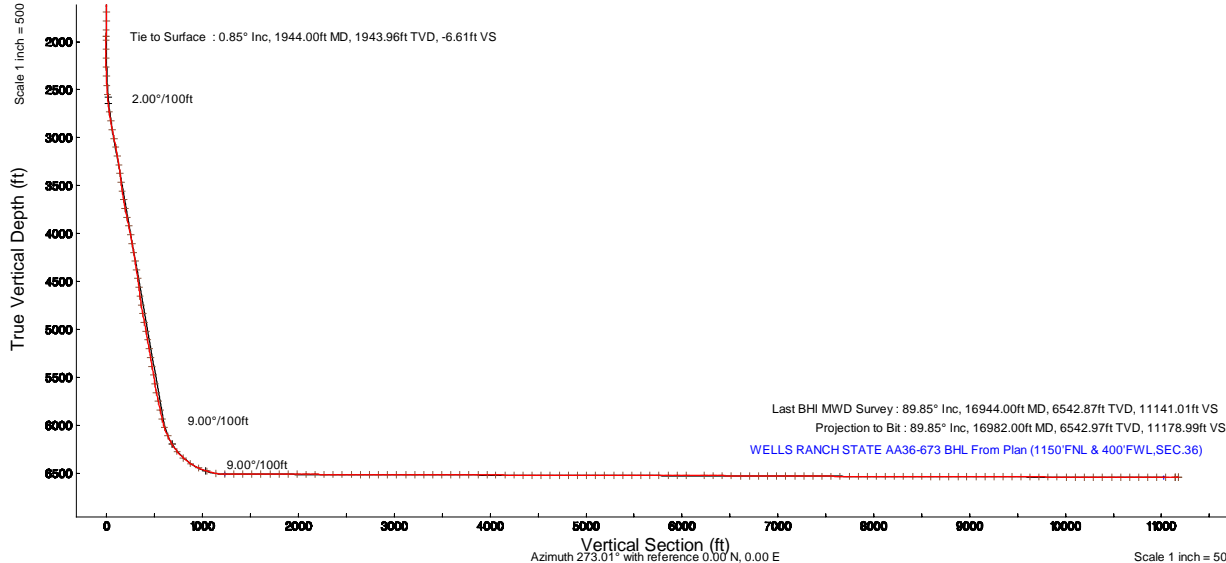
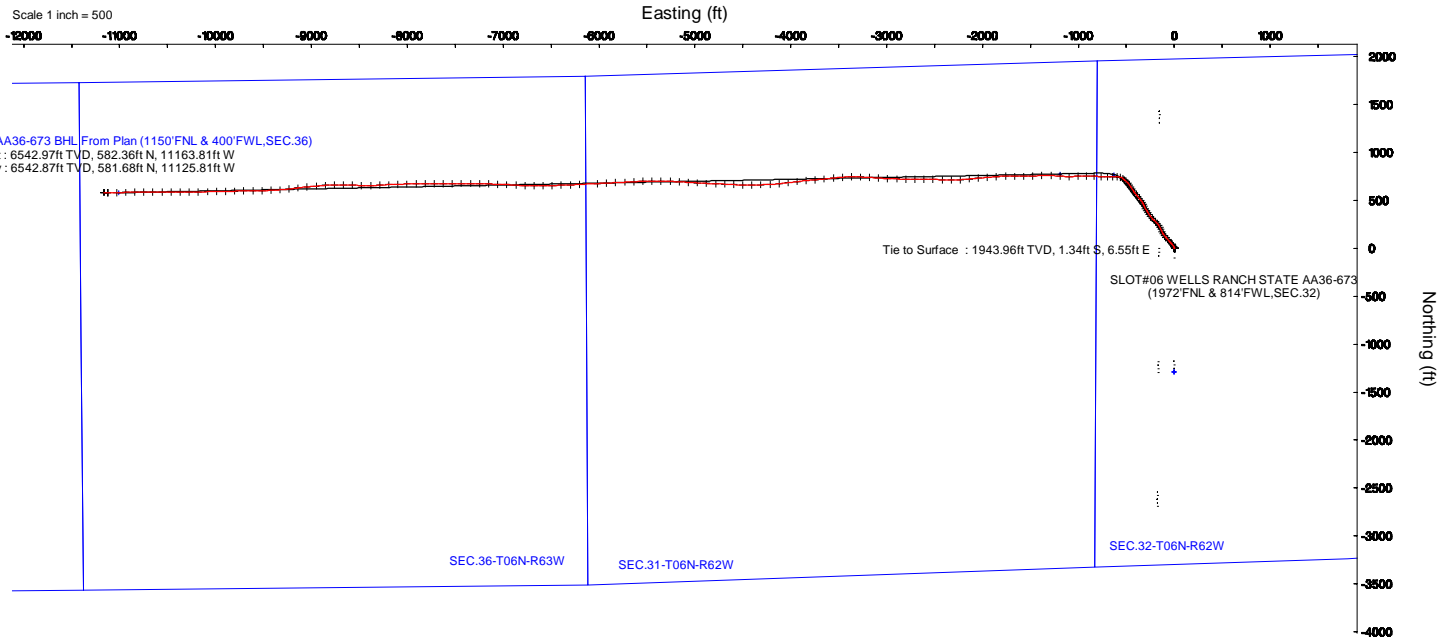


# NOBLE ENERGY, INC

Location:	COLORADO	Site:	SLOT#06 WELLS RANCH STATE AA36-673 (1972FNL & 814FWL,SEC.32)
Field:	WELD COUNTY (NOBLE NAD 83 GRID)	Well:	WELLS RANCH STATE AA36-673
Facility:	SEC.32-T06N-R62W	Wellbore:	WELLS RANCH STATE AA36-673 PWB

Plot reference wellbore is WELLS RANCH STATE AA36-673 (RIG-45) PWB	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (2011), US Feet
True vertical depths are referenced to RIG (201) (RIG02)	* = Wellpath was transformed from a different geoidic datum
Measured depths are referenced to RIG (201) (RIG02)	North Reference: Grid north
RIG (201) (RIG02) to Mean Sea Level: 4761 feet	Scale: True distance
Mean Sea Level to Mud line (M Sea): SLOT#06 WELLS RANCH STATE AA36-673 (1972FNL & 814FWL,SEC.32): 0 feet	Depths are in feet
Coordinates are in feet referenced to BGL	Created by: geomatics on 2019-07-15
	Dataverse: WA, DEN, Denver, DZfr

Location Information					
Property Name	Grid East (US Feet)	Grid North (US Feet)	Latitude	Longitude	
SEC.32-T06N-R62W	207604.362	146753.366	40°56'38.38"N	107°21'13.68"W	
Site	Local N (ft)	Local E (ft)	Grid East (US Feet)	Grid North (US Feet)	Latitude
SLOT#06 WELLS RANCH STATE AA36-673 (1972FNL & 814FWL,SEC.32)	1289.60	281	207604.174	146753.186	40°56'40.127"N
RIG (201) (RIG02) to Mud line (M Sea): SLOT#06 WELLS RANCH STATE AA36-673 (1972FNL & 814FWL,SEC.32)					4761 ft
Mean Sea Level to Mud line (M Sea): SLOT#06 WELLS RANCH STATE AA36-673 (1972FNL & 814FWL,SEC.32)					0 ft
RIG (201) (RIG02) to Mean Sea Level					4761 ft





Actual Wellpath Report

WELLS RANCH STATE AA36-673 AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#06 WELLS RANCH STATE AA36-673 (1972'FNL & 814'FWL,SEC.32)
Area	COLORADO	Well	WELLS RANCH STATE AA36-673
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	WELLS RANCH STATE AA36-673 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 15:52
Convergence at slot	0.75° East	Database/Source file	WA_DEN_Denver_Defn/WELLS_RANCH_STATE_AA36-673_AWP.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	1289.82	2.81	3319027.17	1407023.13	40°26'42.072"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	4761.00ft
Horizontal Reference Pt	Slot	RIG (30') (RKB) to Mean Sea Level	4761.00ft
Vertical Reference Pt	RIG (30') (RKB)	RIG (30') (RKB) to Mud Line at Slot (SLOT#06 WELLS RANCH STATE AA36-673 (1972'FNL & 814'FWL,SEC.32))	4761.00ft
MD Reference Pt	RIG (30') (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	273.01°



Actual Wellpath Report

WELLS RANCH STATE AA36-673 AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#06 WELLS RANCH STATE AA36-673 (1972'FNL & 814'FWL,SEC.32)
Area	COLORADO	Well	WELLS RANCH STATE AA36-673
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	WELLS RANCH STATE AA36-673 AWB
Facility	SEC.32-T06N-R62W		

WELLPATH DATA (181 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
0.00	0.000	86.430	0.00	0.00	0.00	0.00	40°26'42.072"N	104°21'13.428"W	0.00	
84.00	0.200	86.430	84.00	-0.15	0.01	0.15	40°26'42.072"N	104°21'13.426"W	0.24	
178.00	0.280	132.520	178.00	-0.49	-0.14	0.48	40°26'42.071"N	104°21'13.422"W	0.21	
269.00	0.140	175.470	269.00	-0.67	-0.40	0.65	40°26'42.068"N	104°21'13.420"W	0.22	
364.00	0.380	109.870	364.00	-0.99	-0.62	0.96	40°26'42.066"N	104°21'13.416"W	0.36	
459.00	0.020	193.370	459.00	-1.29	-0.74	1.25	40°26'42.064"N	104°21'13.412"W	0.40	
553.00	0.260	72.200	553.00	-1.48	-0.69	1.45	40°26'42.065"N	104°21'13.409"W	0.29	
648.00	0.340	210.830	648.00	-1.55	-0.87	1.51	40°26'42.063"N	104°21'13.409"W	0.59	
743.00	0.400	151.880	742.99	-1.59	-1.40	1.52	40°26'42.058"N	104°21'13.409"W	0.39	
837.00	0.450	232.320	836.99	-1.48	-1.92	1.38	40°26'42.053"N	104°21'13.410"W	0.59	
932.00	0.030	337.050	931.99	-1.19	-2.12	1.08	40°26'42.051"N	104°21'13.414"W	0.48	
1026.00	0.350	59.200	1025.99	-1.42	-1.95	1.32	40°26'42.053"N	104°21'13.411"W	0.37	
1121.00	0.060	82.580	1120.99	-1.71	-1.80	1.61	40°26'42.054"N	104°21'13.407"W	0.31	
1216.00	0.170	117.520	1215.99	-1.88	-1.86	1.79	40°26'42.053"N	104°21'13.405"W	0.13	
1310.00	0.260	21.730	1309.99	-2.08	-1.72	1.99	40°26'42.055"N	104°21'13.403"W	0.35	
1405.00	0.060	19.830	1404.99	-2.16	-1.48	2.09	40°26'42.057"N	104°21'13.401"W	0.21	
1500.00	0.210	76.730	1499.99	-2.34	-1.39	2.27	40°26'42.058"N	104°21'13.399"W	0.19	
1594.00	0.210	75.520	1593.99	-2.67	-1.31	2.61	40°26'42.059"N	104°21'13.394"W	0.00	
1689.00	0.390	55.160	1688.99	-3.10	-1.08	3.04	40°26'42.061"N	104°21'13.389"W	0.22	
1784.00	0.710	90.180	1783.98	-3.94	-0.90	3.90	40°26'42.063"N	104°21'13.378"W	0.47	
1878.00	1.170	100.090	1877.97	-5.47	-1.07	5.42	40°26'42.061"N	104°21'13.358"W	0.52	
1944.00	0.850	108.000	1943.96	-6.61	-1.34	6.55	40°26'42.058"N	104°21'13.343"W	0.53	Tie to Surface
1980.00	0.370	89.560	1979.96	-6.99	-1.42	6.92	40°26'42.057"N	104°21'13.339"W	1.42	
2075.00	0.060	179.120	2074.96	-7.30	-1.47	7.23	40°26'42.057"N	104°21'13.335"W	0.39	
2170.00	0.060	235.300	2169.96	-7.26	-1.54	7.19	40°26'42.056"N	104°21'13.335"W	0.06	
2264.00	1.660	323.500	2263.94	-6.36	-0.48	6.34	40°26'42.066"N	104°21'13.346"W	1.77	
2359.00	3.680	324.350	2358.84	-3.58	3.11	3.74	40°26'42.102"N	104°21'13.379"W	2.13	
2454.00	5.340	325.790	2453.54	1.00	9.24	-0.52	40°26'42.163"N	104°21'13.433"W	1.75	
2548.00	7.450	326.480	2546.95	7.28	17.94	-6.34	40°26'42.250"N	104°21'13.507"W	2.25	
2643.00	9.410	324.010	2640.92	15.83	29.36	-14.31	40°26'42.364"N	104°21'13.608"W	2.10	



Actual Wellpath Report

WELLS RANCH STATE AA36-673 AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#06 WELLS RANCH STATE AA36-673 (1972'FNL & 814'FWL,SEC.32)
Area	COLORADO	Well	WELLS RANCH STATE AA36-673
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	WELLS RANCH STATE AA36-673 AWB
Facility	SEC.32-T06N-R62W		

WELLPATH DATA (181 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
2737.00	11.660	321.370	2733.33	26.98	43.00	-24.76	40°26'42.500"N	104°21'13.741"W	2.45	
2832.00	13.960	318.100	2825.96	41.45	59.03	-38.40	40°26'42.660"N	104°21'13.915"W	2.54	
2927.00	15.310	317.380	2917.87	58.51	76.79	-54.55	40°26'42.838"N	104°21'14.121"W	1.43	
3021.00	15.230	316.390	3008.55	76.35	94.86	-71.47	40°26'43.018"N	104°21'14.336"W	0.29	
3116.00	15.240	318.160	3100.22	94.23	113.20	-88.40	40°26'43.202"N	104°21'14.552"W	0.49	
3210.00	15.120	321.350	3190.94	111.09	131.98	-104.30	40°26'43.389"N	104°21'14.755"W	0.90	
3305.00	15.010	327.630	3282.68	126.45	152.04	-118.63	40°26'43.589"N	104°21'14.937"W	1.72	
3399.00	15.260	335.910	3373.43	139.14	173.62	-130.20	40°26'43.804"N	104°21'15.083"W	2.31	
3494.00	15.350	339.780	3465.06	149.79	196.83	-139.64	40°26'44.035"N	104°21'15.201"W	1.08	
3589.00	15.350	332.010	3556.68	161.23	219.74	-149.89	40°26'44.262"N	104°21'15.330"W	2.16	
3683.00	15.420	323.780	3647.33	175.55	240.81	-163.12	40°26'44.472"N	104°21'15.497"W	2.32	
3778.00	15.340	318.390	3738.93	192.36	260.39	-178.93	40°26'44.668"N	104°21'15.699"W	1.51	
3873.00	15.510	312.860	3830.51	210.94	278.43	-196.58	40°26'44.848"N	104°21'15.924"W	1.56	
3967.00	15.250	313.890	3921.15	229.94	295.55	-214.70	40°26'45.020"N	104°21'16.155"W	0.40	
4062.00	15.200	315.320	4012.81	248.59	313.07	-232.47	40°26'45.195"N	104°21'16.382"W	0.40	
4157.00	15.150	322.200	4104.51	265.92	331.73	-248.83	40°26'45.382"N	104°21'16.591"W	1.90	
4252.00	15.300	329.200	4196.18	281.01	352.31	-262.86	40°26'45.587"N	104°21'16.769"W	1.94	
4346.00	15.290	327.340	4286.85	295.14	373.40	-275.90	40°26'45.797"N	104°21'16.934"W	0.52	
4441.00	15.260	328.110	4378.50	309.59	394.56	-289.26	40°26'46.007"N	104°21'17.103"W	0.22	
4535.00	15.090	330.340	4469.22	323.28	415.69	-301.85	40°26'46.218"N	104°21'17.262"W	0.65	
4630.00	15.290	337.610	4560.91	335.33	438.02	-312.75	40°26'46.440"N	104°21'17.400"W	2.01	
4725.00	15.250	332.530	4652.56	347.04	460.69	-323.28	40°26'46.665"N	104°21'17.532"W	1.41	
4819.00	15.220	328.370	4743.26	360.32	482.17	-335.45	40°26'46.879"N	104°21'17.686"W	1.16	
4914.00	15.340	321.610	4834.91	375.72	502.64	-349.80	40°26'47.083"N	104°21'17.868"W	1.88	
5009.00	15.260	316.150	4926.54	393.16	521.50	-366.26	40°26'47.272"N	104°21'18.078"W	1.52	
5104.00	14.970	318.890	5018.26	410.82	539.76	-382.99	40°26'47.454"N	104°21'18.291"W	0.81	
5199.00	15.200	323.820	5109.99	427.24	559.06	-398.41	40°26'47.647"N	104°21'18.487"W	1.37	
5294.00	15.310	323.650	5201.64	443.06	579.21	-413.20	40°26'47.848"N	104°21'18.675"W	0.12	
5388.00	15.190	326.170	5292.33	458.32	599.44	-427.41	40°26'48.049"N	104°21'18.856"W	0.72	
5483.00	15.130	326.700	5384.03	473.12	620.14	-441.15	40°26'48.256"N	104°21'19.030"W	0.16	

REFERENCE WELLPATH IDENTIFICATION										
Operator	NOBLE ENERGY, INC					Slot	SLOT#06 WELLS RANCH STATE AA36-673 (1972'FNL & 814'FWL,SEC.32)			
Area	COLORADO					Well	WELLS RANCH STATE AA36-673			
Field	WELD COUNTY (NOBLE NAD 83 GRID)					Wellbore	WELLS RANCH STATE AA36-673 AWB			
Facility	SEC.32-T06N-R62W									

WELLPATH DATA (181 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
5578.00	15.200	326.790	5475.72	487.82	640.92	-454.77	40°26'48.463"N	104°21'19.203"W	0.08	
5673.00	15.150	325.460	5567.41	502.75	661.57	-468.63	40°26'48.669"N	104°21'19.378"W	0.37	
5767.00	15.220	316.600	5658.14	519.17	680.65	-484.08	40°26'48.859"N	104°21'19.575"W	2.47	
5862.00	15.060	308.640	5749.85	538.24	697.42	-502.29	40°26'49.027"N	104°21'19.808"W	2.19	
5956.00	15.210	312.150	5840.59	557.73	713.32	-520.97	40°26'49.187"N	104°21'20.047"W	0.99	
6051.00	15.200	312.770	5932.26	576.97	730.14	-539.35	40°26'49.355"N	104°21'20.282"W	0.17	
6146.00	18.300	281.480	6023.41	601.35	741.59	-563.16	40°26'49.471"N	104°21'20.588"W	9.90	
6240.00	25.650	269.930	6110.56	636.33	744.51	-598.03	40°26'49.505"N	104°21'21.038"W	9.04	
6335.00	30.500	268.820	6194.35	680.93	743.99	-642.73	40°26'49.505"N	104°21'21.616"W	5.13	
6429.00	38.610	271.300	6271.71	734.13	744.16	-695.99	40°26'49.514"N	104°21'22.305"W	8.75	
6524.00	47.910	274.260	6340.82	799.14	747.46	-760.92	40°26'49.555"N	104°21'23.144"W	10.02	
6619.00	56.090	273.930	6399.26	873.93	752.79	-835.53	40°26'49.617"N	104°21'24.108"W	8.61	
6714.00	66.310	268.720	6444.99	956.98	754.53	-918.61	40°26'49.644"N	104°21'25.182"W	11.78	
6808.00	72.750	266.930	6477.85	1044.63	751.16	-1006.56	40°26'49.622"N	104°21'26.321"W	7.08	
6903.00	80.260	269.690	6500.01	1136.63	748.47	-1098.82	40°26'49.608"N	104°21'27.514"W	8.39	
6998.00	89.750	274.860	6508.28	1231.12	752.25	-1193.24	40°26'49.657"N	104°21'28.735"W	11.36	
7092.00	89.780	273.500	6508.66	1325.10	759.11	-1286.99	40°26'49.737"N	104°21'29.946"W	1.45	
7187.00	89.750	266.850	6509.05	1419.93	759.40	-1381.93	40°26'49.752"N	104°21'31.174"W	7.00	
7282.00	89.750	266.200	6509.47	1514.32	753.64	-1476.76	40°26'49.707"N	104°21'32.401"W	0.68	
7376.00	89.910	269.350	6509.75	1607.91	749.99	-1570.68	40°26'49.683"N	104°21'33.617"W	3.36	
7471.00	90.030	271.010	6509.80	1702.79	750.29	-1665.67	40°26'49.698"N	104°21'34.845"W	1.75	
7566.00	90.150	270.480	6509.65	1797.72	751.52	-1760.66	40°26'49.722"N	104°21'36.074"W	0.57	
7661.00	89.720	264.340	6509.75	1892.22	747.23	-1855.52	40°26'49.692"N	104°21'37.301"W	6.48	
7756.00	89.940	265.440	6510.04	1986.26	738.77	-1950.14	40°26'49.620"N	104°21'38.526"W	1.18	
7851.00	89.140	265.560	6510.80	2080.44	731.32	-2044.84	40°26'49.558"N	104°21'39.752"W	0.85	
7945.00	89.850	263.970	6511.63	2173.47	722.74	-2138.44	40°26'49.485"N	104°21'40.964"W	1.85	
8040.00	89.880	266.920	6511.85	2267.63	715.20	-2233.13	40°26'49.423"N	104°21'42.190"W	3.11	
8135.00	89.880	270.580	6512.05	2362.35	713.13	-2328.09	40°26'49.414"N	104°21'43.419"W	3.85	
8229.00	89.850	271.710	6512.27	2456.30	715.00	-2422.07	40°26'49.445"N	104°21'44.634"W	1.20	
8324.00	89.850	271.230	6512.52	2551.26	717.44	-2517.04	40°26'49.481"N	104°21'45.862"W	0.51	



Actual Wellpath Report

WELLS RANCH STATE AA36-673 AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#06 WELLS RANCH STATE AA36-673 (1972'FNL & 814'FWL,SEC.32)
Area	COLORADO	Well	WELLS RANCH STATE AA36-673
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	WELLS RANCH STATE AA36-673 AWB
Facility	SEC.32-T06N-R62W		

WELLPATH DATA (181 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8419.00	89.780	270.760	6512.83	2646.20	719.09	-2612.03	40°26'49.509"N	104°21'47.090"W	0.50	
8513.00	90.030	270.130	6512.98	2740.11	719.82	-2706.02	40°26'49.529"N	104°21'48.305"W	0.72	
8608.00	89.750	271.420	6513.17	2835.03	721.11	-2801.01	40°26'49.553"N	104°21'49.534"W	1.39	
8703.00	89.880	271.470	6513.47	2930.00	723.50	-2895.98	40°26'49.589"N	104°21'50.762"W	0.15	
8797.00	89.970	272.650	6513.59	3023.98	726.88	-2989.92	40°26'49.634"N	104°21'51.976"W	1.26	
8892.00	89.880	273.810	6513.72	3118.98	732.23	-3084.77	40°26'49.699"N	104°21'53.202"W	1.22	
8987.00	89.780	273.830	6514.00	3213.97	738.56	-3179.56	40°26'49.774"N	104°21'54.427"W	0.11	
9081.00	89.780	272.300	6514.36	3307.97	743.59	-3273.42	40°26'49.835"N	104°21'55.640"W	1.63	
9176.00	89.910	269.360	6514.62	3402.89	744.96	-3368.40	40°26'49.861"N	104°21'56.868"W	3.10	
9271.00	89.820	266.450	6514.84	3497.50	741.49	-3463.32	40°26'49.838"N	104°21'58.096"W	3.06	
9365.00	89.880	263.260	6515.09	3590.54	733.06	-3556.93	40°26'49.767"N	104°21'59.308"W	3.39	
9460.00	89.690	263.710	6515.45	3684.22	722.28	-3651.32	40°26'49.672"N	104°22'00.531"W	0.51	
9555.00	89.660	266.150	6515.98	3778.27	713.89	-3745.94	40°26'49.601"N	104°22'01.756"W	2.57	
9650.00	89.540	264.420	6516.65	3872.40	706.08	-3840.61	40°26'49.536"N	104°22'02.982"W	1.83	
9745.00	89.600	262.750	6517.36	3966.11	695.47	-3935.01	40°26'49.443"N	104°22'04.204"W	1.76	
9839.00	89.660	262.550	6517.97	4058.58	683.44	-4028.23	40°26'49.336"N	104°22'05.412"W	0.22	
9934.00	89.750	264.830	6518.46	4152.32	673.00	-4122.65	40°26'49.245"N	104°22'06.635"W	2.40	
10029.00	89.690	267.230	6518.92	4246.61	666.42	-4217.42	40°26'49.192"N	104°22'07.862"W	2.53	
10124.00	89.540	267.500	6519.56	4341.14	662.06	-4312.31	40°26'49.161"N	104°22'09.090"W	0.33	
10218.00	89.480	268.410	6520.36	4434.77	658.70	-4406.25	40°26'49.139"N	104°22'10.305"W	0.97	
10313.00	89.630	271.940	6521.10	4529.64	658.99	-4501.23	40°26'49.154"N	104°22'11.534"W	3.72	
10408.00	89.570	274.370	6521.77	4624.63	664.22	-4596.08	40°26'49.218"N	104°22'12.759"W	2.56	
10503.00	89.660	271.940	6522.40	4719.62	669.45	-4690.92	40°26'49.281"N	104°22'13.985"W	2.56	
10597.00	89.940	271.780	6522.73	4813.60	672.50	-4784.87	40°26'49.323"N	104°22'15.200"W	0.34	
10692.00	90.120	272.950	6522.68	4908.59	676.42	-4879.79	40°26'49.374"N	104°22'16.427"W	1.25	
10787.00	90.030	273.940	6522.56	5003.59	682.13	-4974.62	40°26'49.442"N	104°22'17.652"W	1.05	
10882.00	89.940	273.480	6522.58	5098.58	688.28	-5069.42	40°26'49.515"N	104°22'18.877"W	0.49	
10976.00	90.060	273.040	6522.58	5192.58	693.62	-5163.27	40°26'49.580"N	104°22'20.090"W	0.49	
11071.00	90.000	271.440	6522.53	5287.57	697.33	-5258.19	40°26'49.628"N	104°22'21.317"W	1.69	
11166.00	90.030	270.800	6522.51	5382.51	699.19	-5353.17	40°26'49.659"N	104°22'22.545"W	0.67	





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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#06 WELLS RANCH STATE AA36-673 (1972'FNL & 814'FWL,SEC.32)
Area	COLORADO	Well	WELLS RANCH STATE AA36-673
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	WELLS RANCH STATE AA36-673 AWB
Facility	SEC.32-T06N-R62W		

WELLPATH DATA (181 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
11261.00	90.310	269.740	6522.23	5477.40	699.64	-5448.17	40°26'49.675"N	104°22'23.774"W	1.15	
11355.00	90.060	268.690	6521.92	5571.20	698.35	-5542.16	40°26'49.674"N	104°22'24.990"W	1.15	
11450.00	89.820	266.800	6522.02	5665.79	694.61	-5637.08	40°26'49.649"N	104°22'26.218"W	2.01	
11545.00	89.820	266.940	6522.32	5760.24	689.43	-5731.94	40°26'49.610"N	104°22'27.446"W	0.15	
11640.00	89.970	267.320	6522.49	5854.74	684.67	-5826.82	40°26'49.575"N	104°22'28.674"W	0.43	
11734.00	89.940	266.800	6522.57	5948.24	679.85	-5920.69	40°26'49.539"N	104°22'29.888"W	0.55	
11829.00	89.940	267.350	6522.67	6042.73	675.00	-6015.57	40°26'49.503"N	104°22'31.116"W	0.58	
12018.00	89.690	267.000	6523.28	6230.75	665.69	-6204.34	40°26'49.434"N	104°22'33.559"W	0.23	
12113.00	89.260	267.920	6524.15	6325.29	661.48	-6299.24	40°26'49.405"N	104°22'34.787"W	1.07	
12208.00	89.690	267.740	6525.02	6419.90	657.88	-6394.17	40°26'49.381"N	104°22'36.016"W	0.49	
12303.00	89.660	267.930	6525.56	6514.51	654.29	-6489.10	40°26'49.357"N	104°22'37.244"W	0.20	
12398.00	89.660	268.990	6526.12	6609.21	651.74	-6584.06	40°26'49.344"N	104°22'38.473"W	1.12	
12492.00	89.850	271.000	6526.52	6703.07	651.73	-6678.06	40°26'49.356"N	104°22'39.688"W	2.15	
12587.00	89.780	271.810	6526.83	6798.04	654.06	-6773.03	40°26'49.391"N	104°22'40.916"W	0.86	
12681.00	89.600	273.570	6527.34	6892.03	658.47	-6866.92	40°26'49.446"N	104°22'42.130"W	1.88	
12776.00	89.570	272.860	6528.03	6987.03	663.80	-6961.76	40°26'49.510"N	104°22'43.356"W	0.75	
12871.00	89.660	271.790	6528.67	7082.01	667.65	-7056.68	40°26'49.560"N	104°22'44.583"W	1.13	
12965.00	89.450	272.170	6529.40	7176.00	670.90	-7150.62	40°26'49.604"N	104°22'45.797"W	0.46	
13060.00	89.660	271.370	6530.13	7270.97	673.83	-7245.57	40°26'49.645"N	104°22'47.025"W	0.87	
13155.00	89.600	270.890	6530.75	7365.92	675.71	-7340.55	40°26'49.675"N	104°22'48.253"W	0.51	
13250.00	89.690	269.600	6531.34	7460.80	676.11	-7435.55	40°26'49.691"N	104°22'49.481"W	1.36	
13344.00	89.820	268.190	6531.74	7554.56	674.30	-7529.53	40°26'49.685"N	104°22'50.697"W	1.51	
13439.00	89.910	268.740	6531.96	7649.26	671.75	-7624.49	40°26'49.672"N	104°22'51.926"W	0.59	
13534.00	89.880	270.850	6532.14	7744.10	671.41	-7719.49	40°26'49.680"N	104°22'53.154"W	2.22	
13629.00	89.970	270.420	6532.26	7839.02	672.47	-7814.48	40°26'49.702"N	104°22'54.383"W	0.46	
13723.00	89.780	269.170	6532.46	7932.87	672.13	-7908.48	40°26'49.711"N	104°22'55.598"W	1.35	
13818.00	89.970	268.820	6532.67	8027.64	670.47	-8003.46	40°26'49.706"N	104°22'56.827"W	0.42	
13913.00	90.250	268.100	6532.49	8122.34	667.91	-8098.43	40°26'49.693"N	104°22'58.056"W	0.81	
14007.00	89.750	266.760	6532.49	8215.89	663.70	-8192.33	40°26'49.663"N	104°22'59.271"W	1.52	
14102.00	90.120	266.110	6532.60	8310.26	657.79	-8287.15	40°26'49.616"N	104°23'00.498"W	0.79	

REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#06 WELLS RANCH STATE AA36-673 (1972'FNL & 814'FWL,SEC.32)
Area	COLORADO	Well	WELLS RANCH STATE AA36-673
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	WELLS RANCH STATE AA36-673 AWB
Facility	SEC.32-T06N-R62W		

WELLPATH DATA (181 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
14197.00	89.910	268.770	6532.57	8404.80	653.55	-8382.04	40°26'49.586"N	104°23'01.726"W	2.81	
14292.00	89.880	272.510	6532.75	8499.71	654.61	-8477.02	40°26'49.608"N	104°23'02.954"W	3.94	
14386.00	89.630	272.330	6533.15	8593.70	658.58	-8570.94	40°26'49.659"N	104°23'04.168"W	0.33	
14481.00	89.940	270.070	6533.51	8688.64	660.57	-8665.91	40°26'49.691"N	104°23'05.396"W	2.40	
14576.00	89.690	269.970	6533.81	8783.51	660.60	-8760.91	40°26'49.703"N	104°23'06.625"W	0.28	
14671.00	89.570	265.510	6534.43	8878.09	656.85	-8855.81	40°26'49.678"N	104°23'07.853"W	4.70	
14765.00	89.910	264.840	6534.85	8971.21	648.95	-8949.47	40°26'49.611"N	104°23'09.066"W	0.80	
14860.00	89.510	264.700	6535.33	9065.23	640.29	-9044.08	40°26'49.537"N	104°23'10.291"W	0.45	
14955.00	89.630	262.430	6536.05	9158.93	629.64	-9138.47	40°26'49.444"N	104°23'11.513"W	2.39	
15050.00	89.720	263.620	6536.59	9252.49	618.11	-9232.76	40°26'49.342"N	104°23'12.735"W	1.26	
15145.00	89.750	266.320	6537.02	9346.54	609.78	-9327.39	40°26'49.271"N	104°23'13.960"W	2.84	
15239.00	89.750	266.970	6537.43	9439.96	604.28	-9421.22	40°26'49.228"N	104°23'15.174"W	0.69	
15334.00	89.660	267.730	6537.92	9534.49	599.88	-9516.12	40°26'49.197"N	104°23'16.402"W	0.81	
15429.00	89.880	270.190	6538.31	9629.25	598.16	-9611.10	40°26'49.191"N	104°23'17.631"W	2.60	
15524.00	90.030	269.730	6538.38	9724.11	598.09	-9706.10	40°26'49.203"N	104°23'18.860"W	0.51	
15619.00	89.750	267.530	6538.56	9818.83	595.82	-9801.06	40°26'49.192"N	104°23'20.088"W	2.33	
15713.00	89.600	268.690	6539.10	9912.48	592.72	-9895.01	40°26'49.173"N	104°23'21.304"W	1.24	
15808.00	89.970	269.350	6539.45	10007.25	591.10	-9989.99	40°26'49.169"N	104°23'22.533"W	0.80	
15903.00	89.780	268.890	6539.66	10102.03	589.64	-10084.98	40°26'49.166"N	104°23'23.761"W	0.52	
15998.00	89.630	269.050	6540.15	10196.79	587.93	-10179.96	40°26'49.161"N	104°23'24.990"W	0.23	
16092.00	89.780	269.310	6540.63	10290.58	586.59	-10273.95	40°26'49.159"N	104°23'26.206"W	0.32	
16187.00	89.850	269.960	6540.94	10385.42	585.98	-10368.95	40°26'49.165"N	104°23'27.435"W	0.69	
16282.00	89.910	269.850	6541.14	10480.28	585.82	-10463.95	40°26'49.175"N	104°23'28.663"W	0.13	
16376.00	89.720	270.480	6541.44	10574.16	586.09	-10557.95	40°26'49.189"N	104°23'29.879"W	0.70	
16471.00	89.880	270.590	6541.77	10669.07	586.98	-10652.94	40°26'49.210"N	104°23'31.107"W	0.20	
16566.00	90.030	270.880	6541.85	10764.00	588.20	-10747.94	40°26'49.234"N	104°23'32.336"W	0.34	
16660.00	89.780	267.480	6542.00	10857.77	586.85	-10841.91	40°26'49.232"N	104°23'33.551"W	3.63	
16755.00	89.780	268.130	6542.37	10952.38	583.22	-10936.84	40°26'49.208"N	104°23'34.780"W	0.68	
16849.00	89.880	269.480	6542.65	11046.12	581.26	-11030.82	40°26'49.200"N	104°23'35.996"W	1.44	
16944.00	89.850	271.030	6542.87	11141.01	581.68	-11125.81	40°26'49.216"N	104°23'37.224"W	1.63	Last BHI MWD Survey





Actual Wellpath Report

WELLS RANCH STATE AA36-673 AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#06 WELLS RANCH STATE AA36-673 (1972'FNL & 814'FWL,SEC.32)
Area	COLORADO	Well	WELLS RANCH STATE AA36-673
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	WELLS RANCH STATE AA36-673 AWB
Facility	SEC.32-T06N-R62W		

WELLPATH DATA (181 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
16982.00	89.850	271.030	6542.97	11178.99	582.36	-11163.81	40°26'49.227"N	104°23'37.715"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	6.00	-1289.82	-2.81	3319024.36	1405733.36	40°26'29.328"N	104°21'13.680"W	polygon
WELLS RANCH STATE AA36-622 SEC.32-T06N-R62W	6.00	-1289.82	-2.81	3319024.36	1405733.36	40°26'29.328"N	104°21'13.680"W	polygon
WELLS RANCH STATE AA36-622 SEC.35-T06N-R63W	6.00	-1289.82	-2.81	3319024.36	1405733.36	40°26'29.328"N	104°21'13.680"W	polygon
WELLS RANCH STATE AA36-622 SEC.36-T06N-R63W	6.00	-1289.82	-2.81	3319024.36	1405733.36	40°26'29.328"N	104°21'13.680"W	polygon
WELLS RANCH STATE AA36-673 TPZ	6505.00	766.02	-633.41	3318393.79	1407789.12	40°26'49.722"N	104°21'21.492"W	point
WELLS RANCH STATE AA36-673 Landing Point	6509.21	775.91	-1192.25	3317834.97	1407799.01	40°26'49.891"N	104°21'28.718"W	point
WELLS RANCH STATE AA36-673 BHL ON PLAT (1150'FNL & 30'FWL,SEC.36)	6542.51	573.29	-11378.07	3307649.55	1407596.39	40°26'49.164"N	104°23'40.488"W	point
WELLS RANCH STATE AA36-673 BHL From Plan (1150'FNL & 400'FWL,SEC.36)	6543.49	579.39	-11011.87	3308015.74	1407602.49	40°26'49.179"N	104°23'35.751"W	point



Actual Wellpath Report

WELLS RANCH STATE AA36-673 AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#06 WELLS RANCH STATE AA36-673 (1972'FNL & 814'FWL,SEC.32)
Area	COLORADO	Well	WELLS RANCH STATE AA36-673
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	WELLS RANCH STATE AA36-673 AWB
Facility	SEC.32-T06N-R62W		

WELLPATH COMPOSITION - Ref Wellbore: WELLS RANCH STATE AA36-673 AWB    Ref Wellpath: WELLS RANCH STATE AA36-673 AWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	1944.00	Gyrodatab standard - Drop gyro or Multi-shot	3rd Party 13.5" Hole Gyrodatab standard drop gyro or Multi-shot <84'-1944'>	WELLS RANCH STATE AA36-673 AWB
1944.00	16944.00	OWSG MWD rev2 + IFR1 + Multi-Station Correction	BH/ATC 8.5" Hole OWSG MWD rev2+IFR1+MSA <1980'-16944'>	WELLS RANCH STATE AA36-673 AWB
16944.00	16982.00	Blind Drilling (std)	Projection to bit	WELLS RANCH STATE AA36-673 AWB



Actual Wellpath Report

WELLS RANCH STATE AA36-673 AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#06 WELLS RANCH STATE AA36-673 (1972'FNL & 814'FWL, SEC.32)
Area	COLORADO	Well	WELLS RANCH STATE AA36-673
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	WELLS RANCH STATE AA36-673 AWB
Facility	SEC.32-T06N-R62W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
1944.00	0.850	108.000	1943.96	Tie to Surface
16944.00	89.850	271.030	6542.87	Last BHI MWD Survey
16982.00	89.850	271.030	6542.97	Projection to Bit