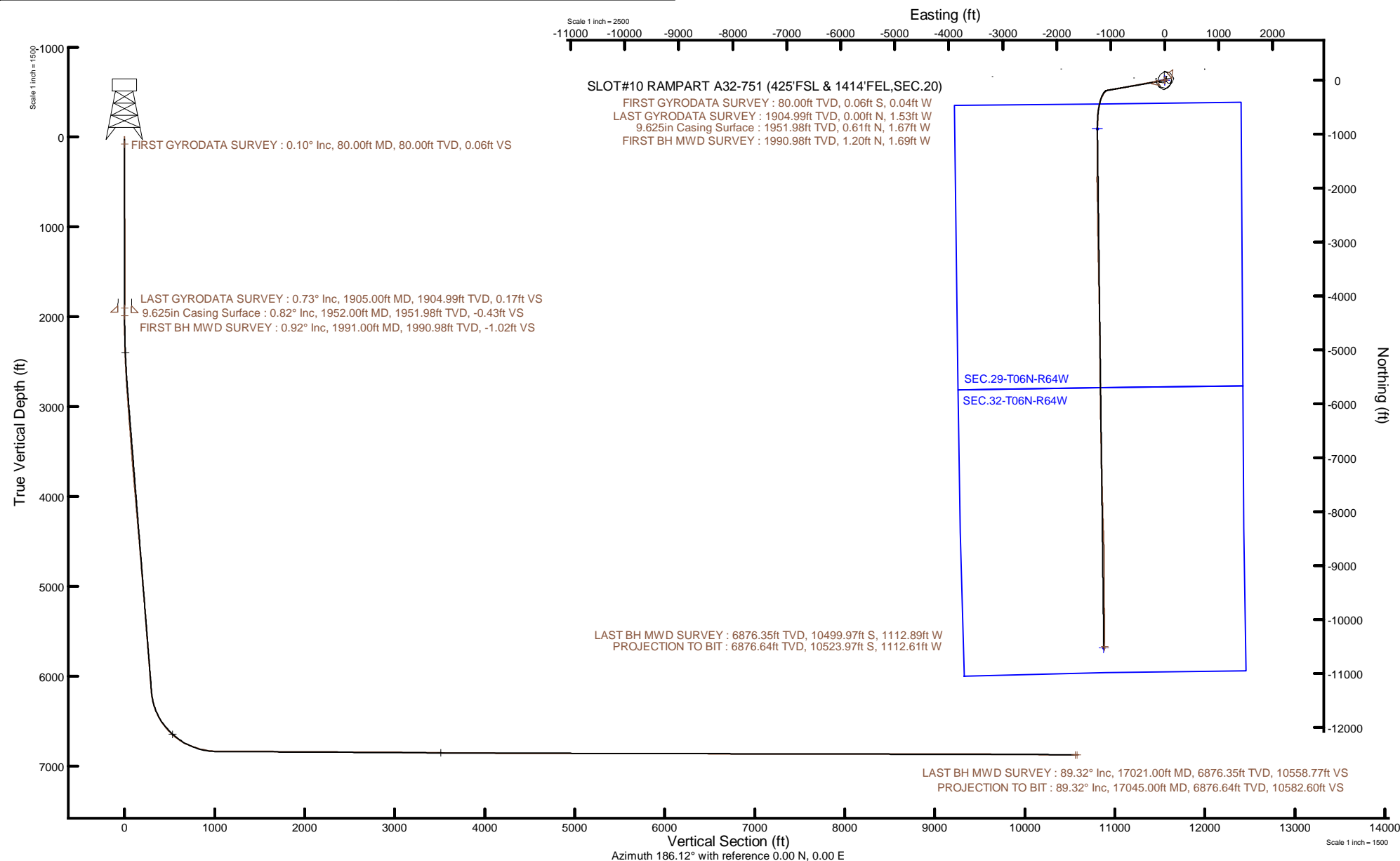


NOBLE ENERGY, INC

Location: COLORADO Slot: SLOT#10 RAMPART A32-751 (425'FSL & 1414'FEL,SEC.20)
Field: WELD COUNTY (NOBLE NAD 83 GRID) Well: RAMPART A32-751
Facility: SEC.20-T06N-R64W Wellbore: RAMPART A32-751 PWB



Plot reference wellpath is RAMPART A32-751 PWP RevC.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: 4736 feet	Coordinates are in feet referenced to Slot
Mean Sea Level to Ground level (At Slot: SLOT#10 RAMPART A32-751 (425'FSL & 1414'FEL,SEC.20)): 0 feet	Depths are in feet
Offset wellpath MDs are referenced to each path's default MD datum	Created by: painsetr on 2021-09-14; Database: WellArchitectDB



REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY, INC	Well	RAMPART A32-751
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API	0512350931
Facility	SEC.20-T06N-R64W	Wellbore	RAMPART A32-751 AWB
Slot	SLOT#10 RAMPART A32-751 (425'FSL & 1414'FEL,SEC.20)		

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	0.999964	Report Generated	9/14/2021 at 2:37:12 PM
Convergence at slot	0.60° 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	-209.46	-737.52	3258845.94	1413740.23	40.4653913°	-104.5696913°
Facility Reference Pt			3259583.43	1413949.68	40.4659449°	-104.5670330°
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	4736.00ft
Horizontal Reference Pt	Slot	H&P 517 (30') (RT) to Mean Sea Level	4736.00ft
Vertical Reference Pt	H&P 517 (30') (RT)	H&P 517 (30') (RT) to Ground Level at Slot (SLOT#10 RAMPART A32-751 (425'FSL & 1414'FEL,SEC.20))	4736.00ft
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	186.12°

REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY, INC	Well	RAMPART A32-751
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API	0512350931
Facility	SEC.20-T06N-R64W	Wellbore	RAMPART A32-751 AWB
Slot	SLOT#10 RAMPART A32-751 (425'FSL & 1414'FEL,SEC.20)		

WELLPATH DATA (180 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	212.660	0.00	0.00	0.00	0.00	3258845.94	1413740.23	40.4653913	-104.5696913	0.00	
80.00	0.100	212.660	80.00	0.06	-0.06	-0.04	3258845.90	1413740.17	40.4653911	-104.5696914	0.13	FIRST GYRODATA SURVEY
173.00	0.280	98.440	173.00	0.14	-0.16	0.14	3258846.08	1413740.07	40.4653908	-104.5696908	0.36	
264.00	0.210	246.200	264.00	0.24	-0.26	0.21	3258846.15	1413739.97	40.4653906	-104.5696905	0.52	
359.00	0.140	28.480	359.00	0.22	-0.23	0.11	3258846.05	1413740.00	40.4653907	-104.5696909	0.35	
453.00	0.260	317.090	453.00	-0.03	0.03	0.02	3258845.96	1413740.26	40.4653914	-104.5696912	0.27	
547.00	0.150	22.090	547.00	-0.29	0.30	-0.08	3258845.86	1413740.53	40.4653921	-104.5696916	0.25	
642.00	0.200	296.720	642.00	-0.47	0.49	-0.18	3258845.76	1413740.72	40.4653926	-104.5696919	0.25	
736.00	0.260	147.960	736.00	-0.36	0.38	-0.22	3258845.72	1413740.61	40.4653923	-104.5696921	0.47	
831.00	0.250	214.310	831.00	0.00	0.03	-0.22	3258845.72	1413740.26	40.4653914	-104.5696921	0.29	
925.00	0.470	200.610	924.99	0.55	-0.50	-0.47	3258845.47	1413739.73	40.4653899	-104.5696930	0.25	
1020.00	0.160	228.950	1019.99	1.02	-0.95	-0.71	3258845.23	1413739.28	40.4653887	-104.5696939	0.36	
1114.00	0.110	100.410	1113.99	1.13	-1.06	-0.72	3258845.22	1413739.17	40.4653884	-104.5696939	0.26	
1209.00	0.090	188.730	1208.99	1.21	-1.15	-0.64	3258845.30	1413739.08	40.4653882	-104.5696936	0.15	
1303.00	0.210	329.100	1302.99	1.15	-1.07	-0.74	3258845.20	1413739.16	40.4653884	-104.5696940	0.30	
1398.00	0.230	284.630	1397.99	0.98	-0.87	-1.01	3258844.93	1413739.36	40.4653889	-104.5696950	0.18	
1493.00	0.310	307.940	1492.99	0.81	-0.67	-1.40	3258844.54	1413739.56	40.4653895	-104.5696963	0.14	
1587.00	0.230	38.260	1586.99	0.52	-0.36	-1.48	3258844.46	1413739.87	40.4653903	-104.5696966	0.41	
1681.00	0.430	121.720	1680.99	0.51	-0.40	-1.07	3258844.87	1413739.83	40.4653902	-104.5696951	0.49	
1776.00	0.200	264.580	1775.99	0.70	-0.60	-0.93	3258845.01	1413739.63	40.4653897	-104.5696947	0.63	
1871.00	0.490	318.490	1870.99	0.46	-0.32	-1.36	3258844.58	1413739.91	40.4653905	-104.5696962	0.43	
1905.00	0.730	340.430	1904.99	0.17	0.00	-1.53	3258844.41	1413740.23	40.4653913	-104.5696968	0.97	LAST GYRODATA SURVEY
1991.00	0.920	2.580	1990.98	-1.02	1.20	-1.69	3258844.25	1413741.43	40.4653946	-104.5696973	0.43	FIRST BH MWD SURVEY
2085.00	2.450	261.100	2084.95	-1.25	1.65	-3.64	3258842.30	1413741.88	40.4653959	-104.5697043	2.96	
2180.00	3.810	263.580	2179.80	-0.04	0.98	-8.78	3258837.16	1413741.21	40.4653942	-104.5697228	1.44	
2274.00	5.310	265.450	2273.50	1.45	0.28	-16.22	3258829.72	1413740.51	40.4653925	-104.5697496	1.60	
2369.00	6.650	259.190	2367.98	3.86	-1.10	-26.00	3258819.94	1413739.13	40.4653890	-104.5697848	1.57	
2464.00	8.050	259.570	2462.20	7.36	-3.33	-37.95	3258807.99	1413736.90	40.4653832	-104.5698278	1.47	
2558.00	10.150	261.150	2555.01	11.38	-5.80	-52.61	3258793.33	1413734.43	40.4653769	-104.5698806	2.25	
2653.00	12.030	261.250	2648.23	16.08	-8.59	-70.67	3258775.28	1413731.64	40.4653697	-104.5699456	1.98	

REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY, INC	Well	RAMPART A32-751
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API	0512350931
Facility	SEC.20-T06N-R64W	Wellbore	RAMPART A32-751 AWB
Slot	SLOT#10 RAMPART A32-751 (425'FSL & 1414'FEL,SEC.20)		

WELLPATH DATA (180 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
2747.00	13.790	260.180	2739.85	21.67	-11.99	-91.39	3258754.55	1413728.24	40.4653610	-104.5700202	1.89	
2842.00	16.080	261.240	2831.64	28.16	-15.93	-115.55	3258730.39	1413724.30	40.4653509	-104.5701071	2.43	
2936.00	16.130	262.770	2921.95	34.52	-19.55	-141.37	3258704.57	1413720.68	40.4653417	-104.5702001	0.45	
3031.00	16.690	261.020	3013.08	41.12	-23.34	-167.94	3258678.01	1413716.89	40.4653321	-104.5702957	0.79	
3126.00	15.910	262.050	3104.26	47.84	-27.27	-194.31	3258651.64	1413712.96	40.4653220	-104.5703906	0.88	
3220.00	15.840	259.960	3194.68	54.54	-31.29	-219.70	3258626.25	1413708.94	40.4653117	-104.5704820	0.61	
3315.00	15.310	260.580	3286.19	61.51	-35.61	-244.84	3258601.11	1413704.62	40.4653006	-104.5705725	0.58	
3410.00	14.400	259.150	3378.01	68.32	-39.88	-268.82	3258577.13	1413700.35	40.4652896	-104.5706588	1.03	
3599.00	15.520	260.490	3560.61	82.00	-48.48	-316.84	3258529.11	1413691.75	40.4652673	-104.5708317	0.62	
3693.00	16.110	258.980	3651.05	89.23	-53.06	-342.04	3258503.91	1413687.18	40.4652555	-104.5709225	0.77	
3788.00	16.150	258.900	3742.31	97.03	-58.12	-367.94	3258478.01	1413682.11	40.4652424	-104.5710157	0.05	
3882.00	16.230	259.150	3832.58	104.73	-63.11	-393.67	3258452.28	1413677.12	40.4652294	-104.5711084	0.11	
3977.00	16.320	258.820	3923.77	112.58	-68.20	-419.81	3258426.15	1413672.04	40.4652162	-104.5712025	0.14	
4072.00	15.860	258.870	4015.05	120.40	-73.29	-445.64	3258400.32	1413666.94	40.4652030	-104.5712955	0.48	
4167.00	16.220	258.840	4106.35	128.19	-78.36	-471.39	3258374.56	1413661.87	40.4651898	-104.5713883	0.38	
4261.00	16.450	259.170	4196.56	135.97	-83.40	-497.35	3258348.61	1413656.83	40.4651767	-104.5714817	0.26	
4356.00	16.670	259.100	4287.62	143.88	-88.51	-523.94	3258322.02	1413651.72	40.4651634	-104.5715775	0.23	
4451.00	16.890	259.570	4378.57	151.80	-93.58	-550.89	3258295.07	1413646.65	40.4651503	-104.5716745	0.27	
4545.00	16.670	259.670	4468.57	159.51	-98.47	-577.58	3258268.38	1413641.76	40.4651376	-104.5717706	0.24	
4640.00	16.300	259.690	4559.66	167.14	-103.30	-604.10	3258241.86	1413636.93	40.4651251	-104.5718661	0.39	
4735.00	16.530	259.190	4650.79	174.84	-108.22	-630.50	3258215.47	1413632.01	40.4651124	-104.5719611	0.28	
4829.00	16.600	259.350	4740.89	182.61	-113.21	-656.83	3258189.14	1413627.02	40.4650994	-104.5720560	0.09	
4924.00	16.430	259.810	4831.97	190.30	-118.10	-683.39	3258162.58	1413622.14	40.4650868	-104.5721516	0.23	
5018.00	16.370	259.400	4922.15	197.85	-122.89	-709.49	3258136.48	1413617.35	40.4650744	-104.5722456	0.14	
5113.00	16.600	258.600	5013.24	205.79	-128.03	-735.95	3258110.02	1413612.20	40.4650610	-104.5723409	0.34	
5207.00	15.810	259.930	5103.51	213.40	-132.92	-761.72	3258084.25	1413607.31	40.4650484	-104.5724337	0.93	
5302.00	16.170	260.270	5194.83	220.62	-137.42	-787.50	3258058.47	1413602.81	40.4650367	-104.5725265	0.39	
5397.00	14.940	260.910	5286.35	227.45	-141.59	-812.63	3258033.34	1413598.64	40.4650260	-104.5726169	1.31	
5492.00	15.870	260.700	5377.94	234.12	-145.63	-837.54	3258008.43	1413594.61	40.4650157	-104.5727066	0.98	
5586.00	16.480	260.560	5468.21	241.11	-149.89	-863.38	3257982.59	1413590.34	40.4650047	-104.5727996	0.65	

REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY, INC	Well	RAMPART A32-751
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API	0512350931
Facility	SEC.20-T06N-R64W	Wellbore	RAMPART A32-751 AWB
Slot	SLOT#10 RAMPART A32-751 (425'FSL & 1414'FEL,SEC.20)		

WELLPATH DATA (180 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
5681.00	16.130	260.200	5559.39	248.35	-154.35	-889.68	3257956.30	1413585.89	40.4649932	-104.5728943	0.38	
5775.00	15.960	260.210	5649.73	255.47	-158.77	-915.28	3257930.70	1413581.47	40.4649818	-104.5729865	0.18	
5870.00	16.230	259.810	5741.01	262.78	-163.34	-941.22	3257904.76	1413576.90	40.4649700	-104.5730798	0.31	
5964.00	16.160	259.650	5831.28	270.18	-168.01	-967.01	3257878.96	1413572.23	40.4649579	-104.5731727	0.09	
6059.00	15.540	260.780	5922.67	277.29	-172.42	-992.58	3257853.40	1413567.81	40.4649466	-104.5732648	0.73	
6153.00	15.050	260.220	6013.34	283.97	-176.52	-1017.04	3257828.94	1413563.72	40.4649360	-104.5733528	0.54	
6248.00	15.210	259.750	6105.04	290.86	-180.83	-1041.45	3257804.53	1413559.41	40.4649249	-104.5734407	0.21	
6343.00	16.370	254.790	6196.46	299.24	-186.56	-1066.64	3257779.34	1413553.68	40.4649099	-104.5735314	1.87	
6437.00	19.120	232.980	6286.08	314.61	-199.32	-1091.74	3257754.24	1413540.92	40.4648756	-104.5736221	7.60	
6532.00	24.120	217.750	6374.44	341.82	-224.07	-1116.08	3257729.90	1413516.17	40.4648084	-104.5737105	7.87	
6627.00	30.380	208.820	6458.89	380.56	-260.52	-1139.58	3257706.40	1413479.72	40.4647090	-104.5737963	7.85	
6721.00	37.020	207.650	6537.05	428.87	-306.46	-1164.20	3257681.78	1413433.78	40.4645836	-104.5738865	7.10	
6816.00	44.230	198.030	6609.18	488.03	-363.43	-1187.78	3257658.20	1413376.81	40.4644279	-104.5739734	10.04	
6910.00	50.850	192.310	6672.63	556.45	-430.32	-1205.73	3257640.26	1413309.93	40.4642448	-104.5740404	8.35	
7005.00	59.240	192.150	6727.01	633.80	-506.35	-1222.20	3257623.78	1413233.90	40.4640366	-104.5741025	8.83	
7099.00	66.870	186.350	6769.60	717.37	-588.97	-1235.51	3257610.48	1413151.29	40.4638102	-104.5741534	9.80	
7194.00	74.000	181.580	6801.41	806.73	-678.18	-1241.61	3257604.37	1413062.07	40.4635655	-104.5741787	8.87	
7288.00	79.160	180.790	6823.22	897.79	-769.57	-1243.50	3257602.49	1412970.69	40.4633148	-104.5741889	5.55	
7383.00	87.600	180.670	6834.16	991.65	-863.84	-1244.70	3257601.29	1412876.42	40.4630561	-104.5741967	8.89	
7478.00	89.970	180.820	6836.17	1086.21	-958.80	-1245.93	3257600.06	1412781.46	40.4627954	-104.5742047	2.50	
7572.00	89.480	179.930	6836.62	1179.73	-1052.80	-1246.55	3257599.44	1412687.47	40.4625375	-104.5742105	1.08	
7666.00	89.630	180.210	6837.35	1273.21	-1146.80	-1246.66	3257599.33	1412593.48	40.4622795	-104.5742144	0.34	
7761.00	90.460	180.350	6837.28	1367.71	-1241.79	-1247.13	3257598.86	1412498.48	40.4620187	-104.5742196	0.89	
7855.00	89.820	180.840	6837.05	1461.27	-1335.79	-1248.10	3257597.89	1412404.49	40.4617608	-104.5742267	0.86	
7950.00	90.030	180.770	6837.17	1555.86	-1430.78	-1249.44	3257596.55	1412309.51	40.4615001	-104.5742350	0.23	
8044.00	88.920	180.600	6838.04	1649.44	-1524.77	-1250.56	3257595.43	1412215.52	40.4612422	-104.5742426	1.19	
8139.00	88.740	180.240	6839.98	1743.95	-1619.74	-1251.26	3257594.73	1412120.55	40.4609815	-104.5742487	0.42	
8234.00	90.120	180.760	6840.92	1838.48	-1714.73	-1252.09	3257593.90	1412025.56	40.4607208	-104.5742552	1.55	
8328.00	90.150	180.620	6840.70	1932.06	-1808.73	-1253.22	3257592.77	1411931.57	40.4604628	-104.5742628	0.15	
8423.00	90.520	178.880	6840.14	2026.47	-1903.72	-1252.80	3257593.18	1411836.58	40.4602021	-104.5742649	1.87	

REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY, INC	Well	RAMPART A32-751
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API	0512350931
Facility	SEC.20-T06N-R64W	Wellbore	RAMPART A32-751 AWB
Slot	SLOT#10 RAMPART A32-751 (425'FSL & 1414'FEL,SEC.20)		

WELLPATH DATA (180 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
8517.00	90.090	179.050	6839.64	2119.73	-1997.70	-1251.11	3257594.88	1411742.60	40.4599441	-104.5742623	0.49	
8612.00	89.050	178.480	6840.36	2213.95	-2092.68	-1249.06	3257596.93	1411647.63	40.4596834	-104.5742585	1.25	
8707.00	89.050	178.330	6841.93	2308.07	-2187.63	-1246.41	3257599.57	1411552.69	40.4594227	-104.5742526	0.16	
8801.00	89.010	178.440	6843.52	2401.20	-2281.58	-1243.77	3257602.22	1411458.74	40.4591647	-104.5742466	0.12	
8896.00	90.520	179.750	6843.91	2495.49	-2376.56	-1242.27	3257603.72	1411363.76	40.4589040	-104.5742447	2.10	
8991.00	89.660	179.330	6843.76	2589.86	-2471.55	-1241.50	3257604.49	1411268.77	40.4586432	-104.5742456	1.01	
9085.00	89.940	179.660	6844.09	2683.23	-2565.55	-1240.67	3257605.31	1411174.78	40.4583852	-104.5742461	0.46	
9180.00	89.660	178.950	6844.42	2777.56	-2660.54	-1239.52	3257606.47	1411079.79	40.4581245	-104.5742455	0.80	
9369.00	89.200	179.350	6846.30	2965.15	-2849.51	-1236.72	3257609.27	1410890.83	40.4576057	-104.5742425	0.32	
9463.00	89.260	178.730	6847.57	3058.42	-2943.49	-1235.14	3257610.84	1410796.85	40.4573477	-104.5742404	0.66	
9558.00	88.680	178.530	6849.27	3152.60	-3038.45	-1232.87	3257613.11	1410701.90	40.4570870	-104.5742358	0.65	
9652.00	89.450	179.060	6850.81	3245.81	-3132.41	-1230.90	3257615.09	1410607.94	40.4568291	-104.5742322	0.99	
9747.00	90.000	179.900	6851.26	3340.18	-3227.40	-1230.03	3257615.95	1410512.95	40.4565683	-104.5742327	1.06	
9841.00	89.110	178.780	6851.99	3433.51	-3321.39	-1228.95	3257617.04	1410418.96	40.4563103	-104.5742323	1.52	
9936.00	89.480	178.760	6853.16	3527.72	-3416.36	-1226.91	3257619.07	1410324.00	40.4560496	-104.5742286	0.39	
10031.00	89.630	178.640	6853.90	3621.92	-3511.34	-1224.76	3257621.23	1410229.03	40.4557888	-104.5742244	0.20	
10125.00	89.350	178.670	6854.74	3715.12	-3605.31	-1222.55	3257623.44	1410135.06	40.4555309	-104.5742200	0.30	
10220.00	89.780	179.250	6855.46	3809.38	-3700.29	-1220.83	3257625.16	1410040.08	40.4552701	-104.5742174	0.76	
10314.00	89.290	179.150	6856.22	3902.69	-3794.28	-1219.51	3257626.47	1409946.10	40.4550121	-104.5742162	0.53	
10409.00	89.940	179.090	6856.86	3996.98	-3889.26	-1218.05	3257627.93	1409851.12	40.4547513	-104.5742145	0.69	
10503.00	89.110	178.110	6857.64	4090.17	-3983.23	-1215.76	3257630.23	1409757.15	40.4544934	-104.5742098	1.37	
10598.00	89.630	178.480	6858.68	4184.27	-4078.18	-1212.93	3257633.05	1409662.21	40.4542327	-104.5742032	0.67	
10692.00	89.450	179.180	6859.44	4277.51	-4172.16	-1211.01	3257634.97	1409568.23	40.4539747	-104.5741998	0.77	
10787.00	88.650	179.050	6861.01	4371.79	-4267.13	-1209.55	3257636.44	1409473.26	40.4537140	-104.5741981	0.85	
10881.00	89.600	179.050	6862.45	4465.06	-4361.11	-1207.99	3257638.00	1409379.29	40.4534560	-104.5741960	1.01	
10976.00	89.940	178.880	6862.83	4559.32	-4456.09	-1206.27	3257639.71	1409284.31	40.4531952	-104.5741934	0.40	
11070.00	90.250	179.680	6862.67	4652.65	-4550.08	-1205.09	3257640.90	1409190.32	40.4529372	-104.5741927	0.91	
11165.00	90.150	179.210	6862.34	4747.00	-4645.08	-1204.17	3257641.82	1409095.33	40.4526764	-104.5741930	0.51	
11259.00	89.970	179.330	6862.24	4840.33	-4739.07	-1202.97	3257643.01	1409001.34	40.4524184	-104.5741922	0.23	
11354.00	90.180	179.220	6862.12	4934.65	-4834.06	-1201.77	3257644.22	1408906.35	40.4521577	-104.5741914	0.25	

REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY, INC	Well	RAMPART A32-751
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API	0512350931
Facility	SEC.20-T06N-R64W	Wellbore	RAMPART A32-751 AWB
Slot	SLOT#10 RAMPART A32-751 (425'FSL & 1414'FEL,SEC.20)		

WELLPATH DATA (180 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
11448.00	89.910	178.950	6862.05	5027.95	-4928.05	-1200.27	3257645.72	1408812.37	40.4518996	-104.5741896	0.41	
11543.00	90.340	179.450	6861.84	5122.25	-5023.04	-1198.94	3257647.04	1408717.38	40.4516389	-104.5741884	0.69	
11637.00	90.090	180.010	6861.49	5215.67	-5117.04	-1198.50	3257647.49	1408623.39	40.4513809	-104.5741903	0.65	
11732.00	89.940	179.620	6861.46	5310.09	-5212.04	-1198.19	3257647.79	1408528.39	40.4511201	-104.5741927	0.44	
11827.00	90.250	179.720	6861.30	5404.49	-5307.03	-1197.65	3257648.34	1408433.40	40.4508594	-104.5741943	0.34	
11921.00	89.910	179.180	6861.17	5497.85	-5401.03	-1196.74	3257649.24	1408339.41	40.4506013	-104.5741946	0.68	
12015.00	90.030	179.520	6861.22	5591.20	-5495.02	-1195.68	3257650.31	1408245.42	40.4503433	-104.5741943	0.38	
12110.00	90.000	179.500	6861.20	5685.57	-5590.02	-1194.86	3257651.12	1408150.42	40.4500826	-104.5741950	0.04	
12205.00	90.180	179.720	6861.05	5779.95	-5685.02	-1194.22	3257651.77	1408055.43	40.4498218	-104.5741962	0.30	
12300.00	89.660	178.920	6861.18	5874.28	-5780.01	-1193.09	3257652.90	1407960.44	40.4495610	-104.5741957	1.00	
12394.00	89.630	179.490	6861.76	5967.60	-5874.00	-1191.79	3257654.20	1407866.46	40.4493030	-104.5741946	0.61	
12489.00	89.910	179.110	6862.14	6061.92	-5968.99	-1190.63	3257655.36	1407771.47	40.4490423	-104.5741940	0.50	
12583.00	90.000	179.240	6862.22	6155.23	-6062.98	-1189.27	3257656.71	1407677.48	40.4487843	-104.5741926	0.17	
12678.00	89.970	179.520	6862.24	6249.58	-6157.97	-1188.24	3257657.74	1407582.49	40.4485235	-104.5741925	0.30	
12772.00	90.030	179.090	6862.24	6342.91	-6251.97	-1187.10	3257658.88	1407488.50	40.4482655	-104.5741919	0.46	
12962.00	88.920	178.850	6863.98	6531.42	-6441.93	-1183.69	3257662.30	1407298.55	40.4477440	-104.5741868	0.60	
13056.00	89.690	178.760	6865.12	6624.65	-6535.90	-1181.73	3257664.26	1407204.58	40.4474860	-104.5741833	0.82	
13151.00	89.850	179.290	6865.50	6718.92	-6630.88	-1180.11	3257665.87	1407109.60	40.4472253	-104.5741810	0.58	
13245.00	89.690	178.480	6865.88	6812.17	-6724.86	-1178.28	3257667.70	1407015.62	40.4469673	-104.5741780	0.88	
13340.00	89.690	179.210	6866.40	6906.40	-6819.84	-1176.37	3257669.62	1406920.65	40.4467065	-104.5741747	0.77	
13435.00	90.120	178.590	6866.55	7000.65	-6914.82	-1174.54	3257671.44	1406825.67	40.4464458	-104.5741717	0.79	
13529.00	90.490	178.760	6866.05	7093.85	-7008.80	-1172.37	3257673.61	1406731.70	40.4461878	-104.5741674	0.43	
13623.00	90.030	178.840	6865.63	7187.09	-7102.77	-1170.40	3257675.58	1406637.73	40.4459298	-104.5741638	0.50	
13718.00	89.720	178.580	6865.83	7281.29	-7197.75	-1168.26	3257677.72	1406542.75	40.4456690	-104.5741597	0.43	
13812.00	89.750	178.450	6866.27	7374.46	-7291.72	-1165.83	3257680.16	1406448.79	40.4454110	-104.5741545	0.14	
13907.00	90.460	179.490	6866.09	7468.72	-7386.70	-1164.12	3257681.86	1406353.81	40.4451503	-104.5741519	1.33	
14001.00	89.910	178.580	6865.79	7562.00	-7480.69	-1162.54	3257683.45	1406259.83	40.4448923	-104.5741497	1.13	
14096.00	90.030	178.430	6865.84	7656.16	-7575.65	-1160.06	3257685.93	1406164.87	40.4446315	-104.5741444	0.20	
14191.00	90.030	178.390	6865.79	7750.30	-7670.62	-1157.42	3257688.56	1406069.91	40.4443708	-104.5741385	0.04	
14285.00	90.000	178.380	6865.77	7843.45	-7764.58	-1154.77	3257691.21	1405975.95	40.4441128	-104.5741325	0.03	

REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY, INC	Well	RAMPART A32-751
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API	0512350931
Facility	SEC.20-T06N-R64W	Wellbore	RAMPART A32-751 AWB
Slot	SLOT#10 RAMPART A32-751 (425'FSL & 1414'FEL,SEC.20)		

WELLPATH DATA (180 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
14380.00	89.780	178.710	6865.95	7937.62	-7859.55	-1152.36	3257693.62	1405880.98	40.4438521	-104.5741274	0.42	
14474.00	90.180	177.980	6865.98	8030.75	-7953.51	-1149.65	3257696.34	1405787.03	40.4435941	-104.5741212	0.89	
14569.00	90.090	178.670	6865.76	8124.87	-8048.47	-1146.87	3257699.11	1405692.07	40.4433334	-104.5741148	0.73	
14663.00	90.520	178.000	6865.26	8218.01	-8142.42	-1144.14	3257701.85	1405598.12	40.4430754	-104.5741085	0.85	
14758.00	89.970	177.900	6864.85	8312.04	-8237.36	-1140.74	3257705.24	1405503.18	40.4428148	-104.5740998	0.59	
14852.00	90.090	177.810	6864.80	8405.06	-8331.30	-1137.22	3257708.76	1405409.25	40.4425568	-104.5740907	0.16	
14947.00	89.940	177.740	6864.78	8499.06	-8426.22	-1133.53	3257712.45	1405314.33	40.4422962	-104.5740810	0.17	
15041.00	89.820	177.980	6864.97	8592.08	-8520.16	-1130.02	3257715.96	1405220.40	40.4420383	-104.5740719	0.29	
15136.00	89.750	179.710	6865.33	8686.31	-8615.14	-1128.11	3257717.87	1405125.42	40.4417775	-104.5740686	1.82	
15230.00	90.060	180.100	6865.49	8779.76	-8709.13	-1127.95	3257718.03	1405031.43	40.4415195	-104.5740716	0.53	
15325.00	90.090	179.100	6865.36	8874.14	-8804.13	-1127.29	3257718.69	1404936.43	40.4412588	-104.5740728	1.05	
15419.00	90.280	179.850	6865.06	8967.51	-8898.13	-1126.43	3257719.56	1404842.44	40.4410007	-104.5740732	0.82	
15514.00	90.030	180.080	6864.80	9061.96	-8993.13	-1126.37	3257719.61	1404747.45	40.4407400	-104.5740766	0.36	
15609.00	89.910	179.820	6864.85	9156.41	-9088.13	-1126.29	3257719.70	1404652.45	40.4404792	-104.5740798	0.30	
15703.00	89.750	179.500	6865.13	9249.81	-9182.12	-1125.73	3257720.25	1404558.46	40.4402212	-104.5740813	0.38	
15798.00	90.620	179.910	6864.82	9344.22	-9277.12	-1125.24	3257720.74	1404463.46	40.4399605	-104.5740831	1.01	
15892.00	88.860	179.000	6865.25	9437.57	-9371.11	-1124.35	3257721.64	1404369.48	40.4397025	-104.5740835	2.11	
15987.00	89.290	179.020	6866.78	9531.83	-9466.08	-1122.70	3257723.28	1404274.51	40.4394417	-104.5740811	0.45	
16082.00	89.080	179.110	6868.13	9626.10	-9561.06	-1121.15	3257724.83	1404179.53	40.4391810	-104.5740791	0.24	
16176.00	90.090	180.080	6868.82	9719.49	-9655.05	-1120.49	3257725.49	1404085.54	40.4389230	-104.5740803	1.49	
16271.00	89.600	179.540	6869.07	9813.91	-9750.05	-1120.18	3257725.81	1403990.55	40.4386622	-104.5740827	0.77	
16365.00	89.540	179.160	6869.78	9907.25	-9844.04	-1119.11	3257726.87	1403896.56	40.4384042	-104.5740824	0.41	
16460.00	88.890	179.040	6871.08	10001.53	-9939.02	-1117.62	3257728.37	1403801.59	40.4381435	-104.5740806	0.70	
16554.00	89.230	179.620	6872.62	10094.86	-10033.00	-1116.52	3257729.46	1403707.61	40.4378855	-104.5740802	0.72	
16648.00	90.000	179.870	6873.25	10188.27	-10127.00	-1116.10	3257729.88	1403613.62	40.4376275	-104.5740822	0.86	
16743.00	89.750	179.490	6873.46	10282.67	-10222.00	-1115.57	3257730.41	1403518.62	40.4373668	-104.5740839	0.48	
16838.00	89.380	179.540	6874.18	10377.04	-10316.99	-1114.76	3257731.22	1403423.63	40.4371060	-104.5740845	0.39	
16932.00	89.290	179.390	6875.27	10470.40	-10410.98	-1113.89	3257732.10	1403329.65	40.4368480	-104.5740849	0.19	
17021.00	89.320	179.330	6876.35	10558.77	-10499.97	-1112.89	3257733.09	1403240.66	40.4366037	-104.5740847	0.08	LAST BH MWD SURVEY
17045.00†	89.320	179.330	6876.64	10582.60	-10523.97	-1112.61	3257733.37	1403216.67	40.4365378	-104.5740846	0.00	PROJECTION TO BIT

HOLE & CASING SECTIONS - Ref Wellbore: RAMPART A32-751 AWB Ref Wellpath: RAMPART A32-751 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	1952.00	1922.00	30.00	1951.98	-0.01	-0.01	0.61	-1.67

TARGETS

Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.29-T06N-R64W	0.00	0.00	0.00	3258845.94	1413740.23	40.4653913	-104.5696913	polygon
2D Polygon: dimensions not calculated								
SEC.32-T06N-R64W	0.00	0.00	0.00	3258845.94	1413740.23	40.4653913	-104.5696913	polygon
2D Polygon: dimensions not calculated								
RAMPART A32-751 TPZ REV-2 (460'FNL & 2640'FWL,SEC.29)	6839.00	-899.84	-1247.15	3257598.83	1412840.42	40.4629573	-104.5742069	point
RAMPART A32-751 TPZ REV-1 (460'FNL & 2640'FWL,SEC.29)	6854.00	-899.84	-1247.15	3257598.83	1412840.42	40.4629573	-104.5742069	point
RAMPART A32-751 BHL REV-1 (460'FSL & 2599'FWL,SEC.32)	6874.00	-10524.84	-1128.85	3257717.14	1403215.79	40.4365359	-104.5741429	point

REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY, INC	Well	RAMPART A32-751
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API	0512350931
Facility	SEC.20-T06N-R64W	Wellbore	RAMPART A32-751 AWB
Slot	SLOT#10 RAMPART A32-751 (425'FSL & 1414'FEL,SEC.20)		

WELLPATH COMPOSITION - Ref Wellbore: RAMPART A32-751 AWB Ref Wellpath: RAMPART A32-751 AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore	Survey Date
0.00	1905.00	Gyrodatta 2015 - GC+DROP+COND	Gyrodatta 2015 - GC+DROP+COND 13-1/2" <80 - 1905>	RAMPART A32-751 AWB	9/7/2021
1905.00	17045.00	OWSG MWD rev2 (MS+IFR1)	OWSG MWD rev2 (MS+IFR1) 8-1/2" <1991 - 17021>	RAMPART A32-751 AWB	9/13/2021

REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY, INC	Well	RAMPART A32-751
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API	0512350931
Facility	SEC.20-T06N-R64W	Wellbore	RAMPART A32-751 AWB
Slot	SLOT#10 RAMPART A32-751 (425'FSL & 1414'FEL,SEC.20)		

WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
80.00	0.100	212.660	80.00	FIRST GYRODATA SURVEY
1905.00	0.730	340.430	1904.99	LAST GYRODATA SURVEY
1991.00	0.920	2.580	1990.98	FIRST BH MWD SURVEY
17021.00	89.320	179.330	6876.35	LAST BH MWD SURVEY
17045.00	89.320	179.330	6876.64	PROJECTION TO BIT