

# NOBLE ENERGY, INC

BAKER  
HUGHES  
a GE company



noble  
energy

Location: COLORADO Slot: SLOT#03 EMMY STATE H25-724(285°FSL&1737°FEL,SEC.25)  
Field: WELD COUNTY (NOBLE NAD 83 GRID) Well: EMMY STATE H25-724  
Facility: SEC.25-T03N-R65W Wellbore: EMMY STATE H25-724 PWB

Plot reference wellpath is EMMY STATE H25-724 (REV-C.0) PWP

Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
True vertical depths are referenced to Rig (30KB) (RKB)
* = Wellpath was transformed from a different geodetic datum
Measured depths are referenced to Rig (30KB) (RKB)
North Reference: Grid north
Rig (30KB) (RKB) to Mean Sea Level: 4835 feet
Scale: True distance
Mean Sea Level to Ground level (At Slot: SLOT#03 EMMY STATE H25-724(285°FSL&1737°FEL,SEC.25)): 0 feet
Depths are in feet
Coordinates are in feet referenced to Slot
Created by: guenaler on 2018-10-03
Database: WA_DEN_Denver_Defn

## Location Information

Facility Name			Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC.25-T03N-R65W			3248954.739	1313190.352	40°11'22.812"N	104°36'31.932"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SLOT#03 EMMY STATE H25-724(285°FSL&1737°FEL,SEC.25)	-0.45	-44.70	3248910.041	1313189.903	40°11'22.812"N	104°36'32.508"W
Rig (30KB) (RKB) to Ground level (At Slot: SLOT#03 EMMY STATE H25-724(285°FSL&1737°FEL,SEC.25))					4835ft	
Mean Sea Level to Ground level (At Slot: SLOT#03 EMMY STATE H25-724(285°FSL&1737°FEL,SEC.25))					0ft	
Rig (30KB) (RKB) to Mean Sea Level					4835ft	

## Survey Program

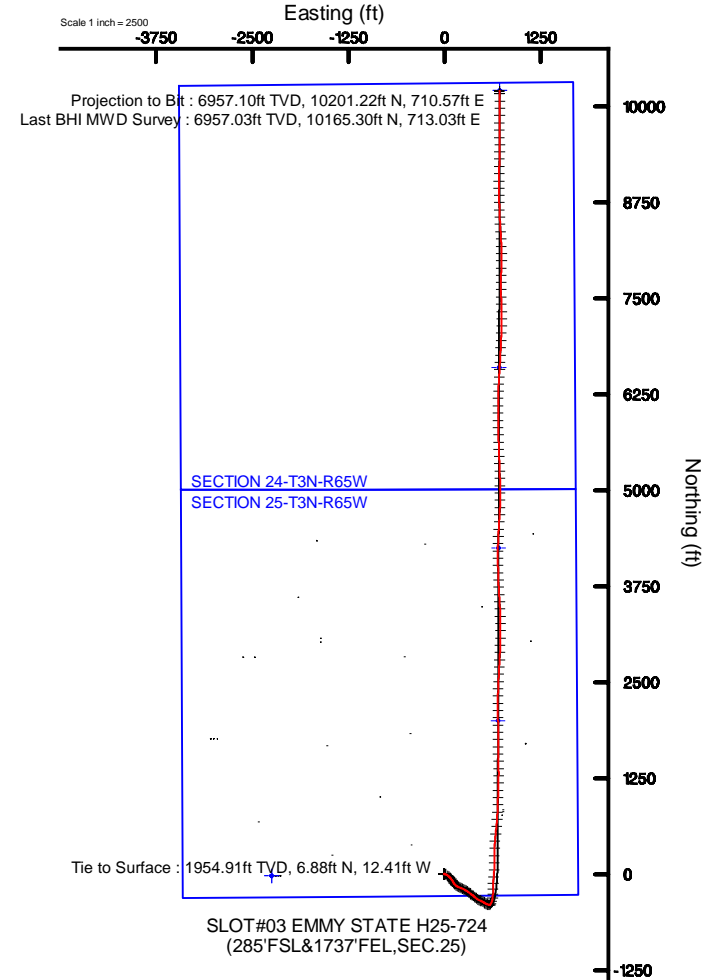
Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
30.00	17460.51	OWSG MWD rev2	OWSG MWD rev2 + IFR1 + Multi-Station Correction		EMMY STATE H25-724 PWB

Tie to Surface : 0.56° Inc, 1955.00ft MD, 1954.91ft TVD, 5.99ft VS

2.00°/100ft

9.35°/100ft

Last BHI MWD Survey : 89.88° Inc, 17302.00ft MD, 6957.03ft TVD, 10190.28ft VS  
Projection to Bit : 89.88° Inc, 17338.00ft MD, 6957.10ft TVD, 10225.93ft VS



REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#03 EMMY STATE H25-724(285'FSL&1737'FEL,SEC.25)
Area	COLORADO	Well	EMMY STATE H25-724
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	EMMY STATE H25-724 AWB
Facility	SEC.25-T03N-R65W		

REPORT SETUP INFORMATION			
Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 5.0
North Reference	Grid	User	Guenaler
Scale	0.999957	Report Generated	10/3/2018 at 11:00:21 AM
Convergence at slot	0.58° East	Database/Source file	WA_DEN_Denver_Defn/EMMY_STATE_H25-724_AWP.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-0.45	-44.70	3248910.04	1313189.90	40°11'22.812"N	104°36'32.508"W
Facility Reference Pt			3248954.74	1313190.35	40°11'22.812"N	104°36'31.932"W
Field Reference Pt			3000000.00	4454105.15	48°46'34.315"N	105°30'00.000"W

WELLPATH DATUM			
Calculation method	Minimum curvature	Rig (30'KB) (RKB) to Facility Vertical Datum	4835.00ft
Horizontal Reference Pt	Slot	Rig (30'KB) (RKB) to Mean Sea Level	4835.00ft
Vertical Reference Pt	Rig (30'KB) (RKB)	Rig (30'KB) (RKB) to Ground Level at Slot (SLOT#03 EMMY STATE H25-724 (285'FSL&1737'FEL,SEC.25))	4835.00ft
MD Reference Pt	Rig (30'KB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	4.03°



Actual Wellpath Report

EMMY STATE H25-724 AWP



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Area	COLORADO	Well	EMMY STATE H25-724
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	EMMY STATE H25-724 AWB
Facility	SEC.25-T03N-R65W		

WELLPATH DATA (185 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
0.00	0.000	279.630	0.00	0.00	0.00	0.00	40°11'22.812"N	104°36'32.508"W	0.00	
84.00	0.530	279.630	84.00	0.04	0.06	-0.38	40°11'22.813"N	104°36'32.513"W	0.63	
179.00	0.620	274.690	178.99	0.09	0.18	-1.33	40°11'22.814"N	104°36'32.525"W	0.11	
274.00	0.790	273.240	273.99	0.08	0.26	-2.49	40°11'22.815"N	104°36'32.540"W	0.18	
368.00	1.380	319.320	367.97	0.88	1.15	-3.88	40°11'22.824"N	104°36'32.558"W	1.07	
463.00	1.210	319.090	462.95	2.40	2.78	-5.28	40°11'22.840"N	104°36'32.576"W	0.18	
557.00	0.650	285.220	556.93	3.21	3.67	-6.45	40°11'22.849"N	104°36'32.591"W	0.81	
652.00	0.580	309.520	651.93	3.59	4.12	-7.34	40°11'22.853"N	104°36'32.602"W	0.28	
746.00	0.410	289.920	745.93	3.96	4.54	-8.02	40°11'22.858"N	104°36'32.611"W	0.25	
841.00	0.660	289.440	840.92	4.20	4.83	-8.86	40°11'22.861"N	104°36'32.621"W	0.26	
935.00	0.440	274.540	934.92	4.35	5.04	-9.73	40°11'22.863"N	104°36'32.633"W	0.28	
1029.00	0.260	258.430	1028.92	4.29	5.03	-10.30	40°11'22.863"N	104°36'32.640"W	0.22	
1124.00	0.140	182.830	1123.92	4.12	4.87	-10.51	40°11'22.861"N	104°36'32.643"W	0.28	
1218.00	0.100	69.380	1217.91	4.04	4.78	-10.44	40°11'22.860"N	104°36'32.642"W	0.21	
1313.00	0.190	276.260	1312.91	4.08	4.83	-10.52	40°11'22.861"N	104°36'32.643"W	0.30	
1407.00	0.220	301.780	1406.91	4.17	4.94	-10.83	40°11'22.862"N	104°36'32.647"W	0.10	
1502.00	0.450	330.180	1501.91	4.56	5.36	-11.17	40°11'22.866"N	104°36'32.651"W	0.29	
1596.00	0.300	350.840	1595.91	5.11	5.92	-11.39	40°11'22.872"N	104°36'32.654"W	0.21	
1691.00	0.180	358.900	1690.91	5.50	6.32	-11.43	40°11'22.876"N	104°36'32.655"W	0.13	
1785.00	0.270	281.130	1784.91	5.67	6.51	-11.65	40°11'22.877"N	104°36'32.657"W	0.31	
1880.00	0.210	275.910	1879.91	5.71	6.57	-12.05	40°11'22.878"N	104°36'32.662"W	0.07	
1955.00	0.560	322.780	1954.91	5.99	6.88	-12.41	40°11'22.881"N	104°36'32.667"W	0.59	Tie to Surface
1980.00	0.570	324.680	1979.91	6.18	7.07	-12.55	40°11'22.883"N	104°36'32.669"W	0.08	
2074.00	0.060	152.600	2073.90	6.50	7.41	-12.80	40°11'22.887"N	104°36'32.672"W	0.67	
2169.00	0.040	331.830	2168.90	6.48	7.40	-12.79	40°11'22.886"N	104°36'32.672"W	0.11	
2264.00	0.110	261.150	2263.90	6.49	7.41	-12.90	40°11'22.887"N	104°36'32.673"W	0.11	
2358.00	0.040	247.730	2357.90	6.45	7.39	-13.02	40°11'22.886"N	104°36'32.675"W	0.08	
2453.00	2.010	95.070	2452.88	6.41	7.23	-11.39	40°11'22.885"N	104°36'32.654"W	2.15	
2548.00	4.170	101.230	2547.74	5.95	6.41	-6.34	40°11'22.876"N	104°36'32.589"W	2.30	
2642.00	6.180	107.990	2641.35	4.30	4.18	1.83	40°11'22.853"N	104°36'32.484"W	2.23	



Actual Wellpath Report

EMMY STATE H25-724 AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#03 EMMY STATE H25-724(285'FSL&1737'FEL,SEC.25)
Area	COLORADO	Well	EMMY STATE H25-724
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	EMMY STATE H25-724 AWB
Facility	SEC.25-T03N-R65W		

WELLPATH DATA (185 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
2737.00	9.790	116.470	2735.42	-0.02	-1.00	13.92	40°11'22.801"N	104°36'32.329"W	3.99	
2926.00	11.360	128.560	2921.23	-16.71	-19.77	42.87	40°11'22.612"N	104°36'31.958"W	1.43	
3020.00	11.170	133.790	3013.42	-27.78	-31.84	56.68	40°11'22.492"N	104°36'31.782"W	1.11	
3115.00	11.270	134.500	3106.60	-39.70	-44.72	69.94	40°11'22.363"N	104°36'31.613"W	0.18	
3210.00	11.280	142.750	3199.78	-52.71	-58.62	82.19	40°11'22.225"N	104°36'31.457"W	1.70	
3304.00	11.220	145.360	3291.97	-66.75	-73.46	92.95	40°11'22.077"N	104°36'31.320"W	0.55	
3399.00	11.270	146.960	3385.15	-81.38	-88.85	103.27	40°11'21.924"N	104°36'31.189"W	0.33	
3494.00	11.200	149.980	3478.33	-96.43	-104.62	112.95	40°11'21.767"N	104°36'31.066"W	0.62	
3588.00	11.150	147.010	3570.55	-111.25	-120.15	122.46	40°11'21.613"N	104°36'30.946"W	0.61	
3683.00	11.240	137.920	3663.75	-125.01	-134.72	133.67	40°11'21.467"N	104°36'30.803"W	1.86	
3778.00	11.150	131.160	3756.94	-136.97	-147.64	146.79	40°11'21.338"N	104°36'30.636"W	1.38	
3872.00	11.400	119.600	3849.14	-146.47	-158.21	161.71	40°11'21.233"N	104°36'30.445"W	2.42	
3967.00	11.380	112.200	3942.27	-153.45	-166.39	178.55	40°11'21.150"N	104°36'30.229"W	1.54	
4062.00	11.710	110.120	4035.35	-159.04	-173.25	196.28	40°11'21.081"N	104°36'30.001"W	0.56	
4156.00	11.580	112.200	4127.42	-164.63	-180.10	213.98	40°11'21.011"N	104°36'29.774"W	0.47	
4251.00	11.700	114.300	4220.46	-170.94	-187.66	231.58	40°11'20.935"N	104°36'29.548"W	0.46	
4345.00	11.700	117.770	4312.51	-178.08	-196.03	248.70	40°11'20.850"N	104°36'29.329"W	0.75	
4440.00	11.700	120.940	4405.54	-186.32	-205.47	265.49	40°11'20.755"N	104°36'29.114"W	0.68	
4535.00	11.810	122.650	4498.55	-195.34	-215.66	281.94	40°11'20.653"N	104°36'28.903"W	0.38	
4629.00	11.710	123.990	4590.57	-204.71	-226.19	297.94	40°11'20.547"N	104°36'28.698"W	0.31	
4724.00	11.580	125.940	4683.62	-214.56	-237.17	313.66	40°11'20.437"N	104°36'28.497"W	0.44	
4818.00	11.640	127.310	4775.70	-224.76	-248.46	328.84	40°11'20.324"N	104°36'28.303"W	0.30	
4913.00	11.600	126.880	4868.75	-235.20	-260.00	344.10	40°11'20.209"N	104°36'28.108"W	0.10	
5007.00	11.550	127.840	4960.84	-245.56	-271.44	359.09	40°11'20.094"N	104°36'27.916"W	0.21	
5102.00	11.680	128.180	5053.89	-256.25	-283.22	374.16	40°11'19.976"N	104°36'27.724"W	0.15	
5197.00	11.480	130.300	5146.96	-267.24	-295.28	388.93	40°11'19.856"N	104°36'27.535"W	0.49	
5291.00	10.820	129.030	5239.18	-277.84	-306.89	402.92	40°11'19.739"N	104°36'27.356"W	0.75	
5386.00	10.890	126.900	5332.48	-287.83	-317.89	417.02	40°11'19.629"N	104°36'27.176"W	0.43	
5481.00	10.810	122.230	5425.79	-296.91	-328.03	431.73	40°11'19.528"N	104°36'26.988"W	0.93	
5575.00	10.990	116.740	5518.10	-304.53	-336.76	447.19	40°11'19.440"N	104°36'26.790"W	1.12	



Actual Wellpath Report  
EMMY STATE H25-724 AWP  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#03 EMMY STATE H25-724(285'FSL&1737'FEL,SEC.25)
Area	COLORADO	Well	EMMY STATE H25-724
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	EMMY STATE H25-724 AWB
Facility	SEC.25-T03N-R65W		

WELLPATH DATA (185 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
5670.00	10.780	113.140	5611.39	-310.94	-344.33	463.45	40°11'19.363"N	104°36'26.581"W	0.75	
5765.00	10.980	112.810	5704.68	-316.76	-351.33	479.96	40°11'19.293"N	104°36'26.369"W	0.22	
5859.00	10.840	120.160	5796.98	-323.54	-359.24	495.85	40°11'19.213"N	104°36'26.166"W	1.49	
5954.00	10.860	122.730	5890.29	-331.77	-368.57	511.11	40°11'19.119"N	104°36'25.970"W	0.51	
6048.00	10.940	119.440	5982.59	-339.85	-377.74	526.32	40°11'19.027"N	104°36'25.775"W	0.67	
6143.00	10.940	115.500	6075.87	-347.02	-386.05	542.31	40°11'18.943"N	104°36'25.571"W	0.79	
6237.00	10.960	113.480	6168.16	-353.26	-393.45	558.56	40°11'18.869"N	104°36'25.362"W	0.41	
6332.00	10.370	112.230	6261.51	-358.94	-400.28	574.76	40°11'18.799"N	104°36'25.154"W	0.67	
6426.00	9.680	56.420	6354.28	-356.76	-399.11	589.20	40°11'18.810"N	104°36'24.968"W	9.96	
6521.00	15.250	27.240	6447.10	-340.37	-383.56	601.60	40°11'18.962"N	104°36'24.806"W	8.68	
6616.00	22.780	20.560	6536.86	-311.21	-355.19	613.79	40°11'19.241"N	104°36'24.646"W	8.24	
6710.00	31.370	7.820	6620.55	-269.24	-313.80	623.54	40°11'19.649"N	104°36'24.515"W	10.98	
6805.00	41.000	0.890	6697.17	-213.30	-257.99	627.40	40°11'20.200"N	104°36'24.458"W	11.00	
6899.00	49.230	0.550	6763.44	-146.86	-191.45	628.22	40°11'20.858"N	104°36'24.438"W	8.76	
6994.00	57.190	4.530	6820.31	-70.89	-115.54	631.73	40°11'21.608"N	104°36'24.383"W	9.02	
7088.00	65.680	5.110	6865.21	11.58	-33.35	638.67	40°11'22.419"N	104°36'24.283"W	9.05	
7183.00	74.590	1.700	6897.47	100.81	55.74	643.90	40°11'23.299"N	104°36'24.204"W	9.97	
7277.00	84.790	0.040	6914.27	193.03	148.09	645.28	40°11'24.211"N	104°36'24.175"W	10.99	
7372.00	90.030	1.030	6918.56	287.72	242.95	646.17	40°11'25.148"N	104°36'24.151"W	5.61	
7466.00	89.850	2.390	6918.66	381.64	336.91	648.97	40°11'26.077"N	104°36'24.102"W	1.46	
7561.00	90.060	4.750	6918.74	476.63	431.72	654.89	40°11'27.013"N	104°36'24.014"W	2.49	
7656.00	90.060	6.320	6918.64	571.60	526.27	664.05	40°11'27.946"N	104°36'23.884"W	1.65	
7750.00	90.060	5.330	6918.54	665.55	619.78	673.59	40°11'28.869"N	104°36'23.749"W	1.05	
7845.00	90.000	3.690	6918.49	760.54	714.49	681.06	40°11'29.804"N	104°36'23.640"W	1.73	
7940.00	89.970	3.270	6918.51	855.54	809.31	686.83	40°11'30.741"N	104°36'23.553"W	0.44	
8034.00	90.120	2.060	6918.44	949.51	903.21	691.20	40°11'31.668"N	104°36'23.485"W	1.30	
8129.00	90.000	1.030	6918.34	1044.42	998.17	693.76	40°11'32.606"N	104°36'23.440"W	1.09	
8223.00	89.910	2.540	6918.41	1138.35	1092.12	696.69	40°11'33.535"N	104°36'23.390"W	1.61	
8318.00	89.940	1.550	6918.54	1233.29	1187.06	700.08	40°11'34.472"N	104°36'23.334"W	1.04	
8412.00	90.090	0.800	6918.51	1327.17	1281.04	702.00	40°11'35.401"N	104°36'23.297"W	0.81	



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Area	COLORADO	Well	EMMY STATE H25-724
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	EMMY STATE H25-724 AWB
Facility	SEC.25-T03N-R65W		

WELLPATH DATA (185 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8507.00	90.000	358.600	6918.44	1421.89	1376.03	701.51	40°11'36.340"N	104°36'23.291"W	2.32	
8602.00	89.910	358.230	6918.51	1516.44	1471.00	698.88	40°11'37.278"N	104°36'23.312"W	0.40	
8696.00	89.940	358.380	6918.64	1609.97	1564.96	696.10	40°11'38.207"N	104°36'23.336"W	0.16	
8791.00	90.030	359.470	6918.66	1704.59	1659.94	694.32	40°11'39.146"N	104°36'23.346"W	1.15	
8885.00	89.940	1.390	6918.69	1798.40	1753.93	695.02	40°11'40.074"N	104°36'23.325"W	2.04	
8980.00	89.910	0.670	6918.81	1893.27	1848.92	696.73	40°11'41.013"N	104°36'23.291"W	0.76	
9075.00	89.970	358.230	6918.91	1987.96	1943.90	695.82	40°11'41.951"N	104°36'23.290"W	2.57	
9169.00	90.000	357.790	6918.93	2081.44	2037.85	692.55	40°11'42.880"N	104°36'23.320"W	0.47	
9264.00	89.880	359.350	6919.03	2176.01	2132.81	690.18	40°11'43.819"N	104°36'23.338"W	1.65	
9358.00	90.030	0.790	6919.11	2269.78	2226.81	690.30	40°11'44.748"N	104°36'23.325"W	1.54	
9453.00	89.880	1.890	6919.18	2364.68	2321.78	692.52	40°11'45.686"N	104°36'23.284"W	1.17	
9547.00	90.000	2.540	6919.28	2458.63	2415.71	696.15	40°11'46.614"N	104°36'23.225"W	0.70	
9642.00	89.200	2.470	6919.94	2553.59	2510.62	700.30	40°11'47.551"N	104°36'23.159"W	0.85	
9737.00	88.490	2.570	6921.86	2648.54	2605.51	704.48	40°11'48.488"N	104°36'23.093"W	0.75	
9831.00	88.340	2.880	6924.46	2742.48	2699.37	708.95	40°11'49.415"N	104°36'23.023"W	0.37	
9926.00	88.490	3.170	6927.09	2837.43	2794.20	713.96	40°11'50.352"N	104°36'22.946"W	0.34	
10021.00	88.950	2.680	6929.21	2932.39	2889.05	718.81	40°11'51.289"N	104°36'22.871"W	0.71	
10115.00	88.860	1.260	6931.01	3026.31	2982.97	722.04	40°11'52.216"N	104°36'22.817"W	1.51	
10210.00	89.020	0.900	6932.76	3121.17	3077.94	723.83	40°11'53.155"N	104°36'22.782"W	0.41	
10304.00	88.860	0.030	6934.50	3214.97	3171.92	724.59	40°11'54.083"N	104°36'22.760"W	0.94	
10399.00	89.020	359.380	6936.26	3309.68	3266.90	724.10	40°11'55.022"N	104°36'22.754"W	0.70	
10493.00	88.860	358.660	6938.00	3403.31	3360.87	722.49	40°11'55.951"N	104°36'22.762"W	0.78	
10588.00	88.890	357.740	6939.86	3497.80	3455.81	719.51	40°11'56.889"N	104°36'22.789"W	0.97	
10683.00	88.920	356.670	6941.68	3592.10	3550.67	714.88	40°11'57.827"N	104°36'22.836"W	1.13	
10777.00	88.860	356.210	6943.50	3685.26	3644.47	709.04	40°11'58.754"N	104°36'22.899"W	0.49	
10872.00	88.860	356.780	6945.39	3779.43	3739.28	703.24	40°11'59.692"N	104°36'22.961"W	0.60	
10966.00	88.890	357.840	6947.24	3872.76	3833.15	698.83	40°12'00.620"N	104°36'23.006"W	1.13	
11061.00	88.920	358.270	6949.05	3967.23	3928.08	695.60	40°12'01.558"N	104°36'23.035"W	0.45	
11156.00	89.140	358.930	6950.66	4061.79	4023.04	693.28	40°12'02.497"N	104°36'23.053"W	0.73	
11250.00	88.830	359.880	6952.32	4155.47	4117.02	692.30	40°12'03.425"N	104°36'23.053"W	1.06	





Actual Wellpath Report

EMMY STATE H25-724 AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#03 EMMY STATE H25-724(285'FSL&1737'FEL,SEC.25)
Area	COLORADO	Well	EMMY STATE H25-724
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	EMMY STATE H25-724 AWB
Facility	SEC.25-T03N-R65W		

WELLPATH DATA (185 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
11345.00	89.080	0.230	6954.06	4250.22	4212.00	692.40	40°12'04.364"N	104°36'23.040"W	0.45	
11439.00	89.080	1.750	6955.57	4344.08	4305.97	694.02	40°12'05.292"N	104°36'23.007"W	1.62	
11534.00	89.020	2.820	6957.14	4439.02	4400.88	697.81	40°12'06.230"N	104°36'22.946"W	1.13	
11628.00	88.830	3.740	6958.91	4532.99	4494.71	703.18	40°12'07.157"N	104°36'22.864"W	1.00	
11723.00	88.610	3.270	6961.03	4627.96	4589.51	708.99	40°12'08.093"N	104°36'22.777"W	0.55	
11818.00	90.120	3.330	6962.08	4722.95	4684.34	714.46	40°12'09.029"N	104°36'22.694"W	1.59	
11912.00	90.370	1.840	6961.68	4816.91	4778.24	718.70	40°12'09.957"N	104°36'22.627"W	1.61	
12007.00	90.250	359.180	6961.16	4911.73	4873.23	719.54	40°12'10.895"N	104°36'22.604"W	2.80	
12102.00	90.220	1.190	6960.77	5006.51	4968.23	719.85	40°12'11.834"N	104°36'22.588"W	2.12	
12196.00	90.220	359.810	6960.41	5100.33	5062.22	720.67	40°12'12.763"N	104°36'22.565"W	1.47	
12291.00	90.150	358.020	6960.11	5194.94	5157.20	718.87	40°12'13.701"N	104°36'22.576"W	1.89	
12385.00	90.370	358.200	6959.68	5288.44	5251.14	715.77	40°12'14.630"N	104°36'22.604"W	0.30	
12480.00	90.460	357.560	6958.99	5382.89	5346.08	712.26	40°12'15.568"N	104°36'22.637"W	0.68	
12574.00	90.250	357.620	6958.41	5476.30	5439.99	708.30	40°12'16.497"N	104°36'22.675"W	0.23	
12669.00	90.310	358.530	6957.95	5570.78	5534.94	705.11	40°12'17.435"N	104°36'22.704"W	0.96	
12763.00	90.120	357.980	6957.59	5664.31	5628.89	702.25	40°12'18.364"N	104°36'22.729"W	0.62	
12858.00	90.340	357.760	6957.21	5758.76	5723.83	698.72	40°12'19.302"N	104°36'22.762"W	0.33	
12953.00	90.340	358.590	6956.65	5853.26	5818.77	695.70	40°12'20.241"N	104°36'22.789"W	0.87	
13047.00	90.150	359.630	6956.25	5946.91	5912.76	694.23	40°12'21.170"N	104°36'22.795"W	1.12	
13142.00	90.180	0.460	6955.97	6041.68	6007.76	694.31	40°12'22.109"N	104°36'22.782"W	0.87	
13237.00	90.250	0.640	6955.62	6136.51	6102.75	695.22	40°12'23.047"N	104°36'22.758"W	0.20	
13331.00	90.150	1.250	6955.29	6230.37	6196.74	696.77	40°12'23.976"N	104°36'22.726"W	0.66	
13425.00	90.030	1.480	6955.14	6324.27	6290.71	699.01	40°12'24.904"N	104°36'22.685"W	0.28	
13520.00	90.150	3.080	6954.99	6419.22	6385.64	702.79	40°12'25.842"N	104°36'22.623"W	1.69	
13614.00	89.940	3.620	6954.92	6513.21	6479.47	708.28	40°12'26.768"N	104°36'22.541"W	0.62	
13709.00	90.030	3.250	6954.94	6608.21	6574.30	713.98	40°12'27.705"N	104°36'22.455"W	0.40	
13804.00	89.910	3.140	6954.99	6703.20	6669.16	719.27	40°12'28.642"N	104°36'22.374"W	0.17	
13898.00	89.880	3.360	6955.16	6797.19	6763.00	724.60	40°12'29.568"N	104°36'22.293"W	0.24	
13993.00	90.060	2.730	6955.21	6892.18	6857.87	729.65	40°12'30.505"N	104°36'22.216"W	0.69	
14087.00	89.970	2.470	6955.19	6986.15	6951.77	733.91	40°12'31.433"N	104°36'22.149"W	0.29	



Actual Wellpath Report

EMMY STATE H25-724 AWP



REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#03 EMMY STATE H25-724(285'FSL&1737'FEL,SEC.25)
Area	COLORADO	Well	EMMY STATE H25-724
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	EMMY STATE H25-724 AWB
Facility	SEC.25-T03N-R65W		

WELLPATH DATA (185 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
14182.00	89.970	2.260	6955.24	7081.11	7046.69	737.83	40°12'32.370"N	104°36'22.086"W	0.22	
14276.00	89.910	1.050	6955.34	7175.02	7140.65	740.54	40°12'33.299"N	104°36'22.039"W	1.29	
14371.00	90.060	359.940	6955.36	7269.84	7235.65	741.37	40°12'34.237"N	104°36'22.016"W	1.18	
14465.00	89.970	359.320	6955.34	7363.57	7329.64	740.76	40°12'35.166"N	104°36'22.012"W	0.67	
14559.00	89.910	358.090	6955.44	7457.16	7423.62	738.63	40°12'36.095"N	104°36'22.027"W	1.31	
14654.00	90.000	357.840	6955.51	7551.63	7518.56	735.26	40°12'37.033"N	104°36'22.058"W	0.28	
14749.00	90.060	358.900	6955.46	7646.16	7613.52	732.56	40°12'37.972"N	104°36'22.080"W	1.12	
14843.00	90.090	0.640	6955.34	7739.90	7707.51	732.18	40°12'38.901"N	104°36'22.073"W	1.85	
14938.00	89.910	2.020	6955.34	7834.79	7802.49	734.39	40°12'39.839"N	104°36'22.032"W	1.46	
15032.00	89.910	1.430	6955.49	7928.72	7896.44	737.22	40°12'40.767"N	104°36'21.984"W	0.63	
15127.00	89.970	0.680	6955.58	8023.59	7991.43	738.96	40°12'41.706"N	104°36'21.949"W	0.79	
15222.00	90.000	359.440	6955.61	8118.36	8086.42	739.06	40°12'42.644"N	104°36'21.935"W	1.31	
15316.00	90.030	358.470	6955.58	8211.99	8180.41	737.35	40°12'43.573"N	104°36'21.945"W	1.03	
15411.00	90.120	356.980	6955.46	8306.41	8275.33	733.58	40°12'44.512"N	104°36'21.981"W	1.57	
15506.00	90.000	356.120	6955.36	8400.60	8370.16	727.86	40°12'45.449"N	104°36'22.043"W	0.91	
15600.00	89.850	356.610	6955.48	8493.76	8463.97	721.90	40°12'46.377"N	104°36'22.107"W	0.55	
15695.00	89.780	357.270	6955.79	8588.04	8558.83	716.83	40°12'47.315"N	104°36'22.160"W	0.70	
15789.00	90.000	358.280	6955.97	8681.48	8652.76	713.18	40°12'48.243"N	104°36'22.195"W	1.10	
15884.00	89.850	357.840	6956.10	8775.96	8747.70	709.97	40°12'49.182"N	104°36'22.224"W	0.49	
15978.00	90.030	359.410	6956.19	8869.54	8841.67	707.71	40°12'50.110"N	104°36'22.241"W	1.68	
16072.00	89.780	359.430	6956.35	8963.24	8935.67	706.76	40°12'51.039"N	104°36'22.241"W	0.27	
16167.00	89.970	0.050	6956.56	9057.97	9030.67	706.33	40°12'51.978"N	104°36'22.234"W	0.68	
16261.00	89.940	1.150	6956.63	9151.80	9124.66	707.31	40°12'52.907"N	104°36'22.209"W	1.17	
16356.00	90.000	2.390	6956.68	9246.73	9219.61	710.25	40°12'53.845"N	104°36'22.159"W	1.31	
16451.00	90.060	0.730	6956.63	9341.64	9314.57	712.83	40°12'54.783"N	104°36'22.114"W	1.75	
16545.00	90.060	1.640	6956.53	9435.52	9408.55	714.78	40°12'55.711"N	104°36'22.076"W	0.97	
16640.00	89.970	359.140	6956.51	9530.32	9503.54	715.42	40°12'56.650"N	104°36'22.056"W	2.63	
16734.00	89.970	358.310	6956.56	9623.92	9597.52	713.33	40°12'57.579"N	104°36'22.070"W	0.88	
16829.00	89.910	359.450	6956.66	9718.53	9692.50	711.47	40°12'58.517"N	104°36'22.082"W	1.20	
16923.00	90.030	0.830	6956.71	9812.31	9786.50	711.70	40°12'59.446"N	104°36'22.067"W	1.47	





Actual Wellpath Report

EMMY STATE H25-724 AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#03 EMMY STATE H25-724(285'FSL&1737'FEL,SEC.25)
Area	COLORADO	Well	EMMY STATE H25-724
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	EMMY STATE H25-724 AWB
Facility	SEC.25-T03N-R65W		

WELLPATH DATA (185 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
17018.00	89.970	2.170	6956.71	9907.22	9881.46	714.19	40°13'00.384"N	104°36'22.022"W	1.41	
17113.00	89.940	1.420	6956.78	10002.15	9976.41	717.17	40°13'01.322"N	104°36'21.972"W	0.79	
17208.00	89.940	358.720	6956.88	10096.91	10071.41	717.28	40°13'02.261"N	104°36'21.958"W	2.84	
17302.00	89.880	356.090	6957.03	10190.28	10165.30	713.03	40°13'03.189"N	104°36'22.000"W	2.80	Last BHI MWD Survey
17338.00	89.880	356.090	6957.10	10225.93	10201.22	710.57	40°13'03.544"N	104°36'22.027"W	0.00	Projection to Bit



Actual Wellpath Report  
EMMY STATE H25-724 AWP  
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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#03 EMMY STATE H25-724(285'FSL&1737'FEL,SEC.25)
Area	COLORADO	Well	EMMY STATE H25-724
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	EMMY STATE H25-724 AWB
Facility	SEC.25-T03N-R65W		

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
EMMY STATE H25-785 SECTION 24-T3N-R65W	-12.00	-22.50	-2248.95	3246661.19	1313167.41	40°11'22.812"N	104°37'01.488"W	polygon
EMMY STATE H25-785 SECTION 25-T3N-R65W	-12.00	-22.50	-2248.95	3246661.19	1313167.41	40°11'22.812"N	104°37'01.488"W	polygon
EMMY STATE H25-724 REV-2 LANDING POINT	6920.00	180.00	690.00	3249600.01	1313369.90	40°11'24.522"N	104°36'23.594"W	point
EMMY STATE H25-724 REV-3 TARGET 1	6920.00	2250.00	695.82	3249605.83	1315439.80	40°11'44.976"N	104°36'23.250"W	point
EMMY STATE H25-724 REV-3 TARGET 2	6954.47	4250.00	701.52	3249611.53	1317439.71	40°12'04.739"N	104°36'22.917"W	point
EMMY STATE H25-724 REV-2 BHL(100'FNL&955'FEL,SEC.24)	6954.91	10208.14	718.53	3249628.54	1323397.59	40°13'03.612"N	104°36'21.924"W	point
EMMY STATE H25-724 REV-1 BHL(100'FNL&955'FEL,SEC.24)	6965.48	10208.14	718.53	3249628.54	1323397.59	40°13'03.612"N	104°36'21.924"W	point
EMMY STATE H25-724 TARGET 2	6965.56	6600.42	708.27	3249618.28	1319790.03	40°12'27.964"N	104°36'22.525"W	point
EMMY STATE H25-724 LANDING POINT	7000.00	180.00	690.00	3249600.01	1313369.90	40°11'24.522"N	104°36'23.594"W	point
EMMY STATE H25-724 TARGET 1	7000.00	2000.57	695.18	3249605.19	1315190.38	40°11'42.511"N	104°36'23.291"W	point



Actual Wellpath Report

EMMY STATE H25-724 AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#03 EMMY STATE H25-724(285'FSL&1737'FEL,SEC.25)
Area	COLORADO	Well	EMMY STATE H25-724
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	EMMY STATE H25-724 AWB
Facility	SEC.25-T03N-R65W		

WELLPATH COMPOSITION - Ref Wellbore: EMMY STATE H25-724 AWB    Ref Wellpath: EMMY STATE H25-724 AWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	1955.00	Gyrodatta standard - Drop gyro or Multi-shot	3rd Party Surface Gyros <84'-1955'>	EMMY STATE H25-724 AWB
1955.00	17302.00	OWSG MWD rev2 + IFR1 + Multi-Station Correction	BH/ATC 8.5" Hole OWSG MWD rev2+IFR+MSA <1980'-17302'>	EMMY STATE H25-724 AWB
17302.00	17338.00	Blind Drilling (std)	Projection to bit	EMMY STATE H25-724 AWB



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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#03 EMMY STATE H25-724(285'FSL&1737'FEL,SEC.25)
Area	COLORADO	Well	EMMY STATE H25-724
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	EMMY STATE H25-724 AWB
Facility	SEC.25-T03N-R65W		

WELLPATH COMMENTS					
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment	
1955.00	0.560	322.780	1954.91	Tie to Surface	
17302.00	89.880	356.090	6957.03	Last BHI MWD Survey	
17338.00	89.880	356.090	6957.10	Projection to Bit	

COMMENTS	
<div>Wellpath general comments</div> <div>SURFACE LOCATION: SWSE</div> <div>40.18967N</div> <div>104.60903W</div> <div>API #: 05-123-46969</div>	