

Noble Energy Inc.- Weld County, CO (Grid North)

Well Name: **Wells Ranch State A36-665**

Surface Location: Wells Ranch A36 Pad Sec.31-T6N-R63W

North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone

Ground Elevation: 4654.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1407666.23	3286202.95	40.447890	-104.471630	
H&P 326 RKB - 30' WELL @ 4684.0ft (H&P 326 RKB - 30')						

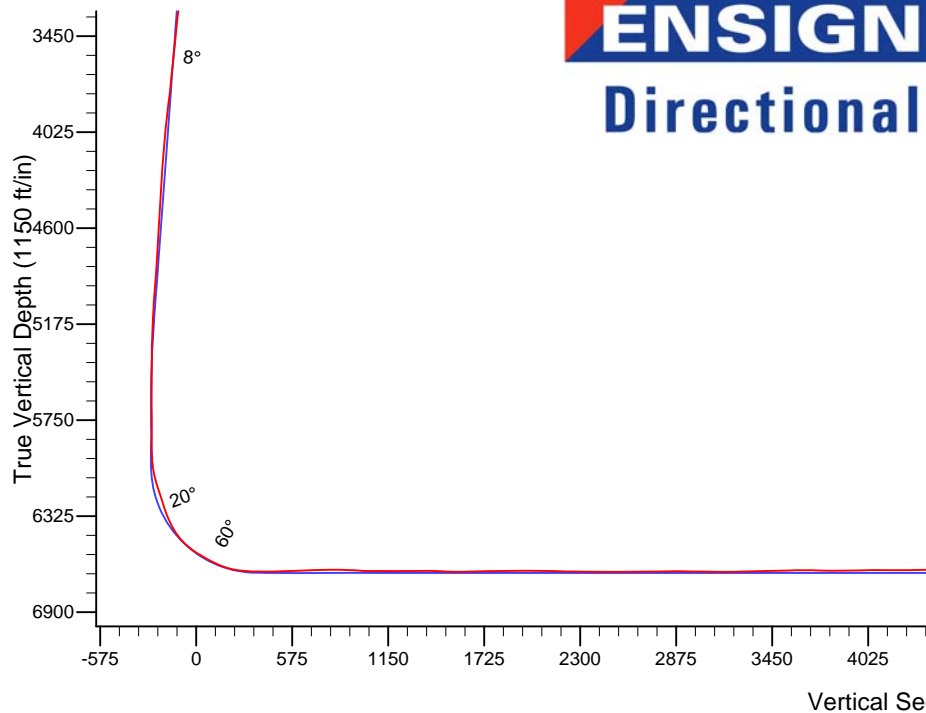
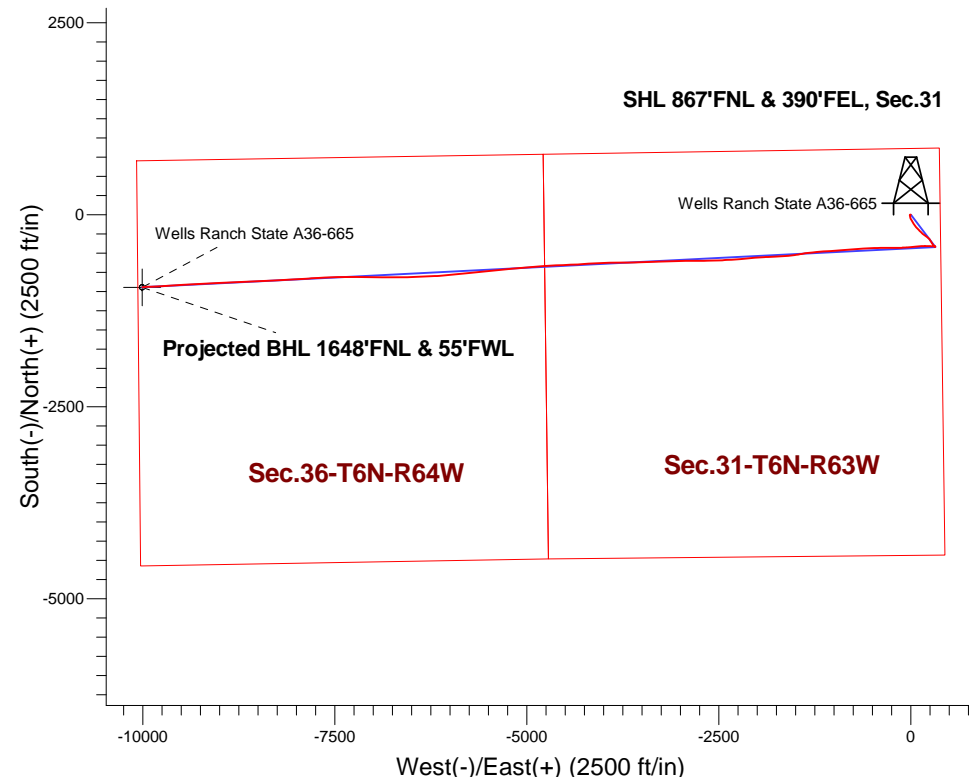
FINAL SURVEY

API #05-123-41509

Projected Bottom Hole Location

16761'MD 6671'TVD 942'S & 10004'W of SHL

89.99 degree Incl @ 267.1 degree AZM



Wells Ranch A36 Pad Sec.31-T6N-R63W
Wells Ranch State A36-665
Wellbore #1
14:57, July 13 2015

ANNOTATIONS

No annotation data is available.

LEGEND

- Wells Ranch State A36-665, Wellbore #1, Plan A - Rev 0 V0
- Wellbore #1

Projected BHL 1648'FNL & 55'FWL

Wells Ranch State A36-665



Noble Energy Inc.- Weld County, CO (Grid North)

Sec.31-T6N-R63W

Wells Ranch A36 Pad Sec.31-T6N-R63W

Wells Ranch State A36-665

Wellbore #1

Design: Wellbore #1

Standard Survey Report

13 July, 2015

Company:	Noble Energy Inc.- Weld County, CO (Grid North)	Local Co-ordinate Reference:	Well Wells Ranch State A36-665
Project:	Sec.31-T6N-R63W	TVD Reference:	WELL @ 4684.0ft (H&P 326 RKB - 30')
Site:	Wells Ranch A36 Pad Sec.31-T6N-R63W	MD Reference:	WELL @ 4684.0ft (H&P 326 RKB - 30')
Well:	Wells Ranch State A36-665	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 2003.21 Single User Db

Project	Sec.31-T6N-R63W, Weld County, CO		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		Using Well Reference Point
Map Zone:	Colorado Northern Zone		Using geodetic scale factor

Site		Wells Ranch A36 Pad Sec.31-T6N-R63W			
Site Position:		Northing:	1,407,666.24 ft	Latitude:	40.447890
From:	Lat/Long	Easting:	3,286,202.95 ft	Longitude:	-104.471630
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.66 °

Well	Wells Ranch State A36-665					
Well Position	+N-S	0.0 ft	Northing:	1,407,666.23 ft	Latitude:	40.447890
	+E-W	0.0 ft	Easting:	3,286,202.95 ft	Longitude:	-104.471630
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,654.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	6/10/2015	8.23	67.01	52,814

Design	Wellbore #1				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.0	0.0	0.0	263.51	

Survey Program	Date 7/13/2015				
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
920.0	7,008.0	Curve/Intermediate (Wellbore #1)	MWD	MWD - Standard	
7,213.0	16,761.0	Lateral (Wellbore #1)	MWD	MWD - Standard	

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)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
66.5	0.05	275.40	66.5	0.0	0.0	0.0	0.08	0.08	0.00
UPV 31-2G3 150' Circle									
920.0	0.70	275.40	920.0	0.5	-5.6	5.5	0.08	0.08	0.00
1,107.0	0.70	248.40	1,107.0	0.2	-7.8	7.7	0.17	0.00	-14.44
1,202.0	0.92	250.59	1,202.0	-0.3	-9.1	9.0	0.23	0.23	2.31
1,387.0	0.92	237.05	1,386.9	-1.6	-11.7	11.8	0.12	0.00	-7.32
1,480.0	2.51	184.14	1,479.9	-4.0	-12.5	12.8	2.25	1.71	-56.89
1,572.0	2.33	191.61	1,571.8	-7.8	-13.0	13.8	0.39	-0.20	8.12
1,665.0	3.47	162.61	1,664.7	-12.4	-12.5	13.9	1.96	1.23	-31.18
1,758.0	5.49	167.44	1,757.4	-19.4	-10.7	12.9	2.21	2.17	5.19

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Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 2003.21 Single User Db

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)
1,852.0	6.90	175.10	1,850.9	-29.4	-9.3	12.5	1.74	1.50	8.15
1,946.0	8.88	160.85	1,944.0	-41.9	-6.4	11.1	2.95	2.11	-15.16
2,039.0	9.93	150.66	2,035.7	-55.7	-0.1	6.4	2.11	1.13	-10.96
2,131.0	9.67	149.33	2,126.4	-69.2	7.7	0.2	0.37	-0.28	-1.45
2,223.0	9.50	147.80	2,217.1	-82.3	15.7	-6.3	0.33	-0.18	-1.66
2,411.0	8.70	149.50	2,402.7	-107.7	31.2	-18.8	0.45	-0.43	0.90
2,503.0	10.46	153.73	2,493.4	-121.2	38.4	-24.5	2.06	1.91	4.60
2,595.0	10.98	147.40	2,583.8	-136.0	46.8	-31.1	1.40	0.57	-6.88
2,687.0	10.70	137.90	2,674.2	-149.8	57.3	-40.0	1.96	-0.30	-10.33
2,780.0	10.50	137.60	2,765.6	-162.4	68.8	-50.0	0.22	-0.22	-0.32
3,061.0	10.90	136.90	3,041.7	-200.7	104.2	-80.8	0.15	0.14	-0.25
3,155.0	9.58	135.53	3,134.2	-212.8	115.7	-90.9	1.43	-1.40	-1.46
3,250.0	9.20	133.80	3,228.0	-223.7	126.8	-100.6	0.50	-0.40	-1.82
3,344.0	8.90	130.60	3,320.8	-233.6	137.7	-110.4	0.62	-0.32	-3.40
3,438.0	8.50	129.90	3,413.7	-242.8	148.6	-120.1	0.44	-0.43	-0.74
3,532.0	8.00	130.20	3,506.7	-251.5	158.9	-129.4	0.53	-0.53	0.32
3,721.0	8.70	129.65	3,693.7	-269.1	179.9	-148.3	0.37	0.37	-0.29
3,814.0	8.79	127.54	3,785.7	-277.9	191.0	-158.3	0.36	0.10	-2.27
3,908.0	8.79	127.54	3,878.5	-286.7	202.4	-168.7	0.00	0.00	0.00
4,096.0	8.20	127.10	4,064.5	-303.5	224.5	-188.7	0.32	-0.31	-0.23
4,190.0	6.77	127.45	4,157.7	-310.9	234.2	-197.5	1.52	-1.52	0.37
4,284.0	6.63	141.25	4,251.0	-318.5	242.0	-204.4	1.72	-0.15	14.68
4,377.0	7.30	147.10	4,343.4	-327.7	248.6	-209.9	1.05	0.72	6.29
4,471.0	6.90	147.23	4,436.6	-337.4	254.9	-215.1	0.43	-0.43	0.14
4,565.0	8.26	149.60	4,529.8	-348.0	261.3	-220.3	1.48	1.45	2.52
4,659.0	7.60	151.10	4,622.9	-359.3	267.8	-225.4	0.74	-0.70	1.60
4,753.0	9.05	143.36	4,715.9	-370.7	275.2	-231.5	1.95	1.54	-8.23
4,847.0	8.57	144.15	4,808.8	-382.3	283.7	-238.6	0.53	-0.51	0.84
4,941.0	8.08	144.59	4,901.8	-393.3	291.6	-245.3	0.53	-0.52	0.47
5,035.0	7.16	145.29	4,995.0	-403.5	298.8	-251.2	0.98	-0.98	0.74
5,129.0	5.45	139.41	5,088.4	-411.7	305.0	-256.5	1.94	-1.82	-6.26
5,223.0	3.30	115.10	5,182.2	-416.3	310.4	-261.3	2.97	-2.29	-25.86
5,317.0	1.23	82.89	5,276.1	-417.3	313.8	-264.6	2.50	-2.20	-34.27
5,411.0	0.92	49.23	5,370.1	-416.7	315.4	-266.3	0.73	-0.33	-35.81
5,505.0	0.92	29.45	5,464.0	-415.5	316.4	-267.3	0.34	0.00	-21.04
5,693.0	0.66	355.00	5,652.0	-413.1	317.0	-268.2	0.28	-0.14	-18.32
5,882.0	0.70	280.00	5,841.0	-411.8	315.8	-267.2	0.44	0.02	-39.68
5,977.0	0.80	238.00	5,936.0	-412.1	314.6	-266.0	0.57	0.11	-44.21
6,071.0	6.46	273.09	6,029.8	-412.2	308.8	-260.2	6.20	6.02	37.33
6,166.0	18.55	272.21	6,122.4	-411.3	288.3	-239.9	12.73	12.73	-0.93
6,260.0	16.70	273.68	6,211.9	-409.8	259.9	-211.8	2.02	-1.97	1.56
6,355.0	20.26	272.12	6,302.0	-408.4	229.8	-182.1	3.78	3.75	-1.64
6,450.0	28.00	271.59	6,388.7	-407.1	191.0	-143.7	8.15	8.15	-0.56
6,544.0	41.27	264.39	6,465.9	-409.6	137.8	-90.6	14.75	14.12	-7.66
6,639.0	54.86	265.00	6,529.2	-416.0	67.6	-20.1	14.31	14.31	0.64
6,733.0	60.84	265.27	6,579.2	-422.8	-11.6	59.4	6.37	6.36	0.29
6,828.0	67.25	266.67	6,620.8	-428.7	-96.8	144.7	6.88	6.75	1.47
6,923.0	80.65	270.62	6,647.0	-430.8	-187.8	235.4	14.66	14.11	4.16
7,008.0	87.91	269.84	6,655.4	-430.5	-272.4	319.3	8.59	8.54	-0.92
7,129.5	90.44	268.70	6,657.2	-432.0	-393.9	440.2	2.28	2.08	-0.94
Wells Ranch State A36-665 Landing Pt.									
7,213.0	92.18	267.92	6,655.3	-434.5	-477.3	523.3	2.28	2.08	-0.94
7,307.0	92.18	267.01	6,651.7	-438.6	-571.1	617.1	0.97	0.00	-0.97

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Survey									
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7,402.0	91.76	265.77	6,648.4	-444.6	-665.9	711.9	1.38	-0.44	-1.31
7,497.0	91.12	266.21	6,646.1	-451.2	-760.6	806.8	0.82	-0.67	0.46
7,591.0	86.95	265.66	6,647.6	-457.9	-854.3	900.6	4.47	-4.44	-0.59
7,686.0	87.30	265.08	6,652.4	-465.6	-948.9	995.5	0.71	0.37	-0.61
7,780.0	90.09	266.17	6,654.5	-472.7	-1,042.6	1,089.4	3.19	2.97	1.16
7,875.0	90.24	265.57	6,654.3	-479.6	-1,137.3	1,184.3	0.65	0.16	-0.63
7,970.0	90.24	265.75	6,653.9	-486.8	-1,232.1	1,279.2	0.19	0.00	0.19
8,065.0	90.56	263.30	6,653.2	-495.8	-1,326.6	1,374.2	2.60	0.34	-2.58
8,159.0	86.74	259.68	6,655.4	-509.7	-1,419.5	1,468.1	5.60	-4.06	-3.85
8,254.0	89.67	261.58	6,658.4	-525.2	-1,513.2	1,562.9	3.68	3.08	2.00
8,349.0	91.87	265.93	6,657.1	-535.5	-1,607.6	1,657.9	5.13	2.32	4.58
8,443.0	91.44	266.45	6,654.4	-541.7	-1,701.4	1,751.7	0.72	-0.46	0.55
8,538.0	90.62	266.15	6,652.7	-547.9	-1,796.1	1,846.6	0.92	-0.86	-0.32
8,632.0	90.70	268.83	6,651.6	-552.0	-1,890.0	1,940.3	2.85	0.09	2.85
8,727.0	88.17	265.30	6,652.6	-556.9	-1,984.9	2,035.1	4.57	-2.66	-3.72
8,822.0	88.61	264.98	6,655.2	-564.9	-2,079.5	2,130.1	0.57	0.46	-0.34
8,916.0	89.89	265.63	6,656.5	-572.6	-2,173.2	2,224.0	1.53	1.36	0.69
9,011.0	88.88	265.82	6,657.5	-579.7	-2,267.9	2,318.9	1.08	-1.06	0.20
9,106.0	89.82	265.19	6,658.6	-587.1	-2,362.6	2,413.9	1.19	0.99	-0.66
9,201.0	90.14	268.07	6,658.6	-592.7	-2,457.4	2,508.7	3.05	0.34	3.03
9,296.0	90.36	267.67	6,658.2	-596.2	-2,552.4	2,603.4	0.48	0.23	-0.42
9,390.0	90.48	268.60	6,657.5	-599.3	-2,646.3	2,697.1	1.00	0.13	0.99
9,485.0	91.11	269.69	6,656.2	-600.7	-2,741.3	2,791.6	1.33	0.66	1.15
9,580.0	89.78	270.11	6,655.4	-600.9	-2,836.3	2,886.0	1.47	-1.40	0.44
9,675.0	89.58	269.48	6,656.0	-601.2	-2,931.3	2,980.5	0.70	-0.21	-0.66
9,769.0	88.92	268.29	6,657.2	-603.0	-3,025.3	3,074.0	1.45	-0.70	-1.27
9,864.0	89.73	268.01	6,658.3	-606.1	-3,120.2	3,168.7	0.90	0.85	-0.29
9,959.0	91.68	268.25	6,657.1	-609.2	-3,215.1	3,263.4	2.07	2.05	0.25
10,053.0	90.79	268.46	6,655.1	-611.9	-3,309.1	3,357.0	0.97	-0.95	0.22
10,148.0	92.16	267.87	6,652.7	-615.0	-3,404.0	3,451.7	1.57	1.44	-0.62
10,242.0	91.13	267.78	6,650.0	-618.5	-3,497.9	3,545.4	1.10	-1.10	-0.10
10,337.0	89.99	269.38	6,649.0	-620.9	-3,592.8	3,640.0	2.07	-1.20	1.68
10,432.0	88.57	268.42	6,650.2	-622.7	-3,687.8	3,734.6	1.80	-1.49	-1.01
10,527.0	89.65	269.36	6,651.7	-624.5	-3,782.8	3,829.1	1.51	1.14	0.99
10,619.0	91.30	269.90	6,650.9	-625.1	-3,874.8	3,920.6	1.89	1.79	0.59
10,714.0	90.96	268.69	6,649.1	-626.3	-3,969.7	4,015.1	1.32	-0.36	-1.27
10,806.0	89.70	266.18	6,648.5	-630.4	-4,061.6	4,106.9	3.05	-1.37	-2.73
10,899.0	89.73	266.69	6,649.0	-636.2	-4,154.5	4,199.8	0.55	0.03	0.55
10,992.0	91.73	266.24	6,647.8	-641.9	-4,247.3	4,292.6	2.20	2.15	-0.48
11,084.0	90.35	267.04	6,646.2	-647.3	-4,339.1	4,384.5	1.73	-1.50	0.87
11,177.0	89.06	267.58	6,646.6	-651.7	-4,432.0	4,477.3	1.50	-1.39	0.58
11,270.0	90.15	268.21	6,647.3	-655.1	-4,524.9	4,570.0	1.35	1.17	0.68
11,364.0	89.85	267.98	6,647.3	-658.2	-4,618.9	4,663.7	0.40	-0.32	-0.24
11,457.0	89.42	265.41	6,647.9	-663.6	-4,711.7	4,756.5	2.80	-0.46	-2.76
11,551.0	90.18	265.01	6,648.2	-671.4	-4,805.4	4,850.5	0.91	0.81	-0.43
11,643.0	88.41	265.40	6,649.3	-679.1	-4,897.0	4,942.4	1.97	-1.92	0.42
11,735.0	89.98	266.10	6,650.6	-685.9	-4,988.8	5,034.3	1.87	1.71	0.76
11,829.0	88.52	265.55	6,651.8	-692.8	-5,082.5	5,128.3	1.66	-1.55	-0.59
11,923.0	87.80	263.69	6,654.9	-701.6	-5,176.1	5,222.2	2.12	-0.77	-1.98
12,014.0	89.86	264.43	6,656.7	-711.0	-5,266.5	5,313.2	2.41	2.26	0.81
12,107.0	87.94	264.44	6,658.5	-720.0	-5,359.1	5,406.1	2.06	-2.06	0.01
12,199.0	88.33	264.60	6,661.5	-728.8	-5,450.6	5,498.1	0.46	0.42	0.17
12,292.0	88.92	264.54	6,663.7	-737.6	-5,543.2	5,591.0	0.64	0.63	-0.06

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12,385.0	90.18	265.05	6,664.5	-746.0	-5,635.8	5,684.0	1.46	1.35	0.55
12,479.0	89.19	264.29	6,665.0	-754.8	-5,729.4	5,778.0	1.33	-1.05	-0.81
12,574.0	89.51	263.92	6,666.1	-764.5	-5,823.9	5,873.0	0.51	0.34	-0.39
12,669.0	90.54	262.93	6,666.0	-775.4	-5,918.2	5,968.0	1.50	1.08	-1.04
12,764.0	91.05	264.94	6,664.7	-785.4	-6,012.7	6,062.9	2.18	0.54	2.12
12,858.0	92.99	265.43	6,661.4	-793.3	-6,106.3	6,156.8	2.13	2.06	0.52
12,953.0	92.35	267.77	6,657.0	-799.0	-6,201.0	6,251.6	2.55	-0.67	2.46
13,047.0	90.72	268.30	6,654.4	-802.2	-6,294.9	6,345.3	1.82	-1.73	0.56
13,142.0	88.05	267.89	6,655.5	-805.3	-6,389.9	6,439.9	2.84	-2.81	-0.43
13,236.0	89.16	268.32	6,657.8	-808.4	-6,483.8	6,533.6	1.27	1.18	0.46
13,331.0	91.05	267.99	6,657.6	-811.5	-6,578.7	6,628.3	2.02	1.99	-0.35
13,425.0	89.84	268.37	6,656.8	-814.5	-6,672.7	6,722.0	1.35	-1.29	0.40
13,520.0	90.09	270.06	6,656.9	-815.8	-6,767.7	6,816.5	1.80	0.26	1.78
13,586.4	90.94	269.58	6,656.3	-816.0	-6,834.1	6,882.5	1.47	1.28	-0.72
State A36-2 150' Circle									
13,614.0	91.29	269.38	6,655.8	-816.2	-6,861.6	6,909.9	1.47	1.28	-0.72
13,709.0	88.87	271.38	6,655.6	-815.6	-6,956.6	7,004.2	3.30	-2.55	2.11
13,803.0	89.77	270.36	6,656.8	-814.2	-7,050.6	7,097.5	1.45	0.96	-1.09
13,897.0	91.13	270.64	6,656.0	-813.4	-7,144.6	7,190.8	1.48	1.45	0.30
13,992.0	90.23	270.52	6,654.9	-812.4	-7,239.6	7,285.0	0.96	-0.95	-0.13
14,086.0	89.86	270.04	6,654.8	-811.9	-7,333.6	7,378.4	0.64	-0.39	-0.51
14,181.0	91.12	270.07	6,654.0	-811.9	-7,428.6	7,472.7	1.33	1.33	0.03
14,276.0	91.25	268.75	6,652.0	-812.8	-7,523.6	7,567.2	1.40	0.14	-1.39
14,371.0	89.41	266.47	6,651.5	-816.8	-7,618.5	7,662.0	3.08	-1.94	-2.40
14,465.0	90.27	266.49	6,651.8	-822.6	-7,712.3	7,755.8	0.92	0.91	0.02
14,560.0	89.98	265.62	6,651.5	-829.1	-7,807.1	7,850.7	0.97	-0.31	-0.92
14,654.0	92.34	267.12	6,649.6	-835.1	-7,900.8	7,944.6	2.97	2.51	1.60
14,748.0	90.27	267.32	6,647.5	-839.6	-7,994.7	8,038.4	2.21	-2.20	0.21
14,843.0	87.76	267.06	6,649.1	-844.3	-8,089.6	8,133.1	2.66	-2.64	-0.27
14,938.0	87.46	267.05	6,653.1	-849.1	-8,184.4	8,227.9	0.32	-0.32	-0.01
15,032.0	87.98	267.16	6,656.8	-853.9	-8,278.2	8,321.6	0.57	0.55	0.12
15,127.0	89.10	266.40	6,659.3	-859.2	-8,373.0	8,416.4	1.42	1.18	-0.80
15,221.0	89.66	266.84	6,660.3	-864.8	-8,466.8	8,510.3	0.76	0.60	0.47
15,316.0	89.97	266.86	6,660.6	-870.0	-8,561.7	8,605.1	0.33	0.33	0.02
15,410.0	89.74	267.99	6,660.8	-874.2	-8,655.6	8,698.9	1.23	-0.24	1.20
15,505.0	90.30	267.99	6,660.8	-877.5	-8,750.5	8,793.6	0.59	0.59	0.00
15,608.0	91.26	267.79	6,659.4	-881.3	-8,853.4	8,896.3	0.95	0.93	-0.19
15,703.0	89.65	267.11	6,658.6	-885.6	-8,948.3	8,991.1	1.84	-1.69	-0.72
15,799.0	90.52	267.51	6,658.5	-890.1	-9,044.2	9,086.9	1.00	0.91	0.42
15,893.0	91.75	267.20	6,656.6	-894.4	-9,138.1	9,180.6	1.35	1.31	-0.33
15,988.0	89.17	267.17	6,655.9	-899.1	-9,233.0	9,275.4	2.72	-2.72	-0.03
16,084.0	90.83	266.50	6,655.9	-904.4	-9,328.8	9,371.2	1.86	1.73	-0.70
16,178.0	88.02	266.60	6,656.8	-910.0	-9,422.6	9,465.1	2.99	-2.99	0.11
16,274.0	87.60	266.25	6,660.5	-916.0	-9,518.4	9,560.9	0.57	-0.44	-0.36
16,368.0	87.98	266.52	6,664.1	-921.9	-9,612.1	9,654.7	0.50	0.40	0.29
16,463.0	88.27	267.21	6,667.2	-927.1	-9,706.9	9,749.5	0.79	0.31	0.73
16,558.0	88.82	266.65	6,669.6	-932.2	-9,801.8	9,844.3	0.83	0.58	-0.59
16,653.0	89.59	267.34	6,670.9	-937.2	-9,896.6	9,939.1	1.09	0.81	0.73
16,699.0	89.99	267.13	6,671.1	-939.4	-9,942.6	9,985.0	0.98	0.87	-0.46
16,761.0	89.99	267.13	6,671.1	-942.5	-10,004.5	10,046.9	0.00	0.00	0.00
Wells Ranch State A36-665 BHL 1650'FNL & 50'FWL									

Company:	Noble Energy Inc.- Weld County, CO (Grid North)	Local Co-ordinate Reference:	Well Wells Ranch State A36-665
Project:	Sec.31-T6N-R63W	TVD Reference:	WELL @ 4684.0ft (H&P 326 RKB - 30')
Site:	Wells Ranch A36 Pad Sec.31-T6N-R63W	MD Reference:	WELL @ 4684.0ft (H&P 326 RKB - 30')
Well:	Wells Ranch State A36-665	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 2003.21 Single User Db

Design Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)		
Wells Ranch State A3	0.00	0.00	6,666.0	-944.7	-10,009.7	1,406,721.53	3,276,193.61	40.445610	-104.507630
- actual wellpath misses by 7.7ft at 16761.0ft MD (6671.1 TVD, -942.5 N, -10004.5 E)									
- Circle (radius 35.0)									

Checked By: _____	Approved By: _____	Date: _____
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