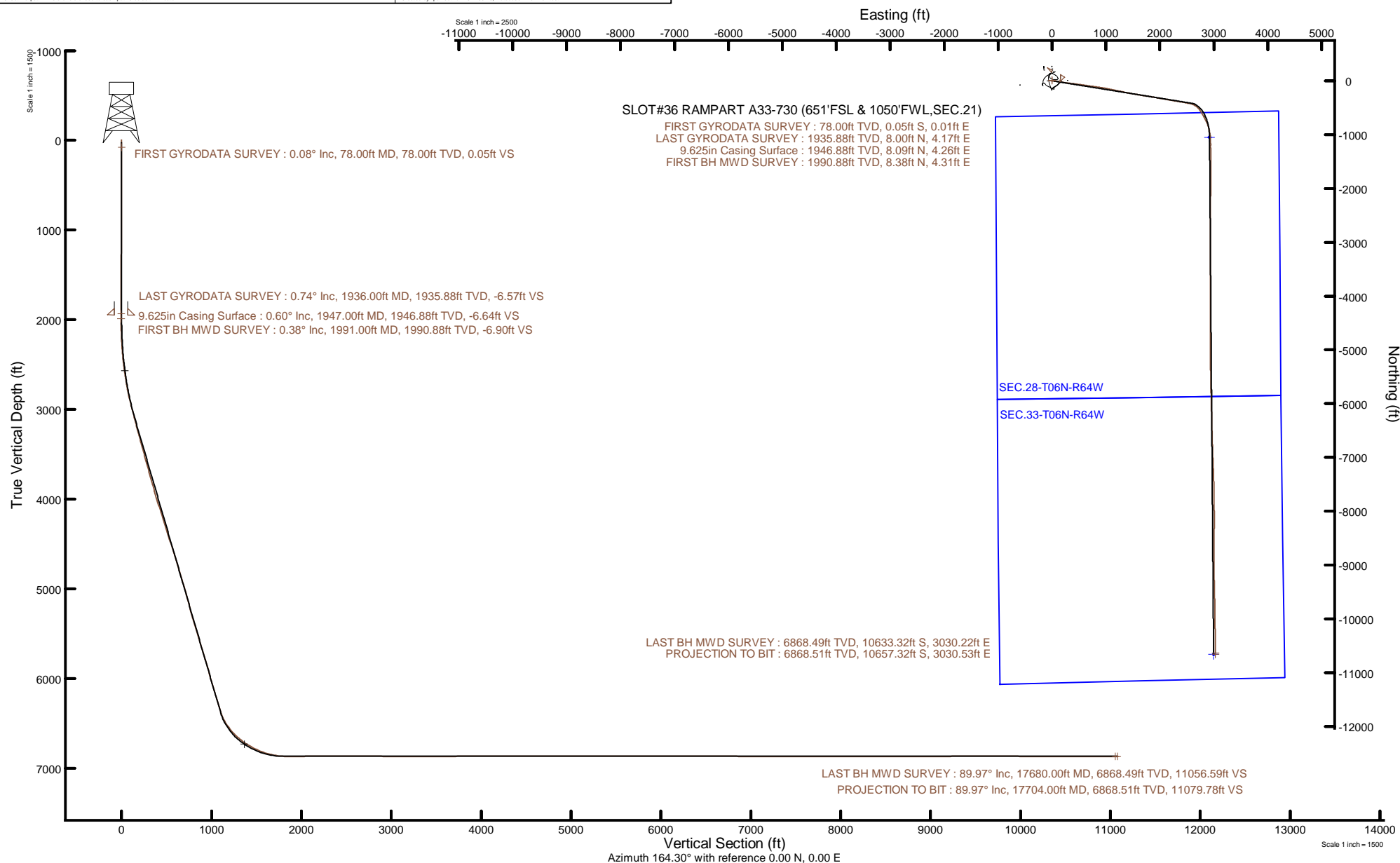


NOBLE ENERGY, INC

Location: COLORADO Slot: SLOT#36 RAMPART A33-730 (651'FSL & 1050'FWL,SEC.21)
Field: WELD COUNTY (NOBLE NAD 83 GRID) Well: RAMPART A33-730
Facility: SEC.21-T06N-R64W Wellbore: RAMPART A33-730 PWB



Plot reference wellpath is RAMPART A33-730 PWP RevA.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: 4756 feet	Coordinates are in feet referenced to Slot
Mean Sea Level to Ground level (At Slot: SLOT#36 RAMPART A33-730 (651'FSL & 1050'FWL,SEC.21)): 0 feet	Depths are in feet
Offset wellpath MDs are referenced to each path's default MD datum	Created by: painseir on 2021-08-26; Database: WellArchitectDB



REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY, INC	Well	RAMPART A33-730
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API	0512350924
Facility	SEC.21-T06N-R64W	Wellbore	RAMPART A33-730 AWB
Slot	SLOT#36 RAMPART A33-730 (651'FSL & 1050'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	8/26/2021 at 7:28:17 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	-198.77	1.10	3261307.86	1414004.12	40.4660444°	-104.5608336°
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	4756.00ft
Horizontal Reference Pt	Slot	H&P 517 (30') (RT) to Mean Sea Level	4756.00ft
Vertical Reference Pt	H&P 517 (30') (RT)	H&P 517 (30') (RT) to Ground Level at Slot (SLOT#36 RAMPART A33-730 (651'FSL & 1050'FWL,SEC.21))	4756.00ft
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	164.30°

REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY, INC	Well	RAMPART A33-730
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API	0512350924
Facility	SEC.21-T06N-R64W	Wellbore	RAMPART A33-730 AWB
Slot	SLOT#36 RAMPART A33-730 (651'FSL & 1050'FWL,SEC.21)		

WELLPATH DATA (188 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	174.270	0.00	0.00	0.00	0.00	3261307.86	1414004.12	40.4660444	-104.5608336	0.00	
78.00	0.080	174.270	78.00	0.05	-0.05	0.01	3261307.87	1414004.07	40.4660442	-104.5608336	0.10	FIRST GYRODATA SURVEY
171.00	0.570	255.340	171.00	0.11	-0.24	-0.44	3261307.42	1414003.88	40.4660438	-104.5608352	0.61	
262.00	0.600	241.930	261.99	0.20	-0.57	-1.29	3261306.57	1414003.55	40.4660428	-104.5608383	0.15	
357.00	0.280	300.790	356.99	0.14	-0.69	-1.93	3261305.93	1414003.43	40.4660426	-104.5608406	0.54	
451.00	0.470	303.480	450.99	-0.32	-0.36	-2.45	3261305.41	1414003.76	40.4660435	-104.5608424	0.20	
546.00	0.300	247.440	545.99	-0.58	-0.24	-3.01	3261304.85	1414003.88	40.4660438	-104.5608444	0.41	
640.00	0.430	285.930	639.99	-0.74	-0.24	-3.57	3261304.29	1414003.88	40.4660438	-104.5608465	0.29	
735.00	0.660	288.940	734.98	-1.24	0.04	-4.43	3261303.43	1414004.16	40.4660446	-104.5608495	0.24	
829.00	0.430	329.630	828.98	-1.89	0.52	-5.12	3261302.74	1414004.64	40.4660460	-104.5608520	0.46	
924.00	0.310	323.340	923.98	-2.47	1.03	-5.46	3261302.40	1414005.15	40.4660474	-104.5608532	0.13	
1019.00	0.380	345.180	1018.97	-3.02	1.54	-5.69	3261302.17	1414005.66	40.4660488	-104.5608540	0.16	
1113.00	0.230	359.060	1112.97	-3.52	2.03	-5.77	3261302.09	1414006.15	40.4660501	-104.5608543	0.18	
1208.00	0.750	30.370	1207.97	-4.13	2.76	-5.46	3261302.40	1414006.88	40.4660521	-104.5608531	0.60	
1302.00	0.920	48.330	1301.96	-4.89	3.79	-4.59	3261303.27	1414007.91	40.4660549	-104.5608499	0.33	
1397.00	0.700	71.340	1396.95	-5.26	4.48	-3.47	3261304.39	1414008.60	40.4660568	-104.5608459	0.41	
1491.00	0.780	66.110	1490.94	-5.38	4.93	-2.34	3261305.52	1414009.05	40.4660580	-104.5608418	0.11	
1586.00	1.120	72.000	1585.93	-5.51	5.48	-0.86	3261307.00	1414009.60	40.4660594	-104.5608365	0.37	
1680.00	1.200	69.840	1679.91	-5.62	6.10	0.93	3261308.79	1414010.22	40.4660611	-104.5608300	0.10	
1775.00	0.830	62.380	1774.89	-5.84	6.76	2.48	3261310.34	1414010.88	40.4660629	-104.5608244	0.41	
1869.00	0.710	50.960	1868.89	-6.21	7.44	3.53	3261311.39	1414011.56	40.4660647	-104.5608206	0.21	
1936.00	0.740	46.720	1935.88	-6.57	8.00	4.17	3261312.03	1414012.12	40.4660662	-104.5608183	0.09	LAST GYRODATA SURVEY
1991.00	0.380	319.610	1990.88	-6.90	8.38	4.31	3261312.17	1414012.50	40.4660673	-104.5608178	1.48	FIRST BH MWD SURVEY
2085.00	2.720	103.530	2084.85	-6.10	8.10	6.28	3261314.14	1414012.22	40.4660664	-104.5608107	3.23	
2180.00	4.980	105.450	2179.63	-2.86	6.47	12.44	3261320.30	1414010.59	40.4660618	-104.5607886	2.38	
2275.00	7.490	102.080	2274.06	2.16	4.08	22.47	3261330.33	1414008.20	40.4660549	-104.5607527	2.67	
2369.00	9.200	102.880	2367.06	8.61	1.12	35.79	3261343.65	1414005.24	40.4660464	-104.5607049	1.82	
2464.00	12.670	100.230	2460.32	16.80	-2.42	53.45	3261361.31	1414001.70	40.4660362	-104.5606416	3.69	
2558.00	17.940	101.650	2550.95	27.97	-7.18	77.79	3261385.65	1413996.94	40.4660224	-104.5605543	5.62	
2653.00	19.130	100.460	2641.02	41.55	-12.96	107.43	3261415.29	1413991.16	40.4660057	-104.5604480	1.31	

REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY, INC	Well	RAMPART A33-730
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API	0512350924
Facility	SEC.21-T06N-R64W	Wellbore	RAMPART A33-730 AWB
Slot	SLOT#36 RAMPART A33-730 (651'FSL & 1050'FWL,SEC.21)		

WELLPATH DATA (188 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
2748.00	22.850	99.440	2729.71	56.26	-18.81	140.95	3261448.80	1413985.31	40.4659887	-104.5603278	3.93	
2842.00	25.890	98.250	2815.32	72.35	-24.75	179.27	3261487.12	1413979.37	40.4659712	-104.5601903	3.28	
2936.00	30.050	100.120	2898.32	90.94	-31.84	222.77	3261530.62	1413972.28	40.4659505	-104.5600343	4.52	
3031.00	31.540	97.720	2979.93	111.18	-39.36	270.81	3261578.66	1413964.77	40.4659285	-104.5598619	2.03	
3126.00	35.370	97.870	3059.18	132.06	-46.46	322.69	3261630.54	1413957.66	40.4659075	-104.5596757	4.03	
3221.00	34.130	95.600	3137.23	152.74	-52.83	376.45	3261684.30	1413951.30	40.4658884	-104.5594828	1.89	
3315.00	34.350	97.060	3214.94	172.58	-58.66	429.02	3261736.86	1413945.46	40.4658709	-104.5592941	0.90	
3410.00	34.430	98.520	3293.34	193.97	-65.93	482.18	3261790.02	1413938.19	40.4658494	-104.5591033	0.87	
3505.00	33.720	97.620	3372.03	215.43	-73.41	534.87	3261842.71	1413930.71	40.4658273	-104.5589142	0.92	
3599.00	34.040	97.620	3450.07	236.18	-80.36	586.81	3261894.65	1413923.77	40.4658068	-104.5587278	0.34	
3694.00	34.240	99.450	3528.70	258.06	-88.27	639.53	3261947.37	1413915.85	40.4657835	-104.5585387	1.10	
3788.00	34.210	97.750	3606.42	279.82	-96.18	691.80	3261999.64	1413907.95	40.4657603	-104.5583511	1.02	
3883.00	34.550	96.810	3684.83	300.76	-102.97	745.01	3262052.85	1413901.15	40.4657401	-104.5581602	0.66	
3978.00	34.960	98.580	3762.88	322.27	-110.23	798.68	3262106.51	1413893.90	40.4657186	-104.5579676	1.15	
4073.00	34.960	98.430	3840.74	344.59	-118.28	852.51	3262160.34	1413885.85	40.4656949	-104.5577744	0.09	
4167.00	34.830	97.880	3917.84	366.34	-125.91	905.74	3262213.57	1413878.22	40.4656724	-104.5575834	0.36	
4262.00	34.930	100.790	3995.78	389.33	-134.72	959.34	3262267.16	1413869.41	40.4656467	-104.5573912	1.75	
4356.00	34.740	101.970	4072.93	413.77	-145.31	1011.97	3262319.80	1413858.81	40.4656161	-104.5572024	0.74	
4451.00	34.600	101.780	4151.07	438.79	-156.43	1064.86	3262372.68	1413847.69	40.4655840	-104.5570128	0.19	
4545.00	34.730	100.390	4228.38	462.89	-166.71	1117.32	3262425.14	1413837.42	40.4655543	-104.5568247	0.85	
4640.00	34.740	101.760	4306.45	487.27	-177.11	1170.44	3262478.26	1413827.02	40.4655242	-104.5566342	0.82	
4734.00	34.630	101.990	4383.75	512.04	-188.11	1222.79	3262530.60	1413816.01	40.4654924	-104.5564465	0.18	
4829.00	34.540	101.120	4461.96	536.73	-198.92	1275.62	3262583.43	1413805.21	40.4654612	-104.5562570	0.53	
4923.00	35.070	100.400	4539.14	560.64	-208.93	1328.33	3262636.14	1413795.20	40.4654322	-104.5560680	0.71	
5017.00	34.270	102.140	4616.46	584.88	-219.37	1380.77	3262688.57	1413784.76	40.4654020	-104.5558800	1.35	
5112.00	34.400	101.090	4694.90	609.47	-230.16	1433.25	3262741.06	1413773.97	40.4653709	-104.5556918	0.64	
5206.00	34.870	100.000	4772.25	633.09	-239.93	1485.77	3262793.57	1413764.20	40.4653425	-104.5555034	0.83	
5301.00	33.970	99.560	4850.61	656.20	-249.06	1538.69	3262846.49	1413755.07	40.4653159	-104.5553136	0.98	
5396.00	34.200	99.960	4929.29	679.09	-258.08	1591.16	3262898.96	1413746.05	40.4652896	-104.5551254	0.34	
5490.00	34.740	100.030	5006.79	702.16	-267.32	1643.55	3262951.35	1413736.81	40.4652628	-104.5549374	0.58	

REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY, INC	Well	RAMPART A33-730
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API	0512350924
Facility	SEC.21-T06N-R64W	Wellbore	RAMPART A33-730 AWB
Slot	SLOT#36 RAMPART A33-730 (651'FSL & 1050'FWL,SEC.21)		

WELLPATH DATA (188 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
5585.00	34.280	99.340	5085.07	725.24	-276.37	1696.61	3263004.40	1413727.76	40.4652363	-104.5547471	0.64	
5680.00	33.540	96.800	5163.92	746.61	-283.82	1749.07	3263056.86	1413720.31	40.4652144	-104.5545589	1.68	
5774.00	31.480	99.550	5243.19	767.02	-290.97	1799.07	3263106.86	1413713.16	40.4651933	-104.5543795	2.70	
5869.00	34.530	99.070	5322.85	788.89	-299.33	1850.13	3263157.92	1413704.80	40.4651688	-104.5541963	3.22	
5964.00	34.260	99.980	5401.24	811.76	-308.21	1903.05	3263210.84	1413695.92	40.4651429	-104.5540064	0.61	
6058.00	35.060	99.500	5478.55	834.72	-317.25	1955.74	3263263.52	1413686.88	40.4651166	-104.5538175	0.90	
6153.00	34.390	100.760	5556.64	858.30	-326.76	2009.01	3263316.79	1413677.37	40.4650889	-104.5536264	1.03	
6247.00	35.350	99.780	5633.76	881.83	-336.34	2061.89	3263369.67	1413667.79	40.4650611	-104.5534367	1.18	
6342.00	34.350	100.230	5711.72	905.37	-345.77	2115.35	3263423.13	1413658.36	40.4650336	-104.5532450	1.09	
6436.00	35.260	99.550	5788.90	928.55	-354.98	2168.20	3263475.98	1413649.15	40.4650068	-104.5530554	1.05	
6531.00	34.610	100.190	5866.78	952.03	-364.30	2221.80	3263529.57	1413639.83	40.4649796	-104.5528631	0.79	
6625.00	34.290	99.710	5944.30	975.05	-373.49	2274.17	3263581.95	1413630.64	40.4649529	-104.5526753	0.45	
6720.00	34.910	99.980	6022.49	998.31	-382.72	2327.32	3263635.09	1413621.42	40.4649260	-104.5524846	0.67	
6814.00	33.270	99.400	6100.34	1020.91	-391.59	2379.25	3263687.02	1413612.55	40.4649001	-104.5522983	1.78	
6909.00	35.240	99.620	6178.86	1043.69	-400.43	2431.99	3263739.76	1413603.71	40.4648743	-104.5521092	2.08	
7004.00	34.070	100.220	6257.00	1067.04	-409.73	2485.20	3263792.97	1413594.41	40.4648472	-104.5519183	1.28	
7098.00	35.050	99.290	6334.41	1089.96	-418.76	2537.75	3263845.52	1413585.38	40.4648209	-104.5517298	1.18	
7193.00	35.410	106.410	6412.05	1116.13	-430.94	2591.10	3263898.86	1413573.19	40.4647859	-104.5515386	4.34	
7287.00	38.870	120.700	6487.11	1152.04	-453.74	2642.70	3263950.46	1413550.39	40.4647218	-104.5513540	9.87	
7382.00	42.810	131.400	6559.06	1200.81	-490.37	2692.62	3264000.38	1413513.77	40.4646198	-104.5511760	8.44	
7477.00	47.590	141.360	6626.06	1260.32	-539.20	2738.82	3264046.58	1413464.94	40.4644844	-104.5510119	8.97	
7571.00	52.300	149.820	6686.60	1328.40	-598.55	2779.25	3264087.00	1413405.60	40.4643203	-104.5508689	8.51	
7666.00	58.250	152.820	6740.70	1404.45	-667.04	2816.63	3264124.38	1413337.11	40.4641312	-104.5507372	6.78	
7760.00	65.670	153.520	6784.86	1485.81	-741.03	2854.04	3264161.79	1413263.12	40.4639271	-104.5506056	7.92	
7855.00	69.840	159.990	6820.85	1572.91	-821.78	2888.64	3264196.39	1413182.37	40.4637044	-104.5504844	7.68	
7950.00	77.310	166.700	6847.72	1663.89	-908.99	2914.62	3264222.37	1413095.17	40.4634643	-104.5503943	10.38	
8044.00	83.030	171.650	6863.77	1756.11	-999.90	2931.97	3264239.72	1413004.26	40.4632142	-104.5503355	8.00	
8139.00	89.480	178.080	6869.98	1849.19	-1094.22	2940.43	3264248.17	1412909.94	40.4629551	-104.5503087	9.57	
8234.00	89.940	180.270	6870.46	1941.00	-1189.20	2941.79	3264249.54	1412814.96	40.4626944	-104.5503075	2.36	
8329.00	92.460	179.440	6868.47	2032.49	-1284.17	2942.03	3264249.78	1412720.00	40.4624337	-104.5503103	2.79	

REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY, INC	Well	RAMPART A33-730
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API	0512350924
Facility	SEC.21-T06N-R64W	Wellbore	RAMPART A33-730 AWB
Slot	SLOT#36 RAMPART A33-730 (651'FSL & 1050'FWL,SEC.21)		

WELLPATH DATA (188 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	89.350	178.570	6866.98	2123.39	-1378.13	2943.67	3264251.41	1412626.04	40.4621758	-104.5503080	3.44	
8517.00	90.460	179.710	6867.14	2214.25	-1472.12	2945.08	3264252.82	1412532.06	40.4619177	-104.5503066	1.69	
8611.00	90.460	180.300	6866.38	2304.74	-1566.12	2945.07	3264252.82	1412438.06	40.4616598	-104.5503102	0.63	
8706.00	89.720	180.920	6866.24	2395.91	-1661.11	2944.06	3264251.81	1412343.07	40.4613991	-104.5503175	1.02	
8800.00	89.630	180.090	6866.77	2486.17	-1755.10	2943.23	3264250.98	1412249.08	40.4611411	-104.5503241	0.89	
8895.00	89.780	179.890	6867.26	2577.63	-1850.10	2943.25	3264250.99	1412154.09	40.4608803	-104.5503277	0.26	
8989.00	90.090	180.470	6867.36	2668.04	-1944.10	2942.95	3264250.70	1412060.09	40.4606224	-104.5503324	0.70	
9084.00	90.060	180.270	6867.24	2759.33	-2039.10	2942.34	3264250.08	1411965.10	40.4603616	-104.5503382	0.21	
9179.00	89.480	180.310	6867.62	2850.65	-2134.10	2941.86	3264249.60	1411870.11	40.4601009	-104.5503436	0.61	
9273.00	89.540	180.490	6868.43	2940.96	-2228.09	2941.20	3264248.95	1411776.11	40.4598429	-104.5503496	0.20	
9368.00	89.450	180.760	6869.26	3032.12	-2323.08	2940.16	3264247.91	1411681.13	40.4595822	-104.5503570	0.30	
9463.00	89.290	180.330	6870.31	3123.32	-2418.07	2939.26	3264247.01	1411586.14	40.4593216	-104.5503639	0.48	
9557.00	89.660	180.330	6871.17	3213.66	-2512.06	2938.72	3264246.47	1411492.15	40.4590636	-104.5503694	0.39	
9652.00	89.290	180.240	6872.04	3304.98	-2607.06	2938.25	3264245.99	1411397.16	40.4588029	-104.5503748	0.40	
9747.00	90.370	180.410	6872.32	3396.29	-2702.06	2937.71	3264245.46	1411302.17	40.4585421	-104.5503804	1.15	
9841.00	91.020	179.710	6871.18	3486.75	-2796.05	2937.61	3264245.36	1411208.18	40.4582842	-104.5503844	1.02	
9936.00	90.620	180.300	6869.82	3578.19	-2891.04	2937.60	3264245.35	1411113.19	40.4580234	-104.5503880	0.75	
10030.00	90.680	181.040	6868.75	3668.37	-2985.02	2936.50	3264244.25	1411019.21	40.4577655	-104.5503956	0.79	
10125.00	90.520	180.810	6867.76	3759.39	-3080.01	2934.97	3264242.72	1410924.23	40.4575049	-104.5504048	0.29	
10219.00	90.460	179.850	6866.96	3849.73	-3174.00	2934.43	3264242.17	1410830.24	40.4572469	-104.5504103	1.02	
10314.00	90.310	179.970	6866.32	3941.23	-3269.00	2934.58	3264242.32	1410735.25	40.4569861	-104.5504135	0.20	
10409.00	90.400	179.670	6865.73	4032.76	-3364.00	2934.87	3264242.62	1410640.25	40.4567254	-104.5504160	0.33	
10503.00	90.280	180.270	6865.17	4123.26	-3457.99	2934.92	3264242.67	1410546.26	40.4564674	-104.5504195	0.65	
10598.00	90.310	180.030	6864.68	4214.65	-3552.99	2934.67	3264242.42	1410451.26	40.4562067	-104.5504240	0.25	
10693.00	89.940	180.070	6864.47	4306.08	-3647.99	2934.59	3264242.34	1410356.27	40.4559459	-104.5504280	0.39	
10787.00	90.150	179.830	6864.40	4396.59	-3741.99	2934.67	3264242.42	1410262.27	40.4556879	-104.5504313	0.34	
10882.00	90.120	180.180	6864.18	4488.04	-3836.99	2934.67	3264242.41	1410167.27	40.4554272	-104.5504350	0.37	
10976.00	90.150	179.950	6863.96	4578.51	-3930.99	2934.56	3264242.31	1410073.28	40.4551692	-104.5504390	0.25	
11071.00	90.120	179.220	6863.73	4670.14	-4025.99	2935.25	3264243.00	1409978.29	40.4549084	-104.5504402	0.77	
11165.00	90.280	179.600	6863.40	4760.89	-4119.98	2936.21	3264243.96	1409884.30	40.4546504	-104.5504403	0.44	

REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY, INC	Well	RAMPART A33-730
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API	0512350924
Facility	SEC.21-T06N-R64W	Wellbore	RAMPART A33-730 AWB
Slot	SLOT#36 RAMPART A33-730 (651'FSL & 1050'FWL,SEC.21)		

WELLPATH DATA (188 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
11260.00	89.480	179.950	6863.60	4852.45	-4214.98	2936.59	3264244.34	1409789.30	40.4543896	-104.5504426	0.92	
11354.00	89.910	180.470	6864.10	4942.84	-4308.98	2936.24	3264243.99	1409695.31	40.4541316	-104.5504475	0.72	
11449.00	89.880	180.170	6864.28	5034.15	-4403.98	2935.71	3264243.46	1409600.31	40.4538709	-104.5504530	0.32	
11543.00	90.000	180.240	6864.38	5124.55	-4497.97	2935.38	3264243.12	1409506.32	40.4536129	-104.5504579	0.15	
11638.00	90.000	180.350	6864.38	5215.87	-4592.97	2934.89	3264242.64	1409411.32	40.4533522	-104.5504633	0.12	
11827.00	89.750	180.220	6864.79	5397.56	-4781.97	2933.95	3264241.70	1409222.33	40.4528335	-104.5504739	0.15	
11922.00	89.820	180.130	6865.14	5488.94	-4876.97	2933.66	3264241.41	1409127.34	40.4525727	-104.5504786	0.12	
12017.00	89.850	179.140	6865.42	5580.55	-4971.97	2934.26	3264242.01	1409032.34	40.4523120	-104.5504801	1.04	
12111.00	89.880	178.980	6865.64	5671.45	-5065.95	2935.80	3264243.55	1408938.36	40.4520540	-104.5504782	0.17	
12205.00	89.880	178.940	6865.84	5762.39	-5159.94	2937.51	3264245.26	1408844.38	40.4517960	-104.5504757	0.04	
12300.00	89.970	179.340	6865.96	5854.22	-5254.93	2938.94	3264246.68	1408749.39	40.4515352	-104.5504742	0.43	
12395.00	89.940	178.520	6866.04	5946.13	-5349.91	2940.71	3264248.46	1408654.41	40.4512744	-104.5504715	0.86	
12489.00	89.600	178.770	6866.41	6037.20	-5443.88	2942.93	3264250.68	1408560.45	40.4510164	-104.5504671	0.45	
12584.00	89.780	178.760	6866.93	6129.19	-5538.86	2944.98	3264252.73	1408465.47	40.4507557	-104.5504634	0.19	
12679.00	89.970	178.980	6867.13	6221.13	-5633.84	2946.85	3264254.60	1408370.50	40.4504950	-104.5504603	0.31	
12773.00	90.680	178.820	6866.60	6312.09	-5727.82	2948.66	3264256.41	1408276.52	40.4502369	-104.5504575	0.77	
12867.00	90.180	178.840	6865.90	6403.08	-5821.80	2950.58	3264258.33	1408182.54	40.4499790	-104.5504542	0.53	
12962.00	90.120	179.700	6865.65	6494.86	-5916.79	2951.79	3264259.54	1408087.56	40.4497182	-104.5504535	0.91	
13057.00	89.630	178.200	6865.85	6586.76	-6011.77	2953.53	3264261.28	1407992.58	40.4494574	-104.5504509	1.66	
13152.00	89.380	177.710	6866.67	6679.07	-6106.70	2956.92	3264264.67	1407897.65	40.4491968	-104.5504424	0.58	
13246.00	89.720	178.910	6867.41	6770.27	-6200.66	2959.69	3264267.44	1407803.70	40.4489388	-104.5504360	1.33	
13341.00	89.350	178.610	6868.18	6862.26	-6295.63	2961.75	3264269.49	1407708.73	40.4486781	-104.5504323	0.50	
13435.00	89.940	178.850	6868.77	6953.29	-6389.61	2963.83	3264271.58	1407614.76	40.4484201	-104.5504284	0.68	
13530.00	90.120	178.520	6868.72	7045.31	-6484.58	2966.01	3264273.76	1407519.78	40.4481593	-104.5504242	0.40	
13624.00	89.820	177.530	6868.77	7136.62	-6578.53	2969.25	3264277.00	1407425.84	40.4479014	-104.5504162	1.10	
13719.00	90.220	178.580	6868.73	7228.90	-6673.47	2972.47	3264280.22	1407330.90	40.4476407	-104.5504083	1.18	
13813.00	90.090	177.860	6868.48	7320.13	-6767.42	2975.39	3264283.14	1407236.95	40.4473827	-104.5504014	0.78	
13908.00	90.060	177.760	6868.35	7412.50	-6862.35	2979.02	3264286.77	1407142.03	40.4471221	-104.5503920	0.11	
14003.00	89.820	178.430	6868.45	7504.76	-6957.30	2982.18	3264289.93	1407047.08	40.4468614	-104.5503843	0.75	
14097.00	90.120	178.070	6868.50	7595.99	-7051.26	2985.05	3264292.80	1406953.13	40.4466034	-104.5503776	0.50	

REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY, INC	Well	RAMPART A33-730
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API	0512350924
Facility	SEC.21-T06N-R64W	Wellbore	RAMPART A33-730 AWB
Slot	SLOT#36 RAMPART A33-730 (651'FSL & 1050'FWL,SEC.21)		

WELLPATH DATA (188 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
14192.00	89.820	177.920	6868.55	7688.29	-7146.20	2988.38	3264296.12	1406858.19	40.4463427	-104.5503693	0.35	
14286.00	88.030	175.250	6870.32	7780.10	-7240.00	2993.97	3264301.72	1406764.39	40.4460851	-104.5503528	3.42	
14381.00	90.150	179.120	6871.83	7872.68	-7334.85	2998.64	3264306.38	1406669.55	40.4458246	-104.5503397	4.64	
14476.00	90.830	179.410	6871.01	7964.45	-7429.84	2999.85	3264307.60	1406574.56	40.4455639	-104.5503390	0.78	
14570.00	90.220	179.230	6870.15	8055.23	-7523.83	3000.97	3264308.72	1406480.58	40.4453059	-104.5503386	0.68	
14665.00	90.280	179.640	6869.74	8146.93	-7618.82	3001.91	3264309.65	1406385.59	40.4450451	-104.5503389	0.44	
14759.00	90.000	178.770	6869.51	8237.77	-7712.81	3003.21	3264310.96	1406291.60	40.4447871	-104.5503378	0.97	
14854.00	90.180	178.530	6869.36	8329.80	-7807.79	3005.45	3264313.20	1406196.63	40.4445263	-104.5503335	0.32	
14949.00	90.120	179.160	6869.11	8421.76	-7902.77	3007.36	3264315.11	1406101.65	40.4442656	-104.5503302	0.67	
15043.00	90.150	179.460	6868.89	8512.55	-7996.76	3008.50	3264316.24	1406007.67	40.4440076	-104.5503298	0.32	
15138.00	89.970	179.860	6868.79	8604.15	-8091.76	3009.06	3264316.81	1405912.67	40.4437468	-104.5503314	0.46	
15232.00	90.000	179.950	6868.81	8694.69	-8185.76	3009.22	3264316.96	1405818.67	40.4434888	-104.5503345	0.10	
15326.00	90.250	180.460	6868.61	8785.09	-8279.76	3008.88	3264316.63	1405724.68	40.4432308	-104.5503393	0.60	
15421.00	89.970	181.510	6868.43	8876.09	-8374.74	3007.25	3264314.99	1405629.70	40.4429702	-104.5503488	1.14	
15516.00	89.910	180.450	6868.53	8967.09	-8469.73	3005.62	3264313.37	1405534.72	40.4427095	-104.5503583	1.12	
15610.00	90.060	180.350	6868.55	9057.40	-8563.72	3004.97	3264312.71	1405440.72	40.4424515	-104.5503643	0.19	
15705.00	90.150	179.620	6868.38	9148.86	-8658.72	3004.99	3264312.74	1405345.73	40.4421908	-104.5503678	0.77	
15799.00	90.250	180.030	6868.05	9239.43	-8752.72	3005.28	3264313.02	1405251.73	40.4419328	-104.5503704	0.45	
15893.00	90.150	181.940	6867.72	9329.46	-8846.70	3003.66	3264311.41	1405157.76	40.4416749	-104.5503799	2.03	
15988.00	90.060	180.470	6867.55	9420.35	-8941.68	3001.66	3264309.41	1405062.78	40.4414142	-104.5503907	1.55	
16083.00	89.880	179.480	6867.60	9511.82	-9036.68	3001.71	3264309.45	1404967.79	40.4411535	-104.5503942	1.06	
16177.00	90.120	178.510	6867.60	9602.74	-9130.66	3003.35	3264311.10	1404873.81	40.4408955	-104.5503919	1.06	
16272.00	89.780	178.090	6867.68	9694.92	-9225.62	3006.17	3264313.92	1404778.85	40.4406348	-104.5503854	0.57	
16366.00	90.000	178.390	6867.86	9786.15	-9319.57	3009.06	3264316.80	1404684.90	40.4403768	-104.5503787	0.40	
16461.00	90.030	179.710	6867.83	9878.01	-9414.56	3010.63	3264318.38	1404589.92	40.4401160	-104.5503767	1.39	
16556.00	89.750	177.880	6868.02	9969.98	-9509.53	3012.63	3264320.38	1404494.95	40.4398553	-104.5503731	1.95	
16650.00	89.880	178.080	6868.32	10061.32	-9603.48	3015.95	3264323.69	1404401.01	40.4395974	-104.5503648	0.25	
16745.00	90.030	179.290	6868.39	10153.34	-9698.45	3018.13	3264325.87	1404306.04	40.4393366	-104.5503607	1.28	
16839.00	89.510	177.990	6868.77	10244.40	-9792.42	3020.36	3264328.10	1404212.07	40.4390786	-104.5503563	1.49	
17029.00	90.620	180.760	6868.56	10427.84	-9982.39	3022.43	3264330.17	1404022.11	40.4385572	-104.5503561	1.57	

REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY, INC	Well	RAMPART A33-730
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API	0512350924
Facility	SEC.21-T06N-R64W	Wellbore	RAMPART A33-730 AWB
Slot	SLOT#36 RAMPART A33-730 (651'FSL & 1050'FWL,SEC.21)		

WELLPATH DATA (188 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
17123.00	89.540	178.640	6868.42	10518.46	-10076.38	3022.92	3264330.67	1403928.13	40.4382992	-104.5503580	2.53	
17218.00	90.180	179.140	6868.66	10610.39	-10171.36	3024.76	3264332.51	1403833.15	40.4380384	-104.5503550	0.85	
17312.00	89.940	180.030	6868.56	10701.07	-10265.36	3025.44	3264333.19	1403739.16	40.4377804	-104.5503562	0.98	
17408.00	89.910	178.970	6868.68	10793.70	-10361.35	3026.28	3264334.02	1403643.16	40.4375169	-104.5503569	1.10	
17502.00	90.060	179.330	6868.71	10884.56	-10455.34	3027.67	3264335.42	1403549.18	40.4372589	-104.5503555	0.41	
17596.00	90.120	179.060	6868.56	10975.40	-10549.33	3029.00	3264336.74	1403455.19	40.4370009	-104.5503544	0.29	
17680.00	89.970	179.270	6868.49	11056.59	-10633.32	3030.22	3264337.96	1403371.20	40.4367703	-104.5503532	0.31	LAST BH MWD SURVEY
17704.00†	89.970	179.270	6868.51	11079.78	-10657.32	3030.53	3264338.27	1403347.21	40.4367044	-104.5503530	0.00	PROJECTION TO BIT

HOLE & CASING SECTIONS - Ref Wellbore: RAMPART A33-730 AWB Ref Wellpath: RAMPART A33-730 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	1947.00	1917.00	30.00	1946.88	-0.01	0.00	8.09	4.26

REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY, INC	Well	RAMPART A33-730
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API	0512350924
Facility	SEC.21-T06N-R64W	Wellbore	RAMPART A33-730 AWB
Slot	SLOT#36 RAMPART A33-730 (651'FSL & 1050'FWL,SEC.21)		

TARGETS

Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.28-T06N-R64W	19.00	-218.95	-2462.21	3258845.74	1413785.18	40.4655147	-104.5696903	polygon
	2D Polygon: dimensions not calculated							
SEC.33-T06N-R64W	19.00	-218.95	-2462.21	3258845.74	1413785.18	40.4655147	-104.5696903	polygon
	2D Polygon: dimensions not calculated							
RAMPART A33-730 BHL REV-1 (460'FSL & 1314'FEL,SEC.33)	6868.00	-10659.86	2996.88	3264304.63	1403344.67	40.4366984	-104.5504740	point
RAMPART A33-730 TPZ REV-1 (460'FNL & 1288'FEL,SEC.28)	6868.00	-1050.07	2921.70	3264229.45	1412954.09	40.4630768	-104.5503743	point

WELLPATH COMPOSITION - Ref Wellbore: RAMPART A33-730 AWB Ref Wellpath: RAMPART A33-730 AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore	Survey Date
0.00	1936.00	Gyrodatta 2015 - GC+DROP+COND	Gyrodatta 2015 - GC+DROP+COND 13-1/2" <78 - 1936>	RAMPART A33-730 AWB	8/2/2021
1936.00	17704.00	OWSG MWD rev2 (MS+IFR1)	OWSG MWD rev2 (MS+IFR1) 8-1/2" <1991 - 17680>	RAMPART A33-730 AWB	8/23/2021

REFERENCE WELLPATH IDENTIFICATION

Operator	NOBLE ENERGY, INC	Well	RAMPART A33-730
Field	WELD COUNTY (NOBLE NAD 83 GRID)	API	0512350924
Facility	SEC.21-T06N-R64W	Wellbore	RAMPART A33-730 AWB
Slot	SLOT#36 RAMPART A33-730 (651'FSL & 1050'FWL,SEC.21)		

WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
78.00	0.080	174.270	78.00	FIRST GYRODATA SURVEY
1936.00	0.740	46.720	1935.88	LAST GYRODATA SURVEY
1991.00	0.380	319.610	1990.88	FIRST BH MWD SURVEY
17680.00	89.970	179.270	6868.49	LAST BH MWD SURVEY
17704.00	89.970	179.270	6868.51	PROJECTION TO BIT