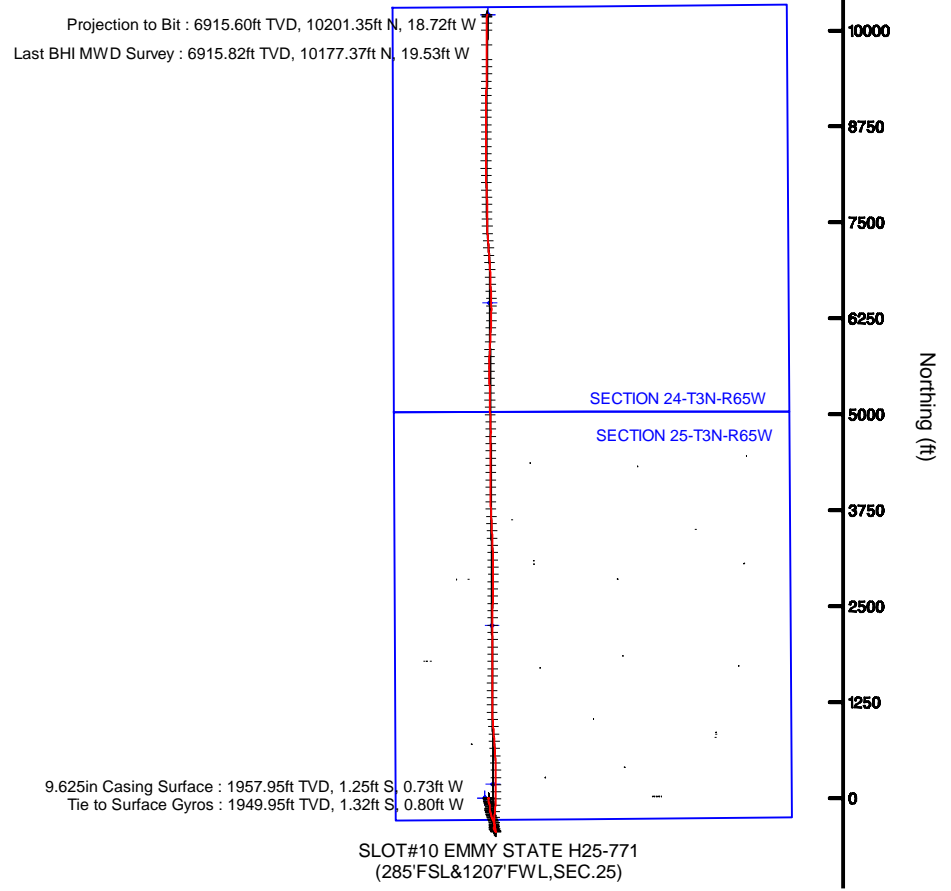
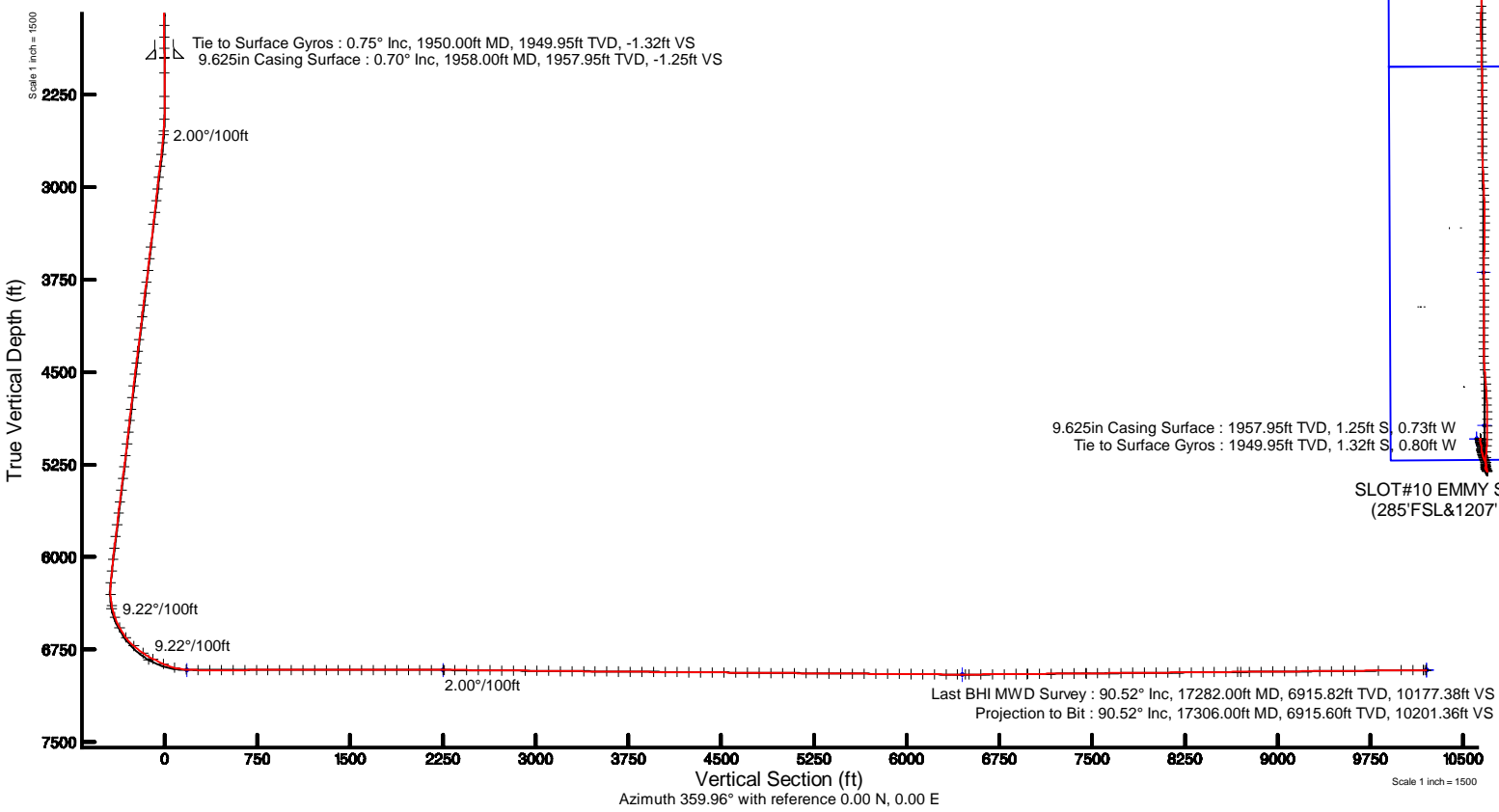
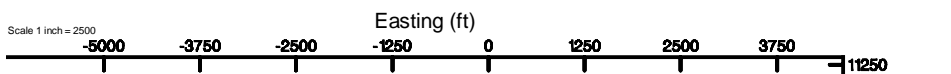


NOBLE ENERGY, INC

Location: COLORADO Slot: SLOT#10 EMMY STATE H25-771(285°FSL&1207°FWL,SEC.25)
 Field: WELD COUNTY (NOBLE NAD 83 GRID) Well: EMMY STATE H25-771
 Facility: SEC.25-T3N-R65W Wellbore: EMMY STATE H25-771 PWB

Location Information			
Facility Name	Grid East (US 83)	Grid North (US 83)	Latitude Longitude
SEC.25-T3N-R65W	348584.79	1319180.82	40°51'28.02"N 104°50'18.02"W
Well	Grid East (US 83)	Grid North (US 83)	Latitude Longitude
SLOT#10 EMMY STATE H25-771(285°FSL&1207°FWL,SEC.25)	348700.49	1319187.82	40°51'28.02"N 104°50'18.02"W
Mean Sea Level to Ground Level (As per SLOTH#10 EMMY STATE H25-771(285°FSL&1207°FWL,SEC.25))			0.00
Mean Sea Level to Ground Level (As per SLOTH#10 EMMY STATE H25-771(285°FSL&1207°FWL,SEC.25))			0.00
Mean Sea Level to Well Deck Level			0.00

Grid System: NAD83 Lambert Colorado 57 Northern Zone 2011, US Unit
* a 100ftch was transformed from a different geoidetic datum
Measured depths are referenced to Rig (28782) (R65)
North Foot source: Grid north
Scale: True distance
Depth: sea in feet
Mean Sea Level to Ground Level (As per SLOTH#10 EMMY STATE H25-771(285°FSL&1207°FWL,SEC.25) 0.00
Coordinates are in feet referenced to Site
Created by: geobaker on 2015-05-23
Database: WLS_DEVL_Devnet_Data



SLOT#10 EMMY STATE H25-771
(285°FSL&1207°FWL,SEC.25)

REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#10 EMMY STATE H25-771(285'FSL&1207'FWL,SEC.25)
Area	COLORADO	Well	EMMY STATE H25-771
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	EMMY STATE H25-771 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	8/23/2018 at 10:35:07 AM
Convergence at slot	0.58° East	Database/Source file	WA_DEN_Denver_Defn/EMMY_STATE_H25-771_AWP.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-22.47	-2246.16	3246708.68	1313167.88	40°11'22.812"N	104°37'00.876"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	4846.00ft
Horizontal Reference Pt	Slot	Rig (30'KB) (RKB) to Mean Sea Level	4846.00ft
Vertical Reference Pt	Rig (30'KB) (RKB)	Rig (30'KB) (RKB) to Ground Level at Slot (SLOT#10 EMMY STATE H25-771 (285'FSL&1207'FWL,SEC.25))	4846.00ft
MD Reference Pt	Rig (30'KB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	359.96°

REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#10 EMMY STATE H25-771(285'FSL&1207'FWL,SEC.25)
Area	COLORADO	Well	EMMY STATE H25-771
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	EMMY STATE H25-771 AWB
Facility	SEC.25-T03N-R65W		

WELLPATH DATA (181 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
0.00	0.000	114.990	0.00	0.00	0.00	0.00	40°11'22.812"N	104°37'00.876"W	0.00	
81.00	0.230	114.990	81.00	-0.07	-0.07	0.15	40°11'22.811"N	104°37'00.874"W	0.28	
177.00	0.310	126.590	177.00	-0.31	-0.30	0.53	40°11'22.809"N	104°37'00.869"W	0.10	
271.00	0.260	96.940	271.00	-0.48	-0.48	0.95	40°11'22.807"N	104°37'00.864"W	0.16	
366.00	0.320	155.050	366.00	-0.75	-0.75	1.27	40°11'22.804"N	104°37'00.860"W	0.30	
460.00	0.580	151.360	459.99	-1.41	-1.40	1.61	40°11'22.798"N	104°37'00.855"W	0.28	
554.00	0.560	154.660	553.99	-2.24	-2.24	2.04	40°11'22.790"N	104°37'00.850"W	0.04	
649.00	0.830	137.610	648.98	-3.17	-3.16	2.70	40°11'22.780"N	104°37'00.842"W	0.36	
743.00	0.490	195.870	742.98	-4.06	-4.05	3.05	40°11'22.772"N	104°37'00.837"W	0.75	
838.00	0.190	253.830	837.97	-4.49	-4.49	2.78	40°11'22.767"N	104°37'00.841"W	0.44	
933.00	0.220	308.410	932.97	-4.42	-4.42	2.49	40°11'22.768"N	104°37'00.844"W	0.20	
1027.00	0.150	61.050	1026.97	-4.25	-4.25	2.46	40°11'22.770"N	104°37'00.845"W	0.33	
1122.00	0.090	172.220	1121.97	-4.26	-4.26	2.58	40°11'22.770"N	104°37'00.843"W	0.21	
1217.00	0.170	288.740	1216.97	-4.29	-4.29	2.45	40°11'22.769"N	104°37'00.845"W	0.24	
1311.00	0.230	248.220	1310.97	-4.32	-4.32	2.15	40°11'22.769"N	104°37'00.849"W	0.16	
1406.00	0.490	246.810	1405.97	-4.55	-4.55	1.59	40°11'22.767"N	104°37'00.856"W	0.27	
1500.00	0.640	287.430	1499.97	-4.55	-4.55	0.72	40°11'22.767"N	104°37'00.867"W	0.44	
1595.00	0.360	320.670	1594.96	-4.16	-4.16	0.03	40°11'22.771"N	104°37'00.876"W	0.41	
1689.00	0.220	341.450	1688.96	-3.76	-3.76	-0.22	40°11'22.775"N	104°37'00.879"W	0.18	
1784.00	0.580	311.450	1783.96	-3.27	-3.27	-0.63	40°11'22.780"N	104°37'00.885"W	0.43	
1878.00	0.890	354.180	1877.95	-2.22	-2.23	-1.06	40°11'22.790"N	104°37'00.890"W	0.65	
1950.00	0.750	42.620	1949.95	-1.32	-1.32	-0.80	40°11'22.799"N	104°37'00.887"W	0.95	Tie to Surface Gyros
2075.00	0.100	301.640	2074.94	-0.66	-0.66	-0.34	40°11'22.805"N	104°37'00.880"W	0.62	
2264.00	0.030	245.780	2263.94	-0.60	-0.60	-0.53	40°11'22.806"N	104°37'00.883"W	0.05	
2359.00	0.040	250.970	2358.94	-0.62	-0.62	-0.58	40°11'22.806"N	104°37'00.884"W	0.01	
2453.00	2.190	170.470	2452.92	-2.40	-2.40	-0.31	40°11'22.788"N	104°37'00.880"W	2.32	
2548.00	4.450	176.090	2547.75	-7.87	-7.87	0.24	40°11'22.734"N	104°37'00.874"W	2.40	
2642.00	5.760	178.550	2641.38	-16.22	-16.22	0.61	40°11'22.652"N	104°37'00.870"W	1.41	
2737.00	6.710	176.920	2735.82	-26.53	-26.53	1.02	40°11'22.550"N	104°37'00.866"W	1.02	
2831.00	6.650	175.160	2829.18	-37.44	-37.44	1.78	40°11'22.442"N	104°37'00.858"W	0.23	

REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#10 EMMY STATE H25-771(285'FSL&1207'FWL,SEC.25)
Area	COLORADO	Well	EMMY STATE H25-771
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	EMMY STATE H25-771 AWB
Facility	SEC.25-T03N-R65W		

WELLPATH DATA (181 stations)											
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments	
2926.00	6.610	170.660	2923.54	-48.32	-48.31	3.13	40°11'22.334"N	104°37'00.842"W	0.55		
3021.00	6.660	162.490	3017.91	-58.97	-58.96	5.68	40°11'22.229"N	104°37'00.810"W	0.99		
3115.00	6.620	156.810	3111.28	-69.15	-69.14	9.45	40°11'22.128"N	104°37'00.763"W	0.70		
3210.00	6.900	162.240	3205.62	-79.62	-79.61	13.35	40°11'22.024"N	104°37'00.714"W	0.73		
3305.00	6.810	160.250	3299.94	-90.36	-90.35	16.99	40°11'21.918"N	104°37'00.669"W	0.27		
3494.00	6.840	177.610	3487.62	-112.15	-112.14	21.25	40°11'21.702"N	104°37'00.617"W	1.09		
3588.00	6.970	188.100	3580.94	-123.39	-123.38	20.68	40°11'21.591"N	104°37'00.625"W	1.35		
3683.00	6.990	194.520	3675.24	-134.69	-134.68	18.41	40°11'21.479"N	104°37'00.656"W	0.82		
3778.00	7.540	187.060	3769.48	-146.47	-146.46	16.20	40°11'21.363"N	104°37'00.686"W	1.15		
3872.00	7.740	170.660	3862.66	-158.84	-158.83	16.47	40°11'21.241"N	104°37'00.684"W	2.32		
3966.00	7.470	157.450	3955.84	-170.73	-170.72	19.84	40°11'21.123"N	104°37'00.642"W	1.88		
4061.00	7.380	156.780	4050.04	-182.05	-182.03	24.61	40°11'21.011"N	104°37'00.582"W	0.13		
4155.00	7.290	165.380	4143.27	-193.37	-193.35	28.50	40°11'20.899"N	104°37'00.534"W	1.17		
4250.00	7.330	170.220	4237.50	-205.18	-205.16	31.05	40°11'20.782"N	104°37'00.502"W	0.65		
4344.00	7.260	166.100	4330.74	-216.85	-216.83	33.49	40°11'20.666"N	104°37'00.472"W	0.56		
4439.00	7.250	159.340	4424.98	-228.29	-228.27	37.05	40°11'20.553"N	104°37'00.428"W	0.90		
4533.00	7.000	161.340	4518.26	-239.27	-239.24	40.98	40°11'20.444"N	104°37'00.379"W	0.37		
4628.00	7.100	162.150	4612.54	-250.35	-250.32	44.63	40°11'20.334"N	104°37'00.333"W	0.15		
4722.00	7.180	159.180	4705.81	-261.37	-261.34	48.50	40°11'20.225"N	104°37'00.285"W	0.40		
4817.00	7.030	158.910	4800.08	-272.34	-272.31	52.70	40°11'20.116"N	104°37'00.232"W	0.16		
4912.00	7.030	155.940	4894.37	-283.08	-283.04	57.16	40°11'20.009"N	104°37'00.176"W	0.38		
5006.00	7.210	154.110	4987.64	-293.64	-293.60	62.08	40°11'19.905"N	104°37'00.114"W	0.31		
5101.00	6.980	157.980	5081.92	-304.36	-304.32	66.85	40°11'19.798"N	104°37'00.054"W	0.56		
5195.00	7.040	162.010	5175.21	-315.14	-315.09	70.77	40°11'19.691"N	104°37'00.005"W	0.53		
5290.00	7.000	169.110	5269.50	-326.36	-326.31	73.66	40°11'19.580"N	104°36'59.969"W	0.91		
5384.00	7.000	179.050	5362.81	-337.71	-337.66	74.84	40°11'19.468"N	104°36'59.955"W	1.29		
5479.00	7.080	180.460	5457.09	-349.36	-349.31	74.89	40°11'19.353"N	104°36'59.956"W	0.20		
5573.00	7.180	182.710	5550.36	-361.02	-360.97	74.56	40°11'19.238"N	104°36'59.962"W	0.32		
5668.00	7.010	187.340	5644.64	-372.69	-372.65	73.54	40°11'19.122"N	104°36'59.976"W	0.63		
5762.00	6.990	190.060	5737.94	-384.01	-383.97	71.81	40°11'19.011"N	104°37'00.000"W	0.35		

REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#10 EMMY STATE H25-771(285'FSL&1207'FWL,SEC.25)
Area	COLORADO	Well	EMMY STATE H25-771
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	EMMY STATE H25-771 AWB
Facility	SEC.25-T03N-R65W		

WELLPATH DATA (181 stations)											
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments	
5857.00	7.080	172.750	5832.23	-395.52	-395.47	71.54	40°11'18.897"N	104°37'00.005"W	2.23		
5951.00	7.210	157.690	5925.51	-406.72	-406.67	74.51	40°11'18.786"N	104°36'59.968"W	1.99		
6046.00	6.930	145.190	6019.79	-416.95	-416.90	80.05	40°11'18.685"N	104°36'59.898"W	1.64		
6140.00	7.020	145.900	6113.10	-426.36	-426.31	86.50	40°11'18.591"N	104°36'59.816"W	0.13		
6234.00	6.860	139.210	6206.41	-435.38	-435.31	93.39	40°11'18.501"N	104°36'59.729"W	0.88		
6329.00	1.890	2.350	6301.21	-438.11	-438.05	97.17	40°11'18.474"N	104°36'59.680"W	8.78		
6423.00	12.190	346.570	6394.38	-426.88	-426.82	94.92	40°11'18.585"N	104°36'59.708"W	11.05		
6518.00	19.430	348.350	6485.73	-401.61	-401.55	89.39	40°11'18.835"N	104°36'59.776"W	7.64		
6612.00	28.300	351.860	6571.61	-364.16	-364.11	83.07	40°11'19.206"N	104°36'59.852"W	9.55		
6707.00	37.760	357.750	6651.19	-312.67	-312.62	78.73	40°11'19.715"N	104°36'59.902"W	10.51		
6801.00	47.680	2.150	6720.18	-249.01	-248.96	78.90	40°11'20.344"N	104°36'59.891"W	11.02		
6896.00	57.390	4.480	6777.90	-173.84	-173.79	83.36	40°11'21.087"N	104°36'59.824"W	10.40		
6991.00	61.650	4.160	6826.07	-92.22	-92.17	89.52	40°11'21.892"N	104°36'59.734"W	4.49		
7085.00	67.110	1.990	6866.71	-7.63	-7.57	94.02	40°11'22.728"N	104°36'59.665"W	6.17		
7180.00	75.720	359.710	6896.96	82.32	82.38	95.31	40°11'23.617"N	104°36'59.637"W	9.34		
7274.00	85.840	0.000	6912.00	174.98	175.04	95.08	40°11'24.532"N	104°36'59.628"W	10.77		
7369.00	89.910	0.030	6915.52	269.90	269.96	95.11	40°11'25.470"N	104°36'59.616"W	4.28		
7463.00	90.000	358.820	6915.60	363.89	363.95	94.16	40°11'26.399"N	104°36'59.616"W	1.29		
7558.00	89.910	358.020	6915.67	458.85	458.91	91.54	40°11'27.338"N	104°36'59.638"W	0.85		
7653.00	89.940	357.130	6915.80	553.77	553.83	87.52	40°11'28.276"N	104°36'59.677"W	0.94		
7747.00	90.280	356.170	6915.62	647.61	647.67	82.03	40°11'29.204"N	104°36'59.736"W	1.08		
7842.00	90.150	356.260	6915.26	742.41	742.46	75.76	40°11'30.141"N	104°36'59.805"W	0.17		
7936.00	90.090	355.680	6915.06	836.18	836.22	69.15	40°11'31.068"N	104°36'59.878"W	0.62		
8031.00	90.150	355.320	6914.86	930.89	930.93	61.70	40°11'32.005"N	104°36'59.962"W	0.38		
8126.00	90.030	356.740	6914.72	1025.66	1025.70	55.12	40°11'32.942"N	104°37'00.034"W	1.50		
8220.00	90.060	357.830	6914.64	1119.56	1119.59	50.67	40°11'33.870"N	104°37'00.079"W	1.16		
8315.00	90.150	359.430	6914.47	1214.53	1214.56	48.40	40°11'34.809"N	104°37'00.096"W	1.69		
8409.00	90.090	0.520	6914.27	1308.53	1308.56	48.36	40°11'35.738"N	104°37'00.085"W	1.16		
8504.00	90.090	0.300	6914.12	1403.53	1403.56	49.04	40°11'36.676"N	104°37'00.064"W	0.23		
8598.00	90.060	1.600	6914.00	1497.51	1497.54	50.60	40°11'37.605"N	104°37'00.032"W	1.38		

REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#10 EMMY STATE H25-771(285'FSL&1207'FWL,SEC.25)
Area	COLORADO	Well	EMMY STATE H25-771
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	EMMY STATE H25-771 AWB
Facility	SEC.25-T03N-R65W		

WELLPATH DATA (181 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8693.00	89.850	1.840	6914.07	1592.47	1592.50	53.45	40°11'38.543"N	104°36'59.983"W	0.34	
8787.00	90.000	359.650	6914.20	1686.45	1686.49	54.67	40°11'39.472"N	104°36'59.955"W	2.34	
8882.00	90.060	359.090	6914.15	1781.45	1781.48	53.63	40°11'40.410"N	104°36'59.956"W	0.59	
8976.00	90.090	359.660	6914.02	1875.44	1875.48	52.60	40°11'41.339"N	104°36'59.958"W	0.61	
9071.00	89.970	0.420	6913.97	1970.44	1970.47	52.67	40°11'42.278"N	104°36'59.944"W	0.81	
9165.00	90.120	0.490	6913.90	2064.44	2064.47	53.41	40°11'43.207"N	104°36'59.923"W	0.18	
9260.00	90.090	0.030	6913.73	2159.43	2159.47	53.84	40°11'44.146"N	104°36'59.905"W	0.49	
9354.00	90.000	0.600	6913.65	2253.43	2253.47	54.36	40°11'45.074"N	104°36'59.886"W	0.61	
9449.00	89.320	0.190	6914.22	2348.43	2348.46	55.02	40°11'46.013"N	104°36'59.866"W	0.84	
9543.00	89.260	359.900	6915.38	2442.42	2442.46	55.09	40°11'46.942"N	104°36'59.853"W	0.32	
9638.00	89.350	0.710	6916.53	2537.41	2537.45	55.60	40°11'47.880"N	104°36'59.834"W	0.86	
9733.00	89.420	1.160	6917.55	2632.39	2632.43	57.15	40°11'48.819"N	104°36'59.802"W	0.48	
9827.00	89.350	0.610	6918.56	2726.37	2726.41	58.60	40°11'49.747"N	104°36'59.771"W	0.59	
9922.00	89.510	0.640	6919.51	2821.36	2821.40	59.63	40°11'50.686"N	104°36'59.745"W	0.17	
10016.00	89.380	0.300	6920.42	2915.35	2915.39	60.41	40°11'51.615"N	104°36'59.723"W	0.39	
10111.00	89.380	359.430	6921.44	3010.35	3010.39	60.18	40°11'52.553"N	104°36'59.714"W	0.92	
10205.00	89.410	358.910	6922.44	3104.33	3104.37	58.82	40°11'53.482"N	104°36'59.720"W	0.55	
10300.00	89.290	358.030	6923.52	3199.29	3199.33	56.28	40°11'54.421"N	104°36'59.740"W	0.93	
10394.00	89.450	357.900	6924.55	3293.23	3293.27	52.95	40°11'55.349"N	104°36'59.771"W	0.22	
10489.00	89.350	357.660	6925.54	3388.16	3388.19	49.27	40°11'56.288"N	104°36'59.806"W	0.27	
10583.00	89.510	357.620	6926.48	3482.07	3482.10	45.40	40°11'57.216"N	104°36'59.844"W	0.18	
10678.00	89.450	357.070	6927.34	3576.97	3577.00	41.00	40°11'58.154"N	104°36'59.889"W	0.58	
10772.00	89.410	356.780	6928.28	3670.83	3670.86	35.95	40°11'59.082"N	104°36'59.942"W	0.31	
10867.00	89.600	357.570	6929.10	3765.72	3765.74	31.27	40°12'00.020"N	104°36'59.990"W	0.86	
10962.00	89.450	358.900	6929.88	3860.67	3860.69	28.35	40°12'00.959"N	104°37'00.015"W	1.41	
11056.00	89.570	0.370	6930.69	3954.66	3954.68	27.75	40°12'01.887"N	104°37'00.011"W	1.57	
11151.00	89.510	359.920	6931.45	4049.66	4049.68	27.99	40°12'02.826"N	104°36'59.996"W	0.48	
11246.00	89.410	359.750	6932.35	4144.65	4144.67	27.71	40°12'03.765"N	104°36'59.987"W	0.21	
11341.00	89.570	359.350	6933.19	4239.65	4239.66	26.97	40°12'04.704"N	104°36'59.984"W	0.45	
11436.00	89.600	1.060	6933.88	4334.64	4334.66	27.31	40°12'05.642"N	104°36'59.968"W	1.80	

REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#10 EMMY STATE H25-771(285'FSL&1207'FWL,SEC.25)
Area	COLORADO	Well	EMMY STATE H25-771
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	EMMY STATE H25-771 AWB
Facility	SEC.25-T03N-R65W		

WELLPATH DATA (181 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
11530.00	89.510	0.480	6934.61	4428.63	4428.65	28.57	40°12'06.571"N	104°36'59.939"W	0.62	
11625.00	89.600	359.900	6935.35	4523.62	4523.64	28.89	40°12'07.510"N	104°36'59.923"W	0.62	
11720.00	89.570	0.180	6936.04	4618.62	4618.64	28.95	40°12'08.448"N	104°36'59.910"W	0.30	
11814.00	89.450	1.070	6936.84	4712.61	4712.63	29.98	40°12'09.377"N	104°36'59.885"W	0.96	
11909.00	89.410	359.260	6937.79	4807.60	4807.62	30.25	40°12'10.316"N	104°36'59.869"W	1.91	
12004.00	89.510	356.820	6938.68	4902.54	4902.55	27.00	40°12'11.254"N	104°36'59.899"W	2.57	
12098.00	89.480	357.810	6939.51	4996.43	4996.45	22.60	40°12'12.182"N	104°36'59.943"W	1.05	
12192.00	89.570	358.300	6940.29	5090.37	5090.39	19.41	40°12'13.111"N	104°36'59.973"W	0.53	
12287.00	89.570	359.490	6941.00	5185.35	5185.37	17.58	40°12'14.049"N	104°36'59.984"W	1.25	
12381.00	89.380	359.510	6941.86	5279.35	5279.36	16.76	40°12'14.978"N	104°36'59.982"W	0.20	
12476.00	89.450	357.930	6942.83	5374.32	5374.33	14.63	40°12'15.917"N	104°36'59.998"W	1.66	
12570.00	89.570	358.480	6943.64	5468.27	5468.28	11.69	40°12'16.846"N	104°37'00.024"W	0.60	
12665.00	89.480	359.610	6944.42	5563.25	5563.26	10.11	40°12'17.784"N	104°37'00.032"W	1.19	
12759.00	89.570	0.840	6945.20	5657.25	5657.25	10.48	40°12'18.713"N	104°37'00.015"W	1.31	
12854.00	89.600	2.080	6945.89	5752.21	5752.22	12.90	40°12'19.651"N	104°36'59.972"W	1.31	
12948.00	89.480	3.220	6946.65	5846.10	5846.11	17.24	40°12'20.579"N	104°36'59.903"W	1.22	
13043.00	89.480	2.920	6947.51	5940.96	5940.97	22.33	40°12'21.515"N	104°36'59.826"W	0.32	
13137.00	89.570	2.710	6948.29	6034.84	6034.86	26.95	40°12'22.443"N	104°36'59.754"W	0.24	
13232.00	89.480	2.660	6949.08	6129.73	6129.75	31.40	40°12'23.380"N	104°36'59.685"W	0.11	
13326.00	89.480	2.440	6949.93	6223.63	6223.65	35.58	40°12'24.307"N	104°36'59.619"W	0.23	
13421.00	89.540	1.000	6950.74	6318.58	6318.60	38.43	40°12'25.245"N	104°36'59.570"W	1.52	
13515.00	89.480	359.240	6951.55	6412.57	6412.60	38.63	40°12'26.174"N	104°36'59.555"W	1.87	
13610.00	90.520	357.220	6951.55	6507.52	6507.54	35.69	40°12'27.113"N	104°36'59.581"W	2.39	
13704.00	90.620	357.380	6950.61	6601.41	6601.43	31.26	40°12'28.041"N	104°36'59.626"W	0.20	
13799.00	90.550	358.310	6949.64	6696.34	6696.36	27.69	40°12'28.979"N	104°36'59.660"W	0.98	
13893.00	90.550	358.430	6948.74	6790.30	6790.32	25.02	40°12'29.908"N	104°36'59.682"W	0.13	
13988.00	90.520	357.090	6947.85	6885.22	6885.24	21.31	40°12'30.846"N	104°36'59.718"W	1.41	
14082.00	90.550	356.290	6946.97	6979.07	6979.08	15.88	40°12'31.774"N	104°36'59.776"W	0.85	
14177.00	90.590	355.220	6946.03	7073.80	7073.81	8.85	40°12'32.711"N	104°36'59.854"W	1.13	
14271.00	90.520	355.370	6945.12	7167.49	7167.49	1.14	40°12'33.637"N	104°36'59.941"W	0.18	

REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#10 EMMY STATE H25-771(285'FSL&1207'FWL,SEC.25)
Area	COLORADO	Well	EMMY STATE H25-771
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	EMMY STATE H25-771 AWB
Facility	SEC.25-T03N-R65W		

WELLPATH DATA (181 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
14365.00	90.490	356.210	6944.29	7261.23	7261.23	-5.76	40°12'34.564"N	104°37'00.018"W	0.89	
14460.00	90.650	356.810	6943.34	7356.06	7356.05	-11.55	40°12'35.502"N	104°37'00.081"W	0.65	
14554.00	90.620	358.060	6942.30	7449.96	7449.95	-15.75	40°12'36.430"N	104°37'00.123"W	1.33	
14649.00	90.650	359.790	6941.25	7544.93	7544.92	-17.54	40°12'37.369"N	104°37'00.134"W	1.82	
14743.00	90.520	0.480	6940.29	7638.93	7638.92	-17.31	40°12'38.298"N	104°37'00.119"W	0.75	
14838.00	90.650	359.130	6939.32	7733.92	7733.91	-17.64	40°12'39.236"N	104°37'00.111"W	1.43	
14933.00	90.520	357.690	6938.35	7828.88	7828.87	-20.27	40°12'40.175"N	104°37'00.132"W	1.52	
15027.00	90.520	357.440	6937.50	7922.79	7922.78	-24.27	40°12'41.103"N	104°37'00.172"W	0.27	
15121.00	90.650	357.860	6936.54	8016.71	8016.69	-28.12	40°12'42.032"N	104°37'00.209"W	0.47	
15216.00	90.550	358.850	6935.54	8111.67	8111.65	-30.85	40°12'42.970"N	104°37'00.232"W	1.05	
15310.00	90.490	359.980	6934.69	8205.66	8205.64	-31.81	40°12'43.899"N	104°37'00.233"W	1.20	
15405.00	90.550	0.350	6933.83	8300.65	8300.63	-31.53	40°12'44.838"N	104°37'00.217"W	0.39	
15499.00	90.550	0.410	6932.92	8394.64	8394.63	-30.91	40°12'45.766"N	104°37'00.197"W	0.06	
15593.00	90.590	0.160	6931.99	8488.64	8488.62	-30.44	40°12'46.695"N	104°37'00.179"W	0.27	
15688.00	90.650	359.980	6930.96	8583.63	8583.61	-30.33	40°12'47.634"N	104°37'00.165"W	0.20	
15783.00	90.430	359.680	6930.07	8678.63	8678.61	-30.61	40°12'48.573"N	104°37'00.156"W	0.39	
15877.00	90.550	359.770	6929.26	8772.62	8772.61	-31.06	40°12'49.501"N	104°37'00.150"W	0.16	
15971.00	90.490	359.750	6928.41	8866.62	8866.60	-31.45	40°12'50.430"N	104°37'00.143"W	0.07	
16066.00	90.460	0.170	6927.62	8961.62	8961.60	-31.52	40°12'51.369"N	104°37'00.132"W	0.44	
16161.00	90.490	0.640	6926.83	9056.61	9056.59	-30.85	40°12'52.308"N	104°37'00.111"W	0.50	
16255.00	90.620	1.090	6925.92	9150.59	9150.58	-29.43	40°12'53.236"N	104°37'00.081"W	0.50	
16350.00	90.460	1.370	6925.03	9245.57	9245.55	-27.39	40°12'54.174"N	104°37'00.042"W	0.34	
16444.00	90.490	1.740	6924.25	9339.53	9339.51	-24.84	40°12'55.103"N	104°36'59.997"W	0.39	
16539.00	90.550	1.000	6923.39	9434.49	9434.48	-22.57	40°12'56.041"N	104°36'59.956"W	0.78	
16633.00	90.740	0.440	6922.33	9528.48	9528.47	-21.39	40°12'56.970"N	104°36'59.929"W	0.63	
16728.00	90.580	359.370	6921.23	9623.47	9623.46	-21.54	40°12'57.908"N	104°36'59.918"W	1.14	
16917.00	90.620	359.340	6919.25	9812.45	9812.44	-23.67	40°12'59.776"N	104°36'59.921"W	0.03	
17106.00	90.520	0.820	6917.37	10001.43	10001.42	-23.41	40°13'01.643"N	104°36'59.894"W	0.78	
17201.00	90.490	1.190	6916.54	10096.41	10096.40	-21.74	40°13'02.582"N	104°36'59.860"W	0.39	
17282.00	90.520	1.940	6915.82	10177.38	10177.37	-19.53	40°13'03.381"N	104°36'59.821"W	0.93	Last BHI MWD Survey

REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#10 EMMY STATE H25-771(285'FSL&1207'FWL,SEC.25)
Area	COLORADO	Well	EMMY STATE H25-771
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	EMMY STATE H25-771 AWB
Facility	SEC.25-T03N-R65W		

WELLPATH DATA (181 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
17306.00	90.520	1.940	6915.60	10201.36	10201.35	-18.72	40°13'03.618"N	104°36'59.808"W	0.00	Projection to Bit

HOLE & CASING SECTIONS - Ref Wellbore: EMMY STATE H25-771 AWB Ref Wellpath: EMMY STATE H25-771 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]
13.5in Open Hole	30.00	1958.00	1928.00	30.00	1957.95	-0.01	0.02	-1.25	-0.73
9.625in Casing Surface	30.00	1958.00	1928.00	30.00	1957.95	-0.01	0.02	-1.25	-0.73
8.5in Open Hole	1958.00	17306.00	15348.00	1957.95	6915.60	-1.25	-0.73	10201.35	-18.72

REFERENCE WELLPATH IDENTIFICATION			
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Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	EMMY STATE H25-771 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	-1.00	-0.47	-47.49	3246661.19	1313167.41	40°11'22.812"N	104°37'01.488"W	polygon
EMMY STATE H25-785 SECTION 25-T3N-R65W	-1.00	-0.47	-47.49	3246661.19	1313167.41	40°11'22.812"N	104°37'01.488"W	polygon
EMMY STATE H25-771 REV-1 BHL(100'FNL&1245'FWL,SEC.24)	6911.56	10204.47	-6.67	3246702.01	1323371.90	40°13'03.648"N	104°36'59.652"W	point
EMMY STATE H25-771 LANDING	6915.00	180.00	60.00	3246768.68	1313347.87	40°11'24.585"N	104°37'00.080"W	point
EMMY STATE H25-771 Target 1	6915.00	2250.00	46.23	3246754.91	1315417.78	40°11'45.041"N	104°36'59.992"W	point
EMMY STATE H25-771 REV-2 BHL(100'FNL&1245'FWL,SEC.24)	6916.62	10204.47	-6.67	3246702.01	1323371.90	40°13'03.648"N	104°36'59.652"W	point
EMMY STATE H25-771 Target 2	6952.17	6450.00	18.31	3246726.99	1319617.59	40°12'26.546"N	104°36'59.812"W	point

WELLPATH COMPOSITION - Ref Wellbore: EMMY STATE H25-771 AWB Ref Wellpath: EMMY STATE H25-771 AWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	1950.00	Gyrodatta standard - Continuous gyro	3rd Party Surface Gyros <81'-1950'>	EMMY STATE H25-771 AWB
1950.00	17282.00	OWSG MWD rev2 + IFR1 + Multi-Station Correction	BHI/ATC 8.5" HOLE OWSG MWD+IFR+MSA <2075'-17282'>	EMMY STATE H25-771 AWB
17282.00	17306.00	Blind Drilling (std)	Projection to bit	EMMY STATE H25-771 AWB

REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#10 EMMY STATE H25-771(285'FSL&1207'FWL,SEC.25)
Area	COLORADO	Well	EMMY STATE H25-771
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	EMMY STATE H25-771 AWB
Facility	SEC.25-T03N-R65W		

WELLPATH COMMENTS					
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment	
1950.00	0.750	42.620	1949.95	Tie to Surface Gyros	
17282.00	90.520	1.940	6915.82	Last BHI MWD Survey	
17306.00	90.520	1.940	6915.60	Projection to Bit	

COMMENTS
<p>Wellpath general comments SURFACE LOCATION: SWSW 40.18967N 104.61691W API #: 05-123-46975</p>