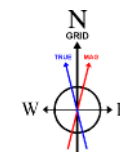




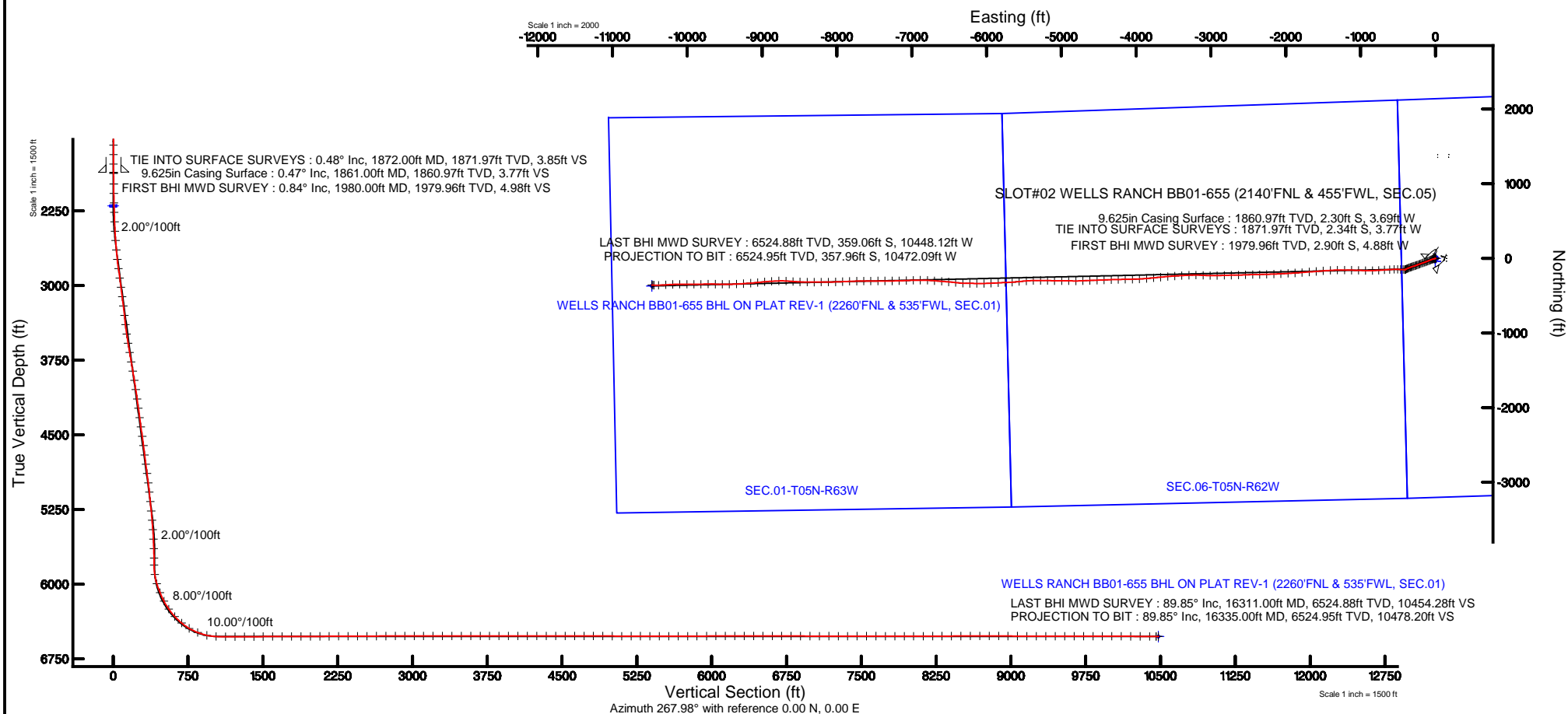
Location:	COLORADO	Slot:	SLOT#02 WELLS RANCH BB01-655 (2140'FNL & 455'FWL, SEC.05)
Field:	WELD COUNTY (NOBLE NAD 83 GRID)	Well:	WELLS RANCH BB01-655
Facility:	SEC.05-T05N-R62W	Wellbore:	WELLS RANCH BB01-655 PWB

Plot reference wellpath is WELLS RANCH BB01-655 (REV-A.0) PWP	
True vertical depths are referenced to H&P 321 (RKB)	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
Measured depths are referenced to H&P 321 (RKB)	North Reference: Grid north
H&P 321 (RKB) to Mean Sea Level: 4708 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#02 WELLS RANCH BB01-655 [2140'FNL & 455'FWL, SEC.05]): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: adamkmit on 2/8/2016



BGGM (1945.0 to 2017.0) Dip: 67.05° Field: 52637.1 nT
Magnetic North is 8.27 degrees East of True North (at 1/4/2016)
Grid North is 0.74 degrees East of True North
To correct azimuth from True to Grid subtract 0.74 degrees
To correct azimuth from Magnetic to Grid add 7.53 degrees

API # 05-123-41971



Actual Wellpath Report

WELLS RANCH BB01-655 AWP

Page 1 of 7

REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#02 WELLS RANCH BB01-655 (2140'FNL & 455'FWL, SEC.05)
Area	COLORADO	Well	WELLS RANCH BB01-655
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	WELLS RANCH BB01-655 AWB
Facility	SEC.05-T05N-R62W		

REPORT SETUP INFORMATION			
Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 4.1.1
North Reference	Grid	User	Adamkat
Scale	0.999962	Report Generated	2/8/2016 at 11:53:59 AM
Convergence at slot	0.74° East	Database/Source file	WA_DEN_Denver_Defn/WELLS_RANCH_BB01-655_AWB.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	40.11	2.27	3318705.08	1401572.23	40°25'48.252"N	104°21'18.504"W
Facility Reference Pt			3318702.82	1401532.12	40°25'47.856"N	104°21'18.540"W
Field Reference Pt			3000000.00	4454105.15	48°46'34.315"N	105°30'00.000"W

WELLPATH DATUM			
Calculation method	Minimum curvature	H&P 321 (RKB) to Facility Vertical Datum	4708.00ft
Horizontal Reference Pt	Slot	H&P 321 (RKB) to Mean Sea Level	4708.00ft
Vertical Reference Pt	H&P 321 (RKB)	H&P 321 (RKB) to Mud Line at Slot (SLOT#02 WELLS RANCH BB01-655 (2140'FNL & 455'FWL, SEC.05))	4708.00ft
MD Reference Pt	H&P 321 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	267.98°

Actual Wellpath Report

WELLS RANCH BB01-655 AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY, INC	Slot	SLOT#02 WELLS RANCH BB01-655 (2140'FNL & 455'FWL, SEC.05)
Area	COLORADO	Well	WELLS RANCH BB01-655
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	WELLS RANCH BB01-655 AWB
Facility	SEC.05-T05N-R62W		

WELLPATH DATA (155 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
1872.00	0.480	248.440	1871.97	3.85	-2.34	-3.77	40°25'48.229°N	104°21'18.553°W	0.18	TIE INTO SURFACE SURVEYS
1980.00	0.840	239.620	1979.96	4.98	-2.90	-4.88	40°25'48.224°N	104°21'18.568°W	0.35	FIRST BHI MWD SURVEY
2075.00	0.800	242.260	2074.95	6.19	-3.56	-6.06	40°25'48.218°N	104°21'18.583°W	0.06	
2169.00	1.410	249.170	2168.93	7.87	-4.28	-7.73	40°25'48.211°N	104°21'18.605°W	0.66	
2264.00	1.850	248.480	2263.89	10.42	-5.26	-10.24	40°25'48.201°N	104°21'18.637°W	0.46	
2359.00	2.320	256.650	2358.83	13.75	-6.26	-13.54	40°25'48.192°N	104°21'18.680°W	0.58	
2453.00	3.150	260.030	2452.72	18.18	-7.15	-17.94	40°25'48.184°N	104°21'18.737°W	0.90	
2548.00	4.100	260.560	2547.53	24.13	-8.16	-23.86	40°25'48.174°N	104°21'18.814°W	1.00	
2643.00	5.210	254.890	2642.22	31.70	-9.84	-31.37	40°25'48.159°N	104°21'18.911°W	1.26	
2737.00	6.660	250.460	2735.71	41.06	-12.78	-40.63	40°25'48.131°N	104°21'19.031°W	1.62	
2832.00	8.190	248.430	2829.91	52.69	-17.11	-52.12	40°25'48.090°N	104°21'19.181°W	1.63	
2926.00	8.250	246.740	2922.95	65.28	-22.23	-64.54	40°25'48.041°N	104°21'19.342°W	0.26	
3021.00	7.930	247.660	3017.00	77.78	-27.42	-76.86	40°25'47.991°N	104°21'19.502°W	0.36	
3116.00	7.780	248.500	3111.11	89.99	-32.26	-88.91	40°25'47.945°N	104°21'19.659°W	0.20	
3210.00	7.250	249.760	3204.30	101.62	-36.65	-100.39	40°25'47.903°N	104°21'19.808°W	0.59	
3305.00	6.640	248.960	3298.60	112.51	-40.69	-111.14	40°25'47.864°N	104°21'19.948°W	0.65	
3399.00	7.070	249.420	3391.93	123.13	-44.68	-121.63	40°25'47.826°N	104°21'20.084°W	0.46	
3494.00	8.280	250.720	3486.08	135.21	-48.99	-133.56	40°25'47.785°N	104°21'20.239°W	1.29	
3588.00	9.520	249.510	3578.95	149.04	-53.95	-147.23	40°25'47.738°N	104°21'20.417°W	1.33	
3683.00	10.170	250.330	3672.55	164.49	-59.52	-162.49	40°25'47.685°N	104°21'20.615°W	0.70	
3778.00	10.340	250.070	3766.03	180.59	-65.25	-178.40	40°25'47.630°N	104°21'20.822°W	0.19	
3872.00	9.940	250.250	3858.56	196.35	-70.87	-193.97	40°25'47.577°N	104°21'21.024°W	0.43	
3967.00	9.450	250.110	3952.20	211.58	-76.29	-209.02	40°25'47.525°N	104°21'21.219°W	0.52	
4061.00	8.980	250.260	4044.99	225.91	-81.39	-223.18	40°25'47.476°N	104°21'21.403°W	0.50	
4156.00	8.450	250.030	4138.89	239.62	-86.28	-236.72	40°25'47.430°N	104°21'21.579°W	0.56	
4251.00	8.090	247.550	4232.90	252.52	-91.22	-249.46	40°25'47.383°N	104°21'21.745°W	0.53	
4345.00	8.050	249.750	4325.97	264.97	-96.02	-261.74	40°25'47.337°N	104°21'21.904°W	0.33	
4440.00	8.310	250.400	4420.01	277.83	-100.63	-274.45	40°25'47.293°N	104°21'22.069°W	0.29	
4535.00	8.090	254.990	4514.04	290.89	-104.66	-287.38	40°25'47.255°N	104°21'22.237°W	0.73	
4629.00	7.690	251.980	4607.15	303.38	-108.32	-299.75	40°25'47.220°N	104°21'22.398°W	0.61	
4724.00	7.320	251.690	4701.33	315.30	-112.19	-311.54	40°25'47.183°N	104°21'22.551°W	0.39	
4818.00	8.050	250.050	4794.49	327.31	-116.31	-323.41	40°25'47.144°N	104°21'22.705°W	0.81	
4913.00	7.920	249.760	4888.57	339.86	-120.85	-335.80	40°25'47.101°N	104°21'22.866°W	0.14	
5008.00	6.940	248.570	4982.77	351.49	-125.21	-347.29	40°25'47.059°N	104°21'23.015°W	1.04	
5102.00	6.570	246.510	5076.12	361.85	-129.43	-357.50	40°25'47.019°N	104°21'23.148°W	0.47	
5197.00	6.210	244.740	5170.53	371.63	-133.79	-367.14	40°25'46.977°N	104°21'23.273°W	0.43	
5291.00	6.140	247.130	5263.98	381.00	-137.91	-376.37	40°25'46.937°N	104°21'23.393°W	0.28	
5386.00	5.170	244.580	5358.52	389.67	-141.72	-384.91	40°25'46.901°N	104°21'23.505°W	1.05	
5481.00	4.670	244.470	5453.17	397.15	-145.23	-392.27	40°25'46.867°N	104°21'23.600°W	0.53	
5576.00	3.300	236.730	5547.94	403.03	-148.39	-398.04	40°25'46.837°N	104°21'23.675°W	1.55	
5670.00	1.900	244.980	5641.84	406.78	-150.54	-401.72	40°25'46.816°N	104°21'23.723°W	1.54	
5765.00	1.120	240.050	5736.80	409.05	-151.67	-403.95	40°25'46.805°N	104°21'23.752°W	0.83	
5837.00	0.820	221.630	5808.79	410.03	-152.40	-404.90	40°25'46.798°N	104°21'23.765°W	0.60	
5932.00	7.970	287.440	5903.47	416.72	-150.93	-411.65	40°25'46.813°N	104°21'23.852°W	8.07	
6027.00	17.240	268.720	5996.11	437.06	-149.27	-432.06	40°25'46.832°N	104°21'24.115°W	10.54	

Actual Wellpath Report

WELLS RANCH BB01-655 AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY, INC	Slot	SLOT#02 WELLS RANCH BB01-655 (2140'FNL & 455'FWL, SEC.05)
Area	COLORADO	Well	WELLS RANCH BB01-655
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	WELLS RANCH BB01-655 AWB
Facility	SEC.05-T05N-R62W		

WELLPATH DATA (155 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
6121.00	22.190	270.330	6084.58	468.74	-149.48	-463.75	40°25'46.834"N	104°21'24.525"W	5.30	
6216.00	27.730	272.130	6170.67	508.74	-148.55	-503.81	40°25'46.848"N	104°21'25.043"W	5.89	
6310.00	34.900	268.860	6250.93	557.51	-148.28	-552.62	40°25'46.857"N	104°21'25.674"W	7.84	
6405.00	42.580	267.050	6324.98	616.91	-150.47	-611.98	40°25'46.843"N	104°21'26.442"W	8.17	
6500.00	50.110	265.440	6390.51	685.55	-155.03	-680.51	40°25'46.807"N	104°21'27.329"W	8.02	
6594.00	59.850	266.800	6444.39	762.40	-160.18	-757.22	40°25'46.766"N	104°21'28.322"W	10.43	
6689.00	68.220	269.260	6485.95	847.73	-163.05	-842.50	40°25'46.748"N	104°21'29.425"W	9.11	
6784.00	76.920	270.450	6514.38	938.23	-163.26	-933.05	40°25'46.758"N	104°21'30.596"W	9.24	
6878.00	88.300	272.090	6526.46	1031.13	-161.18	-1026.09	40°25'46.790"N	104°21'31.798"W	12.23	
6973.00	89.900	270.910	6527.95	1125.94	-158.69	-1121.04	40°25'46.827"N	104°21'33.025"W	2.09	
7067.00	89.960	270.910	6528.06	1219.81	-157.20	-1215.02	40°25'46.853"N	104°21'34.240"W	0.06	
7162.00	90.390	268.450	6527.77	1314.76	-157.73	-1310.01	40°25'46.860"N	104°21'35.469"W	2.63	
7257.00	90.170	266.800	6527.31	1409.76	-161.66	-1404.93	40°25'46.833"N	104°21'36.697"W	1.75	
7351.00	90.390	265.170	6526.85	1503.70	-168.25	-1498.69	40°25'46.780"N	104°21'37.910"W	1.75	
7446.00	90.170	266.060	6526.38	1598.61	-175.51	-1593.41	40°25'46.721"N	104°21'39.136"W	0.97	
7540.00	90.240	265.620	6526.05	1692.55	-182.33	-1687.16	40°25'46.665"N	104°21'40.349"W	0.47	
7635.00	90.270	265.530	6525.62	1787.46	-189.66	-1781.88	40°25'46.605"N	104°21'41.575"W	0.10	
7730.00	90.140	266.480	6525.29	1882.41	-196.28	-1876.65	40°25'46.551"N	104°21'42.802"W	1.01	
7824.00	90.270	266.930	6524.95	1976.38	-201.68	-1970.49	40°25'46.510"N	104°21'44.016"W	0.50	
7919.00	90.210	267.120	6524.55	2071.37	-206.61	-2065.36	40°25'46.473"N	104°21'45.244"W	0.21	
8013.00	90.240	267.840	6524.18	2165.36	-210.74	-2159.27	40°25'46.444"N	104°21'46.458"W	0.77	
8108.00	90.210	268.510	6523.81	2260.36	-213.77	-2254.22	40°25'46.426"N	104°21'47.687"W	0.71	
8203.00	90.140	268.260	6523.52	2355.36	-216.44	-2349.18	40°25'46.412"N	104°21'48.915"W	0.27	
8297.00	90.360	269.190	6523.11	2449.35	-218.54	-2443.16	40°25'46.403"N	104°21'50.130"W	1.02	
8392.00	90.330	267.910	6522.54	2544.34	-220.94	-2538.12	40°25'46.391"N	104°21'51.359"W	1.35	
8487.00	90.300	268.710	6522.01	2639.34	-223.74	-2633.08	40°25'46.376"N	104°21'52.587"W	0.84	
8581.00	90.240	269.220	6521.57	2733.32	-225.44	-2727.06	40°25'46.371"N	104°21'53.802"W	0.55	
8676.00	90.300	267.990	6521.12	2828.31	-227.75	-2822.03	40°25'46.360"N	104°21'55.031"W	1.30	
8771.00	90.360	268.700	6520.58	2923.31	-230.50	-2916.99	40°25'46.345"N	104°21'56.259"W	0.75	
8865.00	90.020	270.280	6520.26	3017.27	-231.33	-3010.98	40°25'46.349"N	104°21'57.474"W	1.72	
8960.00	90.080	273.870	6520.18	3112.01	-227.89	-3105.91	40°25'46.395"N	104°21'58.701"W	3.78	
9054.00	90.050	270.230	6520.07	3205.76	-224.53	-3199.83	40°25'46.440"N	104°21'59.915"W	3.87	
9149.00	90.140	268.020	6519.92	3300.73	-225.98	-3294.81	40°25'46.437"N	104°22'01.143"W	2.33	
9244.00	90.020	266.180	6519.78	3395.72	-230.79	-3389.69	40°25'46.402"N	104°22'02.371"W	1.94	
9338.00	89.990	266.850	6519.78	3489.69	-236.50	-3483.51	40°25'46.357"N	104°22'03.585"W	0.71	
9433.00	89.740	264.920	6520.00	3584.62	-243.32	-3578.26	40°25'46.302"N	104°22'04.811"W	2.05	
9528.00	89.770	264.360	6520.41	3679.46	-252.19	-3672.85	40°25'46.226"N	104°22'06.036"W	0.59	
9622.00	89.960	263.970	6520.63	3773.25	-261.75	-3766.36	40°25'46.143"N	104°22'07.246"W	0.46	
9717.00	90.080	265.660	6520.59	3868.10	-270.33	-3860.97	40°25'46.070"N	104°22'08.471"W	1.78	
9812.00	90.020	267.630	6520.51	3963.07	-275.89	-3955.80	40°25'46.027"N	104°22'09.698"W	2.07	
9906.00	89.870	268.250	6520.60	4057.07	-279.27	-4049.74	40°25'46.006"N	104°22'10.913"W	0.68	
10001.00	89.930	268.880	6520.77	4152.06	-281.65	-4144.71	40°25'45.994"N	104°22'12.142"W	0.67	
10096.00	90.140	268.810	6520.71	4247.05	-283.57	-4239.69	40°25'45.987"N	104°22'13.370"W	0.23	
10190.00	89.960	268.440	6520.63	4341.05	-285.82	-4333.66	40°25'45.977"N	104°22'14.586"W	0.44	
10285.00	89.900	267.510	6520.74	4436.05	-289.18	-4428.60	40°25'45.956"N	104°22'15.814"W	0.98	

Actual Wellpath Report

WELLS RANCH BB01-655 AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY, INC	Slot	SLOT#02 WELLS RANCH BB01-655 (2140'FNL & 455'FWL, SEC.05)
Area	COLORADO	Well	WELLS RANCH BB01-655
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	WELLS RANCH BB01-655 AWB
Facility	SEC.05-T05N-R62W		

WELLPATH DATA (155 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
10380.00	90.020	268.130	6520.81	4531.05	-292.79	-4523.53	40°25'45.932"N	104°22'17.042"W	0.66	
10474.00	89.900	267.760	6520.88	4625.05	-296.16	-4617.47	40°25'45.910"N	104°22'18.257"W	0.41	
10569.00	90.110	266.970	6520.87	4720.04	-300.53	-4712.37	40°25'45.879"N	104°22'19.485"W	0.86	
10663.00	89.900	270.180	6520.86	4814.02	-302.87	-4806.33	40°25'45.868"N	104°22'20.700"W	3.42	
10758.00	90.020	271.470	6520.93	4908.90	-301.50	-4901.32	40°25'45.893"N	104°22'21.928"W	1.36	
10853.00	89.070	269.540	6521.68	5003.80	-300.66	-4996.30	40°25'45.914"N	104°22'23.156"W	2.26	
10947.00	90.170	271.200	6522.30	5097.71	-300.06	-5090.29	40°25'45.931"N	104°22'24.371"W	2.12	
11042.00	89.960	271.650	6522.20	5192.54	-297.69	-5185.26	40°25'45.967"N	104°22'25.599"W	0.52	
11136.00	90.050	270.410	6522.19	5286.41	-296.00	-5279.25	40°25'45.995"N	104°22'26.814"W	1.32	
11230.00	89.500	267.900	6522.56	5380.38	-297.39	-5373.23	40°25'45.993"N	104°22'28.029"W	2.73	
11325.00	90.050	265.480	6522.93	5475.34	-302.87	-5468.06	40°25'45.951"N	104°22'29.256"W	2.61	
11420.00	89.830	263.840	6523.03	5570.18	-311.72	-5562.65	40°25'45.875"N	104°22'30.481"W	1.74	
11514.00	90.300	266.390	6522.92	5664.06	-319.72	-5656.30	40°25'45.808"N	104°22'31.693"W	2.76	
11609.00	90.200	268.070	6522.51	5759.04	-324.31	-5751.18	40°25'45.775"N	104°22'32.920"W	1.77	
11703.00	90.020	266.800	6522.33	5853.04	-328.52	-5845.09	40°25'45.745"N	104°22'34.135"W	1.36	
11798.00	90.510	267.430	6521.89	5948.03	-333.30	-5939.96	40°25'45.709"N	104°22'35.363"W	0.84	
11892.00	90.360	268.690	6521.17	6042.02	-336.48	-6033.90	40°25'45.690"N	104°22'36.578"W	1.35	
11987.00	90.170	271.160	6520.74	6136.96	-336.60	-6128.90	40°25'45.700"N	104°22'37.806"W	2.61	
12081.00	90.050	270.220	6520.55	6230.85	-335.47	-6222.89	40°25'45.723"N	104°22'39.021"W	1.01	
12176.00	90.260	273.000	6520.30	6325.65	-332.80	-6317.84	40°25'45.762"N	104°22'40.249"W	2.93	
12271.00	89.800	276.320	6520.25	6419.99	-325.09	-6412.51	40°25'45.850"N	104°22'41.472"W	3.53	
12365.00	89.860	275.030	6520.53	6513.14	-315.79	-6506.05	40°25'45.953"N	104°22'42.679"W	1.37	
12460.00	90.080	274.170	6520.58	6607.51	-308.17	-6600.74	40°25'46.040"N	104°22'43.903"W	0.93	
12555.00	89.650	274.990	6520.80	6701.88	-300.59	-6695.44	40°25'46.127"N	104°22'45.126"W	0.97	
12649.00	89.830	272.290	6521.23	6795.41	-294.62	-6789.24	40°25'46.198"N	104°22'46.338"W	2.88	
12744.00	89.710	270.130	6521.61	6890.25	-292.61	-6884.21	40°25'46.230"N	104°22'47.565"W	2.28	
12839.00	89.680	268.340	6522.11	6985.22	-293.88	-6979.20	40°25'46.229"N	104°22'48.794"W	1.88	
12933.00	90.080	267.190	6522.31	7079.22	-297.55	-7073.12	40°25'46.204"N	104°22'50.009"W	1.30	
13028.00	90.050	268.280	6522.20	7174.22	-301.30	-7168.05	40°25'46.179"N	104°22'51.237"W	1.15	
13123.00	89.920	270.010	6522.23	7269.19	-302.72	-7263.03	40°25'46.177"N	104°22'52.465"W	1.83	
13217.00	90.080	269.960	6522.23	7363.14	-302.74	-7357.03	40°25'46.188"N	104°22'53.681"W	0.18	
13312.00	90.020	270.230	6522.15	7458.07	-302.59	-7452.03	40°25'46.202"N	104°22'54.909"W	0.29	
13407.00	89.990	269.200	6522.14	7553.03	-303.06	-7547.03	40°25'46.209"N	104°22'56.137"W	1.08	
13502.00	89.920	269.760	6522.21	7647.99	-303.92	-7642.03	40°25'46.212"N	104°22'57.366"W	0.59	
13596.00	89.990	268.290	6522.29	7741.97	-305.52	-7736.01	40°25'46.208"N	104°22'58.581"W	1.57	
13691.00	89.990	268.240	6522.30	7836.97	-308.40	-7830.97	40°25'46.192"N	104°22'59.809"W	0.05	
13785.00	90.110	267.050	6522.22	7930.97	-312.26	-7924.89	40°25'46.165"N	104°23'01.024"W	1.27	
13879.00	89.870	268.670	6522.24	8024.97	-315.77	-8018.82	40°25'46.142"N	104°23'02.240"W	1.74	
13974.00	90.030	269.060	6522.32	8119.95	-317.65	-8113.80	40°25'46.135"N	104°23'03.468"W	0.44	
14069.00	90.210	269.680	6522.12	8214.93	-318.70	-8208.79	40°25'46.137"N	104°23'04.696"W	0.68	
14163.00	90.000	270.280	6521.95	8308.87	-318.73	-8302.79	40°25'46.148"N	104°23'05.912"W	0.68	
14258.00	90.090	269.970	6521.87	8403.80	-318.52	-8397.79	40°25'46.162"N	104°23'07.140"W	0.34	
14353.00	90.060	273.340	6521.75	8498.59	-315.78	-8492.74	40°25'46.201"N	104°23'08.367"W	3.55	
14448.00	90.340	273.950	6521.42	8593.13	-309.74	-8587.54	40°25'46.272"N	104°23'09.592"W	0.71	
14542.00	90.000	273.160	6521.14	8686.68	-303.91	-8681.36	40°25'46.342"N	104°23'10.804"W	0.91	

Actual Wellpath Report

WELLS RANCH BB01-655 AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY, INC	Slot	SLOT#02 WELLS RANCH BB01-655 (2140'FNL & 455'FWL, SEC.05)
Area	COLORADO	Well	WELLS RANCH BB01-655
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	WELLS RANCH BB01-655 AWB
Facility	SEC.05-T05N-R62W		

WELLPATH DATA (155 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
14637.00	90.090	268.300	6521.06	8781.54	-302.70	-8776.33	40°25'46.365"N	104°23'12.032"W	5.12	
14732.00	89.690	266.900	6521.25	8876.54	-306.68	-8871.24	40°25'46.338"N	104°23'13.260"W	1.53	
14826.00	89.750	264.360	6521.71	8970.45	-313.84	-8964.96	40°25'46.279"N	104°23'14.473"W	2.70	
14921.00	89.810	263.660	6522.07	9065.22	-323.75	-9059.44	40°25'46.192"N	104°23'15.696"W	0.74	
15016.00	89.840	265.980	6522.36	9160.07	-332.33	-9154.04	40°25'46.119"N	104°23'16.921"W	2.44	
15111.00	90.060	265.820	6522.44	9255.01	-339.12	-9248.80	40°25'46.064"N	104°23'18.147"W	0.29	
15205.00	89.810	267.650	6522.55	9348.98	-344.48	-9342.64	40°25'46.023"N	104°23'19.361"W	1.96	
15300.00	90.150	268.520	6522.58	9443.98	-347.65	-9437.59	40°25'46.003"N	104°23'20.589"W	0.98	
15395.00	89.910	270.580	6522.53	9538.94	-348.40	-9532.58	40°25'46.007"N	104°23'21.818"W	2.18	
15489.00	89.910	272.580	6522.68	9632.75	-345.81	-9626.54	40°25'46.045"N	104°23'23.032"W	2.13	
15584.00	89.750	269.060	6522.96	9727.62	-344.45	-9721.52	40°25'46.070"N	104°23'24.260"W	3.71	
15679.00	89.750	268.390	6523.38	9822.61	-346.56	-9816.49	40°25'46.061"N	104°23'25.488"W	0.71	
15773.00	89.940	269.850	6523.63	9916.58	-348.00	-9910.48	40°25'46.058"N	104°23'26.704"W	1.57	
15868.00	89.910	269.950	6523.76	10011.53	-348.17	-10005.48	40°25'46.068"N	104°23'27.932"W	0.11	
15962.00	89.880	270.730	6523.93	10105.45	-347.61	-10099.47	40°25'46.085"N	104°23'29.148"W	0.83	
16057.00	89.750	267.010	6524.24	10200.42	-349.48	-10194.44	40°25'46.079"N	104°23'30.376"W	3.92	
16151.00	89.910	265.800	6524.51	10294.38	-355.38	-10288.25	40°25'46.032"N	104°23'31.590"W	1.30	
16246.00	89.850	268.780	6524.71	10389.37	-359.87	-10383.13	40°25'45.999"N	104°23'32.817"W	3.14	
16311.00	89.850	272.640	6524.88	10454.28	-359.06	-10448.12	40°25'46.015"N	104°23'33.657"W	5.94	LAST BHI MWD SURVEY
16335.00	89.850	272.640	6524.95	10478.20	-357.96	-10472.09	40°25'46.029"N	104°23'33.967"W	0.00	PROJECTION TO BIT

HOLE & CASING SECTIONS - Ref Wellbore: WELLS RANCH BB01-655 AWP Ref Wellpath: WELLS RANCH BB01-655 AWP

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
9.625in Casing Surface	0.00	1861.00	1861.00	0.00	1860.97	0.00	0.00	-2.30	-3.69
8.75in Open Hole	1893.00	16335.00	14442.00	1892.97	6524.95	-2.41	-3.95	-357.96	-10472.09

Actual Wellpath Report

WELLS RANCH BB01-655 AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY, INC	Slot	SLOT#02 WELLS RANCH BB01-655 (2140'FNL & 455'FWL, SEC.05)
Area	COLORADO	Well	WELLS RANCH BB01-655
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	WELLS RANCH BB01-655 AWB
Facility	SEC.05-T05N-R62W		

TARGETS

Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.01-T05N-R63W	2.00	-40.11	-2.27	3318702.82	1401532.12	40°25'47.856"N	104°21'18.540"W	polygon
SEC.05-T05N-R62W	2.00	-40.11	-2.27	3318702.82	1401532.12	40°25'47.856"N	104°21'18.540"W	polygon
SEC.06-T05N-R62W	2.00	-40.11	-2.27	3318702.82	1401532.12	40°25'47.856"N	104°21'18.540"W	polygon
WELLS RANCH BB01-655 KOP	2200.00	0.00	0.00	3318705.08	1401572.23	40°25'48.252"N	104°21'18.504"W	circle
WELLS RANCH BB01-655 BHL ON PLAT REV-1 (2260'FNL & 535'FWL, SEC.01)	6526.00	-369.81	-10472.32	3308233.19	1401202.43	40°25'45.912"N	104°23'33.972"W	point
WELLS RANCH BB01-655 DRILLING CORRIDOR (35'LEFT/RIGHT & 8' UP/DOWN)	6526.00	-369.81	-10472.32	3308233.19	1401202.43	40°25'45.912"N	104°23'33.972"W	polygon

WELLPATH COMPOSITION - Ref Wellbore: WELLS RANCH BB01-655 AWB Ref Wellpath: WELLS RANCH BB01-655 AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	
0.00	1872.00	Generic gyro - continuous (Standard)	GYRO SURFACE SURVEYS 13 1/2" <0 - 1872>	V
1872.00	5765.00	OnTrak (Standard)	BHI MWD ONTRAK (STANDARD) 8 1/2" VERTICAL <1872 - 5765>	V
5765.00	16311.00	NaviTrak (MagCAD+IFR1)(for 3rd party service for surveys/Halliburton)	BHI MWD NAVITRAK (MAGCAD+IFR1) PROVIDED BY SURCON 8 1/2" CURVE/LATERAL <5765 - 16311>	V
16311.00	16335.00	Blind Drilling (std)	Projection to bit	V

Actual Wellpath Report

WELLS RANCH BB01-655 AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY, INC	Slot	SLOT#02 WELLS RANCH BB01-655 (2140'FNL & 455'FWL, SEC.05)
Area	COLORADO	Well	WELLS RANCH BB01-655
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	WELLS RANCH BB01-655 AWB
Facility	SEC.05-T05N-R62W		

WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
1872.00	0.480	248.440	1871.97	TIE INTO SURFACE SURVEYS
1980.00	0.840	239.620	1979.96	FIRST BHI MWD SURVEY
16311.00	89.850	272.640	6524.88	LAST BHI MWD SURVEY
16335.00	89.850	272.640	6524.95	PROJECTION TO BIT