38	1.049	Level 2, CC, ES, SF
Wells Ranch 32-3 SI - Wellbore #1 - No Surveys	9,731.67	6,528.00	1,183.66	1,081.33	11.567	CC, ES
Wells Ranch 32-3 SI - Wellbore #1 - No Surveys	9,800.00	6,528.00	1,185.63	1,082.70	11.519	SF
Wells Ranch 41-3 - Wellbore #1 - No Surveys	10,890.40	6,875.00	1,823.56	1,763.36	30.295	CC
Wells Ranch 41-3 - Wellbore #1 - No Surveys	10,900.00	6,875.00	1,823.58	1,763.28	30.241	ES
Wells Ranch 41-3 - Wellbore #1 - No Surveys	11,900.00	6,875.00	2,084.38	2,005.06	26.277	SF
WELLS RANCH BB03-627 - Wellbore #1 - Plan 1	2,200.00	2,164.00	3,228.57	3,213.39	212.718	CC
WELLS RANCH BB03-627 - Wellbore #1 - Plan 1	17,284.21	17,177.13	3,233.74	2,968.15	12.176	ES, SF
WELLS RANCH BB03-651 - Wellbore #1 - Plan 3	17,284.21	17,242.67	1,676.35	1,411.27	6.324	CC, ES, SF
WELLS RANCH STATE BB03-612 - Wellbore #1 - Plan #	2,004.76	1,969.76	3,301.41	3,287.63	239.553	CC
WELLS RANCH STATE BB03-612 - Wellbore #1 - Plan #	2,100.00	2,030.20	3,301.75	3,287.42	230.352	ES
WELLS RANCH STATE BB03-612 - Wellbore #1 - Plan #	17,284.21	17,161.69	4,266.36	4,001.05	16.080	SF
WELLS RANCH STATE BB03-620 - Wellbore #1 - Plan 1	2,200.00	2,164.00	3,264.99	3,249.81	215.118	CC, ES
WELLS RANCH STATE BB03-620 - Wellbore #1 - Plan 1	17,284.21	17,087.80	3,731.07	3,466.45	14.100	SF
WELLS RANCH STATE BB03-636 - Wellbore #1 - Plan 1	2,200.00	2,174.00	2,262.29	2,247.08	148.703	CC, ES
WELLS RANCH STATE BB03-636 - Wellbore #1 - Plan 1	17,284.21	17,044.86	2,717.16	2,453.18	10.293	SF
WELLS RANCH STATE BB03-643 - Wellbore #1 - Plan 1	17,284.21	17,101.75	2,200.70	1,935.84	8.309	CC, ES, SF
WELLS RANCH STATE BB03-659 - Wellbore #1 - Plan 1	2,000.00	1,997.00	76.51	62.65	5.519	CC, ES
WELLS RANCH STATE BB03-659 - Wellbore #1 - Plan 1	17,284.21	17,268.09	1,150.06	884.82	4.336	SF
WELLS RANCH STATE BB03-668 - Wellbore #1 - Plan 1	2,200.00	2,198.00	40.08	24.78	2.619	CC, ES
WELLS RANCH STATE BB03-668 - Wellbore #1 - Plan 1	17,284.21	17,293.05	562.97	297.36	2.120	SF
WELLS RANCH STATE BB03-684 - Wellbore #1 - Plan 1	2,000.00	2,002.00	36.43	22.55	2.624	CC, ES
WELLS RANCH STATE BB03-684 - Wellbore #1 - Plan 1	17,284.21	17,665.22	559.79	300.08	2.155	SF
Wells Ranch State BB05-613 - Original Drilling - Original	2,053.98	2,010.12	3,310.82	3,297.06	240.580	CC, ES
Wells Ranch State BB05-613 - Original Drilling - Original	9,500.00	5,997.80	5,032.08	4,977.63	92.408	SF
Wells Ranch State BB05-617 - Original Drilling - Original	2,254.15	2,242.76	3,271.31	3,256.78	225.134	CC, ES
Wells Ranch State BB05-617 - Original Drilling - Original	9,400.00	5,951.00	4,746.23	4,693.34	89.736	SF
Wells Ranch State BB05-625 - Original Drilling - Original	2,202.44	2,167.00	3,237.16	3,222.82	225.810	CC, ES
Wells Ranch State BB05-625 - Original Drilling - Original	6,800.00	6,655.43	3,592.11	3,549.03	83.400	SF
Wells Ranch State BB05-630 - Original Drilling - Original	1,222.94	1,196.97	2,281.65	2,273.50	279.873	CC
Wells Ranch State BB05-630 - Original Drilling - Original	2,000.00	1,973.33	2,284.93	2,271.34	168.130	ES
Wells Ranch State BB05-630 - Original Drilling - Original	7,000.00	7,000.00	3,274.05	3,230.04	74.392	SF
Wells Ranch State BB05-635 - Original Drilling - Original	382.05	356.06	2,246.37	2,244.18	1,024.320	CC
Wells Ranch State BB05-635 - Original Drilling - Original	2,212.21	2,192.84	2,249.63	2,234.96	153.270	ES
Wells Ranch State BB05-635 - Original Drilling - Original	7,900.00	6,329.00	3,075.55	3,030.62	68.447	SF
Wells Ranch State BB05-644 - Original Drilling - Original	2,919.86	3,099.09	2,172.96	2,154.99	120.944	CC, ES
Wells Ranch State BB05-644 - Original Drilling - Original	7,300.00	7,300.00	2,397.00	2,350.89	51.982	SF
Wells Ranch State BB05-650 - Original Drilling - Original	6,500.30	6,814.85	1,971.20	1,927.99	45.614	CC, ES
Wells Ranch State BB05-650 - Original Drilling - Original	6,600.00	6,802.00	1,973.78	1,930.33	45.429	SF
Wells Ranch State BB05-656 - Original Drilling - Original	2,007.84	2,005.10	592.87	579.25	43.546	CC, ES
Wells Ranch State BB05-656 - Original Drilling - Original	5,400.00	5,226.04	1,188.09	1,154.64	35.518	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 WELLS RANCH STATE BB03-676
Project:	Wells Ranch	TVD Reference:	Well @ 4780.00ft
Reference Site:	BB Section 03	MD Reference:	Well @ 4780.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	WELLS RANCH STATE BB03-676	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMP
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
BB Section 03						
Wells Ranch State BB05-665 - Original Drilling - Original	3,177.46	3,182.40	542.05	522.97	28.412	CC
Wells Ranch State BB05-665 - Original Drilling - Original	3,200.00	3,201.35	542.13	522.93	28.233	ES
Wells Ranch State BB05-665 - Original Drilling - Original	6,650.00	6,645.36	768.02	725.92	18.239	SF
Wells Ranch State BB05-669 - Original Drilling - Original	3,670.26	3,679.23	453.21	431.16	20.552	CC, ES
Wells Ranch State BB05-669 - Original Drilling - Original	6,700.00	6,622.81	530.03	487.46	12.453	SF
Wells Ranch State BB05-678 - Original Drilling - Original	6,786.78	6,615.23	185.81	143.76	4.419	CC, ES, SF
Wells Ranch State BB05-685 - Original Drilling - Original	6,477.53	6,418.94	434.98	393.72	10.542	CC, ES
Wells Ranch State BB05-685 - Original Drilling - Original	6,500.00	6,429.80	435.51	394.13	10.523	SF
Wells Ranch State BB05-690 - Original Drilling - Original	4,318.89	4,222.55	643.30	617.15	24.601	CC
Wells Ranch State BB05-690 - Original Drilling - Original	4,400.00	4,297.89	643.73	617.05	24.122	ES
Wells Ranch State BB05-690 - Original Drilling - Original	6,750.00	6,519.37	681.25	638.47	15.923	SF
Wells Ranch USX BB 3-10 - Wellbore #1 - Gyro Surveys	9,505.43	6,551.29	2,510.72	2,444.90	38.147	CC, ES
Wells Ranch USX BB 3-10 - Wellbore #1 - Gyro Surveys	10,100.00	6,561.43	2,580.14	2,509.34	36.446	SF
Wells Ranch USX BB 3-11 SI - Wellbore #1 - Gyro Surveys	210.03	140.03	2,326.72	2,325.89	2,787.448	CC
Wells Ranch USX BB 3-11 SI - Wellbore #1 - Gyro Surveys	1,700.00	1,617.07	2,330.26	2,318.92	205.572	ES
Wells Ranch USX BB 3-11 SI - Wellbore #1 - Gyro Surveys	9,200.00	6,517.87	2,719.14	2,657.85	44.362	SF
Wells Ranch USX BB 3-16 SI - Wellbore #1 - Gyro Surveys	10,907.19	6,441.20	3,904.97	3,824.72	48.662	CC, ES
Wells Ranch USX BB 3-16 SI - Wellbore #1 - Gyro Surveys	12,100.00	6,449.84	4,083.07	3,992.28	44.972	SF
Wells Ranch USX BB 3-2 SI - Wellbore #1 - No Surveys	9,475.58	6,537.00	241.72	141.91	2.422	CC, ES, SF
Wells Ranch USX BB 3-4 - Wellbore #1 - No Surveys	6,908.07	6,570.19	215.34	133.14	2.620	CC, ES, SF
Wells Ranch USX BB 3-6 SI - Wellbore #1 - Gyro Surveys	1,278.93	3,351.20	1,217.45	1,201.55	76.568	CC
Wells Ranch USX BB 3-6 SI - Wellbore #1 - Gyro Surveys	1,400.00	3,457.53	1,218.03	1,201.33	72.925	ES
Wells Ranch USX BB 3-6 SI - Wellbore #1 - Gyro Surveys	4,600.00	6,600.65	1,808.85	1,769.71	46.212	SF
Wells Ranch USX BB 3-8 - Wellbore #1 - Gyro Surveys	10,798.85	6,513.37	1,214.20	1,134.84	15.299	CC
Wells Ranch USX BB 3-8 - Wellbore #1 - Gyro Surveys	10,800.00	6,513.35	1,214.20	1,134.83	15.297	ES
Wells Ranch USX BB 3-8 - Wellbore #1 - Gyro Surveys	10,900.00	6,512.06	1,218.41	1,138.17	15.185	SF
Wells Ranch USX BB03-04 - Original Drilling - Original D	6,926.78	6,578.14	244.28	196.59	5.122	CC, ES, SF
Wells Ranch USX BB03-12 - Original Drilling - Original D	2,252.42	2,205.59	2,005.01	1,989.63	130.365	CC
Wells Ranch USX BB03-12 - Original Drilling - Original D	2,300.00	2,254.11	2,005.11	1,989.39	127.566	ES
Wells Ranch USX BB03-12 - Original Drilling - Original D	7,400.00	6,515.75	2,572.09	2,523.20	52.606	SF
Wells Ranch USX BB03-13 - Original Drilling - Original D	2,233.56	2,180.21	3,164.84	3,149.58	207.286	CC
Wells Ranch USX BB03-13 - Original Drilling - Original D	2,300.00	2,238.86	3,165.23	3,149.52	201.519	ES
Wells Ranch USX BB03-13 - Original Drilling - Original D	8,900.00	6,363.67	4,175.12	4,118.41	73.628	SF
Wells Ranch USX BB03-25 PA - Original Drilling - Gyro S	2,001.22	1,935.51	2,660.57	2,647.05	196.704	CC
Wells Ranch USX BB03-25 PA - Original Drilling - Gyro S	2,200.00	2,125.27	2,661.43	2,646.53	178.607	ES
Wells Ranch USX BB03-25 PA - Original Drilling - Gyro S	9,100.00	6,446.80	3,493.96	3,434.56	58.823	SF

Noble Energy, Inc.
Anticollision Summary Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well WELLS RANCH STATE BB03-676
Project:	Wells Ranch	TVD Reference:	Well @ 4780.00ft
Reference Site:	BB Section 03	MD Reference:	Well @ 4780.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	WELLS RANCH STATE BB03-676	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMP
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
BB Section 04						
State 11-04 - Original Drilling - Original Drilling - As Drille	6,096.90	5,916.20	4,554.65	4,512.22	107.342	CC
State 11-04 - Original Drilling - Original Drilling - As Drille	6,100.00	5,919.66	4,554.65	4,512.20	107.285	ES
State 11-04 - Original Drilling - Original Drilling - As Drille	6,400.00	6,199.76	4,625.40	4,581.16	104.565	SF
State 12-04 - Original Drilling - Original Drilling - As Drille	6,093.77	6,068.48	4,684.53	4,641.44	108.737	CC
State 12-04 - Original Drilling - Original Drilling - As Drille	6,100.00	6,072.70	4,684.56	4,641.44	108.642	ES
State 12-04 - Original Drilling - Original Drilling - As Drille	6,400.00	6,261.61	4,757.99	4,713.35	106.582	SF
State 13-04 - Original Drilling - Original Drilling - As Drille	6,048.70	5,835.69	5,344.70	5,302.45	126.503	CC
State 13-04 - Original Drilling - Original Drilling - As Drille	6,050.00	5,836.74	5,344.70	5,302.44	126.477	ES
State 13-04 - Original Drilling - Original Drilling - As Drille	6,500.00	6,224.05	5,483.68	5,438.89	122.419	SF
State 21-04 - Original Drilling - Original Drilling - As Drille	6,107.35	5,953.17	3,407.99	3,365.44	80.095	CC, ES
State 21-04 - Original Drilling - Original Drilling - As Drille	6,400.00	6,239.60	3,474.07	3,429.75	78.377	SF
State 22-04 - Original Drilling - Original Drilling - As Drille	6,067.81	5,907.57	3,642.85	3,502.71	25.995	CC, ES
State 22-04 - Original Drilling - Original Drilling - As Drille	6,400.00	6,225.55	3,723.01	3,575.59	25.254	SF
State 23-04 - Original Drilling - Original Drilling - As Drille	6,027.64	5,857.26	4,315.12	4,272.76	101.860	CC, ES
State 23-04 - Original Drilling - Original Drilling - As Drille	6,450.00	6,315.79	4,418.58	4,373.43	97.850	SF
State 24-04 - Original Drilling - Original Drilling - As Drille	5,984.34	5,729.56	5,050.30	5,008.41	120.555	CC, ES
State 24-04 - Original Drilling - Original Drilling - As Drille	6,650.00	6,412.44	5,263.98	5,217.90	114.242	SF
State 31-04 (SI) - Original Drilling - Original Drilling - As D	6,111.37	5,977.60	2,054.76	2,012.10	48.161	CC, ES
State 31-04 (SI) - Original Drilling - Original Drilling - As D	6,300.00	6,160.05	2,082.38	2,038.53	47.483	SF
State 32-04 - Original Drilling - Original Drilling - As Drille	6,046.86	5,886.86	2,336.00	2,196.20	16.710	CC
State 32-04 - Original Drilling - Original Drilling - As Drille	6,050.00	5,889.96	2,336.01	2,196.14	16.702	ES
State 32-04 - Original Drilling - Original Drilling - As Drille	6,300.00	6,134.24	2,378.95	2,233.42	16.347	SF
State 33-04 - Original Drilling - Original Drilling - As Drille	5,995.89	5,821.74	3,239.79	3,101.25	23.385	CC
State 33-04 - Original Drilling - Original Drilling - As Drille	6,000.00	5,825.76	3,239.80	3,101.16	23.369	ES
State 33-04 - Original Drilling - Original Drilling - As Drille	6,450.00	6,253.67	3,341.13	3,192.59	22.493	SF
State 41-04 (SI) - Original Drilling - Original Drilling - As D	6,122.72	5,999.50	880.66	837.98	20.631	CC, ES
State 41-04 (SI) - Original Drilling - Original Drilling - As D	6,200.00	6,073.65	885.43	842.24	20.497	SF
State 42-04 (SI) - Original Drilling - Original Drilling - As D	5,992.33	5,823.25	1,376.00	1,237.44	9.930	CC
State 42-04 (SI) - Original Drilling - Original Drilling - As D	6,000.00	5,830.76	1,376.04	1,237.29	9.918	ES
State 42-04 (SI) - Original Drilling - Original Drilling - As D	6,200.00	6,028.09	1,397.59	1,254.20	9.747	SF
State Lease 34-04 (PA) - Original Drilling - Original Drillin	5,940.37	5,763.88	4,241.98	4,104.71	30.904	CC
State Lease 34-04 (PA) - Original Drilling - Original Drillin	5,950.00	5,773.15	4,242.01	4,104.52	30.854	ES
State Lease 34-04 (PA) - Original Drilling - Original Drillin	6,650.00	6,399.29	4,418.29	4,266.25	29.062	SF
State Wells 14-04 - Original Drilling - Original Drilling - As	6,026.23	5,853.51	5,916.46	5,777.29	42.512	CC
State Wells 14-04 - Original Drilling - Original Drilling - As	6,050.00	5,876.96	5,916.80	5,777.08	42.345	ES
State Wells 14-04 - Original Drilling - Original Drilling - As	6,600.00	6,371.79	6,103.72	5,952.69	40.415	SF
State Wells 44-04 - Original Drilling - Original Drilling - As	1,777.43	1,717.48	3,677.12	3,665.14	306.994	CC
State Wells 44-04 - Original Drilling - Original Drilling - As	2,100.00	2,015.87	3,678.35	3,664.18	259.622	ES
State Wells 44-04 - Original Drilling - Original Drilling - As	6,800.00	6,456.20	4,082.92	4,035.97	86.971	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 WELLS RANCH STATE BB03-676
Project:	Wells Ranch	TVD Reference:	Well @ 4780.00ft
Reference Site:	BB Section 03	MD Reference:	Well @ 4780.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	WELLS RANCH STATE BB03-676	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMP
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Summary

Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
BB Section 05						
UPV 05-03H3 - Original Drilling - Original Drilling - As Dri	6,091.67	5,765.09	8,681.30	8,639.43	207.362	CC, ES
UPV 05-03H3 - Original Drilling - Original Drilling - As Dri	6,550.00	6,100.01	8,841.67	8,797.56	200.436	SF
UPV 05-04H3 - Original Drilling - Original Drilling - As Dri	6,142.34	6,650.01	9,886.49	9,841.32	218.888	CC, ES
UPV 05-04H3 - Original Drilling - Original Drilling - As Dri	6,500.00	6,926.68	9,986.21	9,939.22	212.497	SF
UPV 05-05H3 - Original Drilling - Original Drilling - As Dri						Out of range
UPV 05-06H3 - Original Drilling - Original Drilling - As Dri	6,096.41	6,042.01	8,703.13	8,660.29	203.156	CC
UPV 05-06H3 - Original Drilling - Original Drilling - As Dri	6,100.00	6,044.52	8,703.14	8,660.28	203.053	ES
UPV 05-06H3 - Original Drilling - Original Drilling - As Dri	6,600.00	6,600.00	8,888.81	8,842.90	193.599	SF
Wells Ranch 31-05 - Original Drilling - Original Drilling - A	6,123.22	6,200.01	7,192.06	7,148.66	165.734	CC, ES
Wells Ranch 31-05 - Original Drilling - Original Drilling - A	6,500.00	6,400.01	7,304.72	7,259.66	162.111	SF
Wells Ranch 32-05 - Original Drilling - Original Drilling - A	6,096.87	6,051.89	7,379.41	7,336.51	172.021	CC
Wells Ranch 32-05 - Original Drilling - Original Drilling - A	6,100.00	6,054.85	7,379.41	7,336.49	171.935	ES
Wells Ranch 32-05 - Original Drilling - Original Drilling - A	6,550.00	6,434.65	7,532.21	7,486.91	166.266	SF
Wells Ranch 41-05 - Original Drilling - Original Drilling - A	6,103.53	5,980.94	5,996.04	5,953.43	140.734	CC, ES
Wells Ranch 41-05 - Original Drilling - Original Drilling - A	6,750.00	6,751.34	6,296.56	6,250.21	135.863	SF
Wells Ranch 42-05 - Original Drilling - Original Drilling - A	6,083.26	5,914.70	6,135.25	6,092.82	144.607	CC, ES
Wells Ranch 42-05 - Original Drilling - Original Drilling - A	6,550.00	6,380.94	6,294.84	6,249.70	139.447	SF
Wells Ranch BB01-611 - Original Drilling - Original Drillin	17,284.21	16,257.97	4,371.76	4,114.01	16.961	CC, ES, SF
Wells Ranch BB01-615 - Original Drilling - Original Drillin	17,284.21	16,386.00	3,779.99	3,549.16	16.376	CC, ES, SF
Wells Ranch BB01-624 - Original Drilling - Original Drillin						Out of range
Wells Ranch BB01-624 - Original Drilling - ST01 - ST01 -	17,284.21	16,377.00	3,237.81	3,010.99	14.275	CC, ES, SF
Wells Ranch BB01-638 - Original Drilling - Original Drillin	17,284.21	16,495.00	2,582.90	2,324.02	9.977	CC, ES, SF
Wells Ranch BB01-649 - Original Drilling - Original Drillin	17,284.21	16,403.00	1,914.38	1,654.71	7.372	CC, ES, SF
Wells Ranch BB01-655 - Original Drilling - Original Drillin	17,284.21	16,335.00	1,335.70	1,094.05	5.527	CC, ES, SF
Wells Ranch BB01-669 - Original Drilling - Original Drillin	17,284.21	16,351.00	688.57	443.61	2.811	CC, ES, SF
Wells Ranch BB01-675 - Original Drilling - Original Drillin	17,284.21	16,379.00	80.24	-6.58	0.924	Level 1, CC, ES, SF
Wells Ranch State AA32-717 - Wellbore #1 - Plan 1	6,142.75	6,450.00	5,931.02	5,885.90	131.468	CC, ES
Wells Ranch State AA32-717 - Wellbore #1 - Plan 1	6,350.00	6,500.00	5,967.33	5,921.42	129.964	SF
Wells Ranch State AA32-724 - Wellbore #1 - Plan 1	6,133.39	6,319.72	6,368.45	6,324.03	143.363	CC, ES
Wells Ranch State AA32-724 - Wellbore #1 - Plan 1	6,350.00	6,400.00	6,407.38	6,362.00	141.192	SF
Wells Ranch State AA32-731 - Wellbore #1 - Plan 1	6,087.54	5,802.28	6,795.36	6,752.65	159.111	CC, ES
Wells Ranch State AA32-731 - Wellbore #1 - Plan 1	6,550.00	6,224.63	6,955.50	6,910.14	153.314	SF
Wells Ranch State AA32-737 - Wellbore #1 - Plan 1	6,033.76	5,144.83	7,113.07	7,072.90	177.038	CC, ES
Wells Ranch State AA32-737 - Wellbore #1 - Plan 1	6,500.00	5,570.55	7,276.00	7,233.04	169.395	SF
Wells Ranch State AA32-745 - Wellbore #1 - Plan 1	6,134.08	6,400.00	7,722.14	7,677.60	173.382	CC, ES
Wells Ranch State AA32-745 - Wellbore #1 - Plan 1	6,350.00	6,450.00	7,760.75	7,715.43	171.252	SF
Wells Ranch State AA32-751 - Wellbore #1 - Plan 1	6,125.76	6,250.00	8,106.63	8,062.81	184.995	CC, ES
Wells Ranch State AA32-751 - Wellbore #1 - Plan 1	6,400.00	6,350.00	8,167.36	8,122.44	181.811	SF
Wells Ranch State AA32-759 - Wellbore #1 - Plan 1	6,080.10	5,632.30	8,567.21	8,525.67	206.239	CC, ES
Wells Ranch State AA32-759 - Wellbore #1 - Plan 1	6,600.00	6,112.67	8,768.30	8,723.90	197.503	SF
Wells Ranch State AA32-763 - Wellbore #1 - Plan 1	6,041.65	5,027.67	8,816.94	8,777.46	223.296	CC
Wells Ranch State AA32-763 - Wellbore #1 - Plan 1	6,050.00	5,035.92	8,817.00	8,777.45	222.955	ES
Wells Ranch State AA32-763 - Wellbore #1 - Plan 1	6,550.00	5,477.09	9,009.43	8,967.10	212.847	SF
Wells Ranch State AA32-770 - Wellbore #1 - Plan 1	6,127.02	6,350.00	9,374.74	9,330.48	211.787	CC, ES
Wells Ranch State AA32-770 - Wellbore #1 - Plan 1	6,500.00	6,450.00	9,485.94	9,440.44	208.459	SF
Wells Ranch State AA32-775 - Wellbore #1 - Plan 1	6,119.28	6,200.00	9,732.19	9,688.57	223.153	CC, ES
Wells Ranch State AA32-775 - Wellbore #1 - Plan 1	6,550.00	6,350.00	9,877.75	9,832.61	218.826	SF
Wells Ranch State AA32-783 - Wellbore #1 - Plan 1						Out of range
Wells Ranch State AA32-789 - Wellbore #1 - Plan1						Out of range
Wells Ranch State BB01-690 - Original Drilling - Original	17,284.21	16,119.00	980.10	737.07	4.033	CC, ES, SF
Wells Ranch USX BB05-09 - Original Drilling - Original D	6,068.91	5,942.80	6,281.33	6,238.73	147.423	CC, ES
Wells Ranch USX BB05-09 - Original Drilling - Original D	6,500.00	6,314.07	6,413.09	6,368.06	142.445	SF
Wells Ranch USX BB05-10 - Original Drilling - Original D	6,072.44	5,960.93	7,631.74	7,589.11	179.034	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 WELLS RANCH STATE BB03-676
Project:	Wells Ranch	TVD Reference:	Well @ 4780.00ft
Reference Site:	BB Section 03	MD Reference:	Well @ 4780.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	WELLS RANCH STATE BB03-676	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMP
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
BB Section 05						
Wells Ranch USX BB05-10 - Original Drilling - Original D	6,700.00	6,700.00	7,899.59	7,853.06	169.771	SF
Wells Ranch USX BB05-11 - Original Drilling - Original D	6,073.28	5,868.44	8,858.09	8,815.80	209.486	CC, ES
Wells Ranch USX BB05-11 - Original Drilling - Original D	6,500.00	6,500.00	8,992.69	8,947.11	197.317	SF
Wells Ranch USX BB05-12 - Original Drilling - Original D						Out of range
Wells Ranch USX BB05-13 - Original Drilling - Original D						Out of range
Wells Ranch USX BB05-14 - Original Drilling - Original D	6,063.17	5,943.31	9,352.91	9,310.30	219.488	CC, ES
Wells Ranch USX BB05-14 - Original Drilling - Original D	6,550.00	6,151.44	9,520.91	9,476.33	213.587	SF
Wells Ranch USX BB05-15 - Original Drilling - Original D	6,068.58	6,075.16	8,227.84	8,184.75	190.962	CC
Wells Ranch USX BB05-15 - Original Drilling - Original D	6,100.00	6,375.23	8,228.25	8,184.09	186.364	ES
Wells Ranch USX BB05-15 - Original Drilling - Original D	6,550.00	6,600.01	8,372.22	8,326.11	181.566	SF
Wells Ranch USX BB05-16 - Original Drilling - Original D	6,057.14	6,017.95	7,048.59	7,005.63	164.081	CC, ES
Wells Ranch USX BB05-16 - Original Drilling - Original D	6,600.00	6,568.24	7,234.03	7,187.82	156.571	SF
Wells Ranch USX BB05-23 - Original Drilling - Original D	6,062.74	5,962.85	7,125.52	7,082.80	166.790	CC, ES
Wells Ranch USX BB05-23 - Original Drilling - Original D	6,550.00	6,398.41	7,285.88	7,240.41	160.254	SF
Wells Ranch USX BB05-25 - Original Drilling - Original D	6,059.08	5,712.56	9,928.34	9,886.58	237.756	CC, ES
Wells Ranch USX BB05-25 - Original Drilling - Original D	6,350.00	5,975.69	9,990.45	9,946.91	229.497	SF

Noble Energy, Inc.
Anticollision Summary Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well WELLS RANCH STATE BB03-676
Project:	Wells Ranch	TVD Reference:	Well @ 4780.00ft
Reference Site:	BB Section 03	MD Reference:	Well @ 4780.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	WELLS RANCH STATE BB03-676	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMP
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
BB Section 10						
Wells Ranch 10A - Original Drilling - Original Drilling - As	100.00	7.23	5,325.29	5,325.15	10,000.000	CC
Wells Ranch 10A - Original Drilling - Original Drilling - As	2,300.00	2,260.74	5,326.76	5,311.03	338.672	ES
Wells Ranch 10A - Original Drilling - Original Drilling - As	11,300.00	6,681.62	6,869.46	6,792.65	89.435	SF
Wells Ranch 10B - Original Drilling - Original Drilling - As	2,224.57	2,161.68	8,086.70	8,071.57	534.521	CC, ES
Wells Ranch 10B - Original Drilling - Original Drilling - As	12,900.00	6,532.90	9,970.00	9,876.69	106.856	SF
Wells Ranch 10C - Original Drilling - Original Drilling - As	10,492.73	6,492.18	5,663.88	5,587.87	74.516	CC
Wells Ranch 10C - Original Drilling - Original Drilling - As	10,600.00	6,492.21	5,664.90	5,587.74	73.422	ES
Wells Ranch 10C - Original Drilling - Original Drilling - As	12,900.00	6,492.96	6,154.22	6,057.05	63.331	SF
Wells Ranch 10F - Original Drilling - Original Drilling - As	2,261.86	2,232.63	5,460.25	5,444.74	352.213	CC
Wells Ranch 10F - Original Drilling - Original Drilling - As	2,300.00	2,269.32	5,460.34	5,444.57	346.334	ES
Wells Ranch 10F - Original Drilling - Original Drilling - As	10,800.00	6,866.51	7,282.20	7,210.61	101.709	SF
Wells Ranch 10H - Original Drilling - Original Drilling - As	2,227.30	2,167.63	8,032.56	8,017.40	529.644	CC
Wells Ranch 10H - Original Drilling - Original Drilling - As	2,300.00	2,225.98	8,033.01	8,017.38	514.036	ES
Wells Ranch 10H - Original Drilling - Original Drilling - As	11,800.00	6,487.59	9,987.78	9,906.16	122.359	SF
Wells Ranch 10J - Original Drilling - Original Drilling - As	2,295.84	2,289.43	4,018.19	4,003.22	268.390	CC
Wells Ranch 10J - Original Drilling - Original Drilling - As	2,300.00	2,294.14	4,018.19	4,003.19	267.832	ES
Wells Ranch 10J - Original Drilling - Original Drilling - As	10,000.00	6,555.33	5,138.24	5,072.73	78.440	SF
Wells Ranch 10K - Original Drilling - Original Drilling - As	247.47	157.47	6,777.90	6,776.87	6,580.471	CC
Wells Ranch 10K - Original Drilling - Original Drilling - As	700.00	558.60	6,779.22	6,775.17	1,672.417	ES
Wells Ranch 10K - Original Drilling - Original Drilling - As	13,000.00	6,532.56	8,885.70	8,794.50	97.433	SF
Wells Ranch 11-10 - Original Drilling - Original Drilling - A	100.00	17.32	4,679.24	4,679.08	10,000.000	CC
Wells Ranch 11-10 - Original Drilling - Original Drilling - A	2,300.00	2,277.64	4,686.44	4,670.64	296.734	ES
Wells Ranch 11-10 - Original Drilling - Original Drilling - A	10,400.00	6,597.34	6,200.06	6,131.64	90.622	SF
Wells Ranch 12-10 - Original Drilling - Original Drilling - A	100.00	19.58	6,160.90	6,160.74	10,000.000	CC
Wells Ranch 12-10 - Original Drilling - Original Drilling - A	2,300.00	2,316.12	6,172.11	6,156.19	387.639	ES
Wells Ranch 12-10 - Original Drilling - Original Drilling - A	12,000.00	6,200.00	8,294.73	8,214.94	103.958	SF
Wells Ranch 13-10 - Original Drilling - Original Drilling - A	100.00	0.00	7,402.83	7,402.70	10,000.000	CC
Wells Ranch 13-10 - Original Drilling - Original Drilling - A	500.00	368.68	7,404.65	7,401.98	2,767.100	ES
Wells Ranch 13-10 - Original Drilling - Original Drilling - A	12,900.00	6,383.60	9,944.42	9,855.99	112.462	SF
Wells Ranch 14-10 - Original Drilling - Original Drilling - A	2,260.72	2,232.00	8,590.45	8,574.94	553.603	CC
Wells Ranch 14-10 - Original Drilling - Original Drilling - A	2,300.00	2,261.66	8,590.60	8,574.84	545.075	ES
Wells Ranch 14-10 - Original Drilling - Original Drilling - A	11,100.00	6,446.18	9,976.49	9,898.71	128.271	SF
Wells Ranch 21-10 - Original Drilling - Original Drilling - A	466.01	386.02	4,669.88	4,667.26	1,785.439	CC
Wells Ranch 21-10 - Original Drilling - Original Drilling - A	1,200.00	1,090.60	4,671.20	4,663.50	606.211	ES
Wells Ranch 21-10 - Original Drilling - Original Drilling - A	11,000.00	6,625.81	5,691.38	5,615.19	74.703	SF
Wells Ranch 22-10 - Original Drilling - Original Drilling - A	100.00	8.54	5,973.93	5,973.79	10,000.000	CC
Wells Ranch 22-10 - Original Drilling - Original Drilling - A	500.00	367.93	5,975.08	5,972.41	2,235.623	ES
Wells Ranch 22-10 - Original Drilling - Original Drilling - A	12,300.00	6,507.18	7,509.29	7,422.58	86.602	SF
Wells Ranch 23-10 - Original Drilling - Original Drilling - A	869.55	769.59	7,515.77	7,510.36	1,390.380	CC
Wells Ranch 23-10 - Original Drilling - Original Drilling - A	1,800.00	1,655.22	7,517.48	7,505.65	635.422	ES
Wells Ranch 23-10 - Original Drilling - Original Drilling - A	12,900.00	12,900.00	9,158.48	9,042.81	79.182	SF
Wells Ranch 24-10 - Original Drilling - Original Drilling - A	100.00	0.00	8,681.99	8,681.86	10,000.000	CC
Wells Ranch 24-10 - Original Drilling - Original Drilling - A	2,203.90	2,111.08	8,683.72	8,668.85	584.002	ES
Wells Ranch 24-10 - Original Drilling - Original Drilling - A	12,500.00	6,349.28	9,994.17	9,901.82	108.225	SF
Wells Ranch 31-10 - Original Drilling - Original Drilling - A	9,754.65	6,491.49	5,135.00	5,066.88	75.377	CC
Wells Ranch 31-10 - Original Drilling - Original Drilling - A	9,800.00	6,491.69	5,135.20	5,066.62	74.874	ES
Wells Ranch 31-10 - Original Drilling - Original Drilling - A	12,000.00	6,501.94	5,604.44	5,517.06	64.135	SF
Wells Ranch 32-10 - Original Drilling - Original Drilling - A	10,001.90	6,488.24	6,484.58	6,411.84	89.140	CC
Wells Ranch 32-10 - Original Drilling - Original Drilling - A	10,100.00	6,489.22	6,485.32	6,411.55	87.903	ES
Wells Ranch 32-10 - Original Drilling - Original Drilling - A	13,200.00	6,520.19	7,230.26	7,129.36	71.657	SF
Wells Ranch 33-10 - Original Drilling - Original Drilling - A	507.59	397.62	7,714.14	7,711.33	2,752.547	CC
Wells Ranch 33-10 - Original Drilling - Original Drilling - A	2,212.09	2,125.85	7,721.32	7,706.37	516.459	ES
Wells Ranch 33-10 - Original Drilling - Original Drilling - A	14,300.00	6,673.40	9,062.93	8,954.85	83.849	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 WELLS RANCH STATE BB03-676
Project:	Wells Ranch	TVD Reference:	Well @ 4780.00ft
Reference Site:	BB Section 03	MD Reference:	Well @ 4780.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	WELLS RANCH STATE BB03-676	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMP
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
BB Section 10						
Wells Ranch 34-10 - Original Drilling - Original Drilling - A	100.00	3.91	8,814.77	8,814.64	10,000.000	CC
Wells Ranch 34-10 - Original Drilling - Original Drilling - A	2,200.00	2,090.57	8,819.87	8,805.08	596.293	ES
Wells Ranch 34-10 - Original Drilling - Original Drilling - A	14,500.00	6,549.31	9,988.92	9,875.46	88.043	SF
Wells Ranch 41-10 - Original Drilling - Original Drilling - A	11,060.04	6,469.73	5,167.36	5,085.19	62.886	CC
Wells Ranch 41-10 - Original Drilling - Original Drilling - A	11,100.00	6,469.71	5,167.51	5,084.90	62.554	ES
Wells Ranch 41-10 - Original Drilling - Original Drilling - A	13,000.00	6,468.68	5,519.51	5,420.17	55.563	SF
Wells Ranch 42-10 - Original Drilling - Original Drilling - A	10,962.04	6,457.95	6,420.57	6,339.59	79.292	CC
Wells Ranch 42-10 - Original Drilling - Original Drilling - A	11,000.00	6,457.94	6,420.68	6,339.29	78.887	ES
Wells Ranch 42-10 - Original Drilling - Original Drilling - A	13,800.00	6,456.98	7,019.81	6,913.64	66.117	SF
Wells Ranch 43-10 - Original Drilling - Original Drilling - A	11,084.10	6,387.51	7,799.65	7,717.57	95.029	CC
Wells Ranch 43-10 - Original Drilling - Original Drilling - A	11,200.00	6,387.58	7,800.51	7,717.15	93.579	ES
Wells Ranch 43-10 - Original Drilling - Original Drilling - A	15,000.00	6,390.08	8,727.47	8,610.66	74.713	SF
Wells Ranch 44-10 - Original Drilling - Original Drilling - A	11,075.08	6,423.28	9,018.42	8,936.30	109.829	CC
Wells Ranch 44-10 - Original Drilling - Original Drilling - A	11,200.00	6,422.29	9,019.28	8,935.79	108.026	ES
Wells Ranch 44-10 - Original Drilling - Original Drilling - A	15,300.00	6,379.47	9,958.93	9,837.74	82.173	SF

Noble Energy, Inc.
Anticollision Summary Report

Company:	Northern Region - DJ Basin	Local Co-ordinate Reference:	Well WELLS RANCH STATE BB03-676
Project:	Wells Ranch	TVD Reference:	Well @ 4780.00ft
Reference Site:	BB Section 03	MD Reference:	Well @ 4780.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	WELLS RANCH STATE BB03-676	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMP
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
BB Section 11						
Wells 12-11 - Original Drilling - Original Drilling - As Drille	12,520.06	6,488.00	6,348.09	6,141.93	30.792	CC
Wells 12-11 - Original Drilling - Original Drilling - As Drille	12,600.00	6,488.00	6,348.59	6,141.52	30.659	ES
Wells 12-11 - Original Drilling - Original Drilling - As Drille	14,100.00	6,488.00	6,541.75	6,319.87	29.484	SF
Wells Ranch 13-11 - Original Drilling - Original Drilling - A	12,377.30	6,425.75	7,752.42	7,655.44	79.936	CC
Wells Ranch 13-11 - Original Drilling - Original Drilling - A	12,500.00	6,426.20	7,753.39	7,655.01	78.807	ES
Wells Ranch 13-11 - Original Drilling - Original Drilling - A	15,800.00	6,439.04	8,474.36	8,346.50	66.280	SF
Wells Ranch 14-11 - Original Drilling - Original Drilling - A	11,791.89	6,528.54	9,730.43	9,607.31	79.031	CC
Wells Ranch 14-11 - Original Drilling - Original Drilling - A	11,900.00	6,527.16	9,731.03	9,606.71	78.273	ES
Wells Ranch 14-11 - Original Drilling - Original Drilling - A	14,000.00	6,500.28	9,977.79	9,831.73	68.316	SF
Wells Ranch 23-11 - Original Drilling - Original Drilling - A	13,671.38	6,514.95	7,483.21	7,370.67	66.498	CC
Wells Ranch 23-11 - Original Drilling - Original Drilling - A	13,800.00	6,520.05	7,484.31	7,370.26	65.627	ES
Wells Ranch 23-11 - Original Drilling - Original Drilling - A	16,500.00	6,487.90	7,999.93	7,861.70	57.874	SF
Wells Ranch 24-11 - Original Drilling - Original Drilling - A	13,747.56	6,551.18	8,994.91	8,881.38	79.230	CC
Wells Ranch 24-11 - Original Drilling - Original Drilling - A	13,900.00	6,549.49	8,996.20	8,880.91	78.027	ES
Wells Ranch 24-11 - Original Drilling - Original Drilling - A	17,284.21	6,527.94	9,665.19	9,518.63	65.948	SF
Wells Ranch BB11-618 - Original Drilling - Original Drillin	15,300.00	15,300.00	9,120.53	8,903.36	41.997	SF
Wells Ranch BB11-618 - Original Drilling - Original Drillin	16,926.35	11,715.89	9,088.63	8,891.88	46.193	CC
Wells Ranch BB11-618 - Original Drilling - Original Drillin	17,284.21	12,382.65	9,092.47	8,883.44	43.499	ES
Wells Ranch BB11-627 - Original Drilling - Original Drillin	14,900.00	14,900.00	8,601.80	8,395.23	41.640	SF
Wells Ranch BB11-627 - Original Drilling - Original Drillin	17,169.37	11,957.05	8,531.18	8,328.73	42.139	CC
Wells Ranch BB11-627 - Original Drilling - Original Drillin	17,284.21	12,022.51	8,531.52	8,326.92	41.698	ES
Wells Ranch BB11-635 - Original Drilling - Original Drillin	17,100.00	17,100.00	8,039.02	7,777.23	30.708	ES, SF
Wells Ranch BB11-635 - Original Drilling - Original Drillin	17,284.21	12,666.00	8,028.21	7,817.25	38.056	CC
Wells Ranch BB11-643 - Original Drilling - Original Drillin	16,380.25	11,217.00	7,532.25	7,348.31	40.948	CC
Wells Ranch BB11-643 - Original Drilling - Original Drillin	17,284.21	12,730.00	7,534.42	7,322.01	35.471	ES, SF
Wells Ranch BB11-650 - Original Drilling - Original Drillin	16,600.00	16,600.00	7,027.75	6,778.56	28.203	ES, SF
Wells Ranch BB11-650 - Original Drilling - Original Drillin	17,284.21	12,472.00	6,992.65	6,784.25	33.553	CC
Wells Ranch BB11-658 - Original Drilling - Original Drillin	17,284.21	12,756.00	6,483.65	6,271.36	30.542	CC, ES, SF
Wells Ranch BB11-667 - Original Drilling - Original Drillin	16,200.00	16,200.00	6,051.96	5,837.51	28.221	SF
Wells Ranch BB11-667 - Original Drilling - Original Drillin	17,284.21	12,381.00	5,987.26	5,794.91	31.127	CC, ES
Wells Ranch BB11-674 - Original Drilling - Original Drillin	16,200.00	16,200.00	5,489.98	5,249.11	22.793	ES, SF
Wells Ranch BB11-674 - Original Drilling - Original Drillin	17,284.21	12,516.58	5,463.95	5,253.90	26.013	CC
Wells Ranch BB11-682 - Original Drilling - Original Drillin	16,496.11	11,510.47	4,853.14	4,665.60	25.877	CC
Wells Ranch BB11-682 - Original Drilling - Original Drillin	17,000.00	17,000.00	4,857.72	4,598.38	18.731	ES, SF
Wells Ranch USX BB11-01 - Original Drilling - Original D	16,191.29	6,545.98	5,004.58	4,861.88	35.070	CC
Wells Ranch USX BB11-01 - Original Drilling - Original D	16,200.00	6,546.02	5,004.59	4,861.78	35.045	ES
Wells Ranch USX BB11-01 - Original Drilling - Original D	17,284.21	6,551.48	5,122.52	4,969.81	33.543	SF
Wells Ranch USX BB11-02 - Original Drilling - Original D	14,849.33	6,568.14	5,039.28	4,912.52	39.753	CC
Wells Ranch USX BB11-02 - Original Drilling - Original D	14,900.00	6,567.87	5,039.54	4,912.18	39.572	ES
Wells Ranch USX BB11-02 - Original Drilling - Original D	16,100.00	6,561.66	5,192.16	5,054.05	37.595	SF
Wells Ranch USX BB11-03 - Original Drilling - Original D	13,300.00	13,300.00	4,997.01	4,865.35	37.954	ES, SF
Wells Ranch USX BB11-03 - Original Drilling - Original D	13,621.48	6,516.12	4,986.65	4,874.70	44.542	CC
Wells Ranch USX BB11-04 - Original Drilling - Original D	12,348.76	6,516.73	5,115.95	5,018.94	52.734	CC
Wells Ranch USX BB11-04 - Original Drilling - Original D	12,400.00	6,517.08	5,116.21	5,018.61	52.422	ES
Wells Ranch USX BB11-04 - Original Drilling - Original D	14,000.00	6,522.39	5,375.83	5,263.95	48.047	SF
Wells Ranch USX BB11-06 - Original Drilling - Original D	13,585.46	6,500.12	6,266.33	6,154.90	56.237	CC
Wells Ranch USX BB11-06 - Original Drilling - Original D	13,700.00	6,502.81	6,267.38	6,154.62	55.583	ES
Wells Ranch USX BB11-06 - Original Drilling - Original D	15,700.00	6,549.76	6,613.30	6,482.50	50.560	SF
Wells Ranch USX BB11-07 - Original Drilling - Original D	15,014.91	6,567.62	6,362.86	6,233.90	49.338	CC
Wells Ranch USX BB11-07 - Original Drilling - Original D	15,100.00	6,566.82	6,363.43	6,233.48	48.968	ES
Wells Ranch USX BB11-07 - Original Drilling - Original D	16,900.00	6,549.94	6,636.21	6,490.12	45.427	SF
Wells Ranch USX BB11-08 - Original Drilling - Original D	16,292.74	6,575.03	6,384.63	6,240.57	44.321	CC
Wells Ranch USX BB11-08 - Original Drilling - Original D	16,400.00	6,574.95	6,385.53	6,240.22	43.944	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 WELLS RANCH STATE BB03-676
Project:	Wells Ranch	TVD Reference:	Well @ 4780.00ft
Reference Site:	BB Section 03	MD Reference:	Well @ 4780.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	WELLS RANCH STATE BB03-676	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMP
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
BB Section 11						
Wells Ranch USX BB11-08 - Original Drilling - Original D	17,284.21	6,574.34	6,461.15	6,306.83	41.868	SF
Wells Ranch USX BB11-09 - Original Drilling - Original D	16,392.08	6,451.78	7,837.35	7,692.61	54.146	CC
Wells Ranch USX BB11-09 - Original Drilling - Original D	16,500.00	6,452.35	7,838.10	7,692.08	53.678	ES
Wells Ranch USX BB11-09 - Original Drilling - Original D	17,284.21	6,456.73	7,887.96	7,733.39	51.030	SF
Wells Ranch USX BB11-10 - Original Drilling - Original D	14,986.36	6,394.76	7,788.28	7,660.63	61.016	CC
Wells Ranch USX BB11-10 - Original Drilling - Original D	15,100.00	6,394.04	7,789.10	7,660.13	60.394	ES
Wells Ranch USX BB11-10 - Original Drilling - Original D	17,284.21	6,381.27	8,120.17	7,970.47	54.245	SF
Wells Ranch USX BB11-15 - Original Drilling - Original D	15,065.51	6,573.81	9,007.29	8,877.96	69.643	CC
Wells Ranch USX BB11-15 - Original Drilling - Original D	15,200.00	6,573.18	9,008.30	8,877.38	68.811	ES
Wells Ranch USX BB11-15 - Original Drilling - Original D	17,284.21	6,563.43	9,276.52	9,124.53	61.033	SF
Wells Ranch USX BB11-16 - Original Drilling - Original D	16,426.95	6,701.25	8,959.24	8,813.08	61.301	CC
Wells Ranch USX BB11-16 - Original Drilling - Original D	16,500.00	6,698.22	8,959.53	8,812.53	60.946	ES
Wells Ranch USX BB11-16 - Original Drilling - Original D	17,284.21	6,665.79	9,000.09	8,844.42	57.816	SF
Wells Ranch USX BB11-17 - Original Drilling - Original D	15,647.04	6,498.00	5,711.76	5,468.35	23.466	CC
Wells Ranch USX BB11-17 - Original Drilling - Original D	15,700.00	6,498.00	5,712.01	5,467.98	23.407	ES
Wells Ranch USX BB11-17 - Original Drilling - Original D	16,700.00	6,498.00	5,808.01	5,554.13	22.877	SF
Wells Ranch USX BB11-23 - Original Drilling - Original D	15,695.28	6,577.42	8,338.26	8,201.38	60.917	CC
Wells Ranch USX BB11-23 - Original Drilling - Original D	15,800.00	6,576.84	8,338.91	8,200.80	60.379	ES
Wells Ranch USX BB11-23 - Original Drilling - Original D	17,284.21	6,568.49	8,488.29	8,334.78	55.293	SF

Noble Energy, Inc.
Anticollision Summary Report

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Reference Site:	BB Section 03	MD Reference:	Well @ 4780.00ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	WELLS RANCH STATE BB03-676	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDMP
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to Well @ 4780.00ft

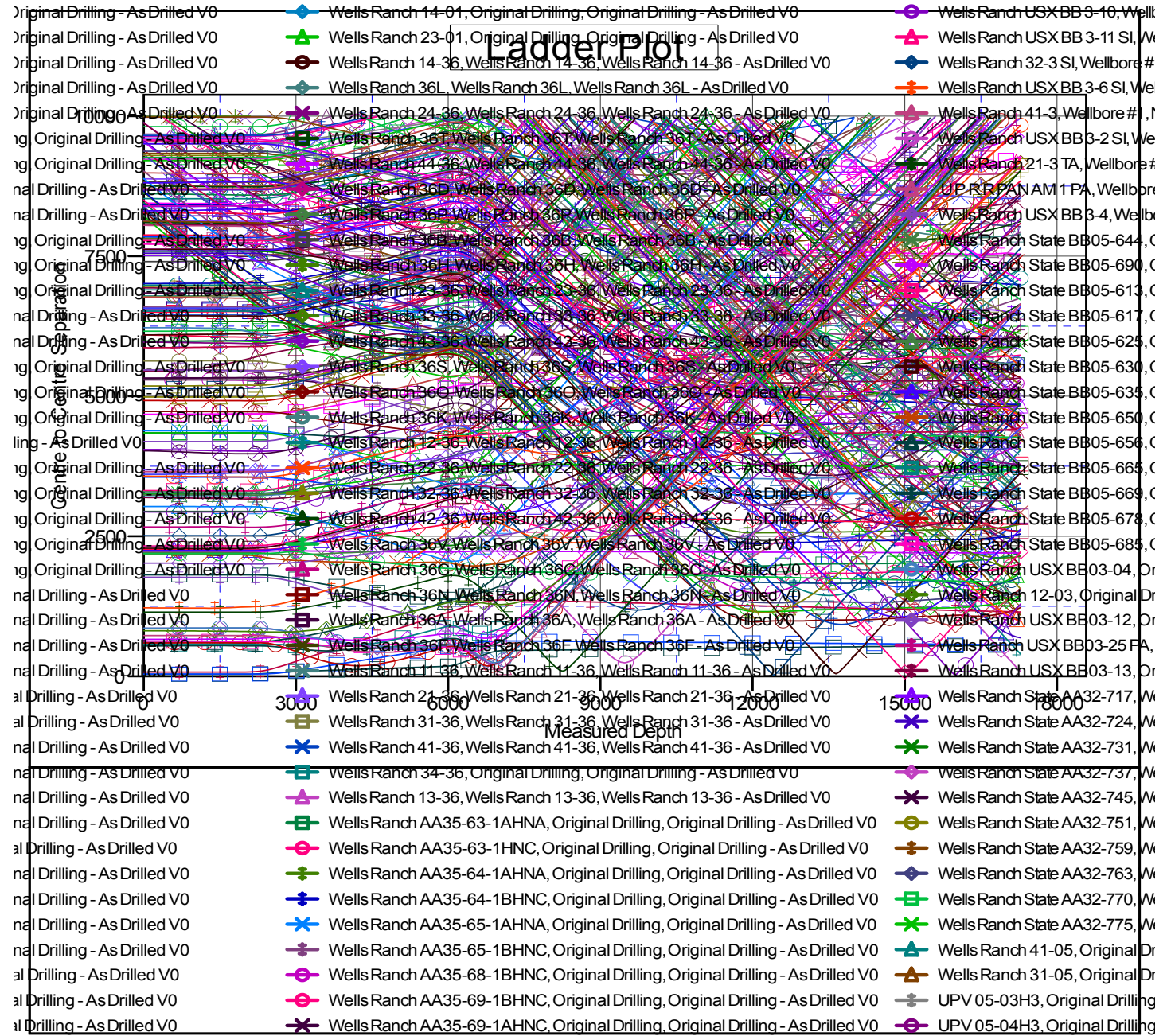
Coordinates are relative to: WELLS RANCH STATE BB03-676

Offset Depths are relative to Offset Datum

Coordinate System is US State Plane 1983, Colorado Northern Zone

Central Meridian is -105.5000000

Grid Convergence at Surface is: 0.69°



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 WELLS RANCH STATE BB03-676
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Reference Site:	BB Section 03	MD Reference:	Well @ 4780.00ft
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Reference Well:	WELLS RANCH STATE BB03-676	Survey Calculation Method:	Minimum Curvature
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Offset Depths are relative to Offset Datum
Central Meridian is -105.5000000

Coordinates are relative to: WELLS RANCH STATE BB03-676
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.69°

