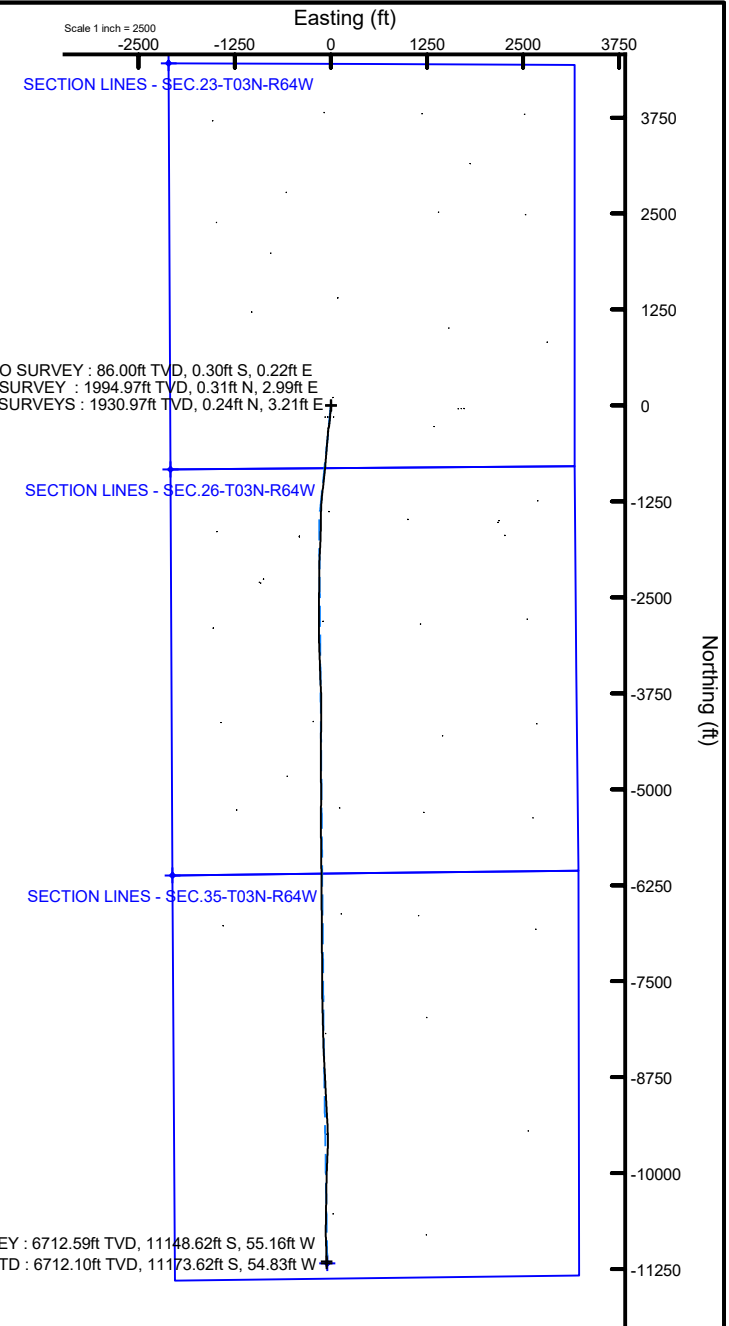
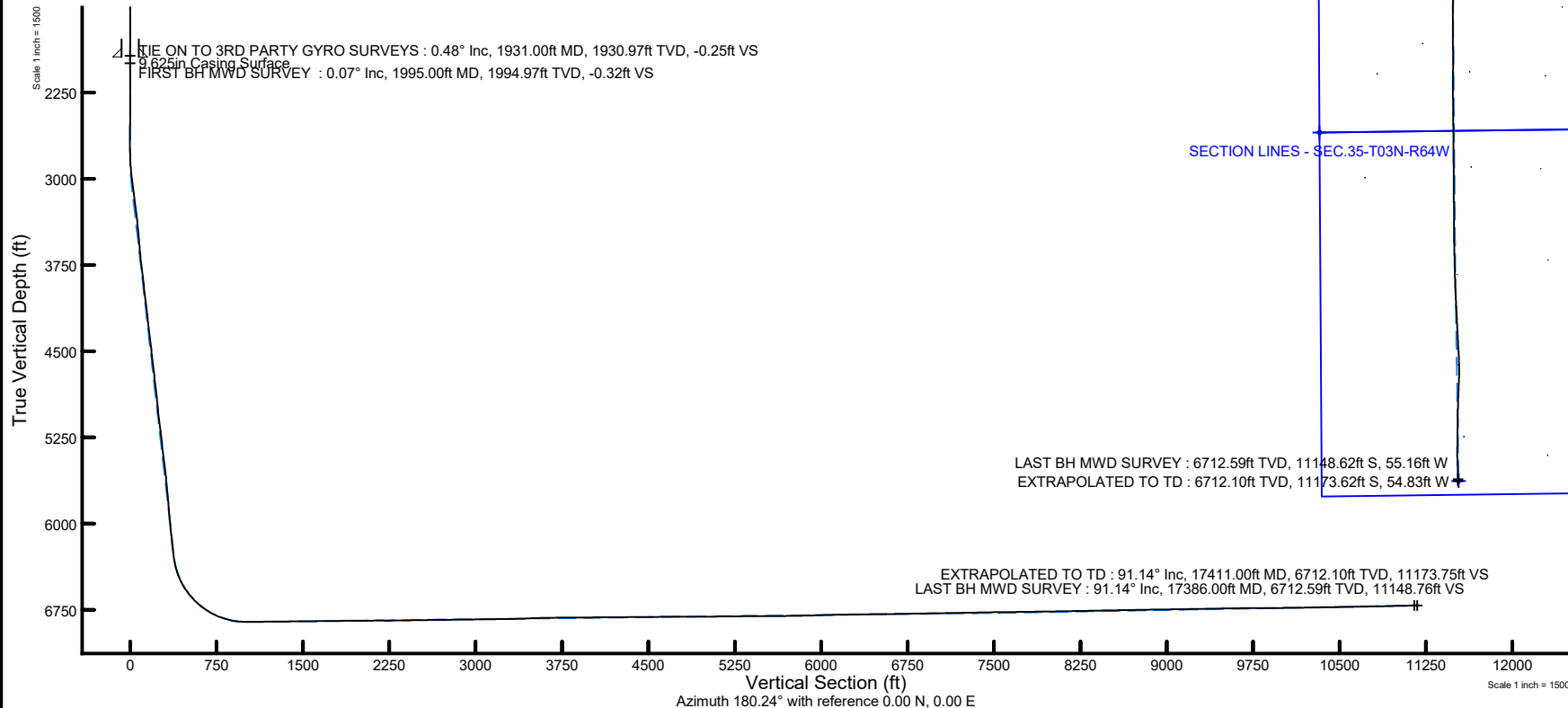


NOBLE ENERGY, INC

Location: COLORADO Slot: SLOT#28 GUTTERSEN D35-760 (2089'FWL & 817'FSL, SEC.23)
Field: WELD COUNTY (NOBLE NAD 83 GRID) Well: GUTTERSEN D35-760
Facility: SEC.23-T03N-R64W Wellbore: GUTTERSEN D35-760 AWB

Plot reference wellpath is GUTTERSEN D35-760 AWP	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
True vertical depths are referenced to H&P 517 (4829'GL+30'KB@4859') (RKB)	North Reference: Grid north
Reference wellpath measured depths are referenced to H&P 517 (4829'GL+30'KB@4859') (RKB)	Scale: True distance
H&P 517 (4829'GL+30'KB@4859') (RKB) to Mean Sea Level: 4859 feet	Coordinates are in feet referenced to Slot
Mean Sea Level to Mud line (At Slot: SLOT#28 GUTTERSEN D35-760 (2089'FWL & 817'FSL, SEC.23): 0 feet	Depths are in feet
Offset wellpath MDs are referenced to each path's default MD datum	Created by: manajohj on 2020-03-31; Database: WA_NOBLE



REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY, INC	Well	GUTTERSEN D35-760
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.23-T03N-R64W	Wellbore	GUTTERSEN D35-760 AWB
Slot	SLOT#28 GUTTERSEN D35-760 (2089'FWL & 817'FSL, SEC.23)		

REPORT SETUP INFORMATION

Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 6.0
North Reference	Grid	User	Manajohj
Scale	0.999957	Report Generated	3/31/2020 at 9:11:58 PM
Convergence at slot	0.63° East	Database	WA_NOBLE

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	150.32	74.86	3273577.35	1319345.74	40°12'21.0722"N	104°31'13.7899"W
Facility Reference Pt			3273502.50	1319195.42	40°12'19.5950"N	104°31'14.7760"W
Field Reference Pt			3000000.00	4454105.15	48°46'34.3150"N	105°30'0.0000"W

WELLPATH DATUM

Calculation method	Minimum curvature	H&P 517 (4829'GL+30'KB@4859') (RKB) to Facility Vertical Datum	4859.00ft
Horizontal Reference Pt	Slot	H&P 517 (4829'GL+30'KB@4859') (RKB) to Mean Sea Level	4859.00ft
Vertical Reference Pt	H&P 517 (4829'GL+30'KB@4859') (RKB)	H&P 517 (4829'GL+30'KB@4859') (RKB) to Mud Line at Slot (SLOT#28 GUTTERSEN D35-760 (2089'FWL & 817'FSL, SEC.23))	4859.00ft
MD Reference Pt	H&P 517 (4829'GL+30'KB@4859') (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	180.24°

REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY, INC	Well	GUTTERSEN D35-760
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.23-T03N-R64W	Wellbore	GUTTERSEN D35-760 AWB
Slot	SLOT#28 GUTTERSEN D35-760 (2089'FWL & 817'FSL, SEC.23)		

WELLPATH DATA (180 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	TVDSS [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Toolface [°]	Build Rate [°/100ft]	Turn Rate [°/100ft]	Comments
0.00	0.000	143.570	0.00	-4859.00	0.00	0.00	0.00	40°12'21.0722"N	104°31'13.7899"W	0.00	0.00	0.00	0.00	
86.00	0.490	143.570	86.00	-4773.00	0.29	-0.30	0.22	40°12'21.0693"N	104°31'13.7871"W	0.57	-33.63	0.57	0.00	FIRST 3RD PARTY GYRO SURVEY
181.00	0.640	135.030	180.99	-4678.01	0.99	-1.00	0.83	40°12'21.0622"N	104°31'13.7793"W	0.18	-170.41	0.16	-8.99	
272.00	0.220	115.640	271.99	-4587.01	1.43	-1.43	1.35	40°12'21.0579"N	104°31'13.7727"W	0.48	47.06	-0.46	-21.31	
367.00	0.700	149.400	366.99	-4492.01	2.00	-2.01	1.81	40°12'21.0521"N	104°31'13.7668"W	0.56	-152.25	0.51	35.54	
461.00	0.370	115.410	460.98	-4398.02	2.63	-2.64	2.38	40°12'21.0459"N	104°31'13.7596"W	0.47	-93.39	-0.35	-36.16	
556.00	0.370	108.640	555.98	-4303.02	2.85	-2.87	2.95	40°12'21.0436"N	104°31'13.7524"W	0.05	-148.33	0.00	-7.13	
651.00	0.280	96.380	650.98	-4208.02	2.98	-2.99	3.47	40°12'21.0423"N	104°31'13.7456"W	0.12	158.06	-0.09	-12.91	
745.00	0.150	118.670	744.98	-4114.02	3.06	-3.07	3.80	40°12'21.0414"N	104°31'13.7413"W	0.16	-150.35	-0.14	23.71	
840.00	0.140	0.320	839.98	-4019.02	3.00	-3.02	3.91	40°12'21.0420"N	104°31'13.7399"W	0.26	-137.45	-0.01	-124.58	
934.00	0.100	294.070	933.98	-3925.02	2.85	-2.87	3.84	40°12'21.0434"N	104°31'13.7408"W	0.14	108.10	-0.04	-70.48	
1029.00	0.470	30.500	1028.98	-3830.02	2.48	-2.50	3.96	40°12'21.0471"N	104°31'13.7392"W	0.52	-119.39	0.39	101.51	
1124.00	0.410	3.900	1123.98	-3735.02	1.81	-1.83	4.18	40°12'21.0537"N	104°31'13.7363"W	0.22	-164.87	-0.06	-28.00	
1218.00	0.160	337.050	1217.97	-3641.03	1.35	-1.37	4.15	40°12'21.0582"N	104°31'13.7366"W	0.29	85.94	-0.27	-28.56	
1313.00	0.290	29.600	1312.97	-3546.03	1.02	-1.04	4.22	40°12'21.0615"N	104°31'13.7357"W	0.24	154.29	0.14	55.32	
1408.00	0.130	79.260	1407.97	-3451.03	0.79	-0.81	4.44	40°12'21.0637"N	104°31'13.7327"W	0.24	-129.08	-0.17	52.27	
1502.00	0.120	7.420	1501.97	-3351.03	0.67	-0.69	4.56	40°12'21.0649"N	104°31'13.7312"W	0.16	-112.94	-0.01	-76.43	
1597.00	0.140	306.600	1596.97	-3262.03	0.50	-0.52	4.48	40°12'21.0665"N	104°31'13.7322"W	0.14	128.30	0.02	-64.02	
1692.00	0.110	347.750	1691.97	-3167.03	0.35	-0.36	4.37	40°12'21.0681"N	104°31'13.7336"W	0.10	-68.80	-0.03	43.32	
1786.00	0.260	302.180	1785.97	-3073.03	0.15	-0.16	4.17	40°12'21.0701"N	104°31'13.7362"W	0.21	-24.50	0.16	-48.48	
1881.00	0.490	290.390	1880.97	-2978.03	-0.11	0.09	3.61	40°12'21.0727"N	104°31'13.7434"W	0.25	-141.38	0.24	-12.41	
1931.00	0.480	289.430	1930.97	-2928.03	-0.25	0.24	3.21	40°12'21.0742"N	104°31'13.7485"W	0.03	-179.75	-0.02	-1.92	TIE ON TO 3RD PARTY GYRO SURVEYS
1995.00	0.070	111.400	1994.97	-2864.03	-0.32	0.31	2.99	40°12'21.0750"N	104°31'13.7513"W	0.86	-133.01	-0.64	-278.17	FIRST BH MWD SURVEY
2090.00	0.060	99.840	2089.97	-2769.03	-0.30	0.28	3.10	40°12'21.0747"N	104°31'13.7500"W	0.02	42.94	-0.01	-12.17	
2185.00	0.220	132.070	2184.97	-2674.03	-0.17	0.15	3.28	40°12'21.0733"N	104°31'13.7476"W	0.18	-141.14	0.17	33.93	
2279.00	0.140	90.540	2278.97	-2580.03	-0.04	0.03	3.53	40°12'21.0721"N	104°31'13.7444"W	0.16	-169.06	-0.09	-44.18	
2374.00	0.030	343.790	2373.97	-2485.03	-0.07	0.05	3.64	40°12'21.0723"N	104°31'13.7430"W	0.16	55.87	-0.12	-112.37	
2468.00	0.280	34.570	2467.97	-2391.03	-0.28	0.27	3.76	40°12'21.0744"N	104°31'13.7414"W	0.28	97.69	0.27	54.02	
2563.00	0.290	59.150	2562.97	-2296.03	-0.60	0.58	4.10	40°12'21.0775"N	104°31'13.7370"W	0.13	-142.78	0.01	25.87	
2658.00	0.190	28.970	2657.96	-2201.04	-0.86	0.84	4.38	40°12'21.0800"N	104°31'13.7333"W	0.17	167.68	-0.11	-31.77	
2753.00	0.410	190.970	2752.96	-2106.04	-0.66	0.65	4.39	40°12'21.0781"N	104°31'13.7332"W	0.62	-7.66	0.23	170.53	
2847.00	2.960	184.370	2846.92	-2012.08	2.09	-2.11	4.14	40°12'21.0509"N	104°31'13.7368"W	2.72	3.87	2.71	-7.02	
2941.00	5.900	186.300	2940.62	-1918.38	9.31	-9.33	3.43	40°12'20.9796"N	104°31'13.7470"W	3.13	-15.56	3.13	2.05	
3036.00	7.460	182.980	3034.98	-1824.02	20.33	-20.34	2.57	40°12'20.8709"N	104°31'13.7596"W	1.69	87.44	1.64	-3.49	
3131.00	7.480	185.340	3129.17	-1729.83	32.65	-32.66	1.68	40°12'20.7493"N	104°31'13.7729"W	0.32	169.77	0.02	2.48	
3225.00	6.920	186.180	3222.43	-1636.57	44.38	-44.38	0.50	40°12'20.6336"N	104°31'13.7898"W	0.61	-152.64	-0.60	0.89	
3320.00	6.600	184.730	3316.77	-1542.23	55.51	-55.51	-0.57	40°12'20.5238"N	104°31'13.8051"W	0.38	137.25	-0.34	-1.53	
3414.00	5.920	191.170	3410.21	-1448.79	65.66	-65.65	-1.95	40°12'20.4237"N	104°31'13.8244"W	1.04	-175.33	-0.72	6.85	
3509.00	5.370	190.690	3504.75	-1354.25	74.84	-74.82	-3.73	40°12'20.3332"N	104°31'13.8486"W	0.58	-146.91	-0.58	-0.51	
3604.00	4.350	181.400	3599.41	-1259.59	82.81	-82.79	-4.64	40°12'20.2546"N	104°31'13.8615"W	1.35	21.51	-1.07	-9.78	
3698.00	6.170	187.940	3693.01	-1165.99	91.38	-91.36	-5.42	40°12'20.1700"N	104°31'13.8728"W	2.04	-19.86	1.94	6.96	
3793.00	6.900	185.760	3787.39	-1071.61	102.12	-102.10	-6.70	40°12'20.0641"N	104°31'13.8908"W	0.81	-131.73	0.77	-2.29	
3888.00	6.700	183.800	3881.72	-977.28	113.33	-113.30	-7.64	40°12'19.9534"N	104°31'13.9045"W	0.32	109.10	-0.21	-2.06	
3982.00	6.640	185.360	3975.09	-883.91	124.22	-124.19	-8.51	40°12'19.8460"N	104°31'13.9173"W	0.20	-67.60	-0.06	1.66	
4077.00	6.680	184.540	4069.44	-789.56	135.20	-135.16	-9.46	40°12'19.7376"N	104°31'13.9311"W	0.11	14.75	0.04	-0.86	

REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY, INC	Well	GUTTERSEN D35-760
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.23-T03N-R64W	Wellbore	GUTTERSEN D35-760 AWB
Slot	SLOT#28 GUTTERSEN D35-760 (2089'FWL & 817'FSL, SEC.23)		

WELLPATH DATA (180 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	TVDSS [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Toolface [°]	Build Rate [°/100ft]	Turn Rate [°/100ft]	Comments
4172.00	6.720	184.630	4163.80	-695.20	146.25	-146.21	-10.35	40°12'19.6286"N	104°31'13.9441"W	0.04	169.34	0.04	0.09	
4266.00	6.610	184.810	4257.16	-601.84	157.13	-157.08	-11.25	40°12'19.5212"N	104°31'13.9572"W	0.12	25.62	-0.12	0.19	
4456.00	6.720	185.260	4445.88	-413.12	179.10	-179.05	-13.18	40°12'19.3044"N	104°31'13.9853"W	0.06	-117.98	0.06	0.24	
4550.00	6.650	184.100	4539.24	-319.76	190.01	-189.96	-14.08	40°12'19.1967"N	104°31'13.9984"W	0.16	144.13	-0.07	-1.23	
4645.00	6.410	185.670	4633.62	-225.38	200.78	-200.72	-14.99	40°12'19.0905"N	104°31'14.0117"W	0.31	7.31	-0.25	1.65	
4740.00	6.730	186.020	4728.00	-131.00	211.60	-211.53	-16.10	40°12'18.9837"N	104°31'14.0275"W	0.34	138.23	0.34	0.37	
4835.00	6.650	186.640	4822.35	-36.65	222.60	-222.53	-17.32	40°12'18.8752"N	104°31'14.0448"W	0.11	168.87	-0.08	0.65	
4929.00	6.110	187.640	4915.77	56.77	232.97	-232.90	-18.62	40°12'18.7729"N	104°31'14.0630"W	0.59	160.15	-0.57	1.06	
5024.00	5.080	191.900	5010.31	151.31	242.10	-242.02	-20.16	40°12'18.6829"N	104°31'14.0841"W	1.17	-18.62	-1.08	4.48	
5118.00	7.370	185.980	5103.75	244.75	252.18	-252.09	-21.64	40°12'18.5835"N	104°31'14.1047"W	2.53	-122.12	2.44	-6.30	
5213.00	7.140	182.900	5197.99	338.99	264.14	-264.05	-22.58	40°12'18.4655"N	104°31'14.1184"W	0.48	109.85	-0.24	-3.24	
5308.00	6.750	196.920	5292.30	433.30	275.39	-275.29	-24.50	40°12'18.3546"N	104°31'14.1448"W	1.83	38.93	-0.41	14.76	
5403.00	7.380	200.780	5386.58	527.58	286.45	-286.33	-28.29	40°12'18.2459"N	104°31'14.1952"W	0.83	-108.21	0.66	4.06	
5497.00	7.110	192.170	5479.84	620.84	297.79	-297.67	-31.66	40°12'18.1343"N	104°31'14.2403"W	1.19	-131.46	-0.29	-9.16	
5592.00	6.250	182.210	5574.19	715.19	308.72	-308.58	-33.10	40°12'18.0266"N	104°31'14.2604"W	1.52	163.87	-0.91	-10.48	
5687.00	5.370	184.950	5668.70	809.70	318.31	-318.18	-33.68	40°12'17.9318"N	104°31'14.2692"W	0.97	-179.46	-0.93	2.88	
5782.00	5.090	184.920	5763.31	904.31	326.94	-326.80	-34.42	40°12'17.8467"N	104°31'14.2801"W	0.29	170.61	-0.29	-0.03	
5876.00	4.690	185.730	5856.97	997.97	334.93	-334.78	-35.17	40°12'17.7679"N	104°31'14.2908"W	0.43	-40.93	-0.43	0.86	
5971.00	4.780	184.800	5951.64	1092.64	342.74	-342.59	-35.88	40°12'17.6908"N	104°31'14.3011"W	0.12	-6.81	0.09	-0.98	
6066.00	6.020	183.390	6046.22	1187.22	351.66	-351.51	-36.51	40°12'17.6028"N	104°31'14.3105"W	1.31	20.37	1.31	-1.48	
6160.00	6.280	184.270	6139.68	1280.68	361.71	-361.56	-37.18	40°12'17.5036"N	104°31'14.3206"W	0.29	-16.85	0.28	0.94	
6255.00	6.470	183.760	6234.09	1375.09	372.23	-372.08	-37.92	40°12'17.3997"N	104°31'14.3316"W	0.21	3.12	0.20	-0.54	
6350.00	9.680	184.800	6328.14	1469.14	385.54	-385.38	-38.94	40°12'17.2683"N	104°31'14.3466"W	3.38	-0.02	3.38	1.09	
6445.00	17.640	184.790	6420.37	1561.37	407.89	-407.72	-40.82	40°12'17.0478"N	104°31'14.3740"W	8.38	0.83	8.38	-0.01	
6539.00	27.090	185.090	6507.20	1648.20	443.49	-443.31	-43.91	40°12'16.6964"N	104°31'14.4189"W	10.05	-0.39	10.05	0.32	
6634.00	35.800	184.990	6588.18	1729.18	492.83	-492.63	-48.26	40°12'16.2096"N	104°31'14.4819"W	9.17	-0.35	9.17	-0.11	
6728.00	43.820	184.920	6660.32	1801.32	552.76	-552.54	-53.45	40°12'15.6181"N	104°31'14.5573"W	8.53	-1.77	8.53	-0.07	
6823.00	52.000	184.600	6723.95	1864.95	622.98	-622.74	-59.28	40°12'14.9251"N	104°31'14.6425"W	8.61	-1.68	8.61	-0.34	
6918.00	61.010	184.300	6776.32	1917.32	701.91	-701.65	-65.41	40°12'14.1461"N	104°31'14.7327"W	9.49	5.38	9.48	-0.32	
7012.00	69.820	185.180	6815.39	1956.39	787.04	-786.74	-72.49	40°12'13.3060"N	104°31'14.8361"W	9.41	3.72	9.37	0.94	
7107.00	78.120	185.730	6841.60	1982.60	877.88	-877.56	-81.17	40°12'12.4096"N	104°31'14.9609"W	8.75	4.45	8.74	0.58	
7202.00	87.410	186.450	6853.55	1994.55	971.53	-971.16	-91.16	40°12'11.4857"N	104°31'15.1030"W	9.81	2.51	9.78	0.76	
7297.00	90.830	186.600	6855.01	1996.01	1065.94	-1065.52	-101.96	40°12'10.5545"N	104°31'15.2555"W	3.60	-74.81	3.60	0.16	
7391.00	91.020	185.900	6853.50	1994.50	1159.41	-1158.95	-112.19	40°12'9.6324"N	104°31'15.4006"W	0.77	-115.05	0.20	-0.74	
7486.00	90.590	184.980	6852.16	1993.16	1254.00	-1253.51	-121.19	40°12'8.6990"N	104°31'15.5302"W	1.07	-92.76	-0.45	-0.97	
7580.00	90.430	181.680	6851.32	1992.32	1347.85	-1347.34	-126.65	40°12'7.7725"N	104°31'15.6139"W	3.51	-73.57	-0.17	-3.51	
7675.00	90.710	180.730	6850.38	1991.38	1442.83	-1442.31	-128.65	40°12'6.8342"N	104°31'15.6531"W	1.04	-142.43	0.29	-1.00	
7770.00	90.580	180.630	6849.31	1990.31	1537.82	-1537.30	-129.78	40°12'5.8957"N	104°31'15.6812"W	0.17	85.51	-0.14	-0.11	
7864.00	90.620	181.140	6848.32	1989.32	1631.81	-1631.28	-131.23	40°12'4.9672"N	104°31'15.7132"W	0.54	84.75	0.04	0.54	
7959.00	90.710	182.120	6847.22	1988.22	1726.78	-1726.24	-133.93	40°12'4.0292"N	104°31'15.7616"W	1.04	112.93	0.09	1.03	
8054.00	90.490	182.640	6846.23	1987.23	1821.70	-1821.15	-137.88	40°12'3.0918"N	104°31'15.8259"W	0.59	77.32	-0.23	0.55	
8148.00	90.580	183.040	6845.35	1986.35	1915.60	-1915.03	-142.53	40°12'2.1646"N	104°31'15.8993"W	0.44	-81.87	0.10	0.43	
8243.00	90.590	182.970	6844.38	1985.38	2010.49	-2009.89	-147.51	40°12'1.2278"N	104°31'15.9769"W	0.07	-95.42	0.01	-0.07	
8338.00	90.400	180.970	6843.56	1984.56	2105.43	-2104.83	-150.78	40°12'0.2901"N	104°31'16.0325"W	2.11	-130.21	-0.20	-2.11	
8432.00	89.690	180.130	6843.49	1984.49	2199.43	-2198.82	-151.68	40°11'59.3614"N	104°31'16.0575"W	1.17	-11.63	-0.76	-0.89	

REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY, INC	Well	GUTTERSEN D35-760
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.23-T03N-R64W	Wellbore	GUTTERSEN D35-760 AWB
Slot	SLOT#28 GUTTERSEN D35-760 (2089'FWL & 817'FSL, SEC.23)		

WELLPATH DATA (180 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	TVDSS [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Tooface [°]	Build Rate [°/100ft]	Turn Rate [°/100ft]	Comments
8527.00	90.370	179.990	6843.44	1984.44	2294.43	-2293.82	-151.78	40°11'58.4227"N	104°31'16.0723"W	0.73	22.27	0.72	-0.15	
8622.00	91.200	180.330	6842.13	1983.13	2389.42	-2388.81	-152.05	40°11'57.4841"N	104°31'16.0893"W	0.94	90.00	0.87	0.36	
8716.00	91.200	180.350	6840.17	1981.17	2483.40	-2482.79	-152.60	40°11'56.5555"N	104°31'16.1098"W	0.02	175.60	0.00	0.02	
8811.00	90.680	180.390	6838.61	1979.61	2578.39	-2577.77	-153.22	40°11'55.6170"N	104°31'16.1312"W	0.55	122.35	-0.55	0.04	
8906.00	90.490	180.690	6837.64	1978.64	2673.38	-2672.77	-154.11	40°11'54.6784"N	104°31'16.1563"W	0.37	16.93	-0.20	0.32	
9000.00	90.950	180.830	6836.46	1977.46	2767.37	-2766.75	-155.36	40°11'53.7499"N	104°31'16.1857"W	0.51	-98.74	0.49	0.15	
9095.00	90.770	179.660	6835.03	1976.03	2862.36	-2861.74	-155.76	40°11'52.8113"N	104°31'16.2045"W	1.25	-149.04	-0.19	-1.23	
9190.00	90.520	179.510	6833.96	1974.96	2957.34	-2956.73	-155.08	40°11'51.8726"N	104°31'16.2091"W	0.31	-69.32	-0.26	-0.16	
9284.00	90.920	178.450	6832.78	1973.78	3051.31	-3050.70	-153.40	40°11'50.9438"N	104°31'16.2009"W	1.21	-168.69	0.43	-1.13	
9379.00	90.770	178.420	6831.38	1972.38	3146.26	-3145.66	-150.81	40°11'50.0052"N	104°31'16.1810"W	0.16	-89.99	-0.16	-0.03	
9474.00	90.770	177.360	6830.10	1971.10	3241.17	-3240.58	-147.31	40°11'49.0669"N	104°31'16.1494"W	1.12	86.10	0.00	-1.12	
9568.00	90.800	177.800	6828.81	1969.81	3335.06	-3334.49	-143.34	40°11'48.1385"N	104°31'16.1116"W	0.47	29.08	0.03	0.47	
9663.00	92.740	178.880	6825.88	1966.88	3429.95	-3429.40	-140.59	40°11'47.2004"N	104°31'16.0897"W	2.34	-137.70	2.04	1.14	
9758.00	91.850	178.070	6822.07	1963.07	3524.83	-3524.29	-138.07	40°11'46.2625"N	104°31'16.0706"W	1.27	-113.25	-0.94	-0.85	
9853.00	91.020	176.140	6819.70	1960.70	3619.65	-3619.13	-133.27	40°11'45.3247"N	104°31'16.0223"W	2.21	102.21	-0.87	-2.03	
9947.00	90.680	177.710	6818.30	1959.30	3713.48	-3712.98	-128.23	40°11'44.3968"N	104°31'15.9707"W	1.71	94.51	-0.36	1.67	
10042.00	90.490	180.110	6817.33	1958.33	3808.44	-3807.95	-126.42	40°11'43.4582"N	104°31'15.9609"W	2.53	-143.45	-0.20	2.53	
10137.00	89.910	179.680	6817.00	1958.00	3903.44	-3902.95	-126.25	40°11'42.5194"N	104°31'15.9722"W	0.76	20.22	-0.61	-0.45	
10231.00	90.860	180.030	6816.37	1957.37	3997.44	-3996.95	-126.01	40°11'41.5906"N	104°31'15.9825"W	1.08	-150.95	1.01	0.37	
10326.00	90.680	179.930	6815.09	1956.09	4092.43	-4091.94	-125.98	40°11'40.6520"N	104°31'15.9956"W	0.22	118.26	-0.19	-0.11	
10421.00	90.250	180.730	6814.32	1955.32	4187.42	-4186.93	-126.52	40°11'39.7133"N	104°31'16.0162"W	0.96	13.39	-0.45	0.84	
10515.00	90.460	180.780	6813.74	1954.74	4281.42	-4280.92	-127.76	40°11'38.7847"N	104°31'16.0455"W	0.23	-90.00	0.22	0.05	
10610.00	90.460	180.350	6812.97	1953.97	4376.41	-4375.92	-128.70	40°11'37.8462"N	104°31'16.0711"W	0.45	90.00	0.00	-0.45	
10705.00	90.460	180.760	6812.21	1953.21	4471.41	-4470.91	-129.62	40°11'36.9076"N	104°31'16.0964"W	0.43	-66.61	0.00	0.43	
10800.00	90.620	180.390	6811.32	1952.32	4566.40	-4565.90	-130.57	40°11'35.9691"N	104°31'16.1222"W	0.42	-108.03	0.17	-0.39	
10894.00	90.340	179.530	6810.53	1951.53	4660.40	-4659.89	-130.51	40°11'35.0403"N	104°31'16.1348"W	0.96	-123.16	-0.30	-0.91	
10989.00	89.850	178.780	6810.37	1951.37	4755.38	-4754.88	-129.10	40°11'34.1015"N	104°31'16.1302"W	0.94	53.22	-0.52	-0.79	
11084.00	90.620	179.810	6809.98	1950.98	4850.36	-4849.87	-127.94	40°11'33.1627"N	104°31'16.1287"W	1.35	-132.92	0.81	1.08	
11178.00	89.690	178.810	6809.73	1950.73	4944.35	-4943.86	-126.80	40°11'32.2338"N	104°31'16.1275"W	1.45	44.50	-0.99	-1.06	
11273.00	90.860	179.960	6809.27	1950.27	5039.33	-5038.85	-125.78	40°11'31.2951"N	104°31'16.1278"W	1.73	116.23	1.23	1.21	
11367.00	90.520	180.650	6808.14	1949.14	5133.32	-5132.85	-126.28	40°11'30.3664"N	104°31'16.1476"W	0.82	49.23	-0.36	0.73	
11462.00	90.770	180.940	6807.07	1948.07	5228.31	-5227.83	-127.60	40°11'29.4280"N	104°31'16.1781"W	0.40	-97.92	0.26	0.31	
11651.00	90.550	179.360	6804.89	1945.89	5417.29	-5416.81	-128.10	40°11'27.5606"N	104°31'16.2114"W	0.84	117.35	-0.12	-0.84	
11746.00	90.250	179.940	6804.23	1945.23	5512.29	-5511.81	-127.52	40°11'26.6219"N	104°31'16.2174"W	0.69	-174.29	-0.32	0.61	
11841.00	90.150	179.930	6803.90	1944.90	5607.29	-5606.81	-127.41	40°11'25.6831"N	104°31'16.2295"W	0.11	-52.00	-0.11	-0.01	
11935.00	90.400	179.610	6803.45	1944.45	5701.28	-5700.80	-127.03	40°11'24.7543"N	104°31'16.2381"W	0.43	18.66	0.27	-0.34	
12030.00	91.170	179.870	6802.15	1943.15	5796.27	-5795.79	-126.60	40°11'23.8156"N	104°31'16.2460"W	0.86	-44.13	0.81	0.27	
12125.00	91.850	179.210	6799.64	1940.64	5891.23	-5890.76	-125.84	40°11'22.8771"N	104°31'16.2497"W	1.00	-122.48	0.72	-0.69	
12219.00	91.570	178.770	6796.84	1937.84	5985.16	-5984.70	-124.18	40°11'21.9487"N	104°31'16.2417"W	0.55	52.35	-0.30	-0.47	
12314.00	91.940	179.250	6793.93	1934.93	6080.10	-6079.64	-122.54	40°11'21.0103"N	104°31'16.2341"W	0.64	151.29	0.39	0.51	
12408.00	90.680	179.940	6791.78	1932.78	6174.06	-6173.61	-121.88	40°11'20.0817"N	104°31'16.2389"W	1.53	-37.74	-1.34	0.73	
12503.00	90.990	179.700	6790.39	1931.39	6269.05	-6268.60	-121.58	40°11'19.1430"N	104°31'16.2486"W	0.41	-178.32	0.33	-0.25	
12598.00	90.650	179.690	6789.03	1930.03	6364.04	-6363.59	-121.07	40°11'18.2044"N	104°31'16.2556"W	0.36	-133.60	-0.36	-0.01	
12692.00	90.250	179.270	6788.30	1929.30	6458.02	-6457.58	-120.22	40°11'17.2755"N	104°31'16.2579"W	0.62	29.74	-0.43	-0.45	
12787.00	90.740	179.550	6787.48	1928.48	6553.01	-6552.57	-119.24	40°11'16.3367"N	104°31'16.2588"W	0.59	28.81	0.52	0.29	

REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY, INC	Well	GUTTERSEN D35-760
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.23-T03N-R64W	Wellbore	GUTTERSEN D35-760 AWP
Slot	SLOT#28 GUTTERSEN D35-760 (2089'FWL & 817'FSL, SEC.23)		

WELLPATH DATA (180 stations) † = interpolated, ‡ = extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	TVDSS [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Tooface [°]	Build Rate [°/100ft]	Turn Rate [°/100ft]	Comments
12881.00	91.140	179.770	6785.93	1926.93	6646.99	-6646.56	-118.68	40°11'15.4080"N	104°31'16.2650"W	0.49	95.04	0.43	0.23	
13071.00	91.110	180.110	6782.20	1923.20	6836.95	-6836.52	-118.49	40°11'13.5309"N	104°31'16.2895"W	0.18	-125.71	-0.02	0.18	
13166.00	90.650	179.470	6780.74	1921.74	6931.94	-6931.51	-118.14	40°11'12.5922"N	104°31'16.2985"W	0.83	-53.91	-0.48	-0.67	
13260.00	91.080	178.880	6779.33	1920.33	7025.91	-7025.49	-116.78	40°11'11.6634"N	104°31'16.2944"W	0.78	107.24	0.46	-0.63	
13355.00	90.990	179.170	6777.61	1918.61	7120.87	-7120.46	-115.17	40°11'10.7248"N	104°31'16.2871"W	0.32	175.60	-0.09	0.31	
13450.00	90.860	179.180	6776.08	1917.08	7215.84	-7215.44	-113.80	40°11'9.7861"N	104°31'16.2830"W	0.14	67.58	-0.14	0.01	
13545.00	91.260	180.150	6774.32	1915.32	7310.82	-7310.42	-113.24	40°11'8.8475"N	104°31'16.2893"W	1.10	-122.13	0.42	1.02	
13639.00	90.990	179.720	6772.47	1913.47	7404.80	-7404.40	-113.14	40°11'7.9189"N	104°31'16.3013"W	0.54	98.84	-0.29	-0.46	
13734.00	90.920	180.170	6770.89	1911.89	7499.79	-7499.38	-113.05	40°11'6.9802"N	104°31'16.3137"W	0.48	-113.52	-0.07	0.47	
13828.00	90.550	179.320	6769.68	1910.68	7593.78	-7593.37	-112.63	40°11'6.0514"N	104°31'16.3216"W	0.99	-4.57	-0.39	-0.90	
13923.00	90.800	179.300	6768.56	1909.56	7688.76	-7688.36	-111.48	40°11'5.1127"N	104°31'16.3204"W	0.26	-81.36	0.26	-0.02	
14018.00	90.920	178.510	6767.14	1908.14	7783.72	-7783.33	-109.67	40°11'4.1741"N	104°31'16.3105"W	0.84	98.13	0.13	-0.83	
14112.00	90.890	178.720	6765.65	1906.65	7877.67	-7877.29	-107.40	40°11'3.2454"N	104°31'16.2946"W	0.23	-161.57	-0.03	0.22	
14207.00	90.830	178.700	6764.23	1905.23	7972.63	-7972.26	-105.26	40°11'2.3067"N	104°31'16.2806"W	0.07	-98.82	-0.06	-0.02	
14301.00	90.740	178.120	6762.94	1903.94	8066.57	-8066.21	-102.65	40°11'1.3781"N	104°31'16.2604"W	0.62	59.16	-0.10	-0.62	
14396.00	91.110	178.740	6761.41	1902.41	8161.51	-8161.16	-100.05	40°11'0.4395"N	104°31'16.2403"W	0.76	-94.40	0.39	0.65	
14490.00	91.080	178.350	6759.61	1900.61	8255.45	-8255.12	-97.66	40°10'59.5109"N	104°31'16.2229"W	0.42	-84.72	-0.03	-0.41	
14680.00	91.140	177.900	6755.93	1896.93	8445.27	-8444.97	-91.12	40°10'57.6342"N	104°31'16.1656"W	0.34	-106.34	0.03	-0.34	
14775.00	90.920	176.950	6754.22	1895.22	8540.13	-8539.85	-86.68	40°10'56.6961"N	104°31'16.1220"W	0.82	10.62	-0.23	-0.79	
14869.00	91.080	176.980	6752.58	1893.58	8633.97	-8633.70	-81.71	40°10'55.7682"N	104°31'16.0712"W	0.17	-173.99	0.17	0.03	
14964.00	90.890	176.960	6750.95	1891.95	8728.80	-8728.55	-76.69	40°10'54.8304"N	104°31'16.0200"W	0.20	61.02	-0.20	-0.02	
15059.00	91.200	177.520	6749.22	1890.22	8823.65	-8823.43	-72.11	40°10'53.8924"N	104°31'15.9746"W	0.67	-174.96	0.33	0.59	
15153.00	90.860	177.490	6747.53	1888.53	8917.53	-8917.32	-68.02	40°10'52.9641"N	104°31'15.9352"W	0.36	-99.46	-0.36	-0.03	
15248.00	90.740	176.770	6746.20	1887.20	9012.38	-9012.19	-63.26	40°10'52.0261"N	104°31'15.8875"W	0.77	27.30	-0.13	-0.76	
15348.00	91.050	176.930	6743.23	1884.23	9202.02	-9201.88	-52.82	40°10'50.1506"N	104°31'15.7800"W	0.18	-123.03	0.16	0.08	
15532.00	90.920	176.730	6741.62	1882.62	9295.84	-9295.73	-47.63	40°10'49.2227"N	104°31'15.7263"W	0.25	86.50	-0.14	-0.21	
15722.00	91.020	178.370	6738.40	1879.40	9485.60	-9485.52	-39.51	40°10'47.3464"N	104°31'15.6487"W	0.86	92.83	0.05	0.86	
15815.00	90.950	179.780	6736.80	1877.80	9578.57	-9578.49	-38.01	40°10'46.4276"N	104°31'15.6426"W	1.52	96.00	-0.08	1.52	
15910.00	90.680	182.340	6735.45	1876.45	9673.54	-9673.46	-39.76	40°10'45.4894"N	104°31'15.6788"W	2.71	178.92	-0.28	2.69	
16099.00	90.150	182.350	6734.08	1875.08	9862.40	-9862.29	-47.50	40°10'43.6242"N	104°31'15.8052"W	0.28	85.36	-0.28	0.01	
16194.00	90.180	182.720	6733.81	1874.81	9957.33	-9957.20	-51.70	40°10'42.6869"N	104°31'15.8729"W	0.39	-62.77	0.03	0.39	
16288.00	90.890	181.340	6732.93	1873.93	10051.27	-10051.13	-55.03	40°10'41.7591"N	104°31'15.9291"W	1.65	-125.40	0.76	-1.47	
16383.00	90.620	180.960	6731.68	1872.68	10146.25	-10146.11	-56.93	40°10'40.8208"N	104°31'15.9672"W	0.49	13.63	-0.28	-0.40	
16478.00	90.950	181.040	6730.37	1871.37	10241.24	-10241.08	-58.59	40°10'39.8825"N	104°31'16.0020"W	0.36	-71.55	0.35	0.08	
16572.00	91.260	180.110	6728.56	1869.56	10335.22	-10335.06	-59.53	40°10'38.9540"N	104°31'16.0276"W	1.04	101.06	0.33	-0.99	
16667.00	90.890	182.000	6726.78	1867.78	10430.19	-10430.02	-61.28	40°10'38.0158"N	104°31'16.0636"W	2.03	-98.08	-0.39	1.99	
16761.00	90.620	180.100	6725.54	1866.54	10524.16	-10523.99	-63.01	40°10'37.0874"N	104°31'16.0991"W	2.04	37.02	-0.29	-2.02	
16856.00	91.760	180.960	6723.57	1864.57	10619.14	-10618.97	-63.88	40°10'36.1490"N	104°31'16.1240"W	1.50	139.86	1.20	0.91	
16951.00	90.740	181.820	6721.50	1862.50	10714.10	-10713.91	-66.19	40°10'35.2111"N	104°31'16.1671"W	1.40	-88.70	-1.07	0.91	
17045.00	90.830	177.770	6720.21	1861.21	10808.06	-10807.88	-65.85	40°10'34.2825"N	104°31'16.1762"W	4.31	16.85	0.10	-4.31	
17140.00	91.820	178.070	6718.01	1859.01	10902.96	-10902.80	-62.40	40°10'33.3442"N	104°31'16.1453"W	1.09	132.92	1.04	0.32	
17235.00	91.290	178.640	6715.43	1856.43	10997.87	-10997.72	-59.68	40°10'32.4059"N	104°31'16.1236"W	0.82	-111.69	-0.56	0.60	
17329.00	90.920	177.710	6713.62	1854.62	11091.79	-11091.65	-56.69	40°10'31.4774"N	104°31'16.0985"W	1.06	81.75	-0.39	-0.99	
17386.00	91.140	179.230	6712.59	1853.59	11148.76	-11148.62	-55.16	40°10'30.9143"N	104°31'16.0870"W	2.69	0.00	0.39	2.67	LAST BH MWD SURVEY
17411.00‡	91.140	179.230	6712.10	1853.10	11173.75	-11173.62	-54.83	40°10'30.6673"N	104°31'16.0862"W	0.00		0.00	0.00	EXTRAPOLATED TO TD

REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY, INC	Well	GUTTERSEN D35-760
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API/Legal	
Facility	SEC.23-T03N-R64W	Wellbore	GUTTERSEN D35-760 AWP
Slot	SLOT#28 GUTTERSEN D35-760 (2089'FWL & 817'FSL, SEC.23)		

HOLE & CASING SECTIONS - Ref Wellbore: GUTTERSEN D35-760 AWP Ref Wellpath: GUTTERSEN D35-760 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	1941.00	1911.00	30.00	1940.97	-0.04	0.03	0.26	3.14
9.625in Casing Surface	30.00	1941.00	1911.00	30.00	1940.97	-0.04	0.03	0.26	3.14
8.5in Open Hole	1941.00	17411.00	15470.00	1940.97	6712.10	0.26	3.14	-11173.62	-54.83

TARGETS

Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
GUTTERSEN D35-760 BHL REV-1 (200'FSL & 1980'FWL, SEC.35)	6712.00	-11174.13	-46.29	3273531.06	1308172.11	40°10'30.6613"N	104°31'15.9762"W	point
GUTTERSEN D35-760 TPZ REV-1 (200'FNL & 1980'FWL, SEC.26)	6856.00	-1017.50	-104.08	3273473.27	1318328.28	40°12'11.0293"N	104°31'15.2760"W	point
SECTION LINES - SEC.23-T03N-R64W	7999.00	4458.29	-2109.31	3271468.13	1323803.83	40°13'5.3556"N	104°31'40.3441"W	polygon
	2D Polygon: dimensions not calculated							
SECTION LINES - SEC.26-T03N-R64W	7999.00	-833.36	-2085.02	3271492.42	1318512.41	40°12'13.0642"N	104°31'40.7786"W	polygon
	2D Polygon: dimensions not calculated							
SECTION LINES - SEC.35-T03N-R64W	7999.00	-6120.97	-2058.11	3271519.33	1313225.04	40°11'20.8123"N	104°31'41.1787"W	polygon
	2D Polygon: dimensions not calculated							

WELLPATH COMPOSITION - Ref Wellbore: GUTTERSEN D35-760 AWP Ref Wellpath: GUTTERSEN D35-760 AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore	Survey Date
0.00	1931.00	Gyrodatta 2015 - GC+DROP+COND	13.5" GYRODATA 2015 (GC+DROP+COND) <0' - 1931'>	GUTTERSEN D35-760 AWP	3/27/2020
1931.00	17411.00	OWSG MWD rev2 + IFR1 + Multi-Station Correction	8.5" OWSG MWD REV.2 (IFR1+MSA) <1995' -17386'>	GUTTERSEN D35-760 AWP	3/27/2020

REFERENCE WELLPATH IDENTIFICATION				
Operator	NOBLE ENERGY, INC		Well	GUTTERSEN D35-760
Field	WELD COUNTY (NOBLE NAD 83 GRID)		API/Legal	
Facility	SEC.23-T03N-R64W		Wellbore	GUTTERSEN D35-760 AWB
Slot	SLOT#28 GUTTERSEN D35-760 (2089'FWL & 817'FSL, SEC.23)			

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
86.00	0.490	143.570	86.00	FIRST 3RD PARTY GYRO SURVEY
1931.00	0.480	289.430	1930.97	TIE ON TO 3RD PARTY GYRO SURVEYS
1995.00	0.070	111.400	1994.97	FIRST BH MWD SURVEY
17386.00	91.140	179.230	6712.59	LAST BH MWD SURVEY
17411.00	91.140	179.230	6712.10	EXTRAPOLATED TO TD