

NOBLE ENERGY, INC

Location: COLORADO Slot: SLOT#08 CENTENNIAL STATE G34-679(545'FNL&250'FEL,SEC.35)
 Field: WELD COUNTY (NOBLE NAD 83 GRID) Well: CENTENNIAL STATE G34-679
 Facility: SEC.35-T04N-R65W Wellbore: CENTENNIAL STATE G34-679 PWB

Survey Program

Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
30.00	16994.22	OWSG MWD rev2	OWSG MWD rev2 + IFR1 + Multi-Station Correction		CENTENNIAL STATE G34-679 PWB



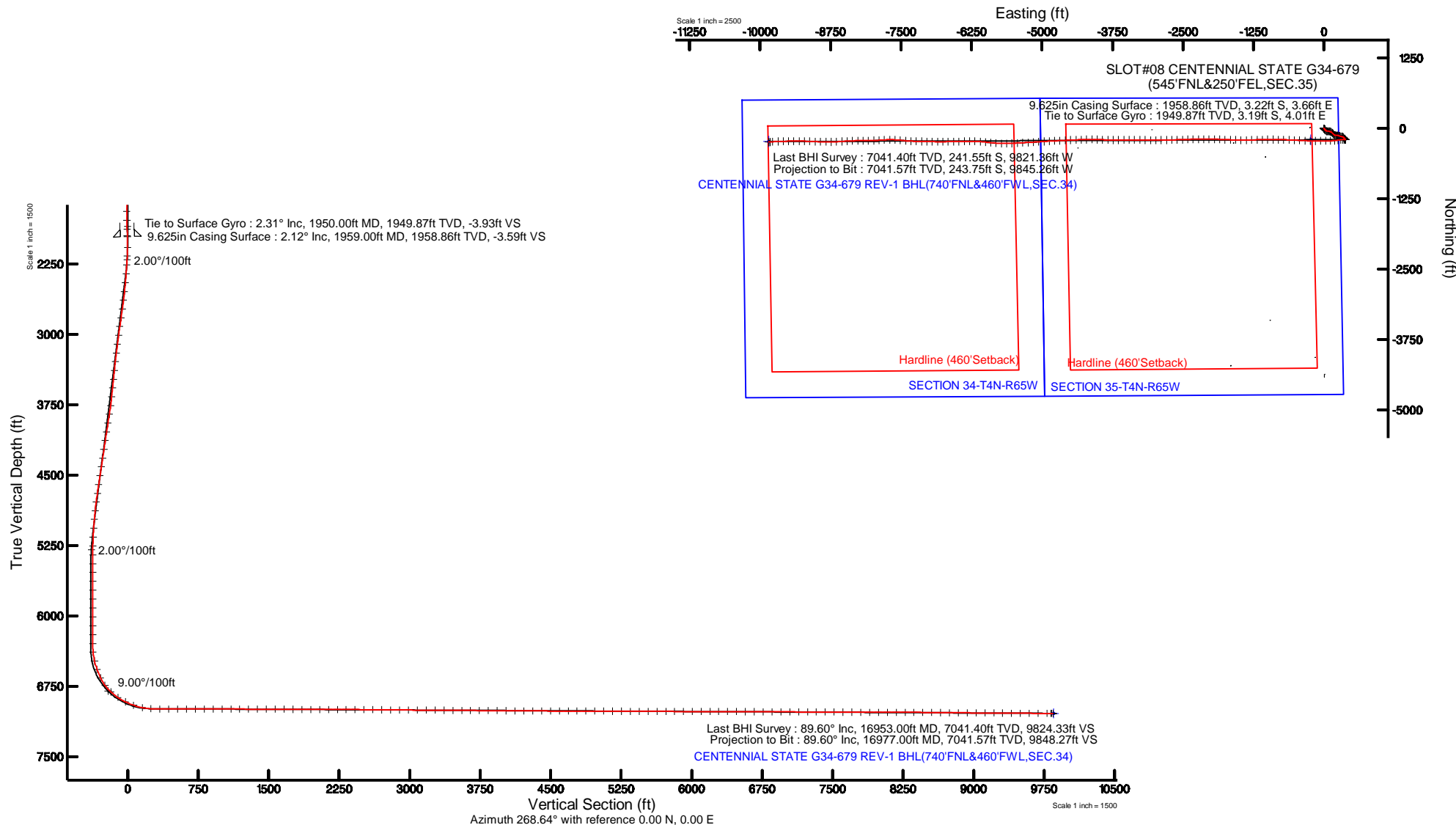
True vertical depth in CENTENNIAL STATE G34-679 (REV-1) (PWB)	Grid System: NAD83 (Lambert Conformal Conic, Northern Zone 2011, US Feet)
True vertical depth are referenced to RIG (2018) (PWB)	" = 1000ft was transformed from a different geoidic datum
Measured depths are referenced to RIG (2018) (PWB)	North Reference: Grid north
RIG (2018) (PWB) to Mean Sea Level: 4801 feet	Scale: True distance
Mean Sea Level to Ground level (in Slot: SLOTH#08 CENTENNIAL STATE G34-679(545'FNL&250'FEL,SEC.35) 91feet	Depth are in feet
Coordinates are in feet referenced to Slot	Created by: gander on 2018-02-05
	Dateline: WA, DEN, Denver, Data

Comments

SURFACE LOCATION: NENE
 40.27448N
 104.62198W
 API: 05-123-44608

Location Information

Facility Name	Grid East (US Feet)	Grid North (US Feet)	Latitude	Longitude
SEC.35 T04N R65W	334480.000	134480.000	40°15'44.5227N	104°27'15.0000W
Slot	Local E (ft)	Local N (ft)	Grid East (US Feet)	Grid North (US Feet)
SLOTH#08 CENTENNIAL STATE G34-679(545'FNL&250'FEL,SEC.35)	4811.06	7.45	334480.000	134480.000
RIG (2018) (PWB) to Ground level (in Slot: SLOTH#08 CENTENNIAL STATE G34-679(545'FNL&250'FEL,SEC.35)				4801 ft
Mean Sea Level to Ground level (in Slot: SLOTH#08 CENTENNIAL STATE G34-679(545'FNL&250'FEL,SEC.35)				91 ft
RIG (2018) (PWB) to Mean Sea Level				4801 ft





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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#08 CENTENNIAL STATE G34-679(545'FNL&250'FEL,SEC.35)
Area	COLORADO	Well	CENTENNIAL STATE G34-679
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	CENTENNIAL STATE G34-679 AWB
Facility	SEC.35-T04N-R65W		

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	0.999957	Report Generated	2/6/2018 at 10:21:50 AM
Convergence at slot	0.57° East	Database/Source file	WA_DEN_Denver_Defn/CENTENNIAL_STATE_G34-679_AWP.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	4411.86	-7.40	3244986.42	1344047.32	40°16'28.128"N	104°37'19.128"W
Facility Reference Pt			3244993.82	1339635.66	40°15'44.532"N	104°37'19.596"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'KB) (RKB) to Facility Vertical Datum	4801.00ft
Horizontal Reference Pt	Slot	RIG (30'KB) (RKB) to Mean Sea Level	4801.00ft
Vertical Reference Pt	RIG (30'KB) (RKB)	RIG (30'KB) (RKB) to Ground Level at Slot (SLOT#08 CENTENNIAL STATE G34-679 (545'FNL&250'FEL,SEC.35))	4801.00ft
MD Reference Pt	RIG (30'KB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	268.64°



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Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	CENTENNIAL STATE G34-679 AWB
Facility	SEC.35-T04N-R65W		

WELLPATH DATA (182 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
0.00	0.000	329.180	0.00	0.00	0.00	0.00	40°16'28.128"N	104°37'19.128"W	0.00	
82.00	0.220	329.180	82.00	0.08	0.14	-0.08	40°16'28.129"N	104°37'19.129"W	0.27	
180.00	0.220	34.820	180.00	0.06	0.45	-0.07	40°16'28.132"N	104°37'19.129"W	0.24	
272.00	0.150	144.270	272.00	-0.11	0.50	0.10	40°16'28.133"N	104°37'19.127"W	0.33	
367.00	0.600	131.040	367.00	-0.55	0.07	0.55	40°16'28.129"N	104°37'19.121"W	0.48	
461.00	0.170	230.630	460.99	-0.80	-0.34	0.81	40°16'28.125"N	104°37'19.118"W	0.69	
556.00	0.290	161.710	555.99	-0.76	-0.66	0.78	40°16'28.121"N	104°37'19.118"W	0.29	
650.00	0.210	261.940	649.99	-0.66	-0.91	0.68	40°16'28.119"N	104°37'19.119"W	0.41	
744.00	0.420	207.590	743.99	-0.32	-1.24	0.35	40°16'28.116"N	104°37'19.124"W	0.36	
839.00	0.360	125.620	838.99	-0.39	-1.72	0.43	40°16'28.111"N	104°37'19.123"W	0.54	
933.00	0.500	53.020	932.99	-0.96	-1.65	1.00	40°16'28.112"N	104°37'19.115"W	0.55	
1028.00	0.800	79.910	1027.98	-1.96	-1.28	1.99	40°16'28.115"N	104°37'19.103"W	0.44	
1122.00	0.600	82.450	1121.98	-3.09	-1.10	3.12	40°16'28.117"N	104°37'19.088"W	0.22	
1217.00	0.700	81.470	1216.97	-4.16	-0.95	4.19	40°16'28.118"N	104°37'19.074"W	0.11	
1311.00	0.780	104.940	1310.96	-5.35	-1.03	5.37	40°16'28.117"N	104°37'19.059"W	0.33	
1406.00	1.130	94.220	1405.95	-6.90	-1.26	6.93	40°16'28.115"N	104°37'19.039"W	0.41	
1500.00	0.530	131.090	1499.94	-8.14	-1.62	8.18	40°16'28.111"N	104°37'19.023"W	0.82	
1594.00	0.420	145.700	1593.94	-8.65	-2.19	8.71	40°16'28.106"N	104°37'19.016"W	0.17	
1689.00	0.130	177.530	1688.93	-8.84	-2.58	8.91	40°16'28.102"N	104°37'19.013"W	0.33	
1784.00	0.760	258.820	1783.93	-8.22	-2.81	8.29	40°16'28.099"N	104°37'19.021"W	0.79	
1878.00	1.540	265.080	1877.91	-6.35	-3.04	6.42	40°16'28.097"N	104°37'19.046"W	0.84	
1950.00	2.310	267.400	1949.87	-3.93	-3.19	4.01	40°16'28.096"N	104°37'19.077"W	1.07	Tie to Surface Gyro
2073.00	1.710	166.960	2072.82	-1.83	-5.09	1.95	40°16'28.077"N	104°37'19.104"W	2.53	
2168.00	4.260	135.680	2167.69	-4.52	-9.00	4.73	40°16'28.039"N	104°37'19.068"W	3.09	
2262.00	6.020	135.730	2261.31	-10.25	-15.03	10.61	40°16'27.978"N	104°37'18.993"W	1.87	
2357.00	7.430	143.040	2355.66	-17.22	-23.50	17.78	40°16'27.894"N	104°37'18.902"W	1.73	
2452.00	7.950	141.320	2449.80	-24.78	-33.54	25.58	40°16'27.794"N	104°37'18.802"W	0.60	
2546.00	7.990	128.650	2542.90	-33.73	-42.69	34.75	40°16'27.703"N	104°37'18.685"W	1.87	
2641.00	7.980	110.410	2636.99	-44.91	-49.12	46.09	40°16'27.638"N	104°37'18.540"W	2.66	
2735.00	7.860	93.190	2730.11	-57.38	-51.75	58.62	40°16'27.611"N	104°37'18.378"W	2.52	



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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#08 CENTENNIAL STATE G34-679(545'FNL&250'FEL,SEC.35)
Area	COLORADO	Well	CENTENNIAL STATE G34-679
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	CENTENNIAL STATE G34-679 AWB
Facility	SEC.35-T04N-R65W		

WELLPATH DATA (182 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
2830.00	8.050	86.230	2824.20	-70.50	-51.68	71.75	40°16'27.610"N	104°37'18.209"W	1.03	
2924.00	7.960	92.180	2917.29	-83.57	-51.49	84.82	40°16'27.611"N	104°37'18.040"W	0.89	
3019.00	7.940	102.400	3011.38	-96.51	-53.15	97.80	40°16'27.593"N	104°37'17.873"W	1.49	
3113.00	8.010	109.950	3104.47	-108.92	-56.78	110.30	40°16'27.556"N	104°37'17.712"W	1.12	
3208.00	7.810	116.200	3198.57	-120.81	-61.89	122.31	40°16'27.504"N	104°37'17.558"W	0.93	
3302.00	8.310	130.150	3291.65	-131.56	-69.09	133.23	40°16'27.432"N	104°37'17.418"W	2.14	
3397.00	8.440	134.310	3385.64	-141.57	-78.39	143.47	40°16'27.339"N	104°37'17.287"W	0.65	
3491.00	8.460	137.880	3478.62	-150.90	-88.33	153.04	40°16'27.240"N	104°37'17.165"W	0.56	
3586.00	8.490	131.030	3572.58	-160.64	-98.12	163.02	40°16'27.142"N	104°37'17.037"W	1.06	
3681.00	8.460	131.330	3666.54	-170.96	-107.34	173.56	40°16'27.050"N	104°37'16.903"W	0.06	
3775.00	8.940	124.740	3759.46	-181.94	-116.07	184.75	40°16'26.963"N	104°37'16.759"W	1.18	
3870.00	9.140	106.050	3853.30	-195.11	-122.36	198.07	40°16'26.900"N	104°37'16.588"W	3.08	
3964.00	9.040	88.170	3946.14	-209.62	-124.19	212.63	40°16'26.880"N	104°37'16.401"W	3.00	
4059.00	8.910	90.350	4039.98	-224.44	-124.00	227.45	40°16'26.880"N	104°37'16.210"W	0.38	
4153.00	8.850	99.160	4132.86	-238.83	-125.19	241.87	40°16'26.867"N	104°37'16.024"W	1.45	
4248.00	8.700	106.300	4226.75	-252.86	-128.37	255.98	40°16'26.834"N	104°37'15.842"W	1.16	
4343.00	8.940	111.040	4320.63	-266.53	-133.04	269.76	40°16'26.787"N	104°37'15.665"W	0.81	
4437.00	8.880	108.030	4413.49	-280.12	-137.91	283.48	40°16'26.738"N	104°37'15.489"W	0.50	
4532.00	9.010	103.940	4507.34	-294.22	-141.97	297.67	40°16'26.696"N	104°37'15.306"W	0.68	
4626.00	8.800	100.430	4600.21	-308.35	-145.04	311.89	40°16'26.664"N	104°37'15.123"W	0.62	
4721.00	8.790	109.210	4694.09	-322.26	-148.75	325.89	40°16'26.626"N	104°37'14.943"W	1.41	
4815.00	8.770	121.110	4787.00	-335.04	-154.81	338.81	40°16'26.565"N	104°37'14.777"W	1.93	
4910.00	8.820	134.740	4880.89	-346.20	-163.68	350.18	40°16'26.476"N	104°37'14.631"W	2.19	
5004.00	8.870	146.560	4973.78	-355.04	-174.80	359.30	40°16'26.366"N	104°37'14.515"W	1.93	
5099.00	8.730	151.310	5067.67	-362.24	-187.24	366.79	40°16'26.242"N	104°37'14.420"W	0.78	
5193.00	5.310	149.980	5160.95	-367.61	-197.27	372.40	40°16'26.142"N	104°37'14.349"W	3.64	
5288.00	1.080	111.940	5255.78	-370.54	-201.41	375.43	40°16'26.101"N	104°37'14.310"W	4.75	
5382.00	0.030	329.020	5349.78	-371.34	-201.72	376.24	40°16'26.098"N	104°37'14.300"W	1.17	
5477.00	0.040	65.690	5444.78	-371.36	-201.68	376.25	40°16'26.098"N	104°37'14.300"W	0.06	
5571.00	0.090	85.350	5538.78	-371.46	-201.67	376.36	40°16'26.098"N	104°37'14.298"W	0.06	



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Operator	NOBLE ENERGY, INC	Slot	SLOT#08 CENTENNIAL STATE G34-679(545'FNL&250'FEL,SEC.35)
Area	COLORADO	Well	CENTENNIAL STATE G34-679
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	CENTENNIAL STATE G34-679 AWB
Facility	SEC.35-T04N-R65W		

WELLPATH DATA (182 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
5666.00	0.070	70.050	5633.78	-371.59	-201.64	376.49	40°16'26.099"N	104°37'14.297"W	0.03	
5760.00	0.100	64.990	5727.78	-371.72	-201.59	376.62	40°16'26.099"N	104°37'14.295"W	0.03	
5855.00	0.070	79.220	5822.78	-371.85	-201.54	376.75	40°16'26.100"N	104°37'14.293"W	0.04	
5949.00	0.030	31.880	5916.78	-371.92	-201.51	376.82	40°16'26.100"N	104°37'14.293"W	0.06	
6044.00	0.070	51.190	6011.78	-371.98	-201.45	376.87	40°16'26.100"N	104°37'14.292"W	0.05	
6138.00	0.100	47.200	6105.78	-372.09	-201.36	376.98	40°16'26.101"N	104°37'14.290"W	0.03	
6232.00	0.090	71.610	6199.78	-372.22	-201.28	377.11	40°16'26.102"N	104°37'14.289"W	0.04	
6327.00	0.150	34.190	6294.78	-372.37	-201.15	377.25	40°16'26.103"N	104°37'14.287"W	0.10	
6421.00	5.060	270.400	6388.66	-368.29	-201.02	373.17	40°16'26.105"N	104°37'14.339"W	5.47	
6516.00	14.330	276.210	6482.20	-352.42	-199.72	357.26	40°16'26.120"N	104°37'14.545"W	9.80	
6610.00	19.280	270.520	6572.16	-325.35	-198.32	330.16	40°16'26.136"N	104°37'14.894"W	5.54	
6705.00	25.060	261.190	6660.13	-289.69	-201.26	294.55	40°16'26.110"N	104°37'15.354"W	7.11	
6799.00	36.330	261.290	6740.83	-242.18	-208.55	247.20	40°16'26.043"N	104°37'15.966"W	11.99	
6894.00	46.700	264.790	6811.88	-179.60	-215.97	184.78	40°16'25.976"N	104°37'16.772"W	11.18	
6989.00	56.140	268.560	6871.07	-105.48	-220.11	110.74	40°16'25.942"N	104°37'17.727"W	10.41	
7083.00	64.540	269.860	6917.54	-23.88	-221.20	29.14	40°16'25.939"N	104°37'18.780"W	9.02	
7178.00	70.710	268.940	6953.69	63.92	-222.13	-58.66	40°16'25.939"N	104°37'19.913"W	6.56	
7272.00	78.250	269.580	6978.82	154.42	-223.29	-149.16	40°16'25.936"N	104°37'21.081"W	8.05	
7367.00	86.580	272.120	6991.35	248.43	-221.88	-243.23	40°16'25.959"N	104°37'22.294"W	9.16	
7461.00	90.060	273.480	6994.11	342.12	-217.29	-337.06	40°16'26.014"N	104°37'23.504"W	3.97	
7556.00	89.940	272.720	6994.11	436.83	-212.15	-431.92	40°16'26.074"N	104°37'24.727"W	0.81	
7651.00	89.970	272.390	6994.18	531.61	-207.92	-526.82	40°16'26.125"N	104°37'25.951"W	0.35	
7745.00	90.120	272.190	6994.11	625.42	-204.16	-620.75	40°16'26.171"N	104°37'27.162"W	0.27	
7840.00	89.850	271.220	6994.13	720.28	-201.33	-715.70	40°16'26.208"N	104°37'28.387"W	1.06	
7934.00	90.000	270.800	6994.26	814.20	-199.68	-809.69	40°16'26.234"N	104°37'29.599"W	0.47	
8029.00	90.000	270.560	6994.26	909.14	-198.55	-904.68	40°16'26.254"N	104°37'30.824"W	0.25	
8123.00	90.060	269.490	6994.21	1003.11	-198.51	-998.68	40°16'26.264"N	104°37'32.037"W	1.14	
8218.00	90.000	269.270	6994.16	1098.11	-199.54	-1093.68	40°16'26.263"N	104°37'33.263"W	0.24	
8312.00	89.720	268.060	6994.39	1192.10	-201.73	-1187.65	40°16'26.251"N	104°37'34.475"W	1.32	
8407.00	89.660	267.610	6994.90	1287.09	-205.31	-1282.58	40°16'26.224"N	104°37'35.700"W	0.48	



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WELLPATH DATA (182 stations)										
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8501.00	89.820	269.100	6995.33	1381.09	-208.01	-1376.54	40°16'26.207"N	104°37'36.913"W	1.59	
8596.00	89.660	270.950	6995.76	1476.06	-207.97	-1471.53	40°16'26.217"N	104°37'38.138"W	1.95	
8690.00	89.720	271.670	6996.27	1569.95	-205.82	-1565.50	40°16'26.247"N	104°37'39.350"W	0.77	
8785.00	89.720	271.910	6996.73	1664.81	-202.85	-1660.46	40°16'26.285"N	104°37'40.575"W	0.25	
8879.00	89.720	272.700	6997.19	1758.61	-199.07	-1754.38	40°16'26.332"N	104°37'41.786"W	0.84	
8974.00	89.750	272.530	6997.63	1853.38	-194.74	-1849.28	40°16'26.384"N	104°37'43.010"W	0.18	
9068.00	89.780	271.180	6998.02	1947.23	-191.70	-1943.23	40°16'26.423"N	104°37'44.222"W	1.44	
9163.00	89.910	270.120	6998.27	2042.17	-190.62	-2038.22	40°16'26.443"N	104°37'45.447"W	1.12	
9257.00	89.750	269.590	6998.55	2136.15	-190.86	-2132.22	40°16'26.450"N	104°37'46.660"W	0.59	
9352.00	90.030	270.080	6998.74	2231.13	-191.13	-2227.22	40°16'26.456"N	104°37'47.885"W	0.59	
9446.00	89.720	268.300	6998.94	2325.12	-192.46	-2321.20	40°16'26.452"N	104°37'49.098"W	1.92	
9541.00	89.720	267.460	6999.40	2420.11	-195.97	-2416.14	40°16'26.427"N	104°37'50.323"W	0.88	
9635.00	89.380	268.340	7000.14	2514.10	-199.42	-2510.07	40°16'26.402"N	104°37'51.535"W	1.00	
9730.00	89.450	268.560	7001.11	2609.09	-201.99	-2605.03	40°16'26.386"N	104°37'52.761"W	0.24	
9824.00	89.450	268.640	7002.02	2703.09	-204.28	-2699.00	40°16'26.372"N	104°37'53.973"W	0.09	
9919.00	89.540	269.180	7002.85	2798.08	-206.09	-2793.98	40°16'26.363"N	104°37'55.199"W	0.58	
10013.00	89.540	269.580	7003.61	2892.07	-207.11	-2887.97	40°16'26.362"N	104°37'56.411"W	0.43	
10108.00	89.600	269.800	7004.32	2987.05	-207.62	-2982.96	40°16'26.366"N	104°37'57.637"W	0.24	
10202.00	89.380	270.090	7005.16	3081.02	-207.71	-3076.96	40°16'26.375"N	104°37'58.850"W	0.39	
10297.00	89.600	270.430	7006.00	3175.98	-207.28	-3171.95	40°16'26.388"N	104°38'00.075"W	0.43	
10391.00	89.750	271.110	7006.54	3269.92	-206.02	-3265.94	40°16'26.410"N	104°38'01.287"W	0.74	
10486.00	89.450	270.090	7007.20	3364.86	-205.02	-3360.93	40°16'26.429"N	104°38'02.513"W	1.12	
10580.00	89.480	270.160	7008.08	3458.82	-204.82	-3454.93	40°16'26.440"N	104°38'03.725"W	0.08	
10675.00	89.660	269.390	7008.79	3553.80	-205.19	-3549.93	40°16'26.445"N	104°38'04.951"W	0.83	
10769.00	89.630	269.080	7009.37	3647.79	-206.45	-3643.92	40°16'26.442"N	104°38'06.164"W	0.33	
10864.00	89.540	269.990	7010.06	3742.78	-207.22	-3738.91	40°16'26.443"N	104°38'07.389"W	0.96	
10958.00	89.480	271.910	7010.86	3836.69	-205.66	-3832.89	40°16'26.468"N	104°38'08.601"W	2.04	
11052.00	89.630	272.660	7011.59	3930.50	-201.91	-3926.81	40°16'26.514"N	104°38'09.812"W	0.81	
11147.00	89.540	272.210	7012.28	4025.29	-197.88	-4021.72	40°16'26.563"N	104°38'11.036"W	0.48	
11241.00	89.480	269.690	7013.09	4119.20	-196.32	-4115.70	40°16'26.587"N	104°38'12.249"W	2.68	



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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#08 CENTENNIAL STATE G34-679(545'FNL&250'FEL,SEC.35)
Area	COLORADO	Well	CENTENNIAL STATE G34-679
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	CENTENNIAL STATE G34-679 AWB
Facility	SEC.35-T04N-R65W		

WELLPATH DATA (182 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
11336.00	89.570	268.550	7013.87	4214.19	-197.78	-4210.68	40°16'26.582"N	104°38'13.474"W	1.20	
11430.00	89.820	267.930	7014.37	4308.19	-200.66	-4304.64	40°16'26.563"N	104°38'14.687"W	0.71	
11525.00	89.880	268.240	7014.62	4403.18	-203.84	-4399.58	40°16'26.540"N	104°38'15.912"W	0.33	
11619.00	89.910	267.570	7014.80	4497.17	-207.27	-4493.52	40°16'26.515"N	104°38'17.124"W	0.71	
11714.00	89.940	266.620	7014.92	4592.14	-212.09	-4588.39	40°16'26.477"N	104°38'18.349"W	1.00	
11809.00	89.720	267.300	7015.20	4687.10	-217.13	-4683.26	40°16'26.436"N	104°38'19.573"W	0.75	
11903.00	89.850	267.760	7015.55	4781.08	-221.18	-4777.17	40°16'26.405"N	104°38'20.785"W	0.51	
11997.00	89.820	266.720	7015.82	4875.05	-225.70	-4871.06	40°16'26.370"N	104°38'21.997"W	1.11	
12092.00	89.750	266.410	7016.18	4969.99	-231.40	-4965.89	40°16'26.322"N	104°38'23.221"W	0.33	
12186.00	89.780	265.600	7016.57	5063.88	-237.94	-5059.66	40°16'26.267"N	104°38'24.432"W	0.86	
12281.00	89.780	266.480	7016.93	5158.78	-244.51	-5154.43	40°16'26.211"N	104°38'25.655"W	0.93	
12375.00	89.720	267.300	7017.34	5252.74	-249.60	-5248.29	40°16'26.170"N	104°38'26.867"W	0.87	
12470.00	89.850	267.050	7017.70	5347.71	-254.29	-5343.18	40°16'26.132"N	104°38'28.091"W	0.30	
12564.00	89.750	266.570	7018.03	5441.66	-259.52	-5437.03	40°16'26.090"N	104°38'29.303"W	0.52	
12659.00	89.850	267.280	7018.36	5536.62	-264.61	-5531.89	40°16'26.048"N	104°38'30.527"W	0.75	
12754.00	89.660	269.480	7018.76	5631.61	-267.30	-5626.85	40°16'26.031"N	104°38'31.752"W	2.32	
12848.00	89.720	271.610	7019.27	5725.55	-266.41	-5720.83	40°16'26.049"N	104°38'32.965"W	2.27	
12942.00	89.690	274.010	7019.76	5819.29	-261.80	-5814.71	40°16'26.103"N	104°38'34.175"W	2.55	
13037.00	89.660	276.160	7020.30	5913.68	-253.38	-5909.33	40°16'26.195"N	104°38'35.395"W	2.26	
13131.00	89.910	276.020	7020.65	6006.89	-243.41	-6002.80	40°16'26.303"N	104°38'36.600"W	0.30	
13226.00	89.820	274.140	7020.87	6101.29	-234.99	-6097.42	40°16'26.395"N	104°38'37.819"W	1.98	
13320.00	90.000	271.640	7021.02	6195.02	-230.26	-6191.30	40°16'26.451"N	104°38'39.030"W	2.67	
13414.00	89.880	269.510	7021.12	6288.96	-229.31	-6285.29	40°16'26.469"N	104°38'40.242"W	2.27	
13509.00	89.690	268.680	7021.47	6383.96	-230.81	-6380.27	40°16'26.463"N	104°38'41.468"W	0.90	
13603.00	89.910	269.020	7021.80	6477.95	-232.70	-6474.25	40°16'26.454"N	104°38'42.680"W	0.43	
13698.00	89.720	269.310	7022.11	6572.95	-234.08	-6569.24	40°16'26.449"N	104°38'43.906"W	0.36	
13792.00	89.750	269.150	7022.54	6666.94	-235.35	-6663.23	40°16'26.446"N	104°38'45.119"W	0.17	
13886.00	89.750	269.700	7022.95	6760.93	-236.29	-6757.23	40°16'26.445"N	104°38'46.331"W	0.59	
13981.00	89.780	270.260	7023.34	6855.91	-236.32	-6852.23	40°16'26.454"N	104°38'47.557"W	0.59	
14075.00	89.690	271.150	7023.78	6949.84	-235.17	-6946.22	40°16'26.474"N	104°38'48.769"W	0.95	



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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#08 CENTENNIAL STATE G34-679(545'FNL&250'FEL,SEC.35)
Area	COLORADO	Well	CENTENNIAL STATE G34-679
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	CENTENNIAL STATE G34-679 AWB
Facility	SEC.35-T04N-R65W		

WELLPATH DATA (182 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
14170.00	89.570	271.270	7024.39	7044.75	-233.16	-7041.19	40°16'26.503"N	104°38'49.994"W	0.18	
14264.00	89.780	270.970	7024.93	7138.66	-231.32	-7135.17	40°16'26.530"N	104°38'51.206"W	0.39	
14359.00	89.720	271.700	7025.34	7233.55	-229.11	-7230.15	40°16'26.561"N	104°38'52.431"W	0.77	
14453.00	89.690	272.510	7025.82	7327.37	-225.66	-7324.08	40°16'26.604"N	104°38'53.643"W	0.86	
14548.00	89.750	274.880	7026.29	7422.00	-219.54	-7418.88	40°16'26.674"N	104°38'54.865"W	2.50	
14642.00	89.780	276.060	7026.67	7515.33	-210.57	-7512.45	40°16'26.771"N	104°38'56.071"W	1.26	
14737.00	89.850	273.030	7026.98	7609.81	-203.05	-7607.14	40°16'26.854"N	104°38'57.292"W	3.19	
14832.00	89.690	269.480	7027.36	7704.70	-200.97	-7702.10	40°16'26.884"N	104°38'58.516"W	3.74	
14926.00	89.820	266.580	7027.76	7798.68	-204.20	-7796.03	40°16'26.861"N	104°38'59.729"W	3.09	
15021.00	89.910	266.240	7027.99	7893.61	-210.15	-7890.84	40°16'26.811"N	104°39'00.953"W	0.37	
15115.00	89.910	267.370	7028.14	7987.56	-215.39	-7984.70	40°16'26.768"N	104°39'02.164"W	1.20	
15210.00	89.750	270.040	7028.42	8082.55	-217.53	-8079.66	40°16'26.756"N	104°39'03.389"W	2.82	
15304.00	89.720	269.800	7028.85	8176.52	-217.66	-8173.66	40°16'26.764"N	104°39'04.602"W	0.26	
15399.00	89.660	269.660	7029.37	8271.51	-218.11	-8268.66	40°16'26.768"N	104°39'05.828"W	0.16	
15493.00	90.120	267.270	7029.55	8365.50	-220.63	-8362.62	40°16'26.752"N	104°39'07.040"W	2.59	
15588.00	89.380	266.770	7029.96	8460.46	-225.57	-8457.49	40°16'26.712"N	104°39'08.265"W	0.94	
15682.00	89.380	265.720	7030.98	8554.37	-231.72	-8551.28	40°16'26.660"N	104°39'09.475"W	1.12	
15776.00	89.510	267.620	7031.89	8648.31	-237.18	-8645.11	40°16'26.615"N	104°39'10.687"W	2.03	
15871.00	89.380	269.660	7032.81	8743.30	-239.44	-8740.07	40°16'26.602"N	104°39'11.912"W	2.15	
15965.00	89.510	271.140	7033.72	8837.24	-238.78	-8834.07	40°16'26.617"N	104°39'13.124"W	1.58	
16060.00	89.540	271.050	7034.51	8932.15	-236.97	-8929.04	40°16'26.644"N	104°39'14.349"W	0.10	
16154.00	89.480	271.960	7035.31	9026.03	-234.50	-9023.01	40°16'26.677"N	104°39'15.561"W	0.97	
16249.00	89.660	272.710	7036.02	9120.83	-230.63	-9117.93	40°16'26.725"N	104°39'16.785"W	0.81	
16343.00	89.660	271.590	7036.58	9214.65	-227.10	-9211.86	40°16'26.768"N	104°39'17.997"W	1.19	
16437.00	89.510	270.510	7037.26	9308.56	-225.38	-9305.84	40°16'26.794"N	104°39'19.209"W	1.16	
16532.00	89.600	269.540	7038.00	9403.53	-225.34	-9400.83	40°16'26.804"N	104°39'20.434"W	1.03	
16626.00	89.510	268.520	7038.73	9497.53	-226.93	-9494.81	40°16'26.797"N	104°39'21.647"W	1.09	
16720.00	89.570	269.210	7039.49	9591.52	-228.79	-9588.79	40°16'26.787"N	104°39'22.860"W	0.74	
16813.00	89.420	267.500	7040.31	9684.51	-231.46	-9681.75	40°16'26.769"N	104°39'24.059"W	1.85	
16909.00	89.630	265.110	7041.10	9780.42	-237.65	-9777.54	40°16'26.717"N	104°39'25.296"W	2.50	



Actual Wellpath Report

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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#08 CENTENNIAL STATE G34-679(545'FNL&250'FEL,SEC.35)
Area	COLORADO	Well	CENTENNIAL STATE G34-679
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	CENTENNIAL STATE G34-679 AWB
Facility	SEC.35-T04N-R65W		

WELLPATH DATA (182 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
16953.00	89.600	264.720	7041.40	9824.33	-241.55	-9821.36	40°16'26.683"N	104°39'25.862"W	0.89	Last BHI Survey
16977.00	89.600	264.720	7041.57	9848.27	-243.75	-9845.26	40°16'26.663"N	104°39'26.170"W	0.00	Projection to Bit

HOLE & CASING SECTIONS - Ref Wellbore: CENTENNIAL STATE G34-679 AWB Ref Wellpath: CENTENNIAL STATE G34-679 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]
13.5in Open Hole	30.00	1959.00	1929.00	30.00	1958.86	0.02	-0.01	-3.22	3.66
9.625in Casing Surface	30.00	1959.00	1929.00	30.00	1958.86	0.02	-0.01	-3.22	3.66
8.5in Open Hole	1959.00	16977.00	15018.00	1958.86	7041.57	-3.22	3.66	-243.75	-9845.26



Actual Wellpath Report

CENTENNIAL STATE G34-679 AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#08 CENTENNIAL STATE G34-679(545'FNL&250'FEL,SEC.35)
Area	COLORADO	Well	CENTENNIAL STATE G34-679
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	CENTENNIAL STATE G34-679 AWB
Facility	SEC.35-T04N-R65W		

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SECTION 34-T4N-R65W	-15.00	-2382.54	12.43	3244998.85	1341664.89	40°16'04.584"N	104°37'19.272"W	polygon
SECTION 35-T4N-R65W	-15.00	-2382.54	12.43	3244998.85	1341664.89	40°16'04.584"N	104°37'19.272"W	polygon
CENTENNIAL STATE G34-679 Landing Point	6990.00	-202.10	-234.90	3244751.53	1343845.23	40°16'26.154"N	104°37'22.184"W	point
CENTENNIAL STATE G34-679 REV-1 BHL(740'FNL&460'FWL,SEC.34)	7040.34	-234.00	-9848.28	3235138.58	1343813.33	40°16'26.760"N	104°39'26.208"W	point
SECTION 34-T4N-R65W Hardline (460'Setback)	7075.00	-2382.54	12.43	3244998.85	1341664.89	40°16'04.584"N	104°37'19.272"W	polygon
SECTION 35-T4N-R65W Hardline (460'Setback)	7075.00	-2382.54	12.43	3244998.85	1341664.89	40°16'04.584"N	104°37'19.272"W	polygon

WELLPATH COMPOSITION - Ref Wellbore: CENTENNIAL STATE G34-679 AWB Ref Wellpath: CENTENNIAL STATE G34-679 AWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	1950.00	Gyrodata standard - Drop gyro or Multi-shot	3rd Party Surface Gyro <82'-1950'>	CENTENNIAL STATE G34-679 AWB
1950.00	16953.00	OWSG MWD rev2 + IFR1 + Multi-Station Correction	BHI/ATC MWD 8.5" Hole OWSG MWD+IFR1+MSA <2073'-16953'>	CENTENNIAL STATE G34-679 AWB
16953.00	16977.00	Blind Drilling (std)	Projection to bit	CENTENNIAL STATE G34-679 AWB



Actual Wellpath Report

CENTENNIAL STATE G34-679 AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#08 CENTENNIAL STATE G34-679(545'FNL&250'FEL,SEC.35)
Area	COLORADO	Well	CENTENNIAL STATE G34-679
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	CENTENNIAL STATE G34-679 AWB
Facility	SEC.35-T04N-R65W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
1950.00	2.310	267.400	1949.87	Tie to Surface Gyro
16953.00	89.600	264.720	7041.40	Last BHI Survey
16977.00	89.600	264.720	7041.57	Projection to Bit

COMMENTS
<div>Wellpath general comments</div> <div>SURFACE LOCATION: NENE</div> <div>40.27448N</div> <div>104.62198W</div> <div>API: 05-123-44608</div>