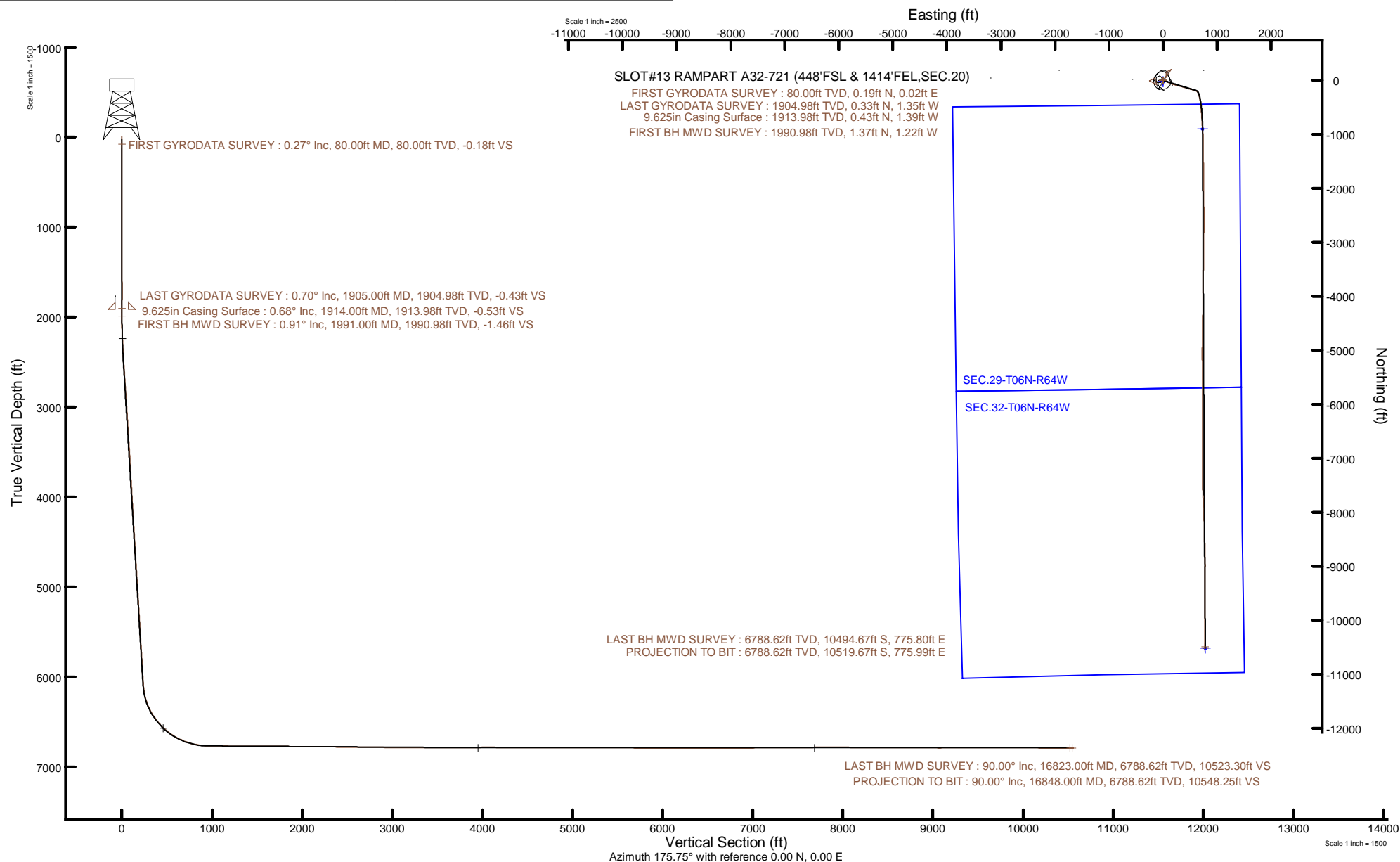


Location:	COLORADO	Slot:	SLOT#13 RAMPART A32-721 (448'FSL & 1414'FEL,SEC.20)
Field:	WELD COUNTY (NOBLE NAD 83 GRID)	Well:	RAMPART A32-721
Facility:	SEC.20-T06N-R64W	Wellbore:	RAMPART A32-721 PWB



Plot reference wellpath is RAMPART A32-721 PWP Rev=C.9	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: 4737 feet	Coordinates are in feet referenced to Slot
Mean Sea Level to Ground level (At Slot: SLOTH13 RAMPART A32-721 (448)FSL & 1414FEL SEC 20): 0 feet	Created by: painseer on 2021-09-18; Database: WellArchitectDB
Offset wellpath MDs are referenced to each path's default MD datum	





# Actual Wellpath Report

RAMPART A32-721 AWP

Page 1 of 10



## REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY, INC	Well	RAMPART A32-721
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API	0512350933
Facility	SEC.20-T06N-R64W	Wellbore	RAMPART A32-721 AWB
Slot	SLOT#13 RAMPART A32-721 (448'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	9/18/2021 at 3:44:32 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	-187.06	-737.62	3258845.84	1413762.63	40.4654528°	-104.5696908°
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	4737.00ft
Horizontal Reference Pt	Slot	H&P 517 (30') (RT) to Mean Sea Level	4737.00ft
Vertical Reference Pt	H&P 517 (30') (RT)	H&P 517 (30') (RT) to Ground Level at Slot (SLOT#13 RAMPART A32-721 (448'FSL & 1414'FEL,SEC.20))	4737.00ft
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	175.75°

### REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY, INC	Well	RAMPART A32-721
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API	0512350933
Facility	SEC.20-T06N-R64W	Wellbore	RAMPART A32-721 AWB
Slot	SLOT#13 RAMPART A32-721 (448'FSL & 1414'FEL,SEC.20)		

### WELLPATH DATA (181 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	7.480	0.00	0.00	0.00	0.00	3258845.84	1413762.63	40.4654528	-104.5696908	0.00	
80.00	0.270	7.480	80.00	-0.18	0.19	0.02	3258845.86	1413762.82	40.4654533	-104.5696907	0.34	FIRST GYRODATA SURVEY
173.00	0.350	270.630	173.00	-0.42	0.41	-0.23	3258845.61	1413763.04	40.4654539	-104.5696916	0.50	
264.00	0.210	6.700	264.00	-0.61	0.58	-0.49	3258845.35	1413763.21	40.4654544	-104.5696925	0.47	
359.00	0.140	335.860	359.00	-0.89	0.85	-0.52	3258845.32	1413763.48	40.4654551	-104.5696926	0.12	
453.00	0.190	187.080	453.00	-0.85	0.80	-0.58	3258845.26	1413763.43	40.4654550	-104.5696929	0.34	
547.00	0.170	300.920	547.00	-0.77	0.72	-0.72	3258845.12	1413763.35	40.4654548	-104.5696934	0.32	
642.00	0.180	144.330	642.00	-0.73	0.67	-0.76	3258845.08	1413763.30	40.4654546	-104.5696935	0.36	
736.00	0.100	98.470	736.00	-0.58	0.54	-0.59	3258845.25	1413763.17	40.4654543	-104.5696929	0.14	
831.00	0.230	21.910	831.00	-0.74	0.71	-0.44	3258845.40	1413763.34	40.4654547	-104.5696923	0.24	
925.00	0.220	356.370	925.00	-1.09	1.06	-0.38	3258845.46	1413763.69	40.4654557	-104.5696921	0.11	
1020.00	0.240	34.110	1020.00	-1.42	1.41	-0.28	3258845.56	1413764.04	40.4654567	-104.5696917	0.16	
1114.00	0.300	177.060	1113.99	-1.33	1.32	-0.15	3258845.69	1413763.95	40.4654564	-104.5696913	0.55	
1209.00	0.170	170.680	1208.99	-0.94	0.94	-0.12	3258845.72	1413763.57	40.4654554	-104.5696912	0.14	
1303.00	0.170	210.030	1302.99	-0.69	0.68	-0.16	3258845.68	1413763.31	40.4654546	-104.5696914	0.12	
1398.00	0.220	128.370	1397.99	-0.45	0.44	-0.09	3258845.75	1413763.07	40.4654540	-104.5696911	0.27	
1493.00	0.250	185.290	1492.99	-0.12	0.12	0.03	3258845.87	1413762.75	40.4654531	-104.5696907	0.24	
1587.00	0.280	164.750	1586.99	0.31	-0.30	0.07	3258845.91	1413762.33	40.4654520	-104.5696905	0.11	
1681.00	0.230	233.220	1680.99	0.63	-0.64	-0.02	3258845.82	1413761.99	40.4654510	-104.5696909	0.31	
1776.00	0.430	298.790	1775.99	0.54	-0.58	-0.48	3258845.36	1413762.05	40.4654512	-104.5696926	0.42	
1871.00	0.640	320.230	1870.99	-0.08	0.00	-1.13	3258844.71	1413762.63	40.4654528	-104.5696949	0.30	
1905.00	0.700	332.930	1904.98	-0.43	0.33	-1.35	3258844.49	1413762.96	40.4654537	-104.5696956	0.47	LAST GYRODATA SURVEY
1991.00	0.910	33.190	1990.98	-1.46	1.37	-1.22	3258844.62	1413764.00	40.4654566	-104.5696951	0.96	FIRST BH MWD SURVEY
2085.00	3.300	109.270	2084.92	-0.97	1.10	1.75	3258847.59	1413763.73	40.4654558	-104.5696845	3.41	
2180.00	6.330	110.080	2179.57	2.28	-1.60	9.25	3258855.09	1413761.03	40.4654481	-104.5696576	3.19	
2274.00	6.620	108.860	2272.97	6.54	-5.13	19.24	3258865.08	1413757.50	40.4654381	-104.5696218	0.34	
2369.00	6.980	110.610	2367.30	11.12	-8.93	29.83	3258875.67	1413753.70	40.4654274	-104.5695839	0.44	
2463.00	7.420	110.240	2460.56	16.03	-13.04	40.87	3258886.71	1413749.59	40.4654158	-104.5695444	0.47	
2558.00	8.900	112.820	2554.60	21.92	-18.01	53.40	3258899.24	1413744.62	40.4654018	-104.5694996	1.60	
2652.00	8.380	108.620	2647.53	27.89	-23.02	66.59	3258912.43	1413739.61	40.4653877	-104.5694524	0.87	

### REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY, INC	Well	RAMPART A32-721
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API	0512350933
Facility	SEC.20-T06N-R64W	Wellbore	RAMPART A32-721 AWB
Slot	SLOT#13 RAMPART A32-721 (448'FSL & 1414'FEL,SEC.20)		

### WELLPATH DATA (181 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	8.230	112.330	2741.53	33.62	-27.81	79.44	3258925.28	1413734.82	40.4653741	-104.5694064	0.59	
2842.00	9.250	112.890	2835.43	40.15	-33.37	92.77	3258938.60	1413729.26	40.4653585	-104.5693587	1.08	
2936.00	8.660	109.770	2928.28	46.47	-38.70	106.39	3258952.22	1413723.93	40.4653435	-104.5693099	0.81	
3031.00	8.930	111.970	3022.17	52.64	-43.88	119.96	3258965.79	1413718.75	40.4653289	-104.5692614	0.45	
3125.00	9.240	107.180	3114.99	58.62	-48.84	133.93	3258979.77	1413713.79	40.4653149	-104.5692113	0.87	
3220.00	7.470	113.910	3208.98	64.32	-53.59	146.86	3258992.70	1413709.04	40.4653015	-104.5691650	2.13	
3315.00	9.040	110.300	3302.99	70.34	-58.69	159.51	3259005.34	1413703.95	40.4652871	-104.5691198	1.74	
3409.00	8.870	110.100	3395.85	76.39	-63.74	173.24	3259019.08	1413698.89	40.4652728	-104.5690706	0.18	
3504.00	8.920	107.430	3489.71	82.13	-68.46	187.15	3259032.98	1413694.17	40.4652595	-104.5690208	0.44	
3599.00	9.430	105.740	3583.49	87.51	-72.78	201.67	3259047.50	1413689.85	40.4652472	-104.5689688	0.61	
3693.00	9.560	105.350	3676.20	92.76	-76.93	216.60	3259062.44	1413685.70	40.4652354	-104.5689153	0.15	
3788.00	9.650	105.360	3769.87	98.08	-81.13	231.89	3259077.72	1413681.50	40.4652234	-104.5688605	0.09	
3882.00	9.580	106.400	3862.55	103.48	-85.43	246.99	3259092.82	1413677.21	40.4652112	-104.5688064	0.20	
3977.00	9.450	105.320	3956.24	108.88	-89.72	262.10	3259107.93	1413672.91	40.4651990	-104.5687523	0.23	
4072.00	9.590	104.880	4049.93	114.09	-93.81	277.27	3259123.10	1413668.82	40.4651873	-104.5686979	0.17	
4166.00	9.570	105.010	4142.62	119.23	-97.85	292.38	3259138.21	1413664.79	40.4651758	-104.5686438	0.03	
4261.00	10.050	105.760	4236.23	124.67	-102.14	307.99	3259153.81	1413660.49	40.4651636	-104.5685879	0.52	
4356.00	9.940	106.650	4329.79	130.43	-106.74	323.82	3259169.65	1413655.89	40.4651505	-104.5685311	0.20	
4451.00	9.910	104.880	4423.37	136.03	-111.19	339.58	3259185.40	1413651.44	40.4651378	-104.5684747	0.32	
4545.00	9.920	105.340	4515.97	141.40	-115.41	355.20	3259201.03	1413647.22	40.4651258	-104.5684187	0.08	
4640.00	9.960	105.900	4609.54	146.97	-119.83	370.99	3259216.82	1413642.81	40.4651132	-104.5683621	0.11	
4735.00	9.890	105.830	4703.12	152.60	-124.30	386.74	3259232.57	1413638.33	40.4651005	-104.5683057	0.07	
4829.00	10.000	106.560	4795.71	158.27	-128.83	402.33	3259248.16	1413633.80	40.4650876	-104.5682498	0.18	
4924.00	9.830	106.650	4889.29	164.09	-133.51	418.01	3259263.83	1413629.13	40.4650743	-104.5681937	0.18	
5018.00	10.110	105.420	4981.87	169.73	-138.00	433.65	3259279.47	1413624.64	40.4650615	-104.5681376	0.37	
5113.00	9.870	106.320	5075.43	175.40	-142.50	449.50	3259295.33	1413620.13	40.4650487	-104.5680808	0.30	
5207.00	9.770	106.510	5168.05	181.06	-147.03	464.88	3259310.70	1413615.60	40.4650358	-104.5680257	0.11	
5302.00	9.850	106.450	5261.66	186.78	-151.63	480.40	3259326.22	1413611.01	40.4650228	-104.5679701	0.08	
5397.00	9.970	106.560	5355.24	192.58	-156.27	496.08	3259341.90	1413606.37	40.4650096	-104.5679140	0.13	
5492.00	10.000	106.580	5448.81	198.43	-160.97	511.87	3259357.69	1413601.67	40.4649962	-104.5678574	0.03	

### REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY, INC	Well	RAMPART A32-721
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API	0512350933
Facility	SEC.20-T06N-R64W	Wellbore	RAMPART A32-721 AWB
Slot	SLOT#13 RAMPART A32-721 (448'FSL & 1414'FEL,SEC.20)		

### WELLPATH DATA (181 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
5586.00	9.770	105.790	5541.41	204.07	-165.47	527.36	3259373.18	1413597.17	40.4649834	-104.5678019	0.28	
5681.00	9.740	106.900	5635.04	209.73	-170.00	542.81	3259388.63	1413592.64	40.4649705	-104.5677466	0.20	
5775.00	9.800	106.470	5727.67	215.43	-174.58	558.09	3259403.91	1413588.06	40.4649575	-104.5676918	0.10	
5870.00	9.710	106.100	5821.30	221.07	-179.09	573.54	3259419.36	1413583.55	40.4649447	-104.5676365	0.12	
5964.00	9.830	105.780	5913.94	226.58	-183.47	588.88	3259434.69	1413579.17	40.4649322	-104.5675815	0.14	
6059.00	9.680	107.330	6007.56	232.29	-188.06	604.30	3259450.12	1413574.58	40.4649192	-104.5675262	0.32	
6153.00	9.950	110.570	6100.19	238.60	-193.26	619.45	3259465.27	1413569.37	40.4649045	-104.5674720	0.65	
6248.00	13.940	143.210	6193.21	251.72	-205.33	634.01	3259479.83	1413557.31	40.4648709	-104.5674201	8.10	
6342.00	20.040	155.240	6283.10	276.38	-229.05	647.55	3259493.37	1413533.59	40.4648054	-104.5673724	7.46	
6437.00	27.920	162.400	6369.85	313.33	-265.10	661.12	3259506.94	1413497.54	40.4647061	-104.5673250	8.83	
6532.00	34.340	168.580	6451.14	361.61	-312.62	673.17	3259518.98	1413450.02	40.4645753	-104.5672835	7.54	
6627.00	42.480	169.030	6525.52	420.16	-370.48	684.60	3259530.41	1413392.17	40.4644162	-104.5672446	8.57	
6721.00	50.060	174.130	6590.48	487.82	-437.61	694.34	3259540.15	1413325.04	40.4642317	-104.5672121	8.96	
6816.00	56.650	174.400	6647.15	563.98	-513.41	701.94	3259547.76	1413249.24	40.4640234	-104.5671877	6.94	
6910.00	64.580	174.170	6693.23	645.79	-594.84	710.10	3259555.91	1413167.81	40.4637996	-104.5671614	8.44	
7005.00	71.810	175.950	6728.50	733.92	-682.65	717.66	3259563.47	1413080.00	40.4635584	-104.5671376	7.81	
7099.00	79.000	176.820	6752.17	824.82	-773.38	723.38	3259569.19	1412989.28	40.4633092	-104.5671205	7.70	
7194.00	86.890	176.710	6763.83	919.02	-867.44	728.69	3259574.50	1412895.23	40.4630509	-104.5671049	8.31	
7288.00	89.260	176.180	6766.99	1012.95	-961.20	734.52	3259580.33	1412801.47	40.4627934	-104.5670875	2.58	
7383.00	89.780	178.540	6767.78	1107.90	-1056.08	738.89	3259584.70	1412706.59	40.4625328	-104.5670754	2.54	
7478.00	89.600	179.410	6768.30	1202.75	-1151.07	740.59	3259586.40	1412611.61	40.4622721	-104.5670729	0.94	
7572.00	89.570	179.380	6768.98	1296.56	-1245.06	741.58	3259587.40	1412517.62	40.4620141	-104.5670729	0.05	
7666.00	89.600	179.590	6769.66	1390.36	-1339.05	742.43	3259588.24	1412423.63	40.4617560	-104.5670734	0.23	
7761.00	89.690	179.680	6770.25	1485.14	-1434.05	743.03	3259588.85	1412328.64	40.4614953	-104.5670748	0.13	
7855.00	89.750	179.160	6770.71	1578.94	-1528.04	743.99	3259589.80	1412234.65	40.4612373	-104.5670749	0.56	
7950.00	89.380	178.500	6771.43	1673.80	-1623.02	745.93	3259591.74	1412139.67	40.4609765	-104.5670716	0.80	
8044.00	89.720	180.010	6772.17	1767.62	-1717.01	747.15	3259592.96	1412045.69	40.4607185	-104.5670707	1.65	
8139.00	89.110	179.240	6773.14	1862.40	-1812.00	747.77	3259593.58	1411950.70	40.4604578	-104.5670721	1.03	
8234.00	89.630	179.320	6774.18	1957.21	-1906.98	748.96	3259594.78	1411855.72	40.4601970	-104.5670714	0.55	
8328.00	89.690	179.360	6774.74	2051.03	-2000.98	750.05	3259595.86	1411761.73	40.4599390	-104.5670710	0.08	

### REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY, INC	Well	RAMPART A32-721
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API	0512350933
Facility	SEC.20-T06N-R64W	Wellbore	RAMPART A32-721 AWB
Slot	SLOT#13 RAMPART A32-721 (448'FSL & 1414'FEL,SEC.20)		

### WELLPATH DATA (181 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
8423.00	89.510	180.330	6775.40	2145.78	-2095.97	750.30	3259596.11	1411666.74	40.4596783	-104.5670737	1.04	
8517.00	89.080	179.610	6776.56	2239.52	-2189.96	750.35	3259596.16	1411572.75	40.4594203	-104.5670771	0.89	
8612.00	89.540	179.210	6777.70	2334.32	-2284.95	751.33	3259597.14	1411477.77	40.4591596	-104.5670772	0.64	
8706.00	89.570	179.210	6778.43	2428.14	-2378.94	752.63	3259598.44	1411383.78	40.4589016	-104.5670761	0.03	
8801.00	88.980	179.080	6779.63	2522.97	-2473.92	754.04	3259599.86	1411288.80	40.4586408	-104.5670746	0.64	
8896.00	89.510	180.150	6780.89	2617.74	-2568.91	754.68	3259600.49	1411193.82	40.4583801	-104.5670759	1.26	
8991.00	89.540	180.400	6781.67	2712.44	-2663.91	754.23	3259600.04	1411098.83	40.4581194	-104.5670811	0.27	
9085.00	89.720	180.690	6782.28	2806.11	-2757.90	753.33	3259599.14	1411004.84	40.4578614	-104.5670879	0.36	
9180.00	89.480	181.160	6782.94	2900.72	-2852.88	751.80	3259597.61	1410909.86	40.4576007	-104.5670970	0.56	
9274.00	89.380	180.580	6783.88	2994.34	-2946.87	750.37	3259596.18	1410815.87	40.4573428	-104.5671056	0.63	
9369.00	89.540	180.510	6784.78	3089.01	-3041.86	749.47	3259595.28	1410720.89	40.4570821	-104.5671125	0.18	
9463.00	90.150	180.570	6785.03	3182.68	-3135.85	748.58	3259594.39	1410626.90	40.4568242	-104.5671192	0.65	
9558.00	90.220	180.640	6784.72	3277.34	-3230.85	747.58	3259593.39	1410531.90	40.4565635	-104.5671264	0.10	
9652.00	89.820	180.530	6784.69	3371.00	-3324.84	746.62	3259592.43	1410437.91	40.4563055	-104.5671334	0.44	
9747.00	90.030	180.720	6784.81	3465.66	-3419.84	745.58	3259591.39	1410342.92	40.4560448	-104.5671407	0.30	
9841.00	90.400	181.340	6784.46	3559.26	-3513.82	743.89	3259589.70	1410248.94	40.4557869	-104.5671503	0.77	
9936.00	90.250	180.250	6783.92	3653.89	-3608.81	742.58	3259588.39	1410153.96	40.4555262	-104.5671587	1.16	
10031.00	89.660	180.670	6784.00	3748.57	-3703.81	741.81	3259587.62	1410058.97	40.4552655	-104.5671650	0.76	
10125.00	90.460	180.870	6783.90	3842.21	-3797.80	740.55	3259586.36	1409964.98	40.4550075	-104.5671731	0.88	
10220.00	90.280	180.770	6783.29	3936.83	-3892.78	739.19	3259585.00	1409869.99	40.4547469	-104.5671816	0.22	
10314.00	90.180	180.540	6782.91	4030.49	-3986.78	738.12	3259583.93	1409776.00	40.4544889	-104.5671890	0.27	
10409.00	89.750	180.500	6782.97	4125.16	-4081.77	737.25	3259583.06	1409681.01	40.4542282	-104.5671957	0.45	
10503.00	89.910	180.190	6783.24	4218.86	-4175.77	736.69	3259582.50	1409587.02	40.4539702	-104.5672013	0.37	
10598.00	90.000	180.370	6783.32	4313.56	-4270.77	736.22	3259582.03	1409492.02	40.4537095	-104.5672065	0.21	
10692.00	90.090	180.700	6783.25	4407.24	-4364.77	735.35	3259581.16	1409398.03	40.4534515	-104.5672132	0.36	
10787.00	89.970	181.300	6783.20	4501.84	-4459.75	733.69	3259579.50	1409303.05	40.4531909	-104.5672228	0.64	
10881.00	89.510	180.670	6783.62	4595.44	-4553.73	732.07	3259577.88	1409209.07	40.4529329	-104.5672321	0.83	
10976.00	89.510	180.510	6784.43	4690.10	-4648.73	731.09	3259576.91	1409114.08	40.4526722	-104.5672392	0.17	
11070.00	89.910	180.990	6784.91	4783.74	-4742.72	729.86	3259575.67	1409020.09	40.4524143	-104.5672472	0.66	
11165.00	89.540	180.450	6785.37	4878.38	-4837.71	728.67	3259574.48	1408925.11	40.4521536	-104.5672551	0.69	

REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	RAMPART A32-721
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API	0512350933
Facility	SEC.20-T06N-R64W	Wellbore	RAMPART A32-721 AWB
Slot	SLOT#13 RAMPART A32-721 (448'FSL & 1414'FEL,SEC.20)		

WELLPATH DATA (181 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
11259.00	89.630	180.960	6786.05	4972.03	-4931.70	727.51	3259573.32	1408831.12	40.4518957	-104.5672628	0.55	
11354.00	89.970	179.770	6786.38	5066.72	-5026.69	726.91	3259572.72	1408736.13	40.4516350	-104.5672686	1.30	
11448.00	89.720	179.950	6786.63	5160.48	-5120.69	727.14	3259572.95	1408642.13	40.4513769	-104.5672713	0.33	
11543.00	89.780	179.700	6787.05	5255.24	-5215.69	727.43	3259573.24	1408547.14	40.4511162	-104.5672738	0.27	
11637.00	89.750	179.930	6787.43	5349.00	-5309.69	727.73	3259573.54	1408453.14	40.4508582	-104.5672763	0.25	
11732.00	90.150	179.780	6787.52	5443.76	-5404.69	727.97	3259573.78	1408358.15	40.4505974	-104.5672790	0.45	
11826.00	89.780	179.900	6787.57	5537.52	-5498.69	728.23	3259574.05	1408264.15	40.4503394	-104.5672816	0.41	
11921.00	89.850	180.250	6787.88	5632.25	-5593.69	728.11	3259573.92	1408169.16	40.4500787	-104.5672857	0.38	
12015.00	89.480	179.090	6788.43	5726.02	-5687.68	728.65	3259574.46	1408075.16	40.4498207	-104.5672873	1.30	
12110.00	89.880	180.110	6788.96	5820.81	-5782.68	729.31	3259575.13	1407980.17	40.4495599	-104.5672885	1.15	
12205.00	89.540	179.930	6789.44	5915.54	-5877.68	729.28	3259575.09	1407885.18	40.4492992	-104.5672922	0.40	
12299.00	89.780	180.050	6790.00	6009.28	-5971.67	729.30	3259575.11	1407791.18	40.4490412	-104.5672957	0.29	
12394.00	89.970	179.630	6790.21	6104.04	-6066.67	729.56	3259575.37	1407696.19	40.4487804	-104.5672983	0.49	
12489.00	89.750	180.060	6790.44	6198.80	-6161.67	729.82	3259575.63	1407601.19	40.4485197	-104.5673010	0.51	
12583.00	89.540	179.220	6791.02	6292.58	-6255.67	730.41	3259576.22	1407507.20	40.4482616	-104.5673024	0.92	
12678.00	89.910	180.340	6791.48	6387.34	-6350.66	730.77	3259576.59	1407412.21	40.4480009	-104.5673047	1.24	
12772.00	89.970	179.730	6791.58	6481.08	-6444.66	730.72	3259576.53	1407318.21	40.4477429	-104.5673085	0.65	
12867.00	90.000	180.010	6791.60	6575.84	-6539.66	730.93	3259576.74	1407223.22	40.4474821	-104.5673113	0.30	
12962.00	90.280	180.150	6791.37	6670.56	-6634.66	730.80	3259576.61	1407128.22	40.4472214	-104.5673153	0.33	
13056.00	90.520	180.090	6790.71	6764.29	-6728.66	730.60	3259576.42	1407034.23	40.4469634	-104.5673196	0.26	
13151.00	90.710	180.080	6789.69	6859.01	-6823.66	730.46	3259576.27	1406939.24	40.4467027	-104.5673237	0.20	
13245.00	90.520	180.300	6788.68	6952.73	-6917.65	730.15	3259575.96	1406845.24	40.4464447	-104.5673284	0.31	
13340.00	90.550	179.970	6787.80	7047.44	-7012.64	729.93	3259575.74	1406750.25	40.4461840	-104.5673328	0.35	
13434.00	90.180	180.230	6787.20	7141.17	-7106.64	729.76	3259575.57	1406656.26	40.4459260	-104.5673369	0.48	
13529.00	90.220	180.060	6786.87	7235.89	-7201.64	729.52	3259575.33	1406561.26	40.4456652	-104.5673414	0.18	
13623.00	90.650	180.250	6786.15	7329.61	-7295.64	729.27	3259575.08	1406467.27	40.4454072	-104.5673458	0.50	
13718.00	90.800	178.920	6784.95	7424.39	-7390.63	729.96	3259575.77	1406372.29	40.4451465	-104.5673469	1.41	
13812.00	90.340	179.100	6784.02	7518.23	-7484.61	731.58	3259577.39	1406278.31	40.4448885	-104.5673447	0.53	
13907.00	90.180	176.850	6783.58	7613.15	-7579.54	734.94	3259580.75	1406183.38	40.4446278	-104.5673362	2.37	
14001.00	90.800	177.150	6782.78	7707.13	-7673.41	739.86	3259585.67	1406089.52	40.4443701	-104.5673221	0.73	



REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	RAMPART A32-721
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API	0512350933
Facility	SEC.20-T06N-R64W	Wellbore	RAMPART A32-721 AWB
Slot	SLOT#13 RAMPART A32-721 (448'FSL & 1414'FEL,SEC.20)		

WELLPATH DATA (181 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
14096.00	89.720	176.940	6782.35	7802.10	-7768.28	744.75	3259590.56	1405994.65	40.4441095	-104.5673080	1.16	
14191.00	89.750	176.840	6782.79	7897.08	-7863.14	749.91	3259595.72	1405899.79	40.4438490	-104.5672931	0.11	
14285.00	90.060	177.040	6782.94	7991.06	-7957.00	754.93	3259600.74	1405805.93	40.4435912	-104.5672786	0.39	
14380.00	89.750	178.660	6783.10	8085.99	-8051.93	758.49	3259604.30	1405711.00	40.4433306	-104.5672694	1.74	
14474.00	89.630	179.150	6783.61	8179.85	-8145.91	760.29	3259606.10	1405617.03	40.4430726	-104.5672665	0.54	
14569.00	90.000	178.630	6783.92	8274.71	-8240.90	762.13	3259607.94	1405522.05	40.4428118	-104.5672635	0.67	
14663.00	89.970	178.840	6783.94	8368.58	-8334.87	764.20	3259610.01	1405428.08	40.4425538	-104.5672596	0.23	
14758.00	89.540	178.740	6784.35	8463.44	-8429.85	766.21	3259612.02	1405333.10	40.4422931	-104.5672560	0.46	
14852.00	89.780	179.050	6784.91	8557.30	-8523.83	768.02	3259613.83	1405239.12	40.4420351	-104.5672530	0.42	
14947.00	89.540	178.790	6785.47	8652.15	-8618.81	769.81	3259615.62	1405144.15	40.4417743	-104.5672502	0.37	
15041.00	89.910	178.720	6785.92	8746.02	-8712.79	771.85	3259617.66	1405050.17	40.4415163	-104.5672464	0.40	
15136.00	89.780	178.820	6786.18	8840.89	-8807.77	773.89	3259619.70	1404955.20	40.4412556	-104.5672427	0.17	
15230.00	89.320	178.390	6786.92	8934.77	-8901.74	776.18	3259621.99	1404861.23	40.4409976	-104.5672380	0.67	
15325.00	89.450	180.370	6787.94	9029.57	-8996.72	777.21	3259623.02	1404766.25	40.4407369	-104.5672379	2.09	
15419.00	90.710	180.740	6787.80	9123.24	-9090.71	776.30	3259622.11	1404672.26	40.4404789	-104.5672447	1.40	
15514.00	90.220	180.330	6787.03	9217.91	-9185.71	775.41	3259621.22	1404577.28	40.4402182	-104.5672515	0.67	
15609.00	89.940	180.890	6786.90	9312.56	-9280.70	774.40	3259620.21	1404482.28	40.4399575	-104.5672587	0.66	
15703.00	89.750	179.940	6787.15	9406.25	-9374.70	773.72	3259619.53	1404388.29	40.4396995	-104.5672647	1.03	
15798.00	90.000	180.410	6787.36	9500.97	-9469.69	773.43	3259619.24	1404293.30	40.4394388	-104.5672693	0.56	
15892.00	90.310	180.450	6787.11	9594.65	-9563.69	772.72	3259618.53	1404199.30	40.4391808	-104.5672754	0.33	
15987.00	89.970	180.370	6786.88	9689.34	-9658.69	772.04	3259617.85	1404104.31	40.4389201	-104.5672814	0.37	
16081.00	90.000	180.190	6786.90	9783.05	-9752.69	771.58	3259617.39	1404010.31	40.4386621	-104.5672866	0.19	
16176.00	89.690	179.590	6787.16	9877.80	-9847.69	771.77	3259617.58	1403915.32	40.4384013	-104.5672896	0.71	
16270.00	89.940	179.750	6787.46	9971.58	-9941.68	772.31	3259618.12	1403821.33	40.4381433	-104.5672912	0.32	
16365.00	89.880	180.020	6787.61	10066.33	-10036.68	772.50	3259618.31	1403726.33	40.4378826	-104.5672941	0.29	
16459.00	89.690	179.550	6787.96	10160.10	-10130.68	772.85	3259618.66	1403632.33	40.4376246	-104.5672964	0.54	
16554.00	89.780	179.580	6788.40	10254.89	-10225.68	773.57	3259619.38	1403537.34	40.4373638	-104.5672974	0.10	
16648.00	90.030	179.580	6788.56	10348.68	-10319.68	774.26	3259620.07	1403443.35	40.4371058	-104.5672985	0.27	
16743.00	89.940	179.420	6788.58	10443.47	-10414.67	775.09	3259620.90	1403348.36	40.4368450	-104.5672991	0.19	
16823.00	90.000	179.560	6788.62	10523.30	-10494.67	775.80	3259621.61	1403268.36	40.4366254	-104.5672995	0.19	LAST BH MWD SURVEY





# Actual Wellpath Report

RAMPART A32-721 AWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY, INC	Well	RAMPART A32-721
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API	0512350933
Facility	SEC.20-T06N-R64W	Wellbore	RAMPART A32-721 AWB
Slot	SLOT#13 RAMPART A32-721 (448'FSL & 1414'FEL,SEC.20)		

## WELLPATH DATA (181 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
16848.00‡	90.000	179.560	6788.62	10548.25	-10519.67	775.99	3259621.80	1403243.36	40.4365568	-104.5672998	0.00	PROJECTION TO BIT

## HOLE & CASING SECTIONS - Ref Wellbore: RAMPART A32-721 AWB Ref Wellpath: RAMPART A32-721 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	1914.00	1884.00	30.00	1913.98	0.03	0.00	0.43	-1.39

REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Well	RAMPART A32-721
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API	0512350933
Facility	SEC.20-T06N-R64W	Wellbore	RAMPART A32-721 AWB
Slot	SLOT#13 RAMPART A32-721 (448'FSL & 1414'FEL,SEC.20)		

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.29-T06N-R64W	1.00	-22.40	0.10	3258845.94	1413740.23	40.4653913	-104.5696913	polygon
	2D Polygon: dimensions not calculated							
SEC.32-T06N-R64W	1.00	-22.40	0.10	3258845.94	1413740.23	40.4653913	-104.5696913	polygon
	2D Polygon: dimensions not calculated							
RAMPART A32-721 TPZ REV-2 (460'FNL & 688'FEL,SEC.29)	6767.00	-898.60	730.50	3259576.31	1412864.06	40.4629653	-104.5670996	point
RAMPART A32-721 BHL REV-1 (460'FSL & 715'FEL,SEC.32)	6787.00	-10519.87	781.17	3259626.98	1403243.16	40.4365561	-104.5672812	point
RAMPART A32-721 TPZ REV-1 (460'FNL & 688'FEL,SEC.29)	6787.00	-898.60	730.50	3259576.31	1412864.06	40.4629653	-104.5670996	point

WELLPATH COMPOSITION - Ref Wellbore: RAMPART A32-721 AWB Ref Wellpath: RAMPART A32-721 AWP					
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore	Survey Date
0.00	1905.00	Gyrodata 2015 - GC+DROP+COND	Gyrodata 2015 - GC+DROP+COND 13-1/2" <80 - 1905>	RAMPART A32-721 AWB	9/7/2021
1905.00	16848.00	OWSG MWD rev2 (MS+IFR1)	OWSG MWD rev2 (MS+IFR1) 8-1/2" <1991 - 16823>	RAMPART A32-721 AWB	9/16/2021



# Actual Wellpath Report

RAMPART A32-721 AWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY, INC	Well	RAMPART A32-721
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API	0512350933
Facility	SEC.20-T06N-R64W	Wellbore	RAMPART A32-721 AWB
Slot	SLOT#13 RAMPART A32-721 (448'FSL & 1414'FEL,SEC.20)		

## WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
80.00	0.270	7.480	80.00	FIRST GYRODATA SURVEY
1905.00	0.700	332.930	1904.98	LAST GYRODATA SURVEY
1991.00	0.910	33.190	1990.98	FIRST BH MWD SURVEY
16823.00	90.000	179.560	6788.62	LAST BH MWD SURVEY
16848.00	90.000	179.560	6788.62	PROJECTION TO BIT