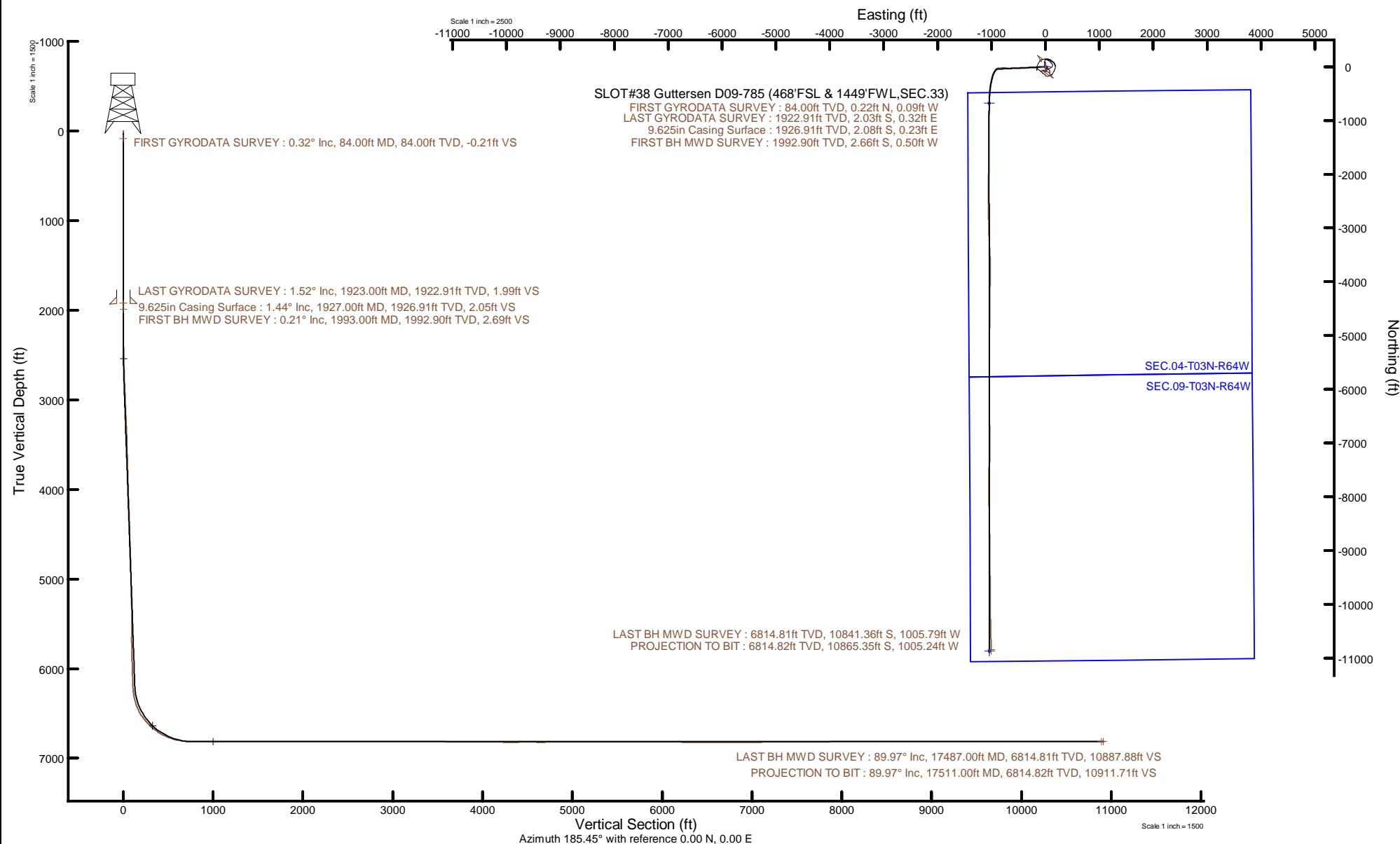


NOBLE ENERGY, INC

Location: COLORADO Slot: SLOT#38 Guttersen D09-785 (468'FSL & 1449'FWL,SEC.33)
Field: WELD COUNTY (NOBLE NAD 83 GRID) Well: Guttersen D09-785
Facility: SEC.33-T04N-R64W Wellbore: Guttersen D09-785 PWB



Plot reference wellpath is Guttersen D09-785 PWP Rev-A.0	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
True vertical depths are referenced to H&P 517 (30) (RT)	North Reference: Grid north
Reference wellpath measured depths are referenced to H&P 517 (30) (RT)	Scale: True distance
H&P 517 (30) (RT) to Mean Sea Level: 4755 feet	Coordinates are in feet referenced to Slot
Mean Sea Level to Mud line (At Slot: SLOT#38 Guttersen D09-785 (468'FSL & 1449'FWL,SEC.33)): 0 feet	Depths are in feet
Offset wellpath MDs are referenced to each path's default MD datum	Created by: painsetr on 2020-12-03; Database: WellArchitectDB



REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY, INC	Well	Guttersen D09-785
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API	0512348949
Facility	SEC.33-T04N-R64W	Wellbore	Guttersen D09-785 AWP
Slot	SLOT#38 Guttersen D09-785 (468'FSL & 1449'FWL,SEC.33)		

REPORT SETUP INFORMATION

Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 6.0
North Reference	Grid	User	Painsetr
Scale	0.999957	Report Generated	12/3/2020 at 7:13:00 AM
Convergence at slot	0.61° East	Database	WellArchitectDB

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	126.72	-2128.67	3262276.06	1340051.42	40.2630250°	-104.5601710°
Facility Reference Pt			3264404.63	1339924.70	40.2626150°	-104.5525490°
Field Reference Pt			3000000.00	4454105.15	48.7761986°	-105.5000000°

WELLPATH DATUM

Calculation method	Minimum curvature	H&P 517 (30') (RT) to Facility Vertical Datum	4755.00ft
Horizontal Reference Pt	Slot	H&P 517 (30') (RT) to Mean Sea Level	4755.00ft
Vertical Reference Pt	H&P 517 (30') (RT)	H&P 517 (30') (RT) to Mud Line at Slot (SLOT#38 Guttersen D09-785 (468'FSL & 1449'FWL,SEC.33))	4755.00ft
MD Reference Pt	H&P 517 (30') (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	185.45°

REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	Guttersen D09-785
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API	0512348949
Facility	SEC.33-T04N-R64W	Wellbore	Guttersen D09-785 AWB
Slot	SLOT#38 Guttersen D09-785 (468'FSL & 1449'FWL,SEC.33)		

WELLPATH DATA (185 stations)												
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
0.00	0.000	336.960	0.00	0.00	0.00	0.00	3262276.06	1340051.42	40.2630250	-104.5601710	0.00	
84.00	0.320	336.960	84.00	-0.21	0.22	-0.09	3262275.97	1340051.63	40.2630256	-104.5601713	0.38	FIRST GYRODATA SURVEY
177.00	0.110	86.270	177.00	-0.45	0.46	-0.10	3262275.95	1340051.88	40.2630263	-104.5601714	0.40	
267.00	0.410	237.780	267.00	-0.27	0.29	-0.29	3262275.77	1340051.71	40.2630258	-104.5601720	0.57	
362.00	0.650	123.420	362.00	0.19	-0.18	-0.13	3262275.93	1340051.23	40.2630245	-104.5601715	0.95	
457.00	0.420	99.380	456.99	0.47	-0.54	0.66	3262276.72	1340050.88	40.2630235	-104.5601686	0.33	
551.00	0.130	206.800	550.99	0.59	-0.69	0.96	3262277.01	1340050.73	40.2630231	-104.5601676	0.51	
646.00	0.490	140.170	645.99	0.98	-1.10	1.17	3262277.23	1340050.32	40.2630220	-104.5601669	0.48	
741.00	0.500	140.740	740.99	1.56	-1.73	1.69	3262277.75	1340049.69	40.2630202	-104.5601650	0.01	
835.00	0.890	132.750	834.98	2.29	-2.54	2.49	3262278.54	1340048.87	40.2630179	-104.5601622	0.43	
930.00	0.400	188.630	929.97	3.07	-3.37	2.98	3262279.04	1340048.05	40.2630157	-104.5601605	0.78	
1024.00	0.430	100.490	1023.97	3.43	-3.76	3.28	3262279.33	1340047.66	40.2630146	-104.5601594	0.61	
1119.00	0.290	115.200	1118.97	3.54	-3.93	3.84	3262279.90	1340047.49	40.2630141	-104.5601574	0.18	
1213.00	0.210	199.880	1212.97	3.79	-4.19	4.00	3262280.06	1340047.23	40.2630134	-104.5601568	0.36	
1308.00	0.840	27.460	1307.97	3.31	-3.74	4.26	3262280.32	1340047.68	40.2630146	-104.5601559	1.10	
1402.00	0.230	33.650	1401.96	2.51	-2.97	4.69	3262280.74	1340048.45	40.2630167	-104.5601543	0.65	
1497.00	0.450	11.550	1496.96	1.97	-2.44	4.87	3262280.92	1340048.97	40.2630182	-104.5601537	0.27	
1591.00	0.450	322.660	1590.96	1.33	-1.79	4.72	3262280.77	1340049.63	40.2630200	-104.5601542	0.40	
1686.00	0.710	309.410	1685.95	0.73	-1.12	4.03	3262280.09	1340050.30	40.2630218	-104.5601566	0.31	
1780.00	0.720	280.030	1779.95	0.36	-0.65	3.00	3262279.06	1340050.77	40.2630231	-104.5601603	0.39	
1875.00	1.550	233.920	1874.93	1.16	-1.30	1.38	3262277.43	1340050.12	40.2630214	-104.5601661	1.23	
1923.00	1.520	236.990	1922.91	1.99	-2.03	0.32	3262276.38	1340049.39	40.2630194	-104.5601699	0.18	LAST GYRODATA SURVEY
1993.00	0.210	197.260	1992.90	2.69	-2.66	-0.50	3262275.56	1340048.76	40.2630177	-104.5601729	1.95	FIRST BH MWD SURVEY
2087.00	0.060	124.990	2086.90	2.88	-2.85	-0.51	3262275.55	1340048.57	40.2630172	-104.5601729	0.21	
2277.00	2.190	269.320	2276.86	3.32	-2.95	-4.06	3262272.00	1340048.47	40.2630170	-104.5601857	1.18	
2372.00	3.800	267.090	2371.72	3.97	-3.13	-9.02	3262267.04	1340048.29	40.2630167	-104.5602034	1.70	
2466.00	5.090	266.140	2465.44	5.10	-3.57	-16.29	3262259.77	1340047.85	40.2630157	-104.5602295	1.37	
2561.00	7.460	267.010	2559.86	6.69	-4.17	-26.65	3262249.40	1340047.24	40.2630143	-104.5602667	2.50	
2656.00	9.880	265.610	2653.77	8.99	-5.12	-40.94	3262235.12	1340046.30	40.2630121	-104.5603179	2.56	
2750.00	11.500	266.790	2746.14	11.78	-6.26	-58.34	3262217.72	1340045.16	40.2630095	-104.5603803	1.74	

REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	Guttersen D09-785
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API	0512348949
Facility	SEC.33-T04N-R64W	Wellbore	Guttersen D09-785 AWB
Slot	SLOT#38 Guttersen D09-785 (468'FSL & 1449'FWL,SEC.33)		

WELLPATH DATA (185 stations)												
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
2845.00	13.250	264.220	2838.93	15.33	-7.89	-78.63	3262197.43	1340043.53	40.2630056	-104.5604530	1.93	
2940.00	13.360	264.560	2931.38	19.52	-10.03	-100.39	3262175.68	1340041.39	40.2630004	-104.5605311	0.14	
3035.00	11.940	265.790	3024.07	23.24	-11.79	-121.11	3262154.95	1340039.63	40.2629962	-104.5606054	1.52	
3129.00	13.100	264.390	3115.83	26.92	-13.54	-141.41	3262134.65	1340037.87	40.2629919	-104.5606782	1.28	
3224.00	13.100	265.280	3208.36	30.89	-15.48	-162.86	3262113.21	1340035.94	40.2629872	-104.5607551	0.21	
3318.00	12.810	263.360	3299.97	34.95	-17.56	-183.82	3262092.24	1340033.85	40.2629821	-104.5608303	0.55	
3413.00	12.960	265.090	3392.57	39.08	-19.69	-204.90	3262071.17	1340031.73	40.2629769	-104.5609059	0.44	
3508.00	12.650	271.470	3485.22	41.71	-20.34	-225.91	3262050.15	1340031.08	40.2629757	-104.5609812	1.52	
3603.00	12.580	268.990	3577.92	43.60	-20.25	-246.66	3262029.41	1340031.16	40.2629766	-104.5610555	0.57	
3697.00	13.370	268.460	3669.52	46.08	-20.73	-267.76	3262008.31	1340030.69	40.2629759	-104.5611311	0.85	
3792.00	13.150	267.600	3761.99	48.89	-21.47	-289.53	3261986.54	1340029.94	40.2629745	-104.5612092	0.31	
3886.00	13.300	267.930	3853.50	51.77	-22.31	-311.02	3261965.05	1340029.11	40.2629728	-104.5612862	0.18	
3980.00	13.530	268.920	3944.93	54.43	-22.91	-332.82	3261943.25	1340028.51	40.2629718	-104.5613643	0.35	
4075.00	13.450	268.210	4037.31	57.09	-23.46	-354.97	3261921.10	1340027.95	40.2629709	-104.5614437	0.19	
4170.00	13.600	267.630	4129.68	60.01	-24.27	-377.18	3261898.90	1340027.15	40.2629693	-104.5615233	0.21	
4265.00	13.470	267.120	4222.04	63.13	-25.29	-399.39	3261876.69	1340026.13	40.2629672	-104.5616029	0.19	
4359.00	13.780	267.980	4313.39	66.17	-26.23	-421.51	3261854.57	1340025.18	40.2629652	-104.5616822	0.39	
4454.00	13.740	267.520	4405.67	69.20	-27.12	-444.09	3261831.99	1340024.30	40.2629635	-104.5617632	0.12	
4549.00	13.620	268.260	4497.97	72.16	-27.95	-466.54	3261809.54	1340023.47	40.2629618	-104.5618436	0.22	
4643.00	13.400	268.310	4589.37	74.90	-28.61	-488.49	3261787.59	1340022.81	40.2629607	-104.5619223	0.23	
4738.00	13.490	269.250	4681.77	77.46	-29.08	-510.57	3261765.51	1340022.34	40.2629600	-104.5620014	0.25	
4833.00	13.020	268.650	4774.24	79.93	-29.47	-532.35	3261743.73	1340021.95	40.2629596	-104.5620795	0.52	
4927.00	12.860	268.760	4865.85	82.40	-29.95	-553.39	3261722.69	1340021.47	40.2629589	-104.5621549	0.17	
5022.00	13.530	266.910	4958.34	85.29	-30.78	-575.06	3261701.02	1340020.64	40.2629572	-104.5622326	0.83	
5116.00	13.610	267.950	5049.72	88.36	-31.76	-597.09	3261678.99	1340019.65	40.2629552	-104.5623115	0.27	
5211.00	12.590	269.670	5142.24	90.87	-32.22	-618.62	3261657.47	1340019.19	40.2629545	-104.5623887	1.15	
5306.00	11.650	270.230	5235.13	92.78	-32.24	-638.56	3261637.52	1340019.17	40.2629550	-104.5624602	1.00	
5400.00	13.820	268.410	5326.81	95.02	-32.52	-659.28	3261616.81	1340018.90	40.2629549	-104.5625344	2.35	
5495.00	13.220	271.990	5419.18	97.07	-32.46	-681.48	3261594.61	1340018.96	40.2629557	-104.5626139	1.08	
5589.00	12.510	279.310	5510.82	97.04	-30.44	-702.27	3261573.82	1340020.98	40.2629619	-104.5626883	1.89	

REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	Guttersen D09-785
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API	0512348949
Facility	SEC.33-T04N-R64W	Wellbore	Guttersen D09-785 AWB
Slot	SLOT#38 Guttersen D09-785 (468'FSL & 1449'FWL,SEC.33)		

WELLPATH DATA (185 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
5684.00	12.920	282.730	5603.49	95.00	-26.43	-722.78	3261553.31	1340024.99	40.2629735	-104.5627617	0.90	
5778.00	13.990	273.530	5694.92	94.05	-23.42	-744.38	3261531.71	1340028.00	40.2629824	-104.5628389	2.54	
5873.00	13.520	269.120	5787.20	95.66	-22.88	-766.94	3261509.15	1340028.54	40.2629845	-104.5629198	1.21	
5967.00	13.680	268.440	5878.57	98.23	-23.35	-789.04	3261487.05	1340028.07	40.2629838	-104.5629990	0.24	
6062.00	13.810	267.990	5970.85	101.07	-24.05	-811.60	3261464.49	1340027.36	40.2629826	-104.5630798	0.18	
6157.00	13.860	268.490	6063.09	103.93	-24.75	-834.31	3261441.79	1340026.67	40.2629813	-104.5631612	0.14	
6251.00	13.550	269.830	6154.41	106.37	-25.08	-856.57	3261419.52	1340026.34	40.2629810	-104.5632410	0.47	
6346.00	15.000	257.240	6246.50	111.30	-27.83	-879.70	3261396.40	1340023.59	40.2629742	-104.5633240	3.60	
6440.00	18.850	233.470	6336.52	125.29	-39.57	-903.80	3261372.29	1340011.85	40.2629426	-104.5634108	8.34	
6535.00	25.640	220.440	6424.45	152.44	-64.40	-929.51	3261346.58	1339987.02	40.2628752	-104.5635038	8.79	
6630.00	33.220	206.630	6507.22	193.65	-103.40	-954.58	3261321.52	1339948.02	40.2627689	-104.5635951	10.66	
6725.00	40.510	198.650	6583.22	248.06	-156.00	-976.15	3261299.95	1339895.42	40.2626251	-104.5636744	9.17	
6819.00	49.010	194.860	6649.92	312.92	-219.35	-995.05	3261281.05	1339832.08	40.2624518	-104.5637445	9.47	
6914.00	56.500	190.250	6707.39	387.89	-293.11	-1011.32	3261264.78	1339758.32	40.2622498	-104.5638056	8.78	
7009.00	64.940	186.970	6753.82	470.54	-374.96	-1023.62	3261252.49	1339676.47	40.2620255	-104.5638527	9.38	
7103.00	74.450	185.130	6786.41	558.59	-462.53	-1032.85	3261243.25	1339588.91	40.2617854	-104.5638891	10.28	
7198.00	82.310	182.900	6805.53	651.54	-555.28	-1039.34	3261236.77	1339496.16	40.2615310	-104.5639159	8.59	
7293.00	90.310	180.550	6811.64	746.05	-649.95	-1042.18	3261233.92	1339401.49	40.2612713	-104.5639296	8.77	
7387.00	89.630	180.760	6811.69	839.72	-743.95	-1043.25	3261232.85	1339307.50	40.2610133	-104.5639370	0.76	
7482.00	90.090	180.540	6811.92	934.39	-838.94	-1044.33	3261231.77	1339212.51	40.2607526	-104.5639445	0.54	
7577.00	90.370	180.000	6811.54	1029.00	-933.94	-1044.78	3261231.33	1339117.52	40.2604918	-104.5639497	0.64	
7671.00	90.370	180.920	6810.93	1122.64	-1027.93	-1045.53	3261230.57	1339023.53	40.2602339	-104.5639560	0.98	
7766.00	90.060	180.660	6810.58	1217.32	-1122.92	-1046.84	3261229.26	1338928.55	40.2599732	-104.5639642	0.43	
7860.00	90.060	180.680	6810.48	1311.00	-1216.92	-1047.94	3261228.16	1338834.56	40.2597152	-104.5639717	0.02	
7955.00	89.750	180.380	6810.64	1405.65	-1311.91	-1048.82	3261227.28	1338739.56	40.2594545	-104.5639785	0.45	
8049.00	90.000	180.510	6810.84	1499.29	-1405.91	-1049.55	3261226.55	1338645.57	40.2591965	-104.5639846	0.30	
8144.00	89.940	180.190	6810.89	1593.91	-1500.91	-1050.13	3261225.97	1338550.58	40.2589358	-104.5639903	0.34	
8239.00	89.910	180.200	6811.02	1688.51	-1595.91	-1050.46	3261225.65	1338455.58	40.2586750	-104.5639951	0.03	
8333.00	89.720	180.340	6811.32	1782.13	-1689.90	-1050.90	3261225.21	1338361.59	40.2584170	-104.5640002	0.25	
8428.00	90.220	180.610	6811.37	1876.77	-1784.90	-1051.69	3261224.42	1338266.60	40.2581563	-104.5640066	0.60	

REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	Guttersen D09-785
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API	0512348949
Facility	SEC.33-T04N-R64W	Wellbore	Guttersen D09-785 AWB
Slot	SLOT#38 Guttersen D09-785 (468'FSL & 1449'FWL,SEC.33)		

WELLPATH DATA (185 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8523.00	90.000	179.980	6811.19	1971.38	-1879.90	-1052.17	3261223.93	1338171.60	40.2578956	-104.5640120	0.70	
8617.00	89.480	180.440	6811.61	2064.99	-1973.90	-1052.52	3261223.59	1338077.61	40.2576376	-104.5640168	0.74	
8712.00	89.880	181.400	6812.14	2159.69	-2068.88	-1054.04	3261222.06	1337982.63	40.2573769	-104.5640258	1.09	
8806.00	89.720	181.040	6812.47	2253.43	-2162.86	-1056.05	3261220.06	1337888.66	40.2571190	-104.5640365	0.42	
8900.00	89.750	180.910	6812.91	2347.14	-2256.84	-1057.65	3261218.46	1337794.67	40.2568611	-104.5640458	0.14	
8995.00	89.910	180.650	6813.19	2441.83	-2351.84	-1058.94	3261217.17	1337699.69	40.2566004	-104.5640540	0.32	
9090.00	89.910	181.080	6813.34	2536.52	-2446.82	-1060.37	3261215.73	1337604.70	40.2563397	-104.5640628	0.45	
9185.00	90.620	179.140	6812.90	2631.10	-2541.82	-1060.56	3261215.55	1337509.71	40.2560790	-104.5640670	2.17	
9279.00	90.030	179.050	6812.36	2724.52	-2635.80	-1059.07	3261217.03	1337415.73	40.2558210	-104.5640653	0.63	
9374.00	90.220	178.210	6812.16	2818.85	-2730.78	-1056.80	3261219.31	1337320.76	40.2555602	-104.5640607	0.91	
9468.00	90.490	178.270	6811.57	2912.10	-2824.73	-1053.91	3261222.19	1337226.81	40.2553022	-104.5640539	0.29	
9563.00	90.280	178.140	6810.94	3006.34	-2919.68	-1050.94	3261225.17	1337131.87	40.2550415	-104.5640469	0.26	
9657.00	90.220	178.690	6810.53	3099.63	-3013.64	-1048.34	3261227.77	1337037.91	40.2547835	-104.5640411	0.59	
9752.00	90.220	178.020	6810.16	3193.90	-3108.60	-1045.61	3261230.49	1336942.95	40.2545228	-104.5640349	0.71	
9847.00	89.260	177.840	6810.59	3288.08	-3203.54	-1042.18	3261233.93	1336848.02	40.2542621	-104.5640262	1.03	
9941.00	89.140	178.170	6811.91	3381.28	-3297.47	-1038.91	3261237.20	1336754.09	40.2540042	-104.5640180	0.37	
10036.00	89.230	177.540	6813.26	3475.43	-3392.40	-1035.35	3261240.75	1336659.17	40.2537436	-104.5640089	0.67	
10130.00	89.080	176.380	6814.64	3568.39	-3486.25	-1030.37	3261245.74	1336565.32	40.2534858	-104.5639946	1.24	
10225.00	89.350	176.750	6815.94	3662.24	-3581.07	-1024.68	3261251.43	1336470.51	40.2532254	-104.5639778	0.48	
10320.00	89.880	180.770	6816.58	3756.57	-3676.03	-1022.62	3261253.48	1336375.55	40.2529647	-104.5639740	4.27	
10414.00	89.480	180.630	6817.11	3850.25	-3770.02	-1023.77	3261252.34	1336281.57	40.2527067	-104.5639817	0.45	
10509.00	89.380	180.460	6818.05	3944.90	-3865.01	-1024.67	3261251.43	1336186.58	40.2524460	-104.5639885	0.21	
10604.00	89.720	181.470	6818.80	4039.60	-3959.99	-1026.27	3261249.83	1336091.60	40.2521854	-104.5639978	1.12	
10699.00	89.510	180.330	6819.44	4134.30	-4054.98	-1027.76	3261248.34	1335996.62	40.2519247	-104.5640068	1.22	
10793.00	89.750	180.650	6820.04	4227.94	-4148.97	-1028.57	3261247.54	1335902.63	40.2516667	-104.5640132	0.43	
10887.00	90.030	179.960	6820.23	4321.56	-4242.97	-1029.07	3261247.04	1335808.64	40.2514087	-104.5640185	0.79	
10982.00	90.250	181.070	6819.99	4416.21	-4337.96	-1029.92	3261246.18	1335713.65	40.2511480	-104.5640252	1.19	
11076.00	89.880	181.350	6819.89	4509.95	-4431.94	-1031.91	3261244.20	1335619.67	40.2508901	-104.5640359	0.49	
11171.00	89.880	181.380	6820.09	4604.71	-4526.92	-1034.17	3261241.93	1335524.71	40.2506295	-104.5640476	0.03	
11266.00	90.150	180.630	6820.06	4699.42	-4621.90	-1035.84	3261240.27	1335429.73	40.2503688	-104.5640571	0.84	

REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	Guttersen D09-785
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API	0512348949
Facility	SEC.33-T04N-R64W	Wellbore	Guttersen D09-785 AWB
Slot	SLOT#38 Guttersen D09-785 (468'FSL & 1449'FWL,SEC.33)		

WELLPATH DATA (185 stations)												
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
11360.00	90.150	179.790	6819.81	4793.03	-4715.90	-1036.18	3261239.92	1335335.73	40.2501108	-104.5640619	0.89	
11455.00	90.340	179.970	6819.41	4887.58	-4810.90	-1035.98	3261240.12	1335240.74	40.2498501	-104.5640648	0.28	
11550.00	89.850	180.990	6819.25	4982.22	-4905.89	-1036.78	3261239.33	1335145.75	40.2495893	-104.5640712	1.19	
11644.00	89.940	180.950	6819.42	5075.93	-4999.88	-1038.37	3261237.73	1335051.76	40.2493314	-104.5640805	0.10	
11739.00	91.420	181.200	6818.30	5170.64	-5094.85	-1040.15	3261235.95	1334956.79	40.2490708	-104.5640905	1.58	
11833.00	89.170	180.260	6817.81	5264.31	-5188.84	-1041.35	3261234.76	1334862.82	40.2488128	-104.5640983	2.59	
11928.00	90.060	179.690	6818.45	5358.88	-5283.83	-1041.31	3261234.80	1334767.82	40.2485521	-104.5641017	1.11	
12022.00	90.250	180.700	6818.20	5452.48	-5377.83	-1041.63	3261234.48	1334673.83	40.2482941	-104.5641064	1.09	
12117.00	90.310	180.030	6817.73	5547.10	-5472.83	-1042.23	3261233.87	1334578.84	40.2480334	-104.5641122	0.71	
12212.00	89.780	180.440	6817.66	5641.71	-5567.83	-1042.62	3261233.48	1334483.84	40.2477726	-104.5641172	0.71	
12306.00	89.660	179.990	6818.12	5735.32	-5661.82	-1042.97	3261233.13	1334389.85	40.2475146	-104.5641220	0.50	
12401.00	90.620	180.510	6817.88	5829.92	-5756.82	-1043.39	3261232.72	1334294.86	40.2472539	-104.5641271	1.15	
12495.00	89.540	179.870	6817.75	5923.52	-5850.82	-1043.70	3261232.40	1334200.86	40.2469959	-104.5641318	1.34	
12590.00	89.690	180.280	6818.39	6018.10	-5945.82	-1043.82	3261232.28	1334105.87	40.2467351	-104.5641358	0.46	
12684.00	89.690	180.390	6818.90	6111.73	-6039.81	-1044.37	3261231.73	1334011.88	40.2464772	-104.5641413	0.12	
12779.00	89.200	179.590	6819.82	6206.29	-6134.81	-1044.36	3261231.75	1333916.89	40.2462164	-104.5641448	0.99	
12874.00	89.910	179.540	6820.56	6300.79	-6229.80	-1043.64	3261232.47	1333821.90	40.2459556	-104.5641459	0.75	
12969.00	89.820	178.550	6820.78	6395.19	-6324.79	-1042.05	3261234.05	1333726.92	40.2456949	-104.5641438	1.05	
13063.00	89.910	178.800	6821.00	6488.53	-6418.76	-1039.88	3261236.22	1333632.95	40.2454369	-104.5641395	0.28	
13158.00	89.660	179.980	6821.36	6583.00	-6513.75	-1038.87	3261237.24	1333537.96	40.2451761	-104.5641395	1.27	
13253.00	90.150	178.450	6821.52	6677.43	-6608.74	-1037.57	3261238.54	1333442.97	40.2449153	-104.5641384	1.69	
13347.00	90.000	178.920	6821.39	6770.78	-6702.72	-1035.41	3261240.69	1333349.00	40.2446573	-104.5641343	0.52	
13442.00	90.680	179.340	6820.83	6865.20	-6797.70	-1033.97	3261242.14	1333254.02	40.2443966	-104.5641327	0.84	
13536.00	90.090	178.880	6820.20	6958.62	-6891.69	-1032.51	3261243.60	1333160.04	40.2441386	-104.5641310	0.80	
13631.00	89.970	178.500	6820.15	7052.96	-6986.66	-1030.34	3261245.77	1333065.07	40.2438778	-104.5641268	0.42	
13726.00	90.400	179.700	6819.84	7147.37	-7081.65	-1028.84	3261247.26	1332970.09	40.2436170	-104.5641251	1.34	
13820.00	90.520	180.880	6819.09	7240.99	-7175.64	-1029.32	3261246.78	1332876.10	40.2433591	-104.5641303	1.26	
13915.00	90.280	180.060	6818.42	7335.62	-7270.64	-1030.10	3261246.01	1332781.11	40.2430983	-104.5641367	0.90	
14010.00	90.620	187.610	6817.68	7430.51	-7365.35	-1036.45	3261239.66	1332686.40	40.2428386	-104.5641630	7.96	
14104.00	90.520	183.790	6816.74	7524.49	-7458.87	-1045.78	3261230.32	1332592.89	40.2425821	-104.5642000	4.07	

REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	Guttersen D09-785
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API	0512348949
Facility	SEC.33-T04N-R64W	Wellbore	Guttersen D09-785 AWB
Slot	SLOT#38 Guttersen D09-785 (468'FSL & 1449'FWL,SEC.33)		

WELLPATH DATA (185 stations)												
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
14199.00	90.460	179.790	6815.93	7619.27	-7553.80	-1048.75	3261227.36	1332497.96	40.2423217	-104.5642142	4.21	
14293.00	90.000	179.740	6815.55	7712.81	-7647.79	-1048.36	3261227.74	1332403.97	40.2420636	-104.5642164	0.49	
14388.00	90.180	179.720	6815.40	7807.34	-7742.79	-1047.91	3261228.19	1332308.97	40.2418029	-104.5642184	0.19	
14482.00	90.490	179.720	6814.85	7900.87	-7836.79	-1047.46	3261228.65	1332214.98	40.2415449	-104.5642203	0.33	
14577.00	90.710	179.710	6813.86	7995.38	-7931.78	-1046.98	3261229.12	1332119.99	40.2412841	-104.5642222	0.23	
14672.00	90.370	179.200	6812.96	8089.86	-8026.78	-1046.08	3261230.03	1332025.00	40.2410233	-104.5642225	0.65	
14766.00	90.490	179.590	6812.26	8183.33	-8120.77	-1045.09	3261231.02	1331931.02	40.2407653	-104.5642225	0.43	
14861.00	90.180	178.980	6811.70	8277.78	-8215.76	-1043.90	3261232.20	1331836.03	40.2405046	-104.5642219	0.72	
14955.00	90.220	179.370	6811.37	8371.21	-8309.75	-1042.55	3261233.56	1331742.04	40.2402465	-104.5642206	0.42	
15050.00	90.060	178.730	6811.14	8465.62	-8404.73	-1040.97	3261235.13	1331647.06	40.2399858	-104.5642185	0.69	
15145.00	89.880	179.360	6811.19	8560.03	-8499.72	-1039.39	3261236.71	1331552.08	40.2397250	-104.5642164	0.69	
15239.00	89.970	179.090	6811.31	8653.47	-8593.71	-1038.12	3261237.99	1331458.09	40.2394670	-104.5642154	0.30	
15334.00	90.250	178.830	6811.13	8747.86	-8688.69	-1036.39	3261239.71	1331363.11	40.2392062	-104.5642129	0.40	
15428.00	90.250	179.060	6810.72	8841.26	-8782.68	-1034.66	3261241.44	1331269.14	40.2389482	-104.5642102	0.24	
15523.00	90.310	179.210	6810.26	8935.68	-8877.67	-1033.23	3261242.88	1331174.15	40.2386874	-104.5642087	0.17	
15618.00	89.630	179.730	6810.31	9030.16	-8972.66	-1032.35	3261243.75	1331079.16	40.2384267	-104.5642091	0.90	
15712.00	89.540	180.590	6810.99	9123.75	-9066.66	-1032.61	3261243.49	1330985.17	40.2381687	-104.5642136	0.92	
15807.00	89.910	179.320	6811.44	9218.31	-9161.65	-1032.54	3261243.57	1330890.18	40.2379079	-104.5642169	1.39	
15901.00	89.850	179.210	6811.64	9311.77	-9255.65	-1031.33	3261244.77	1330796.19	40.2376499	-104.5642162	0.13	
15996.00	90.030	179.120	6811.74	9406.19	-9350.64	-1029.95	3261246.16	1330701.20	40.2373891	-104.5642148	0.21	
16090.00	90.000	178.790	6811.72	9499.59	-9444.62	-1028.23	3261247.87	1330607.22	40.2371311	-104.5642122	0.35	
16185.00	89.600	178.380	6812.05	9593.91	-9539.59	-1025.89	3261250.22	1330512.26	40.2368704	-104.5642074	0.60	
16280.00	89.820	179.290	6812.53	9688.27	-9634.57	-1023.96	3261252.15	1330417.28	40.2366096	-104.5642041	0.99	
16469.00	90.090	180.040	6812.68	9876.31	-9823.56	-1022.85	3261253.25	1330228.30	40.2360908	-104.5642073	0.42	
16564.00	89.720	179.490	6812.83	9970.84	-9918.56	-1022.46	3261253.64	1330133.30	40.2358300	-104.5642094	0.70	
16659.00	89.780	179.760	6813.25	10065.35	-10013.56	-1021.84	3261254.26	1330038.31	40.2355693	-104.5642108	0.29	
16753.00	90.120	179.230	6813.33	10158.84	-10107.55	-1021.01	3261255.09	1329944.32	40.2353112	-104.5642114	0.67	
16848.00	89.940	179.680	6813.28	10253.32	-10202.55	-1020.11	3261256.00	1329849.33	40.2350505	-104.5642118	0.51	
16943.00	89.970	179.690	6813.36	10347.84	-10297.55	-1019.58	3261256.52	1329754.33	40.2347897	-104.5642135	0.03	
17038.00	90.180	178.700	6813.23	10442.27	-10392.54	-1018.25	3261257.85	1329659.35	40.2345289	-104.5642123	1.07	

REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	Guttersen D09-785
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API	0512348949
Facility	SEC.33-T04N-R64W	Wellbore	Guttersen D09-785 AWB
Slot	SLOT#38 Guttersen D09-785 (468'FSL & 1449'FWL,SEC.33)		

WELLPATH DATA (185 stations) † = interpolated, ‡ = extrapolated station												
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
17132.00	89.780	178.260	6813.26	10535.57	-10486.50	-1015.76	3261260.35	1329565.39	40.2342709	-104.5642069	0.63	
17227.00	89.850	178.330	6813.57	10629.83	-10581.46	-1012.93	3261263.17	1329470.43	40.2340102	-104.5642004	0.10	
17416.00	89.570	178.420	6814.53	10817.39	-10770.38	-1007.57	3261268.53	1329281.52	40.2334915	-104.5641883	0.16	
17487.00	89.970	178.700	6814.81	10887.88	-10841.36	-1005.79	3261270.32	1329210.55	40.2332966	-104.5641846	0.69	LAST BH MWD SURVEY
17511.00‡	89.970	178.700	6814.82	10911.71	-10865.35	-1005.24	3261270.86	1329186.55	40.2332308	-104.5641836	0.00	PROJECTION TO BIT

HOLE & CASING SECTIONS - Ref Wellbore: Guttersen D09-785 AWB Ref Wellpath: Guttersen D09-785 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	30.00	1927.00	1897.00	30.00	1926.91	0.03	-0.01	-2.08	0.23

REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	Guttersen D09-785
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API	0512348949
Facility	SEC.33-T04N-R64W	Wellbore	Guttersen D09-785 AWB
Slot	SLOT#38 Guttersen D09-785 (468'FSL & 1449'FWL,SEC.33)		

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.04-T03N-R64W	0.00	0.00	0.00	3262276.06	1340051.42	40.2630250	-104.5601710	polygon
2D Polygon: dimensions not calculated								
SEC.09-T03N-R64W	0.00	0.00	0.00	3262276.06	1340051.42	40.2630250	-104.5601710	polygon
2D Polygon: dimensions not calculated								
Guttersen D09-785 BHL REV-1 (200'FSL & 350'FWL,SEC.09)	6815.00	-10865.60	-1037.28	3261238.82	1329186.31	40.2332310	-104.5642983	point
Guttersen D09-785 TPZ REV-1 (200'FNL & 400'FWL,SEC.04)	6815.00	-679.62	-1042.18	3261233.93	1339371.82	40.2611898	-104.5639308	point

WELLPATH COMPOSITION - Ref Wellbore: Guttersen D09-785 AWB Ref Wellpath: Guttersen D09-785 AWP					
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore	Survey Date
0.00	1923.00	Gyrodatta 2015 - GC+DROP+COND	Gyrodatta 2015 - GC+DROP+COND 13-1/2" <84 - 1923>	Guttersen D09-785 AWB	11/30/2020
1923.00	17511.00	OWSG MWD rev2 (MS+IFR1) NOBLE	OWSG MWD rev2 (MS+IFR1) NOBLE 8-1/2" <1993 - 17487>	Guttersen D09-785 AWB	11/30/2020

REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	Guttersen D09-785
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API	0512348949
Facility	SEC.33-T04N-R64W	Wellbore	Guttersen D09-785 AWB
Slot	SLOT#38 Guttersen D09-785 (468'FSL & 1449'FWL,SEC.33)		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
84.00	0.320	336.960	84.00	FIRST GYRODATA SURVEY
1923.00	1.520	236.990	1922.91	LAST GYRODATA SURVEY
1993.00	0.210	197.260	1992.90	FIRST BH MWD SURVEY
17487.00	89.970	178.700	6814.81	LAST BH MWD SURVEY
17511.00	89.970	178.700	6814.82	PROJECTION TO BIT