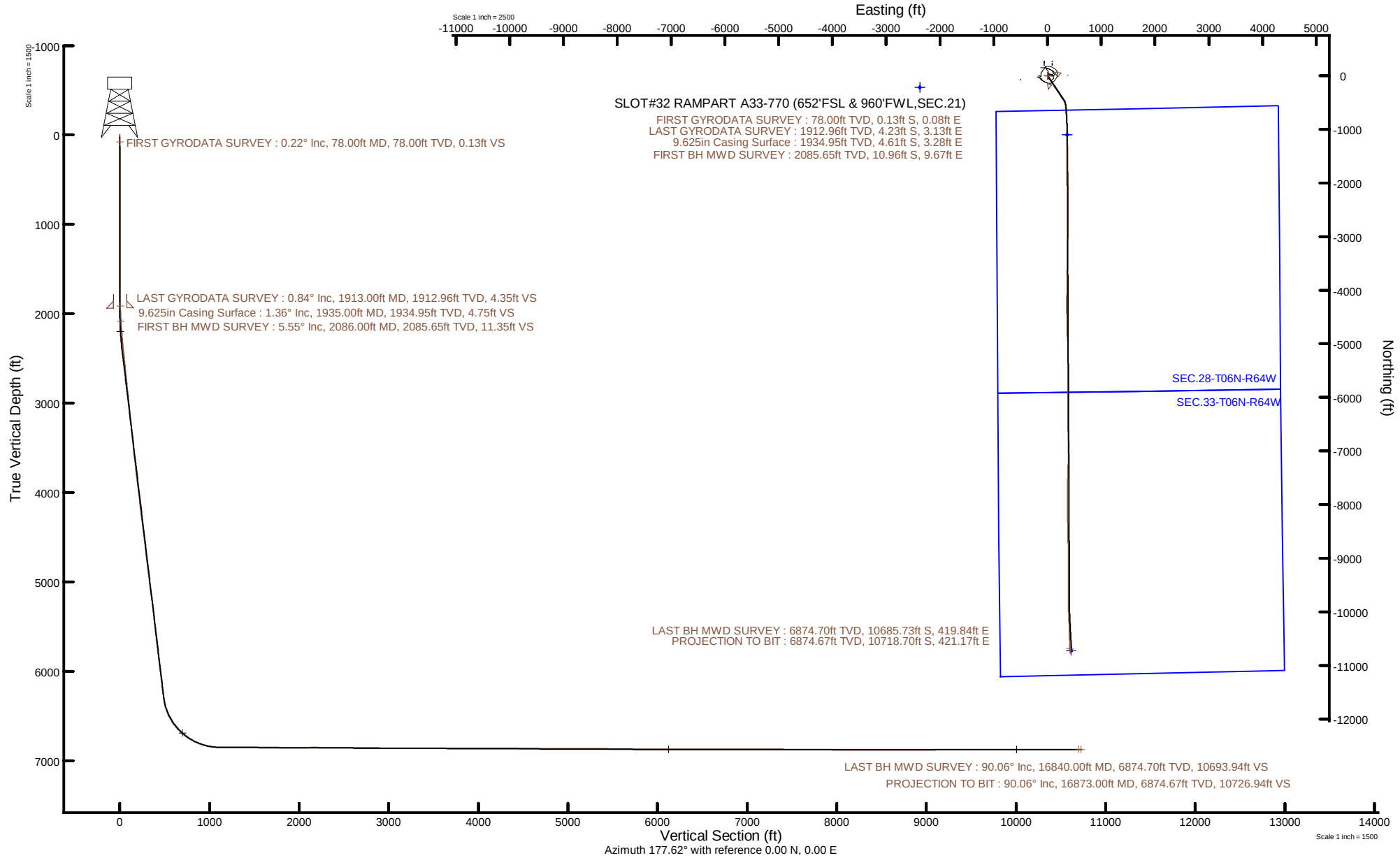
NOBLE ENERGY, INC

Location:	COLORADO	Slot:	SLOT#32 RAMPART A33-770 (652'FSL & 960'FWL,SEC.21)
Field:	WELD COUNTY (NOBLE NAD 83 GRID)	Well:	RAMPART A33-770
Facility:	SEC.21-T06N-R64W	Wellbore:	RAMPART A33-770 PWB

Plot reference wellpath is RAMPART A33-770 PWP Rev-B.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: 4757 feet	Coordinates are in feet referenced to Slot
Mean Sea Level to Ground level (At Slot: SLOT#32 RAMPART A33-770 (652'FSL & 960'FWL,SEC.21)): 0 feet	Depths are in feet
Offset wellpath MDs are referenced to each path's default MD datum	Created by: painsetr on 2021-08-03; Database: WA_Denver



Actual Wellpath Report

RAMPART A33-770 AWP

REFERENCE WELLPATH IDENTIFICATION			
Operator	**NOBLE ENERGY, INC**	Well	**RAMPART A33-770**
Field	**WELD COUNTY (NOBLE NAD 83 GRID)**	API	**0512350928**
Facility	**SEC.21-T06N-R64W**	Wellbore	**RAMPART A33-770 AWB**
Slot	**SLOT#32 RAMPART A33-770 (652'FSL & 960'FWL,SEC.21)**		

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	**8/3/2021** at **11:16:31 AM**
Convergence at slot	**0.61° East**	Database	**WA_Denver**

WELLPATH LOCATION	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	**East[ft]**	**Easting[US ft]**	**Northing[US ft]**	**Latitude**	**Longitude**
Slot Location	-199.43	-88.99	**3261217.77**	**1414003.46**	40.4660452°	-104.5611574°
Facility Reference Pt			3261306.76	1414202.89	**40.4665900°**	**-104.5608300°**
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	**4757.00ft**
Horizontal Reference Pt	**Slot**	H&P 517 (30') (RT) to Mean Sea Level	**4757.00ft**
Vertical Reference Pt	**H&P 517 (30') (RT)**	H&P 517 (30') (RT) to Ground Level at Slot (SLOT#32 RAMPART A33-770 (652'FSL & 960'FWL,SEC.21))	**4757.00ft**
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	**177.62°**

Actual Wellpath Report

RAMPART A33-770 AWP

REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	RAMPART A33-770
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API	0512350928
Facility	SEC.21-T06N-R64W	Wellbore	RAMPART A33-770 AWB
Slot	SLOT#32 RAMPART A33-770 (652'FSL & 960'FWL,SEC.21)		

WELLPATH DATA (174 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	149.840	0.00	0.00	0.00	0.00	3261217.77	1414003.46	40.4660452	-104.5611574	0.00	
78.00	0.220	149.840	78.00	0.13	-0.13	0.08	3261217.85	1414003.33	40.4660448	-104.5611571	0.28	FIRST GYRODATA SURVEY
171.00	0.580	145.380	171.00	0.69	-0.67	0.43	3261218.20	1414002.79	40.4660433	-104.5611559	0.39	
262.00	0.230	178.500	262.00	1.26	-1.23	0.70	3261218.47	1414002.23	40.4660418	-104.5611549	0.45	
357.00	0.220	101.410	356.99	1.49	-1.46	0.88	3261218.65	1414002.00	40.4660412	-104.5611543	0.30	
451.00	0.320	324.890	450.99	1.32	-1.28	0.91	3261218.68	1414002.18	40.4660417	-104.5611542	0.54	
546.00	0.350	339.640	545.99	0.82	-0.79	0.65	3261218.42	1414002.67	40.4660430	-104.5611551	0.10	
640.00	0.180	267.790	639.99	0.54	-0.53	0.41	3261218.18	1414002.93	40.4660437	-104.5611560	0.36	
735.00	0.030	158.080	734.99	0.57	-0.56	0.27	3261218.04	1414002.90	40.4660437	-104.5611565	0.20	
829.00	0.170	208.500	828.99	0.71	-0.70	0.21	3261217.98	1414002.76	40.4660433	-104.5611567	0.16	
924.00	0.360	225.540	923.99	1.03	-1.04	-0.07	3261217.70	1414002.42	40.4660424	-104.5611577	0.21	
1019.00	0.190	154.780	1018.99	1.38	-1.39	-0.22	3261217.55	1414002.07	40.4660414	-104.5611582	0.37	
1113.00	0.270	251.990	1112.99	1.58	-1.60	-0.36	3261217.41	1414001.86	40.4660408	-104.5611588	0.37	
1208.00	0.270	252.170	1207.99	1.70	-1.73	-0.79	3261216.98	1414001.73	40.4660405	-104.5611603	0.00	
1302.00	0.030	353.180	1301.99	1.73	-1.78	-1.00	3261216.77	1414001.68	40.4660403	-104.5611611	0.29	
1397.00	0.150	81.640	1396.99	1.70	-1.73	-0.88	3261216.89	1414001.73	40.4660405	-104.5611606	0.16	
1491.00	0.260	87.010	1490.99	1.68	-1.71	-0.54	3261217.23	1414001.75	40.4660405	-104.5611594	0.12	
1586.00	0.560	100.790	1585.98	1.78	-1.78	0.13	3261217.90	1414001.68	40.4660403	-104.5611570	0.33	
1680.00	0.750	110.760	1679.98	2.13	-2.09	1.15	3261218.92	1414001.37	40.4660394	-104.5611533	0.23	
1775.00	0.770	126.610	1774.97	2.78	-2.69	2.25	3261220.02	1414000.77	40.4660378	-104.5611494	0.22	
1869.00	0.750	159.480	1868.96	3.76	-3.64	2.97	3261220.74	1413999.82	40.4660351	-104.5611469	0.46	
1913.00	0.840	170.040	1912.96	4.35	-4.23	3.13	3261220.90	1413999.23	40.4660335	-104.5611463	0.39	LAST GYRODATA SURVEY
2086.00	5.550	130.930	2085.65	11.35	-10.96	9.67	3261227.44	1413992.50	40.4660148	-104.5611231	2.85	FIRST BH MWD SURVEY
2181.00	4.550	149.970	2180.29	17.84	-17.23	15.03	3261232.80	1413986.23	40.4659975	-104.5611041	2.04	
2275.00	5.160	156.310	2273.95	25.08	-24.33	18.59	3261236.36	1413979.13	40.4659779	-104.5610915	0.86	
2370.00	7.090	147.260	2368.40	34.12	-33.18	23.48	3261241.25	1413970.28	40.4659535	-104.5610743	2.27	
2464.00	6.970	147.020	2461.70	44.04	-42.84	29.72	3261247.49	1413960.62	40.4659267	-104.5610522	0.13	
2559.00	6.400	144.460	2556.05	53.43	-51.98	35.94	3261253.71	1413951.48	40.4659015	-104.5610302	0.68	
2654.00	6.780	144.270	2650.42	62.55	-60.84	42.29	3261260.06	1413942.62	40.4658770	-104.5610077	0.40	
2748.00	6.870	145.270	2743.76	71.94	-69.97	48.73	3261266.50	1413933.49	40.4658517	-104.5609849	0.16	

REFERENCE WELLPATH IDENTIFICATION			
Operator	**NOBLE ENERGY, INC**	Well	**RAMPART A33-770**
Field	**WELD COUNTY (NOBLE NAD 83 GRID)**	API	**0512350928**
Facility	**SEC.21-T06N-R64W**	Wellbore	**RAMPART A33-770 AWB**
Slot	**SLOT#32 RAMPART A33-770 (652'FSL & 960'FWL,SEC.21)**		

WELLPATH DATA (174 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
2843.00	7.500	159.760	2838.02	82.64	-80.46	54.11	3261271.88	1413923.01	40.4658228	-104.5609660	2.01	
2937.00	6.410	142.570	2931.34	92.77	-90.38	59.43	3261277.19	1413913.08	40.4657954	-104.5609473	2.49	
3032.00	7.200	145.840	3025.67	102.18	-99.52	65.99	3261283.76	1413903.95	40.4657701	-104.5609240	0.93	
3127.00	6.480	142.810	3119.99	111.64	-108.72	72.58	3261290.34	1413894.75	40.4657447	-104.5609007	0.85	
3222.00	7.150	149.100	3214.32	121.24	-118.06	78.85	3261296.62	1413885.41	40.4657189	-104.5608785	1.05	
3316.00	6.810	144.530	3307.62	131.05	-127.62	85.09	3261302.86	1413875.85	40.4656924	-104.5608565	0.69	
3411.00	7.570	147.850	3401.88	141.20	-137.50	91.69	3261309.46	1413865.96	40.4656651	-104.5608331	0.91	
3506.00	7.250	146.080	3496.08	151.74	-147.78	98.36	3261316.13	1413855.69	40.4656367	-104.5608095	0.41	
3600.00	7.570	144.110	3589.30	161.96	-157.71	105.30	3261323.07	1413845.75	40.4656093	-104.5607850	0.43	
3695.00	7.740	145.460	3683.45	172.59	-168.05	112.60	3261330.37	1413835.41	40.4655807	-104.5607591	0.26	
3789.00	7.800	145.400	3776.59	183.35	-178.52	119.81	3261337.58	1413824.95	40.4655517	-104.5607336	0.06	
3884.00	8.150	144.730	3870.67	194.46	-189.32	127.36	3261345.12	1413814.15	40.4655219	-104.5607069	0.38	
3979.00	8.130	145.600	3964.71	205.81	-200.36	135.04	3261352.81	1413803.11	40.4654913	-104.5606797	0.13	
4073.00	7.960	145.540	4057.79	216.96	-211.21	142.48	3261360.25	1413792.26	40.4654613	-104.5606534	0.18	
4168.00	8.100	146.490	4151.86	228.26	-222.22	149.90	3261367.66	1413781.25	40.4654309	-104.5606272	0.20	
4262.00	8.150	145.800	4244.91	239.59	-233.25	157.30	3261375.06	1413770.22	40.4654004	-104.5606010	0.12	
4357.00	8.110	146.800	4338.96	251.07	-244.43	164.75	3261382.52	1413759.04	40.4653695	-104.5605746	0.15	
4451.00	8.360	146.510	4431.99	262.61	-255.67	172.15	3261389.92	1413747.80	40.4653384	-104.5605485	0.27	
4546.00	8.200	146.300	4526.00	274.31	-267.07	179.72	3261397.49	1413736.40	40.4653069	-104.5605217	0.17	
4640.00	7.800	147.270	4619.08	285.55	-278.01	186.89	3261404.66	1413725.46	40.4652767	-104.5604963	0.45	
4735.00	7.710	148.040	4713.21	296.65	-288.84	193.75	3261411.51	1413714.63	40.4652468	-104.5604721	0.14	
4829.00	7.980	146.340	4806.33	307.71	-299.62	200.71	3261418.47	1413703.85	40.4652170	-104.5604475	0.38	
4924.00	8.390	146.820	4900.37	319.30	-310.91	208.15	3261425.92	1413692.56	40.4651858	-104.5604212	0.44	
5018.00	8.770	146.790	4993.31	331.35	-322.65	215.83	3261433.59	1413680.83	40.4651533	-104.5603941	0.40	
5113.00	8.710	146.640	5087.21	343.73	-334.71	223.75	3261441.52	1413668.76	40.4651200	-104.5603660	0.07	
5207.00	8.590	148.820	5180.14	355.99	-346.66	231.30	3261449.06	1413656.81	40.4650870	-104.5603394	0.37	
5302.00	7.470	151.180	5274.21	367.73	-358.15	237.95	3261455.71	1413645.33	40.4650553	-104.5603159	1.23	
5397.00	7.830	149.640	5368.36	378.98	-369.14	244.20	3261461.96	1413634.33	40.4650249	-104.5602939	0.44	
5491.00	7.230	146.550	5461.55	389.70	-379.60	250.70	3261468.46	1413623.87	40.4649960	-104.5602709	0.77	
5586.00	6.700	147.700	5555.85	399.62	-389.27	256.95	3261474.71	1413614.20	40.4649693	-104.5602488	0.58	

REFERENCE WELLPATH IDENTIFICATION			
Operator	**NOBLE ENERGY, INC**	Well	**RAMPART A33-770**
Field	**WELD COUNTY (NOBLE NAD 83 GRID)**	API	**0512350928**
Facility	**SEC.21-T06N-R64W**	Wellbore	**RAMPART A33-770 AWB**
Slot	**SLOT#32 RAMPART A33-770 (652'FSL & 960'FWL,SEC.21)**		

WELLPATH DATA (174 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	7.630	144.880	5650.11	409.73	-399.12	263.54	3261481.30	1413604.36	40.4649421	-104.5602255	1.05	
5775.00	7.910	146.150	5743.25	420.50	-409.59	270.74	3261488.50	1413593.88	40.4649131	-104.5602001	0.35	
5870.00	8.260	147.600	5837.30	431.98	-420.78	278.03	3261495.79	1413582.69	40.4648822	-104.5601743	0.43	
5964.00	8.020	146.790	5930.35	443.46	-431.97	285.24	3261503.00	1413571.51	40.4648513	-104.5601488	0.28	
6059.00	8.470	144.960	6024.37	455.04	-443.24	292.89	3261510.65	1413560.23	40.4648201	-104.5601217	0.55	
6154.00	8.260	146.190	6118.36	466.76	-454.64	300.70	3261518.46	1413548.84	40.4647886	-104.5600941	0.29	
6248.00	8.260	146.860	6211.39	478.32	-465.91	308.15	3261525.91	1413537.57	40.4647575	-104.5600677	0.10	
6343.00	9.170	146.240	6305.29	490.65	-477.91	316.09	3261533.85	1413525.56	40.4647243	-104.5600397	0.96	
6437.00	15.350	156.750	6397.11	508.69	-495.59	325.17	3261542.93	1413507.89	40.4646755	-104.5600077	6.96	
6532.00	23.600	170.720	6486.65	539.39	-525.98	333.22	3261550.98	1413477.50	40.4645918	-104.5599799	9.92	
6626.00	33.690	171.270	6569.03	584.09	-570.43	340.23	3261557.99	1413433.05	40.4644696	-104.5599564	10.74	
6721.00	43.210	173.960	6643.35	642.87	-628.96	347.67	3261565.43	1413374.53	40.4643088	-104.5599319	10.17	
6815.00	50.260	176.990	6707.75	711.22	-697.14	352.96	3261570.72	1413306.34	40.4641215	-104.5599155	7.86	
6910.00	59.300	177.220	6762.48	788.75	-774.57	356.87	3261574.62	1413228.92	40.4639088	-104.5599044	9.52	
7004.00	68.170	176.520	6804.03	872.95	-858.66	361.49	3261579.24	1413144.83	40.4636779	-104.5598910	9.46	
7099.00	76.920	178.100	6832.50	963.48	-949.09	365.70	3261583.46	1413054.40	40.4634296	-104.5598793	9.35	
7194.00	85.750	181.700	6846.81	1057.21	-1042.90	365.83	3261583.59	1412960.60	40.4631721	-104.5598824	10.02	
7288.00	89.720	178.240	6850.52	1151.03	-1136.79	365.89	3261583.64	1412866.71	40.4629144	-104.5598858	5.60	
7383.00	89.480	178.320	6851.19	1246.02	-1231.75	368.74	3261586.49	1412771.76	40.4626537	-104.5598792	0.27	
7477.00	89.660	177.990	6851.89	1340.01	-1325.70	371.76	3261589.52	1412677.81	40.4623957	-104.5598719	0.40	
7572.00	89.750	178.930	6852.38	1435.00	-1420.66	374.32	3261592.07	1412582.85	40.4621350	-104.5598663	0.99	
7761.00	89.970	179.290	6852.84	1623.94	-1609.64	377.25	3261595.01	1412393.89	40.4616162	-104.5598630	0.22	
7856.00	89.910	179.550	6852.94	1718.89	-1704.63	378.21	3261595.97	1412298.89	40.4613555	-104.5598632	0.28	
7951.00	89.720	179.140	6853.25	1813.84	-1799.62	379.30	3261597.06	1412203.90	40.4610947	-104.5598629	0.48	
8045.00	89.820	178.590	6853.63	1907.82	-1893.60	381.16	3261598.92	1412109.93	40.4608367	-104.5598598	0.59	
8140.00	90.000	179.850	6853.77	2002.78	-1988.59	382.46	3261600.21	1412014.94	40.4605759	-104.5598587	1.34	
8235.00	90.710	179.040	6853.19	2097.73	-2083.59	383.38	3261601.13	1411919.95	40.4603152	-104.5598591	1.13	
8329.00	89.660	179.870	6852.88	2191.68	-2177.58	384.27	3261602.03	1411825.96	40.4600572	-104.5598594	1.42	
8424.00	88.310	180.290	6854.57	2286.57	-2272.56	384.14	3261601.89	1411730.98	40.4597965	-104.5598635	1.49	
8518.00	89.850	178.960	6856.07	2380.50	-2366.54	384.75	3261602.51	1411637.01	40.4595385	-104.5598649	2.16	

REFERENCE WELLPATH IDENTIFICATION			
Operator	**NOBLE ENERGY, INC**	Well	**RAMPART A33-770**
Field	**WELD COUNTY (NOBLE NAD 83 GRID)**	API	**0512350928**
Facility	**SEC.21-T06N-R64W**	Wellbore	**RAMPART A33-770 AWB**
Slot	**SLOT#32 RAMPART A33-770 (652'FSL & 960'FWL,SEC.21)**		

WELLPATH DATA (174 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
8612.00	89.690	181.160	6856.45	2474.41	-2460.54	384.65	3261602.41	1411543.02	40.4592805	-104.5598688	2.35	
8707.00	90.150	179.370	6856.58	2569.30	-2555.53	384.22	3261601.97	1411448.03	40.4590198	-104.5598740	1.95	
8801.00	89.910	181.590	6856.54	2663.18	-2649.52	383.43	3261601.18	1411354.04	40.4587619	-104.5598804	2.38	
8896.00	90.430	179.440	6856.25	2758.05	-2744.51	382.57	3261600.33	1411259.05	40.4585012	-104.5598871	2.33	
8990.00	88.400	179.870	6857.21	2851.98	-2838.50	383.14	3261600.90	1411165.07	40.4582432	-104.5598887	2.21	
9085.00	90.150	181.710	6858.42	2946.82	-2933.48	381.83	3261599.59	1411070.10	40.4579825	-104.5598970	2.67	
9179.00	90.060	181.130	6858.24	3040.61	-3027.45	379.50	3261597.26	1410976.13	40.4577247	-104.5599089	0.62	
9274.00	90.060	181.600	6858.14	3135.41	-3122.42	377.24	3261594.99	1410881.16	40.4574641	-104.5599207	0.49	
9369.00	89.880	180.000	6858.19	3230.26	-3217.41	375.91	3261593.67	1410786.18	40.4572034	-104.5599291	1.69	
9464.00	89.750	179.610	6858.50	3325.19	-3312.41	376.23	3261593.99	1410691.18	40.4569426	-104.5599315	0.43	
9558.00	89.660	181.250	6858.98	3419.07	-3406.40	375.53	3261593.28	1410597.19	40.4566847	-104.5599376	1.75	
9653.00	90.340	180.900	6858.98	3513.90	-3501.38	373.75	3261591.50	1410502.21	40.4564240	-104.5599477	0.81	
9748.00	89.630	182.060	6859.01	3608.68	-3596.35	371.29	3261589.05	1410407.25	40.4561634	-104.5599601	1.43	
9842.00	90.060	180.430	6859.26	3702.49	-3690.32	369.25	3261587.01	1410313.28	40.4559056	-104.5599710	1.79	
9937.00	89.850	180.970	6859.34	3797.35	-3785.31	368.09	3261585.85	1410218.29	40.4556449	-104.5599788	0.61	
10031.00	89.780	180.880	6859.64	3891.19	-3879.30	366.57	3261584.33	1410124.31	40.4553870	-104.5599878	0.12	
10126.00	89.850	180.680	6859.95	3986.05	-3974.29	365.28	3261583.04	1410029.32	40.4551263	-104.5599961	0.22	
10220.00	89.600	181.700	6860.40	4079.86	-4068.27	363.33	3261581.08	1409935.35	40.4548684	-104.5600067	1.12	
10315.00	89.630	182.110	6861.04	4174.59	-4163.21	360.17	3261577.93	1409840.41	40.4546079	-104.5600217	0.43	
10410.00	89.510	178.710	6861.75	4269.46	-4258.19	359.49	3261577.25	1409745.43	40.4543472	-104.5600277	3.58	
10504.00	89.690	179.080	6862.41	4363.44	-4352.17	361.30	3261579.06	1409651.45	40.4540892	-104.5600248	0.44	
10599.00	89.350	179.130	6863.20	4458.40	-4447.16	362.79	3261580.54	1409556.47	40.4538284	-104.5600231	0.36	
10693.00	89.510	179.490	6864.14	4552.36	-4541.15	363.92	3261581.67	1409462.49	40.4535704	-104.5600226	0.42	
10788.00	89.630	179.150	6864.85	4647.31	-4636.14	365.05	3261582.80	1409367.50	40.4533097	-104.5600222	0.38	
10883.00	89.940	180.220	6865.21	4742.25	-4731.13	365.57	3261583.32	1409272.51	40.4530489	-104.5600239	1.17	
11072.00	89.540	173.460	6866.07	4931.12	-4919.74	375.98	3261593.74	1409083.91	40.4525310	-104.5599937	3.58	
11261.00	90.580	179.850	6865.87	5119.99	-5108.31	387.00	3261604.76	1408895.34	40.4520131	-104.5599612	3.43	
11355.00	88.740	180.220	6866.43	5213.90	-5202.31	386.94	3261604.70	1408801.35	40.4517551	-104.5599650	2.00	
11450.00	89.570	181.280	6867.83	5308.75	-5297.29	385.70	3261603.46	1408706.38	40.4514944	-104.5599731	1.42	
11544.00	90.120	178.890	6868.08	5402.65	-5391.28	385.56	3261603.32	1408612.39	40.4512364	-104.5599772	2.61	

REFERENCE WELLPATH IDENTIFICATION			
Operator	**NOBLE ENERGY, INC**	Well	**RAMPART A33-770**
Field	**WELD COUNTY (NOBLE NAD 83 GRID)**	API	**0512350928**
Facility	**SEC.21-T06N-R64W**	Wellbore	**RAMPART A33-770 AWB**
Slot	**SLOT#32 RAMPART A33-770 (652'FSL & 960'FWL,SEC.21)**		

WELLPATH DATA (174 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
11639.00	89.570	181.590	6868.34	5497.54	-5486.27	385.16	3261602.92	1408517.40	40.4509757	-104.5599822	2.90	
11733.00	89.480	179.070	6869.12	5591.43	-5580.26	384.62	3261602.38	1408423.42	40.4507178	-104.5599878	2.68	
11828.00	89.080	180.160	6870.31	5686.36	-5675.24	385.26	3261603.02	1408328.43	40.4504570	-104.5599891	1.22	
11923.00	89.970	178.350	6871.10	5781.31	-5770.23	386.50	3261604.25	1408233.45	40.4501963	-104.5599883	2.12	
12017.00	89.510	181.410	6871.53	5875.23	-5864.22	386.69	3261604.45	1408139.47	40.4499383	-104.5599911	3.29	
12112.00	89.850	179.860	6872.06	5970.09	-5959.21	385.64	3261603.40	1408044.48	40.4496776	-104.5599985	1.67	
12206.00	90.340	180.380	6871.90	6064.00	-6053.20	385.44	3261603.20	1407950.49	40.4494196	-104.5600028	0.76	
12301.00	90.060	180.450	6871.57	6158.88	-6148.20	384.76	3261602.51	1407855.49	40.4491589	-104.5600089	0.30	
12395.00	89.970	180.510	6871.54	6252.77	-6242.20	383.97	3261601.72	1407761.50	40.4489009	-104.5600153	0.12	
12490.00	89.940	179.570	6871.62	6347.68	-6337.20	383.90	3261601.66	1407666.50	40.4486402	-104.5600192	0.99	
12585.00	89.820	179.700	6871.82	6442.62	-6432.20	384.51	3261602.26	1407571.51	40.4483794	-104.5600206	0.19	
12679.00	89.880	179.830	6872.06	6536.56	-6526.19	384.89	3261602.65	1407477.51	40.4481214	-104.5600228	0.15	
12774.00	89.820	177.260	6872.31	6631.53	-6621.16	387.30	3261605.06	1407382.56	40.4478607	-104.5600178	2.71	
12868.00	90.000	177.600	6872.46	6725.53	-6715.06	391.52	3261609.27	1407288.66	40.4476029	-104.5600062	0.41	
12963.00	90.950	177.810	6871.67	6820.53	-6809.98	395.32	3261613.08	1407193.74	40.4473422	-104.5599962	1.02	
13152.00	90.030	182.060	6870.06	7009.32	-6998.93	395.54	3261613.29	1407004.80	40.4468236	-104.5600026	2.30	
13247.00	89.780	181.460	6870.21	7104.07	-7093.88	392.62	3261610.37	1406909.85	40.4465631	-104.5600167	0.68	
13342.00	89.450	181.660	6870.85	7198.85	-7188.84	390.03	3261607.79	1406814.89	40.4463025	-104.5600296	0.41	
13436.00	89.480	182.280	6871.73	7292.57	-7282.78	386.80	3261604.56	1406720.95	40.4460447	-104.5600448	0.66	
13531.00	89.230	180.790	6872.80	7387.34	-7377.74	384.26	3261602.01	1406626.00	40.4457842	-104.5600575	1.59	
13625.00	89.820	182.780	6873.58	7481.08	-7471.69	381.33	3261599.09	1406532.06	40.4455264	-104.5600716	2.21	
13720.00	89.660	182.210	6874.01	7575.74	-7566.60	377.19	3261594.95	1406437.15	40.4452660	-104.5600901	0.62	
13814.00	89.540	180.650	6874.67	7669.52	-7660.56	374.85	3261592.60	1406343.19	40.4450082	-104.5601021	1.66	
13909.00	89.200	179.900	6875.71	7764.41	-7755.55	374.39	3261592.15	1406248.20	40.4447475	-104.5601074	0.87	
14004.00	89.200	179.770	6877.04	7859.33	-7850.54	374.67	3261592.42	1406153.22	40.4444868	-104.5601100	0.14	
14193.00	89.660	180.000	6878.92	8048.18	-8039.53	375.05	3261592.80	1405964.23	40.4439680	-104.5601158	0.27	
14287.00	89.880	179.850	6879.29	8142.10	-8133.53	375.17	3261592.92	1405870.24	40.4437100	-104.5601190	0.28	
14382.00	89.940	179.250	6879.44	8237.04	-8228.53	375.91	3261593.67	1405775.24	40.4434492	-104.5601199	0.63	
14477.00	89.940	177.630	6879.54	8332.03	-8323.49	378.50	3261596.26	1405680.29	40.4431885	-104.5601142	1.71	
14571.00	89.480	179.510	6880.02	8426.01	-8417.46	380.85	3261598.60	1405586.32	40.4429306	-104.5601094	2.06	

REFERENCE WELLPATH IDENTIFICATION			
Operator	**NOBLE ENERGY, INC**	Well	**RAMPART A33-770**
Field	**WELD COUNTY (NOBLE NAD 83 GRID)**	API	**0512350928**
Facility	**SEC.21-T06N-R64W**	Wellbore	**RAMPART A33-770 AWB**
Slot	**SLOT#32 RAMPART A33-770 (652'FSL & 960'FWL,SEC.21)**		

WELLPATH DATA (174 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
14665.00	90.250	179.560	6880.24	8519.96	-8511.45	381.61	3261599.36	1405492.33	40.4426725	-104.5601102	0.82	
14760.00	90.000	178.110	6880.03	8614.93	-8606.43	383.54	3261601.30	1405397.36	40.4424118	-104.5601069	1.55	
14855.00	90.060	178.100	6879.98	8709.93	-8701.38	386.68	3261604.44	1405302.41	40.4421511	-104.5600992	0.06	
14950.00	90.220	178.460	6879.75	8804.92	-8796.33	389.53	3261607.29	1405207.46	40.4418904	-104.5600926	0.41	
15044.00	90.280	179.210	6879.34	8898.90	-8890.31	391.44	3261609.20	1405113.49	40.4416324	-104.5600893	0.80	
15139.00	90.400	179.720	6878.78	8993.85	-8985.31	392.33	3261610.09	1405018.50	40.4413716	-104.5600898	0.55	
15233.00	90.340	178.700	6878.17	9087.81	-9079.29	393.63	3261611.38	1404924.51	40.4411136	-104.5600887	1.09	
15327.00	90.250	180.110	6877.69	9181.76	-9173.29	394.60	3261612.36	1404830.52	40.4408556	-104.5600887	1.50	
15422.00	90.180	180.940	6877.33	9276.64	-9268.28	393.73	3261611.49	1404735.53	40.4405949	-104.5600955	0.88	
15517.00	90.120	179.770	6877.08	9371.53	-9363.28	393.14	3261610.90	1404640.54	40.4403342	-104.5601012	1.23	
15611.00	90.250	180.670	6876.78	9465.43	-9457.27	392.78	3261610.54	1404546.55	40.4400762	-104.5601061	0.97	
15800.00	90.220	180.560	6876.00	9654.17	-9646.26	390.76	3261608.51	1404357.57	40.4395575	-104.5601206	0.06	
15894.00	90.060	180.190	6875.77	9748.06	-9740.26	390.14	3261607.90	1404263.57	40.4392995	-104.5601264	0.43	
15989.00	90.220	179.100	6875.54	9843.00	-9835.26	390.73	3261608.48	1404168.58	40.4390388	-104.5601279	1.16	
16084.00	90.120	177.690	6875.26	9937.98	-9930.22	393.39	3261611.14	1404073.62	40.4387781	-104.5601219	1.49	
16178.00	90.150	178.100	6875.04	10031.98	-10024.15	396.84	3261614.60	1403979.69	40.4385201	-104.5601131	0.44	
16272.00	89.880	177.410	6875.01	10125.98	-10118.08	400.52	3261618.28	1403885.77	40.4382622	-104.5601035	0.79	
16367.00	89.970	177.870	6875.14	10220.98	-10213.00	404.44	3261622.19	1403790.85	40.4380016	-104.5600930	0.49	
16462.00	89.940	178.700	6875.21	10315.97	-10307.95	407.28	3261625.03	1403695.90	40.4377409	-104.5600864	0.87	
16556.00	90.520	178.740	6874.83	10409.96	-10401.93	409.38	3261627.13	1403601.93	40.4374829	-104.5600825	0.62	
16651.00	89.850	178.230	6874.53	10504.94	-10496.90	411.89	3261629.65	1403506.96	40.4372221	-104.5600770	0.89	
16746.00	89.940	177.210	6874.70	10599.94	-10591.82	415.67	3261633.42	1403412.04	40.4369615	-104.5600671	1.08	
16840.00	90.060	177.700	6874.70	10693.94	-10685.73	419.84	3261637.60	1403318.14	40.4367036	-104.5600557	0.54	LAST BH MWD SURVEY
16873.00‡	90.060	177.700	6874.67	10726.94	-10718.70	421.17	3261638.92	1403285.17	40.4366131	-104.5600522	0.00	PROJECTION TO BIT

REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	RAMPART A33-770
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API	0512350928
Facility	SEC.21-T06N-R64W	Wellbore	RAMPART A33-770 AWB
Slot	SLOT#32 RAMPART A33-770 (652'FSL & 960'FWL,SEC.21)		

HOLE & CASING SECTIONS - Ref Wellbore: RAMPART A33-770 AWB Ref Wellpath: RAMPART A33-770 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	1935.00	1905.00	30.00	1934.95	-0.02	0.01	-4.61	3.28

TARGETS

Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.28-T06N-R64W	20.00	-218.29	-2372.12	3258845.74	1413785.18	40.4655147	-104.5696903	polygon
	2D Polygon: dimensions not calculated							
SEC.33-T06N-R64W	20.00	-218.29	-2372.12	3258845.74	1413785.18	40.4655147	-104.5696903	polygon
	2D Polygon: dimensions not calculated							
RAMPART A33-770 TPZ REV-2 (460'FNL & 1320'FWL,SEC.28)	6851.00	-1104.70	366.06	**3261583.82**	**1412898.80**	40.4630025	-104.5598840	point
RAMPART A33-770 TPZ REV-1 (460'FNL & 1320'FWL,SEC.28)	6861.00	-1104.70	366.06	**3261583.82**	**1412898.80**	40.4630025	-104.5598840	point
RAMPART A33-770 BHL REV-1 (460'FSL & 1323'FWL,SEC.33)	6875.00	-10720.03	446.31	**3261664.06**	**1403283.84**	40.4366087	-104.5599619	point

REFERENCE WELLPATH IDENTIFICATION			
Operator	**NOBLE ENERGY, INC**	Well	**RAMPART A33-770**
Field	**WELD COUNTY (NOBLE NAD 83 GRID)**	API	**0512350928**
Facility	**SEC.21-T06N-R64W**	Wellbore	**RAMPART A33-770 AWB**
Slot	**SLOT#32 RAMPART A33-770 (652'FSL & 960'FWL,SEC.21)**		

WELLPATH COMPOSITION - Ref Wellbore: RAMPART A33-770 AWB Ref Wellpath: RAMPART A33-770 AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore	Survey Date
0.00	1913.00	Gyrodata 2015 - GC+DROP+COND	Gyrodata 2015 - GC+DROP+COND 13-1/2" <78 - 1913>	RAMPART A33-770 AWB	8/2/2021
1913.00	16873.00	OWSG MWD rev2 (MS+IFR1)	OWSG MWD rev2 (MS+IFR1) 8-1/2" <2086 - 16840>	RAMPART A33-770 AWB	8/2/2021

Actual Wellpath Report

RAMPART A33-770 AWP

REFERENCE WELLPATH IDENTIFICATION			
Operator	**NOBLE ENERGY, INC**	Well	**RAMPART A33-770**
Field	**WELD COUNTY (NOBLE NAD 83 GRID)**	API	**0512350928**
Facility	**SEC.21-T06N-R64W**	Wellbore	**RAMPART A33-770 AWB**
Slot	**SLOT#32 RAMPART A33-770 (652'FSL & 960'FWL,SEC.21)**		

WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
78.00	0.220	149.840	78.00	FIRST GYRODATA SURVEY
1913.00	0.840	170.040	1912.96	LAST GYRODATA SURVEY
2086.00	5.550	130.930	2085.65	FIRST BH MWD SURVEY
16840.00	90.060	177.700	6874.70	LAST BH MWD SURVEY
16873.00	90.060	177.700	6874.67	PROJECTION TO BIT