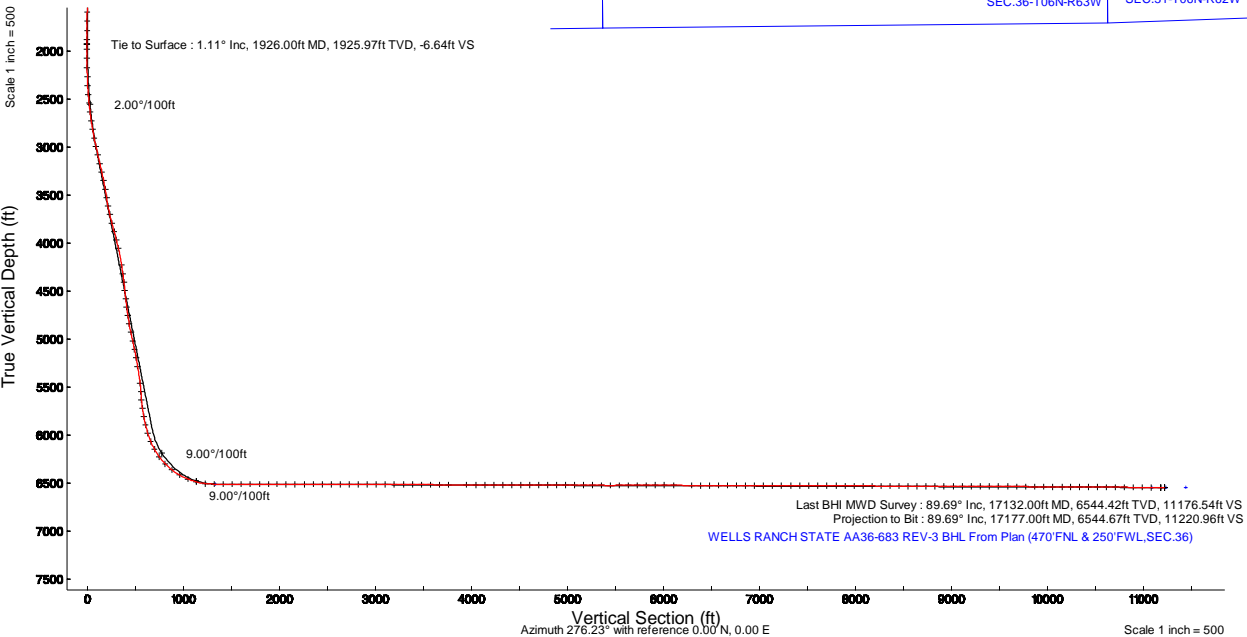
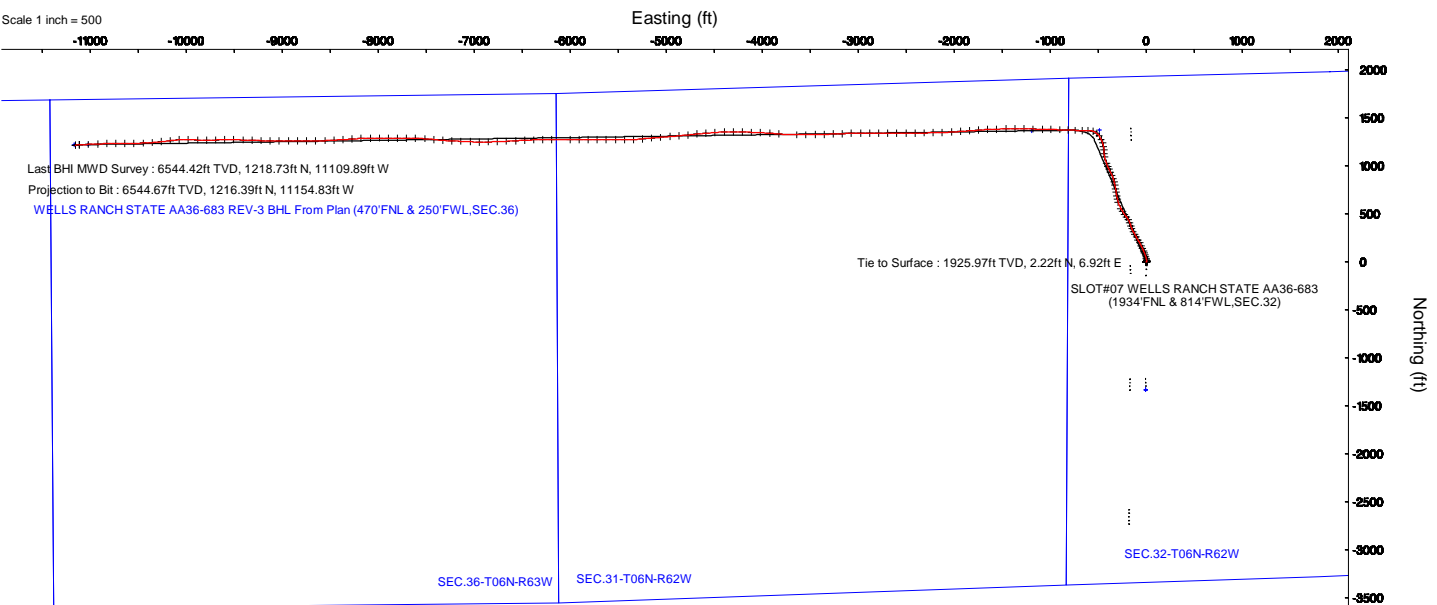


# NOBLE ENERGY, INC

Location:	COLORADO	Slot:	SLOT#07 WELLS RANCH STATE AA36-683 (1934FNL & 814FWL,SEC.32)
Field:	WELD COUNTY (NOBLE NAD 83 GRID)	Well:	WELLS RANCH STATE AA36-683
Facility:	SEC.32-T06N-R62W	Wellbore:	WELLS RANCH STATE AA36-683 PWB

Plot reference wellbore is WELLS RANCH STATE AA36-683 (REV-C) IS PWB	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (2011), US Feet
True vertical depths are referenced to RIG (32) (R62)	" - is Wellpath was transformed from a different geoidic datum
Measured depths are referenced to RIG (32) (R62)	North Reference: Grid north
RIG (32) (R62) to Mean Sea Level: 4762 feet	Scale: True distance
Mean Sea Level to Mud line (M Stat): SLOT#07 WELLS RANCH STATE AA36-683 (1934FNL & 814FWL,SEC.32): 0 feet	Depth are in feet
Coordinates are in feet referenced to Slot	Created by: generic on 2019-07-15
	Database: WA, DEN, Denver, Datto

Location Information					
Field Name	Grid East (US N)	Grid North (US N)	Latitude	Longitude	
SEC.32-T06N-R62W	329624.382	4402733.359	40°02'03.00"N	104°01'13.60"W	
SEA			Latitude	Longitude	
SLOT#07 WELLS RANCH STATE AA36-683 (1934FNL & 814FWL,SEC.32)	1209.89	2.29	40°02'03.00"N	104°01'13.60"W	
RIG (32) (R62) to Mud line (M Stat): SLOT#07 WELLS RANCH STATE AA36-683 (1934FNL & 814FWL,SEC.32)					
Mean Sea Level to Mud line (M Stat): SLOT#07 WELLS RANCH STATE AA36-683 (1934FNL & 814FWL,SEC.32)					
RIG (32) (R62) to Mean Sea Level					





Actual Wellpath Report

WELLS RANCH STATE AA36-683 AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#07 WELLS RANCH STATE AA36-683 (1934'FNL & 814'FWL,SEC.32)
Area	COLORADO	Well	WELLS RANCH STATE AA36-683
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	WELLS RANCH STATE AA36-683 AWB
Facility	SEC.32-T06N-R62W		

REPORT SETUP INFORMATION			
Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 5.0
North Reference	Grid	User	Guenaler
Scale	0.999963	Report Generated	19/Jul/2019 at 15:50
Convergence at slot	0.75° East	Database/Source file	WA_DEN_Denver_Defn/WELLS_RANCH_STATE_AA36-683_AWP.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	1329.89	2.29	3319026.66	1407063.20	40°26'42.468"N	104°21'13.428"W
Facility Reference Pt			3319024.36	1405733.36	40°26'29.328"N	104°21'13.680"W
Field Reference Pt			3000000.00	4454105.15	48°46'34.315"N	105°30'00.000"W

WELLPATH DATUM			
Calculation method	Minimum curvature	RIG (30') (RKB) to Facility Vertical Datum	4762.00ft
Horizontal Reference Pt	Slot	RIG (30') (RKB) to Mean Sea Level	4762.00ft
Vertical Reference Pt	RIG (30') (RKB)	RIG (30') (RKB) to Mud Line at Slot (SLOT#07 WELLS RANCH STATE AA36-683 (1934'FNL & 814'FWL,SEC.32))	4762.00ft
MD Reference Pt	RIG (30') (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	276.23°



Actual Wellpath Report

WELLS RANCH STATE AA36-683 AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#07 WELLS RANCH STATE AA36-683 (1934'FNL & 814'FWL,SEC.32)
Area	COLORADO	Well	WELLS RANCH STATE AA36-683
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	WELLS RANCH STATE AA36-683 AWB
Facility	SEC.32-T06N-R62W		

WELLPATH DATA (180 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
0.00	0.000	78.200	0.00	0.00	0.00	0.00	40°26'42.468"N	104°21'13.428"W	0.00	
84.00	0.100	78.200	84.00	-0.07	0.01	0.07	40°26'42.468"N	104°21'13.427"W	0.12	
178.00	0.240	355.040	178.00	-0.11	0.23	0.14	40°26'42.470"N	104°21'13.426"W	0.26	
269.00	0.230	94.840	269.00	-0.26	0.40	0.30	40°26'42.472"N	104°21'13.424"W	0.40	
364.00	0.080	57.610	364.00	-0.50	0.42	0.55	40°26'42.472"N	104°21'13.421"W	0.18	
459.00	0.240	55.630	459.00	-0.70	0.57	0.77	40°26'42.474"N	104°21'13.418"W	0.17	
553.00	0.070	163.090	553.00	-0.87	0.63	0.95	40°26'42.474"N	104°21'13.416"W	0.29	
648.00	0.270	0.040	648.00	-0.87	0.79	0.96	40°26'42.476"N	104°21'13.415"W	0.36	
743.00	0.260	107.620	743.00	-1.06	0.95	1.17	40°26'42.477"N	104°21'13.413"W	0.45	
837.00	0.160	97.550	837.00	-1.40	0.87	1.50	40°26'42.476"N	104°21'13.408"W	0.11	
932.00	0.170	122.900	932.00	-1.66	0.78	1.75	40°26'42.475"N	104°21'13.405"W	0.08	
1026.00	0.060	15.550	1026.00	-1.79	0.75	1.88	40°26'42.475"N	104°21'13.404"W	0.21	
1121.00	0.470	103.540	1121.00	-2.18	0.71	2.27	40°26'42.475"N	104°21'13.398"W	0.50	
1216.00	0.230	65.400	1215.99	-2.73	0.69	2.83	40°26'42.474"N	104°21'13.391"W	0.34	
1310.00	0.130	90.200	1309.99	-3.00	0.77	3.10	40°26'42.475"N	104°21'13.388"W	0.13	
1405.00	0.160	60.290	1404.99	-3.22	0.84	3.33	40°26'42.476"N	104°21'13.385"W	0.08	
1500.00	0.240	59.600	1499.99	-3.48	1.00	3.61	40°26'42.477"N	104°21'13.381"W	0.08	
1594.00	0.230	42.140	1593.99	-3.75	1.24	3.91	40°26'42.480"N	104°21'13.377"W	0.08	
1689.00	0.120	17.680	1688.99	-3.88	1.48	4.07	40°26'42.482"N	104°21'13.375"W	0.14	
1784.00	0.610	60.940	1783.99	-4.32	1.82	4.54	40°26'42.485"N	104°21'13.369"W	0.56	
1878.00	1.200	88.050	1877.98	-5.70	2.10	5.96	40°26'42.488"N	104°21'13.351"W	0.76	
1926.00	1.110	76.700	1925.97	-6.64	2.22	6.92	40°26'42.489"N	104°21'13.338"W	0.51	Tie to Surface
1980.00	0.920	56.470	1979.96	-7.46	2.58	7.79	40°26'42.492"N	104°21'13.327"W	0.75	
2075.00	2.460	357.160	2074.92	-7.73	5.04	8.32	40°26'42.517"N	104°21'13.320"W	2.25	
2170.00	5.210	346.260	2169.70	-5.93	11.27	7.20	40°26'42.578"N	104°21'13.333"W	2.98	
2264.00	7.720	350.330	2263.09	-2.74	21.64	5.12	40°26'42.681"N	104°21'13.358"W	2.71	
2359.00	9.760	347.840	2356.99	1.55	35.80	2.35	40°26'42.821"N	104°21'13.392"W	2.18	
2453.00	11.480	343.500	2449.37	7.68	52.56	-1.98	40°26'42.988"N	104°21'13.445"W	2.02	
2548.00	13.370	340.440	2542.15	16.11	71.98	-8.34	40°26'43.180"N	104°21'13.524"W	2.11	
2642.00	14.920	338.960	2633.29	26.38	93.51	-16.33	40°26'43.394"N	104°21'13.624"W	1.69	



Actual Wellpath Report

WELLS RANCH STATE AA36-683 AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#07 WELLS RANCH STATE AA36-683 (1934'FNL & 814'FWL,SEC.32)
Area	COLORADO	Well	WELLS RANCH STATE AA36-683
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	WELLS RANCH STATE AA36-683 AWB
Facility	SEC.32-T06N-R62W		

WELLPATH DATA (180 stations)												
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude		Longitude		DLS [°/100ft]	Comments
2737.00	15.980	336.460	2724.86	38.48	116.92	-25.94	40°26'43.627"N		104°21'13.744"W		1.32	
2832.00	17.770	333.950	2815.77	52.72	141.93	-37.53	40°26'43.875"N		104°21'13.890"W		2.03	
2926.00	19.850	332.740	2904.74	69.19	169.01	-51.14	40°26'44.144"N		104°21'14.061"W		2.25	
3021.00	21.260	330.490	2993.69	88.15	198.34	-67.02	40°26'44.436"N		104°21'14.262"W		1.70	
3115.00	20.910	330.460	3081.40	107.91	227.76	-83.68	40°26'44.729"N		104°21'14.472"W		0.37	
3210.00	21.340	329.480	3170.02	128.17	257.40	-100.82	40°26'45.024"N		104°21'14.689"W		0.59	
3305.00	20.500	330.090	3258.75	148.32	286.71	-117.89	40°26'45.316"N		104°21'14.905"W		0.91	
3399.00	20.970	332.020	3346.66	167.49	315.83	-133.99	40°26'45.606"N		104°21'15.108"W		0.88	
3494.00	18.700	338.090	3436.03	184.23	344.98	-147.65	40°26'45.896"N		104°21'15.280"W		3.22	
3589.00	21.330	343.840	3525.30	198.00	375.72	-158.15	40°26'46.201"N		104°21'15.410"W		3.45	
3683.00	21.430	337.730	3612.84	212.71	408.03	-169.41	40°26'46.521"N		104°21'15.551"W		2.37	
3778.00	21.410	329.760	3701.30	231.30	439.08	-184.73	40°26'46.830"N		104°21'15.744"W		3.06	
3873.00	21.440	324.970	3789.74	253.06	468.28	-203.43	40°26'47.121"N		104°21'15.981"W		1.84	
3967.00	21.840	322.910	3877.11	276.39	496.29	-223.83	40°26'47.400"N		104°21'16.240"W		0.91	
4062.00	22.300	326.820	3965.16	299.96	525.48	-244.35	40°26'47.691"N		104°21'16.500"W		1.62	
4157.00	22.020	331.450	4053.15	321.56	556.21	-262.73	40°26'47.997"N		104°21'16.733"W		1.86	
4346.00	21.490	344.030	4228.78	354.87	620.65	-289.20	40°26'48.637"N		104°21'17.065"W		2.48	
4441.00	22.210	346.700	4316.96	367.45	654.85	-298.12	40°26'48.976"N		104°21'17.174"W		1.29	
4535.00	22.360	349.110	4403.94	378.66	689.70	-305.59	40°26'49.322"N		104°21'17.265"W		0.99	
4630.00	22.790	351.710	4491.66	388.59	725.65	-311.65	40°26'49.678"N		104°21'17.337"W		1.14	
4725.00	22.700	350.970	4579.27	398.03	761.96	-317.18	40°26'50.037"N		104°21'17.403"W		0.32	
4819.00	22.850	348.590	4665.95	408.34	797.77	-323.64	40°26'50.392"N		104°21'17.480"W		0.99	
4914.00	22.530	345.680	4753.60	420.32	833.49	-331.79	40°26'50.746"N		104°21'17.580"W		1.23	
5009.00	22.820	342.620	4841.26	434.09	868.70	-341.80	40°26'51.095"N		104°21'17.703"W		1.28	
5104.00	22.660	336.430	4928.89	450.56	903.06	-354.62	40°26'51.436"N		104°21'17.863"W		2.52	
5199.00	22.180	332.040	5016.71	469.74	935.68	-370.35	40°26'51.760"N		104°21'18.061"W		1.83	
5293.00	21.870	335.120	5103.85	488.76	967.23	-386.03	40°26'52.074"N		104°21'18.259"W		1.27	
5388.00	17.960	333.530	5193.16	505.82	996.41	-400.01	40°26'52.364"N		104°21'18.435"W		4.15	
5483.00	20.450	339.120	5282.87	521.30	1025.03	-412.46	40°26'52.649"N		104°21'18.591"W		3.26	
5672.00	22.520	348.790	5458.78	547.21	1091.41	-431.27	40°26'53.307"N		104°21'18.823"W		2.17	



# Actual Wellpath Report

WELLS RANCH STATE AA36-683 AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#07 WELLS RANCH STATE AA36-683 (1934'FNL & 814'FWL,SEC.32)
Area	COLORADO	Well	WELLS RANCH STATE AA36-683
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	WELLS RANCH STATE AA36-683 AWP
Facility	SEC.32-T06N-R62W		

WELLPATH DATA (180 stations)												
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude		Longitude		DLS [°/100ft]	Comments
5767.00	22.580	356.570	5546.54	555.72	1127.47	-435.90	40°26'53.664"N		104°21'18.877"W		3.14	
5861.00	22.750	356.950	5633.28	561.68	1163.64	-437.94	40°26'54.021"N		104°21'18.898"W		0.24	
5956.00	24.720	348.910	5720.26	570.57	1201.49	-442.74	40°26'54.396"N		104°21'18.953"W		3.98	
6051.00	24.610	341.190	5806.62	584.86	1239.71	-452.95	40°26'54.775"N		104°21'19.079"W		3.39	
6145.00	24.720	333.690	5892.06	603.72	1275.87	-467.97	40°26'55.134"N		104°21'19.267"W		3.33	
6240.00	24.760	327.180	5978.36	626.94	1310.40	-487.56	40°26'55.478"N		104°21'19.515"W		2.87	
6335.00	25.980	309.960	6064.32	656.82	1340.52	-514.33	40°26'55.779"N		104°21'19.856"W		7.85	
6429.00	29.420	286.180	6147.78	696.82	1360.25	-552.41	40°26'55.979"N		104°21'20.345"W		12.23	
6524.00	36.370	272.620	6227.61	748.05	1368.06	-603.09	40°26'56.062"N		104°21'20.999"W		10.62	
6619.00	44.590	269.230	6299.82	809.37	1368.90	-664.68	40°26'56.079"N		104°21'21.796"W		8.95	
6714.00	52.600	273.120	6362.61	880.28	1370.51	-735.84	40°26'56.103"N		104°21'22.716"W		8.97	
6808.00	59.830	272.460	6414.85	958.21	1374.29	-813.82	40°26'56.151"N		104°21'23.724"W		7.71	
6903.00	68.180	270.650	6456.45	1043.23	1376.55	-899.10	40°26'56.184"N		104°21'24.826"W		8.95	
6998.00	74.960	271.510	6486.47	1132.94	1378.27	-989.16	40°26'56.212"N		104°21'25.991"W		7.19	
7092.00	83.430	272.040	6504.08	1224.91	1381.13	-1081.36	40°26'56.252"N		104°21'27.183"W		9.03	
7187.00	89.850	271.730	6509.64	1319.42	1384.25	-1176.10	40°26'56.295"N		104°21'28.408"W		6.77	
7282.00	90.180	270.110	6509.62	1414.01	1385.77	-1271.08	40°26'56.322"N		104°21'29.636"W		1.74	
7376.00	89.850	270.210	6509.59	1507.48	1386.03	-1365.08	40°26'56.337"N		104°21'30.852"W		0.37	
7471.00	90.000	268.860	6509.72	1601.83	1385.26	-1460.07	40°26'56.341"N		104°21'32.081"W		1.43	
7566.00	89.880	267.850	6509.82	1695.94	1382.54	-1555.03	40°26'56.327"N		104°21'33.309"W		1.07	
7661.00	90.280	266.770	6509.68	1789.78	1378.08	-1649.93	40°26'56.295"N		104°21'34.537"W		1.21	
7756.00	89.880	265.570	6509.55	1883.32	1371.73	-1744.71	40°26'56.244"N		104°21'35.764"W		1.33	
7850.00	90.060	266.160	6509.60	1975.79	1364.95	-1838.47	40°26'56.189"N		104°21'36.978"W		0.66	
7945.00	88.890	265.790	6510.47	2069.26	1358.29	-1933.23	40°26'56.135"N		104°21'38.205"W		1.29	
8040.00	89.720	266.360	6511.62	2162.77	1351.78	-2028.00	40°26'56.083"N		104°21'39.431"W		1.06	
8135.00	91.320	268.670	6510.76	2256.65	1347.66	-2122.89	40°26'56.054"N		104°21'40.659"W		2.96	
8229.00	89.290	268.660	6510.26	2349.83	1345.48	-2216.86	40°26'56.044"N		104°21'41.875"W		2.16	
8324.00	89.600	268.090	6511.18	2443.93	1342.78	-2311.82	40°26'56.030"N		104°21'43.104"W		0.68	
8419.00	89.780	269.070	6511.69	2538.08	1340.43	-2406.79	40°26'56.019"N		104°21'44.332"W		1.05	
8513.00	89.600	269.640	6512.20	2631.41	1339.37	-2500.78	40°26'56.020"N		104°21'45.548"W		0.64	



Actual Wellpath Report

WELLS RANCH STATE AA36-683 AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#07 WELLS RANCH STATE AA36-683 (1934'FNL & 814'FWL,SEC.32)
Area	COLORADO	Well	WELLS RANCH STATE AA36-683
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	WELLS RANCH STATE AA36-683 AWP
Facility	SEC.32-T06N-R62W		

WELLPATH DATA (180 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8608.00	89.720	270.080	6512.77	2725.82	1339.14	-2595.78	40°26'56.030"N	104°21'46.777"W	0.48	
8702.00	89.720	271.380	6513.23	2819.38	1340.33	-2689.77	40°26'56.054"N	104°21'47.992"W	1.38	
8797.00	89.850	270.140	6513.58	2913.95	1341.59	-2784.76	40°26'56.078"N	104°21'49.221"W	1.31	
8892.00	89.910	268.850	6513.78	3008.29	1340.76	-2879.75	40°26'56.082"N	104°21'50.450"W	1.36	
8986.00	90.030	269.530	6513.83	3101.58	1339.43	-2973.74	40°26'56.081"N	104°21'51.665"W	0.73	
9081.00	89.750	269.290	6514.01	3195.90	1338.45	-3068.73	40°26'56.083"N	104°21'52.894"W	0.39	
9176.00	89.690	267.580	6514.48	3290.02	1335.86	-3163.69	40°26'56.069"N	104°21'54.123"W	1.80	
9270.00	89.750	267.650	6514.94	3382.96	1331.94	-3257.61	40°26'56.043"N	104°21'55.338"W	0.10	
9365.00	89.720	268.010	6515.38	3476.94	1328.35	-3352.54	40°26'56.019"N	104°21'56.567"W	0.38	
9460.00	89.690	268.810	6515.87	3571.05	1325.71	-3447.50	40°26'56.005"N	104°21'57.795"W	0.84	
9555.00	89.780	269.700	6516.30	3665.35	1324.48	-3542.49	40°26'56.005"N	104°21'59.024"W	0.94	
9650.00	89.970	270.050	6516.51	3759.76	1324.27	-3637.49	40°26'56.015"N	104°22'00.253"W	0.42	
9839.00	89.820	274.940	6516.86	3948.30	1332.49	-3826.26	40°26'56.120"N	104°22'02.693"W	2.59	
9934.00	89.910	273.870	6517.08	4043.25	1339.79	-3920.97	40°26'56.204"N	104°22'03.917"W	1.13	
10029.00	89.970	273.370	6517.18	4138.15	1345.79	-4015.78	40°26'56.275"N	104°22'05.142"W	0.53	
10123.00	89.910	272.020	6517.28	4231.97	1350.21	-4109.68	40°26'56.331"N	104°22'06.355"W	1.44	
10218.00	90.090	271.970	6517.28	4326.71	1353.52	-4204.62	40°26'56.375"N	104°22'07.583"W	0.20	
10313.00	89.850	270.080	6517.33	4421.32	1355.21	-4299.60	40°26'56.404"N	104°22'08.811"W	2.01	
10408.00	89.970	268.180	6517.48	4515.58	1353.77	-4394.59	40°26'56.402"N	104°22'10.040"W	2.00	
10502.00	89.820	265.200	6517.65	4608.27	1348.35	-4488.42	40°26'56.360"N	104°22'11.254"W	3.17	
10597.00	89.600	264.950	6518.13	4701.47	1340.19	-4583.07	40°26'56.291"N	104°22'12.480"W	0.35	
10692.00	89.630	264.450	6518.77	4794.55	1331.41	-4677.66	40°26'56.216"N	104°22'13.705"W	0.53	
10787.00	89.690	264.670	6519.33	4887.59	1322.41	-4772.23	40°26'56.139"N	104°22'14.929"W	0.24	
10881.00	89.750	264.810	6519.79	4979.70	1313.79	-4865.83	40°26'56.066"N	104°22'16.141"W	0.16	
10976.00	89.750	264.480	6520.21	5072.76	1304.92	-4960.42	40°26'55.990"N	104°22'17.366"W	0.35	
11071.00	89.690	265.890	6520.67	5166.00	1296.95	-5055.08	40°26'55.923"N	104°22'18.592"W	1.49	
11166.00	89.480	265.870	6521.36	5259.45	1290.13	-5149.83	40°26'55.868"N	104°22'19.818"W	0.22	
11260.00	89.320	264.100	6522.35	5351.64	1281.91	-5243.46	40°26'55.798"N	104°22'21.031"W	1.89	
11355.00	90.090	266.770	6522.83	5444.94	1274.35	-5338.15	40°26'55.736"N	104°22'22.257"W	2.93	
11450.00	90.250	270.310	6522.55	5539.07	1271.93	-5433.10	40°26'55.724"N	104°22'23.485"W	3.73	





Actual Wellpath Report  
WELLS RANCH STATE AA36-683 AWP  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#07 WELLS RANCH STATE AA36-683 (1934'FNL & 814'FWL,SEC.32)
Area	COLORADO	Well	WELLS RANCH STATE AA36-683
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	WELLS RANCH STATE AA36-683 AWB
Facility	SEC.32-T06N-R62W		

WELLPATH DATA (180 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
11545.00	90.060	270.520	6522.30	5633.58	1272.62	-5528.10	40°26'55.742"N	104°22'24.714"W	0.30	
11639.00	90.060	270.030	6522.20	5727.08	1273.07	-5622.10	40°26'55.759"N	104°22'25.929"W	0.52	
11734.00	90.150	270.580	6522.02	5821.57	1273.57	-5717.10	40°26'55.776"N	104°22'27.158"W	0.59	
11828.00	90.250	270.220	6521.69	5915.08	1274.23	-5811.09	40°26'55.794"N	104°22'28.374"W	0.40	
11923.00	89.820	270.340	6521.64	6009.57	1274.69	-5906.09	40°26'55.810"N	104°22'29.602"W	0.47	
12018.00	89.630	270.950	6522.09	6104.12	1275.76	-6001.08	40°26'55.833"N	104°22'30.831"W	0.67	
12206.00	89.510	268.870	6523.50	6290.96	1275.47	-6189.07	40°26'55.853"N	104°22'33.262"W	1.11	
12301.00	90.120	268.660	6523.81	6385.15	1273.42	-6284.04	40°26'55.845"N	104°22'34.491"W	0.68	
12396.00	90.060	268.080	6523.66	6479.26	1270.72	-6379.01	40°26'55.830"N	104°22'35.719"W	0.61	
12490.00	90.180	267.440	6523.46	6572.23	1267.05	-6472.93	40°26'55.806"N	104°22'36.935"W	0.69	
12585.00	90.000	266.720	6523.32	6666.02	1262.21	-6567.81	40°26'55.770"N	104°22'38.163"W	0.78	
12680.00	89.940	266.890	6523.37	6759.74	1256.91	-6662.66	40°26'55.729"N	104°22'39.390"W	0.19	
12775.00	89.630	267.550	6523.72	6853.56	1252.30	-6757.55	40°26'55.696"N	104°22'40.618"W	0.77	
12869.00	89.540	269.060	6524.40	6946.66	1249.52	-6851.50	40°26'55.680"N	104°22'41.834"W	1.61	
12964.00	89.510	270.430	6525.19	7041.04	1249.10	-6946.50	40°26'55.688"N	104°22'43.063"W	1.44	
13059.00	89.480	272.450	6526.03	7135.70	1251.49	-7041.46	40°26'55.723"N	104°22'44.290"W	2.13	
13153.00	89.720	273.260	6526.68	7229.54	1256.17	-7135.34	40°26'55.781"N	104°22'45.504"W	0.90	
13248.00	89.690	272.310	6527.17	7324.36	1260.79	-7230.22	40°26'55.839"N	104°22'46.730"W	1.00	
13343.00	89.910	275.070	6527.50	7419.26	1266.90	-7325.02	40°26'55.911"N	104°22'47.955"W	2.91	
13438.00	89.910	275.720	6527.65	7514.25	1275.83	-7419.59	40°26'56.011"N	104°22'49.177"W	0.68	
13532.00	90.090	272.870	6527.65	7608.19	1282.87	-7513.32	40°26'56.092"N	104°22'50.388"W	3.04	
13627.00	89.850	270.350	6527.70	7702.87	1285.54	-7608.27	40°26'56.130"N	104°22'51.616"W	2.66	
13722.00	89.660	270.320	6528.11	7797.37	1286.09	-7703.27	40°26'56.148"N	104°22'52.844"W	0.20	
13817.00	89.690	270.890	6528.65	7891.91	1287.10	-7798.27	40°26'56.169"N	104°22'54.073"W	0.60	
13911.00	89.780	270.700	6529.08	7985.48	1288.40	-7892.26	40°26'56.194"N	104°22'55.288"W	0.22	
14006.00	90.060	270.550	6529.22	8080.03	1289.44	-7987.25	40°26'56.216"N	104°22'56.517"W	0.33	
14100.00	89.850	269.070	6529.29	8173.43	1289.13	-8081.25	40°26'56.225"N	104°22'57.733"W	1.59	
14195.00	89.910	266.220	6529.49	8267.36	1285.22	-8176.16	40°26'56.198"N	104°22'58.961"W	3.00	
14290.00	90.150	266.650	6529.44	8360.97	1279.32	-8270.97	40°26'56.151"N	104°23'00.188"W	0.52	
14384.00	89.600	267.040	6529.64	8453.71	1274.14	-8364.83	40°26'56.112"N	104°23'01.403"W	0.72	

REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#07 WELLS RANCH STATE AA36-683 (1934'FNL & 814'FWL,SEC.32)
Area	COLORADO	Well	WELLS RANCH STATE AA36-683
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	WELLS RANCH STATE AA36-683 AWB
Facility	SEC.32-T06N-R62W		

WELLPATH DATA (180 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
14479.00	89.570	266.870	6530.33	8547.47	1269.10	-8459.69	40°26'56.074"N	104°23'02.631"W	0.18	
14574.00	89.600	266.390	6531.02	8641.13	1263.51	-8554.52	40°26'56.031"N	104°23'03.858"W	0.51	
14669.00	89.570	268.350	6531.71	8734.99	1259.15	-8649.42	40°26'55.999"N	104°23'05.086"W	2.06	
14764.00	89.720	270.810	6532.30	8829.34	1258.46	-8744.41	40°26'56.004"N	104°23'06.315"W	2.59	
14858.00	89.690	270.170	6532.78	8922.87	1259.26	-8838.40	40°26'56.024"N	104°23'07.530"W	0.68	
14953.00	89.940	269.450	6533.09	9017.27	1258.95	-8933.40	40°26'56.032"N	104°23'08.759"W	0.80	
15048.00	89.690	270.890	6533.39	9111.74	1259.23	-9028.40	40°26'56.047"N	104°23'09.988"W	1.54	
15143.00	89.940	271.380	6533.70	9206.36	1261.11	-9123.38	40°26'56.077"N	104°23'11.216"W	0.58	
15238.00	89.720	271.450	6533.98	9301.03	1263.45	-9218.35	40°26'56.112"N	104°23'12.444"W	0.24	
15333.00	89.750	272.160	6534.42	9395.74	1266.45	-9313.30	40°26'56.154"N	104°23'13.671"W	0.75	
15427.00	89.880	271.730	6534.73	9489.48	1269.64	-9407.24	40°26'56.197"N	104°23'14.886"W	0.48	
15522.00	89.880	270.680	6534.93	9584.11	1271.64	-9502.22	40°26'56.228"N	104°23'16.114"W	1.11	
15617.00	89.690	269.510	6535.28	9678.56	1271.79	-9597.22	40°26'56.242"N	104°23'17.343"W	1.25	
15712.00	89.540	268.580	6535.92	9772.81	1270.21	-9692.20	40°26'56.238"N	104°23'18.571"W	0.99	
15806.00	89.820	269.400	6536.45	9866.06	1268.55	-9786.18	40°26'56.233"N	104°23'19.787"W	0.92	
15901.00	89.690	272.500	6536.85	9960.65	1270.13	-9881.16	40°26'56.260"N	104°23'21.015"W	3.27	
15996.00	89.570	271.800	6537.46	10055.40	1273.69	-9976.09	40°26'56.307"N	104°23'22.242"W	0.75	
16091.00	89.570	266.460	6538.18	10149.64	1272.25	-10071.04	40°26'56.305"N	104°23'23.471"W	5.62	
16186.00	89.570	262.690	6538.89	10242.66	1263.27	-10165.60	40°26'56.228"N	104°23'24.695"W	3.97	
16280.00	89.510	263.400	6539.65	10334.18	1251.89	-10258.90	40°26'56.127"N	104°23'25.904"W	0.76	
16375.00	89.480	266.340	6540.48	10427.30	1243.39	-10353.51	40°26'56.055"N	104°23'27.129"W	3.09	
16469.00	89.570	266.890	6541.26	10519.97	1237.84	-10447.34	40°26'56.011"N	104°23'28.343"W	0.59	
16564.00	89.690	268.240	6541.88	10613.89	1233.81	-10542.25	40°26'55.983"N	104°23'29.571"W	1.43	
16659.00	89.910	270.630	6542.21	10708.21	1232.87	-10637.24	40°26'55.986"N	104°23'30.800"W	2.53	
16753.00	89.690	269.550	6542.54	10801.67	1233.02	-10731.23	40°26'55.999"N	104°23'32.016"W	1.17	
16848.00	89.820	268.370	6542.94	10895.90	1231.29	-10826.22	40°26'55.994"N	104°23'33.245"W	1.25	
16942.00	89.970	268.650	6543.11	10989.05	1228.85	-10920.18	40°26'55.981"N	104°23'34.460"W	0.34	
17037.00	89.380	266.050	6543.65	11082.90	1224.46	-11015.07	40°26'55.949"N	104°23'35.688"W	2.81	
17132.00	89.690	267.030	6544.42	11176.54	1218.73	-11109.89	40°26'55.904"N	104°23'36.916"W	1.08	Last BHI MWD Survey
17177.00	89.690	267.030	6544.67	11220.96	1216.39	-11154.83	40°26'55.887"N	104°23'37.497"W	0.00	Projection to Bit

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
WELLS RANCH STATE AA36-622 SEC.31-T06N-R62W	7.00	-1329.89	-2.29	3319024.36	1405733.36	40°26'29.328"N	104°21'13.680"W	polygon
WELLS RANCH STATE AA36-622 SEC.32-T06N-R62W	7.00	-1329.89	-2.29	3319024.36	1405733.36	40°26'29.328"N	104°21'13.680"W	polygon
WELLS RANCH STATE AA36-622 SEC.35-T06N-R63W	7.00	-1329.89	-2.29	3319024.36	1405733.36	40°26'29.328"N	104°21'13.680"W	polygon
WELLS RANCH STATE AA36-622 SEC.36-T06N-R63W	7.00	-1329.89	-2.29	3319024.36	1405733.36	40°26'29.328"N	104°21'13.680"W	polygon
WELLS RANCH STATE AA36-683 TPZ	6505.00	1371.65	-483.17	3318543.50	1408434.79	40°26'56.083"N	104°21'19.448"W	point
WELLS RANCH STATE AA36-683 Landing Point	6509.53	1365.72	-1189.37	3317837.33	1408428.86	40°26'56.114"N	104°21'28.583"W	point



TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
WELLS RANCH STATE AA36-683 BHL ON PLAT (470'FNL & 40'FWL,SEC.36)	6543.02	1214.57	-11374.91	3307652.19	1408277.72	40°26'55.896"N	104°23'40.344"W	point
WELLS RANCH STATE AA36-683 REV-2 BHL From Plan (470'FNL & 400'FWL,SEC.36)	6543.80	1221.74	-11017.56	3308009.53	1408284.89	40°26'55.923"N	104°23'35.721"W	point
WELLS RANCH STATE AA36-683 REV-3 BHL From Plan (470'FNL & 250'FWL,SEC.36)	6544.36	1219.60	-11167.56	3307859.54	1408282.75	40°26'55.920"N	104°23'37.661"W	point

WELLPATH COMPOSITION - Ref Wellbore: WELLS RANCH STATE AA36-683 AWB      Ref Wellpath: WELLS RANCH STATE AA36-683 AWP					
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore	
0.00	1926.00	BHI Generic gyro - northseeking (Standard)	3rd Party Surface Gyro <84'-1926'>	WELLS RANCH STATE AA36-683 AWB	
1926.00	17132.00	OWSG MWD rev2 + IFR1 + Multi-Station Correction	BH/ATC 8.5" Hole OWSG MWD rev2+IFR+MSA <1980'-17132'>	WELLS RANCH STATE AA36-683 AWB	
17132.00	17177.00	Blind Drilling (std)	Projection to bit	WELLS RANCH STATE AA36-683 AWB	



Actual Wellpath Report

WELLS RANCH STATE AA36-683 AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#07 WELLS RANCH STATE AA36-683 (1934'FNL & 814'FWL, SEC.32)
Area	COLORADO	Well	WELLS RANCH STATE AA36-683
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	WELLS RANCH STATE AA36-683 AWB
Facility	SEC.32-T06N-R62W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
1926.00	1.110	76.700	1925.97	Tie to Surface
17132.00	89.690	267.030	6544.42	Last BHI MWD Survey
17177.00	89.690	267.030	6544.67	Projection to Bit