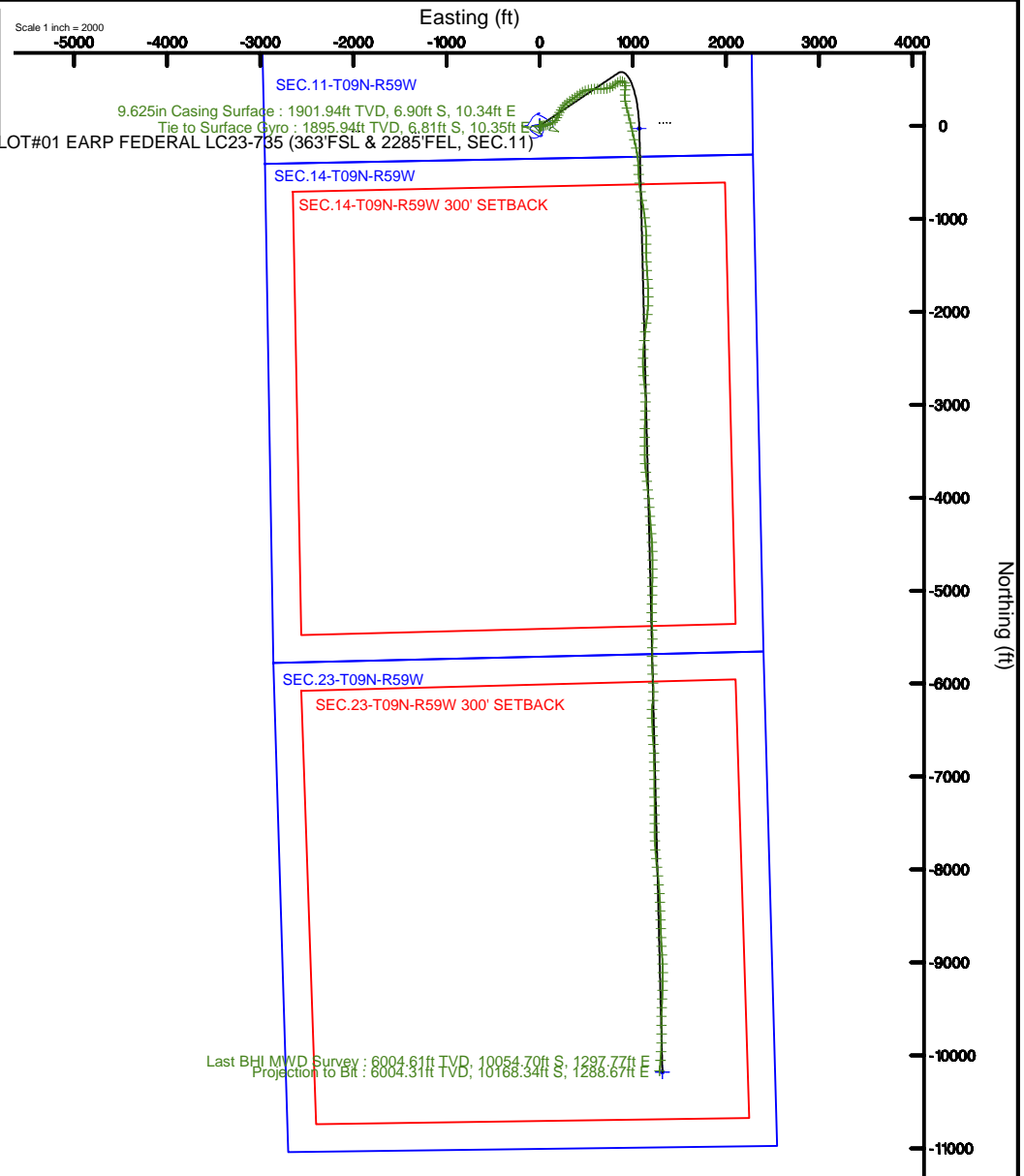
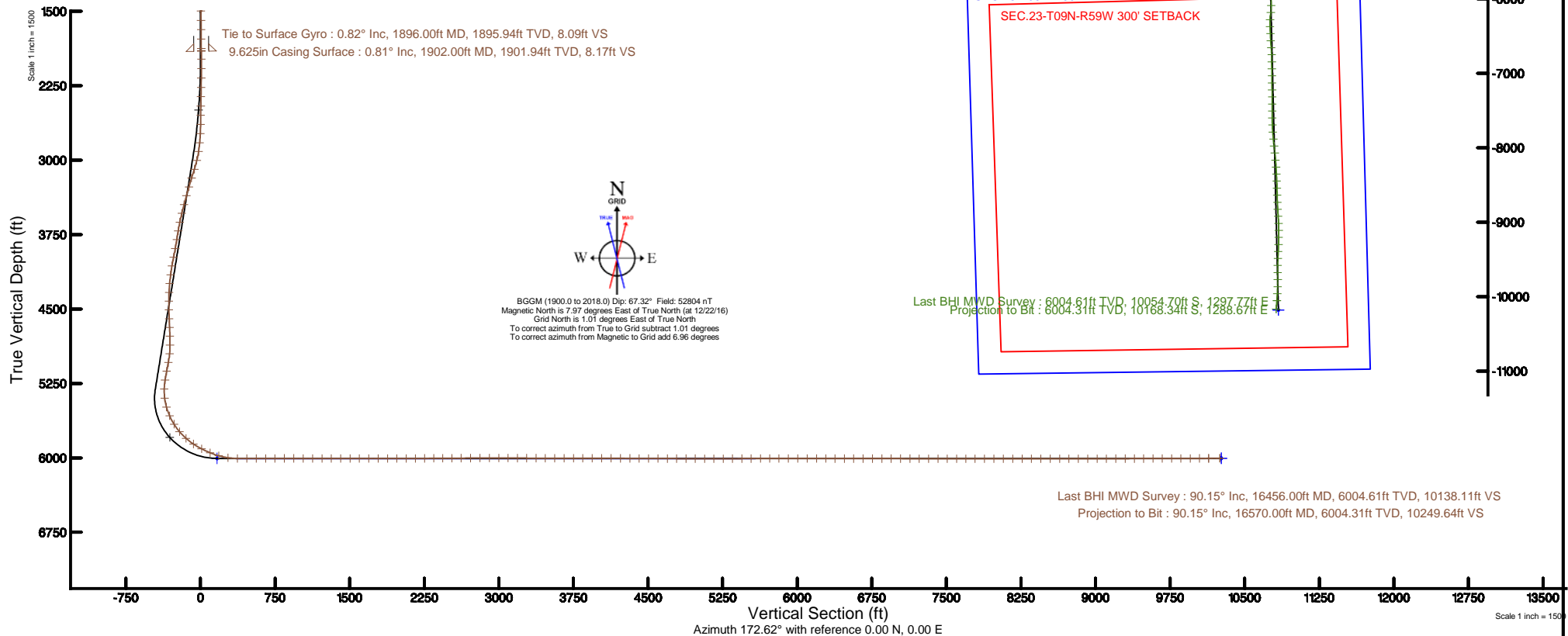


NOBLE ENERGY, INC

Location: COLORADO Slot: SLOT#01 EARP FEDERAL LC23-735 (363'FSL & 2285'FEL, SEC.11)
Field: WELD COUNTY (NOBLE NAD 83 GRID) Well: EARP FEDERAL LC23-735
Facility: SEC.11-T09N-R59W Wellbore: EARP FEDERAL LC23-735 PWB

Plot reference wellpath is EARP FEDERAL LC23-735 PWP (REV.8.0)	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
True vertical depths are referenced to H&P 524 (30KB) (RKB)	* = Wellpath was transformed from a different geodetic datum
Measured depths are referenced to H&P 524 (30KB) (RKB)	North Reference: Grid north
H&P 524 (30KB) (RKB) to Mean Sea Level: 4974 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#01 EARP FEDERAL LC23-735 (363'FSL & 2285'FEL, SEC.11)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: cookdann on 2017-01-11
	Database: WA_DEN_Denver_Deln



REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#01 EARP FEDERAL LC23-735 (363'FSL & 2285'FEL, SEC.11)
Area	COLORADO	Well	EARP FEDERAL LC23-735
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	EARP FEDERAL LC23-735 AWP
Facility	SEC.11-T09N-R59W		

REPORT SETUP INFORMATION			
Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 5.0
North Reference	Grid	User	Cookdanm
Scale	0.999996	Report Generated	1/11/17 at 12:43:16 PM
Convergence at slot	1.01° East	Database/Source file	WA_DEN_Denver_Defn/EARP_FEDERAL_LC23-735_AWP.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	1.31	74.79	3431007.60	1523210.40	40°45'33.192"N	103°56'38.868"W
Facility Reference Pt			3430932.81	1523209.09	40°45'33.192"N	103°56'39.840"W
Field Reference Pt			3000000.00	4454105.15	48°46'34.315"N	105°30'00.000"W

WELLPATH DATUM			
Calculation method	Minimum curvature	H&P 524 (30'KB) (RKB) to Facility Vertical Datum	4974.00ft
Horizontal Reference Pt	Slot	H&P 524 (30'KB) (RKB) to Mean Sea Level	4974.00ft
Vertical Reference Pt	H&P 524 (30'KB) (RKB)	H&P 524 (30'KB) (RKB) to Mud Line at Slot (SLOT#01 EARP FEDERAL LC23-735 (363'FSL & 2285'FEL, SEC.11))	4974.00ft
MD Reference Pt	H&P 524 (30'KB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	172.62°

REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#01 EARP FEDERAL LC23-735 (363'FSL & 2285'FEL, SEC.11)
Area	COLORADO	Well	EARP FEDERAL LC23-735
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	EARP FEDERAL LC23-735 AWB
Facility	SEC.11-T09N-R59W		

WELLPATH DATA (156 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
1896.00	0.820	192.440	1895.94	8.09	-6.81	10.35	40°45'33.123"N	103°56'38.735"W	0.34	Tie to Surface Gyro
1982.00	0.770	220.420	1981.93	9.05	-7.86	9.85	40°45'33.113"N	103°56'38.742"W	0.45	
2077.00	0.590	65.440	2076.93	9.34	-8.14	9.88	40°45'33.110"N	103°56'38.742"W	1.40	
2171.00	2.430	60.690	2170.89	8.45	-6.96	12.06	40°45'33.121"N	103°56'38.713"W	1.96	
2266.00	3.830	67.870	2265.75	6.89	-4.78	16.75	40°45'33.142"N	103°56'38.651"W	1.53	
2361.00	5.520	72.330	2360.43	5.27	-2.20	24.05	40°45'33.166"N	103°56'38.556"W	1.82	
2456.00	7.640	72.960	2454.80	3.39	1.04	34.44	40°45'33.196"N	103°56'38.420"W	2.23	
2550.00	11.430	83.470	2547.49	2.48	3.93	49.67	40°45'33.222"N	103°56'38.222"W	4.42	
2645.00	12.020	74.540	2640.51	1.23	7.64	68.56	40°45'33.256"N	103°56'37.975"W	2.01	
2740.00	14.940	74.940	2732.89	-1.80	13.46	89.92	40°45'33.309"N	103°56'37.697"W	3.08	
2835.00	17.010	65.550	2824.23	-7.52	22.39	114.41	40°45'33.393"N	103°56'37.376"W	3.48	
2929.00	20.760	57.890	2913.17	-18.53	36.95	141.05	40°45'33.533"N	103°56'37.027"W	4.77	
3024.00	21.030	41.220	3002.00	-36.87	58.74	166.56	40°45'33.743"N	103°56'36.691"W	6.25	
3119.00	20.040	26.060	3091.02	-61.74	86.20	184.96	40°45'34.012"N	103°56'36.445"W	5.68	
3214.00	19.880	22.700	3180.32	-89.30	115.73	198.34	40°45'34.301"N	103°56'36.265"W	1.22	
3308.00	19.930	27.810	3268.71	-116.23	144.64	211.99	40°45'34.584"N	103°56'36.081"W	1.85	
3403.00	20.160	34.900	3357.97	-141.58	172.40	228.91	40°45'34.855"N	103°56'35.855"W	2.57	
3498.00	20.560	37.540	3447.04	-165.51	199.05	248.44	40°45'35.115"N	103°56'35.595"W	1.05	
3592.00	20.660	43.340	3535.03	-187.70	224.20	269.88	40°45'35.360"N	103°56'35.310"W	2.17	
3687.00	20.860	50.510	3623.88	-207.30	247.15	294.44	40°45'35.583"N	103°56'34.986"W	2.68	
3782.00	20.740	55.680	3712.69	-223.92	267.39	321.39	40°45'35.778"N	103°56'34.631"W	1.94	
3876.00	20.990	58.450	3800.53	-238.35	285.59	349.48	40°45'35.953"N	103°56'34.262"W	1.08	
3971.00	20.870	53.050	3889.27	-253.67	304.66	377.51	40°45'36.136"N	103°56'33.894"W	2.03	
4065.00	20.870	51.930	3977.10	-270.48	325.05	404.07	40°45'36.333"N	103°56'33.544"W	0.42	
4160.00	20.800	54.720	4065.89	-287.01	345.23	431.16	40°45'36.528"N	103°56'33.187"W	1.05	
4255.00	20.580	62.540	4154.78	-300.64	362.67	459.75	40°45'36.695"N	103°56'32.812"W	2.92	
4350.00	20.760	69.070	4243.68	-310.33	376.39	490.30	40°45'36.826"N	103°56'32.412"W	2.43	
4444.00	20.680	76.490	4331.61	-316.00	386.22	522.00	40°45'36.917"N	103°56'31.998"W	2.79	
4539.00	20.700	82.350	4420.50	-317.88	392.38	554.96	40°45'36.972"N	103°56'31.568"W	2.18	
4633.00	20.650	85.480	4508.45	-317.13	395.89	587.95	40°45'37.001"N	103°56'31.139"W	1.18	

REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#01 EARP FEDERAL LC23-735 (363'FSL & 2285'FEL, SEC.11)
Area	COLORADO	Well	EARP FEDERAL LC23-735
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	EARP FEDERAL LC23-735 AWB
Facility	SEC.11-T09N-R59W		

WELLPATH DATA (156 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4728.00	20.820	89.220	4597.30	-314.35	397.44	621.53	40°45'37.011"N	103°56'30.702"W	1.41	
4822.00	20.740	89.060	4685.18	-310.57	397.94	654.88	40°45'37.010"N	103°56'30.269"W	0.10	
4917.00	20.790	86.580	4774.01	-307.52	399.23	688.53	40°45'37.017"N	103°56'29.831"W	0.93	
5011.00	20.610	82.320	4861.95	-306.46	402.43	721.58	40°45'37.043"N	103°56'29.401"W	1.61	
5106.00	21.190	69.410	4950.75	-310.47	410.71	754.24	40°45'37.119"N	103°56'28.975"W	4.88	
5201.00	22.790	54.580	5038.90	-323.06	427.43	785.33	40°45'37.278"N	103°56'28.567"W	6.07	
5295.00	19.570	50.210	5126.54	-340.06	448.06	812.27	40°45'37.478"N	103°56'28.212"W	3.81	
5390.00	19.950	54.760	5215.96	-356.17	467.59	837.74	40°45'37.666"N	103°56'27.877"W	1.67	
5485.00	16.180	78.530	5306.38	-364.70	479.60	863.99	40°45'37.780"N	103°56'27.533"W	8.63	
5580.00	16.690	108.240	5397.66	-359.74	477.96	889.96	40°45'37.760"N	103°56'27.196"W	8.77	
5674.00	17.360	142.570	5487.76	-341.72	462.56	911.36	40°45'37.604"N	103°56'26.921"W	10.57	
5768.00	24.080	176.830	5575.95	-310.31	432.13	920.99	40°45'37.301"N	103°56'26.803"W	14.46	
5863.00	32.600	187.450	5659.53	-266.13	387.29	918.74	40°45'36.859"N	103°56'26.843"W	10.39	
5957.00	40.530	180.670	5735.00	-211.30	331.53	915.09	40°45'36.309"N	103°56'26.903"W	9.46	
6052.00	48.440	171.430	5802.80	-145.03	265.35	920.04	40°45'35.654"N	103°56'26.854"W	10.74	
6146.00	57.110	165.760	5859.64	-70.50	192.14	935.02	40°45'34.928"N	103°56'26.676"W	10.39	
6241.00	62.310	165.130	5907.54	10.86	112.77	955.64	40°45'34.140"N	103°56'26.426"W	5.50	
6336.00	67.010	167.480	5948.19	96.17	29.38	975.93	40°45'33.313"N	103°56'26.181"W	5.43	
6430.00	75.020	167.890	5978.75	184.65	-57.40	994.87	40°45'32.452"N	103°56'25.955"W	8.53	
6525.00	81.410	166.580	5998.14	277.19	-148.04	1015.41	40°45'31.553"N	103°56'25.709"W	6.86	
6620.00	89.820	168.660	6005.40	371.46	-240.48	1035.69	40°45'30.636"N	103°56'25.467"W	9.12	
6714.00	89.720	171.720	6005.77	465.36	-333.09	1051.71	40°45'29.719"N	103°56'25.280"W	3.26	
6809.00	89.720	178.590	6006.24	560.21	-427.69	1059.73	40°45'28.783"N	103°56'25.197"W	7.23	
6904.00	90.310	176.870	6006.21	654.83	-522.61	1063.49	40°45'27.844"N	103°56'25.170"W	1.91	
6998.00	90.400	174.000	6005.63	748.71	-616.30	1070.97	40°45'26.917"N	103°56'25.094"W	3.05	
7093.00	90.430	170.940	6004.94	843.69	-710.47	1083.42	40°45'25.985"N	103°56'24.954"W	3.22	
7187.00	89.780	169.180	6004.77	937.59	-803.06	1099.64	40°45'25.067"N	103°56'24.764"W	2.00	
7282.00	89.820	171.560	6005.10	1032.51	-896.71	1115.53	40°45'24.139"N	103°56'24.579"W	2.51	
7377.00	90.123	173.040	6005.15	1127.51	-990.85	1128.26	40°45'23.207"N	103°56'24.435"W	1.59	
7471.00	89.940	174.860	6005.10	1221.48	-1084.32	1138.17	40°45'22.282"N	103°56'24.328"W	1.95	

REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#01 EARP FEDERAL LC23-735 (363'FSL & 2285'FEL, SEC.11)
Area	COLORADO	Well	EARP FEDERAL LC23-735
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	EARP FEDERAL LC23-735 AWB
Facility	SEC.11-T09N-R59W		

WELLPATH DATA (156 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
7566.00	89.910	178.350	6005.22	1316.24	-1179.14	1143.79	40°45'21.344"N	103°56'24.277"W	3.67	
7661.00	89.850	180.250	6005.42	1410.59	-1274.13	1144.95	40°45'20.405"N	103°56'24.283"W	2.00	
7755.00	89.880	179.420	6005.64	1503.84	-1368.13	1145.22	40°45'19.477"N	103°56'24.301"W	0.88	
7850.00	89.780	177.390	6005.93	1598.35	-1463.09	1147.87	40°45'18.538"N	103°56'24.289"W	2.14	
7944.00	90.180	176.440	6005.96	1692.09	-1556.95	1152.93	40°45'17.610"N	103°56'24.244"W	1.10	
8039.00	90.220	175.920	6005.63	1786.90	-1651.74	1159.26	40°45'16.672"N	103°56'24.184"W	0.55	
8133.00	90.120	177.240	6005.35	1880.68	-1745.57	1164.86	40°45'15.744"N	103°56'24.132"W	1.41	
8228.00	90.150	180.580	6005.12	1975.09	-1840.54	1166.67	40°45'14.806"N	103°56'24.131"W	3.52	
8323.00	89.880	182.990	6005.10	2068.87	-1935.48	1163.71	40°45'13.868"N	103°56'24.191"W	2.55	
8418.00	90.000	185.570	6005.20	2161.91	-2030.21	1156.62	40°45'12.934"N	103°56'24.304"W	2.72	
8512.00	90.340	187.910	6004.92	2253.06	-2123.55	1145.59	40°45'12.013"N	103°56'24.469"W	2.52	
8607.00	90.460	186.880	6004.26	2344.92	-2217.76	1133.36	40°45'11.085"N	103°56'24.649"W	1.09	
8701.00	90.310	185.610	6003.62	2436.27	-2311.20	1123.14	40°45'10.164"N	103°56'24.804"W	1.36	
8796.00	90.280	184.570	6003.14	2529.03	-2405.82	1114.71	40°45'09.230"N	103°56'24.935"W	1.10	
8890.00	90.460	181.250	6002.53	2621.50	-2499.68	1109.94	40°45'08.304"N	103°56'25.018"W	3.54	
8985.00	90.370	178.230	6001.84	2715.76	-2594.67	1110.37	40°45'07.365"N	103°56'25.034"W	3.18	
9079.00	90.310	174.130	6001.28	2809.55	-2688.44	1116.63	40°45'06.438"N	103°56'24.974"W	4.36	
9174.00	90.180	173.850	6000.88	2904.53	-2782.92	1126.58	40°45'05.503"N	103°56'24.867"W	0.32	
9269.00	89.720	176.140	6000.96	2999.44	-2877.55	1134.87	40°45'04.566"N	103°56'24.781"W	2.46	
9363.00	89.690	181.220	6001.44	3092.88	-2971.49	1137.03	40°45'03.638"N	103°56'24.774"W	5.40	
9458.00	89.820	182.430	6001.85	3186.66	-3066.44	1134.00	40°45'02.700"N	103°56'24.835"W	1.28	
9553.00	89.780	181.100	6002.18	3280.45	-3161.39	1131.08	40°45'01.763"N	103°56'24.895"W	1.40	
9648.00	89.940	181.170	6002.41	3374.40	-3256.37	1129.20	40°45'00.825"N	103°56'24.941"W	0.18	
9742.00	89.750	181.010	6002.67	3467.38	-3350.35	1127.41	40°44'59.896"N	103°56'24.986"W	0.26	
9837.00	89.750	178.990	6003.08	3561.58	-3445.35	1127.41	40°44'58.958"N	103°56'25.007"W	2.13	
9932.00	89.850	179.960	6003.41	3655.90	-3540.34	1128.28	40°44'58.019"N	103°56'25.018"W	1.03	
10027.00	89.780	176.060	6003.72	3750.47	-3635.27	1131.58	40°44'57.081"N	103°56'24.997"W	4.11	
10121.00	89.910	173.280	6003.97	3844.40	-3728.85	1140.31	40°44'56.155"N	103°56'24.905"W	2.96	
10216.00	90.220	174.100	6003.87	3939.38	-3823.27	1150.75	40°44'55.220"N	103°56'24.791"W	0.92	
10311.00	89.880	173.930	6003.78	4034.35	-3917.76	1160.65	40°44'54.285"N	103°56'24.683"W	0.40	

REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#01 EARP FEDERAL LC23-735 (363'FSL & 2285'FEL, SEC.11)
Area	COLORADO	Well	EARP FEDERAL LC23-735
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	EARP FEDERAL LC23-735 AWB
Facility	SEC.11-T09N-R59W		

WELLPATH DATA (156 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
10405.00	89.780	173.880	6004.06	4128.33	-4011.22	1170.64	40°44'53.360"N	103°56'24.575"W	0.12	
10500.00	89.750	176.400	6004.45	4223.23	-4105.87	1178.68	40°44'52.423"N	103°56'24.492"W	2.65	
10595.00	89.690	176.880	6004.92	4317.99	-4200.71	1184.25	40°44'51.485"N	103°56'24.442"W	0.51	
10689.00	89.510	175.070	6005.57	4411.82	-4294.47	1190.85	40°44'50.558"N	103°56'24.377"W	1.93	
10784.00	89.690	174.720	6006.24	4506.75	-4389.09	1199.30	40°44'49.622"N	103°56'24.289"W	0.41	
10878.00	89.780	176.940	6006.67	4600.59	-4482.84	1206.14	40°44'48.694"N	103°56'24.222"W	2.36	
10973.00	89.820	178.820	6007.00	4695.19	-4577.77	1209.65	40°44'47.756"N	103°56'24.198"W	1.98	
11067.00	89.940	179.830	6007.20	4788.54	-4671.76	1210.76	40°44'46.827"N	103°56'24.205"W	1.08	
11162.00	89.970	179.930	6007.27	4882.78	-4766.76	1210.96	40°44'45.889"N	103°56'24.224"W	0.11	
11256.00	89.880	180.500	6007.40	4975.96	-4860.76	1210.60	40°44'44.960"N	103°56'24.250"W	0.61	
11351.00	89.780	181.050	6007.68	5070.00	-4955.75	1209.32	40°44'44.022"N	103°56'24.289"W	0.59	
11445.00	90.090	181.290	6007.79	5162.95	-5049.73	1207.40	40°44'43.094"N	103°56'24.335"W	0.42	
11539.00	90.120	181.650	6007.61	5255.84	-5143.70	1204.99	40°44'42.166"N	103°56'24.388"W	0.38	
11634.00	90.120	180.240	6007.41	5349.83	-5238.68	1203.42	40°44'41.227"N	103°56'24.430"W	1.48	
11728.00	90.180	177.930	6007.17	5443.23	-5332.66	1204.92	40°44'40.299"N	103°56'24.432"W	2.46	
11822.00	90.220	177.210	6006.84	5536.88	-5426.58	1208.91	40°44'39.370"N	103°56'24.401"W	0.77	
11916.00	90.250	180.300	6006.46	5630.33	-5520.54	1210.95	40°44'38.441"N	103°56'24.396"W	3.29	
12011.00	90.000	182.060	6006.25	5724.27	-5615.52	1208.99	40°44'37.504"N	103°56'24.444"W	1.87	
12105.00	89.970	180.160	6006.27	5817.23	-5709.50	1207.17	40°44'36.575"N	103°56'24.489"W	2.02	
12200.00	89.970	177.830	6006.32	5911.64	-5804.48	1208.84	40°44'35.637"N	103°56'24.489"W	2.45	
12295.00	89.910	177.270	6006.42	6006.29	-5899.39	1212.90	40°44'34.698"N	103°56'24.458"W	0.59	
12390.00	89.940	175.980	6006.55	6101.05	-5994.22	1218.49	40°44'33.760"N	103°56'24.407"W	1.36	
12485.00	90.030	178.910	6006.57	6195.71	-6089.12	1222.73	40°44'32.822"N	103°56'24.373"W	3.09	
12579.00	89.940	188.220	6006.60	6287.90	-6182.83	1216.89	40°44'31.897"N	103°56'24.471"W	9.90	
12674.00	89.720	184.320	6006.88	6380.20	-6277.24	1206.52	40°44'30.966"N	103°56'24.627"W	4.11	
12769.00	90.000	176.140	6007.11	6474.28	-6372.16	1206.13	40°44'30.029"N	103°56'24.654"W	8.62	
12863.00	89.940	178.040	6007.16	6567.99	-6466.04	1210.91	40°44'29.100"N	103°56'24.613"W	2.02	
12958.00	90.180	176.660	6007.06	6662.67	-6560.93	1215.30	40°44'28.162"N	103°56'24.578"W	1.47	
13053.00	90.030	175.640	6006.89	6757.48	-6655.72	1221.68	40°44'27.225"N	103°56'24.516"W	1.09	
13147.00	89.940	177.280	6006.91	6851.27	-6749.53	1227.48	40°44'26.297"N	103°56'24.463"W	1.75	

REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#01 EARP FEDERAL LC23-735 (363'FSL & 2285'FEL, SEC.11)
Area	COLORADO	Well	EARP FEDERAL LC23-735
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	EARP FEDERAL LC23-735 AWB
Facility	SEC.11-T09N-R59W		

WELLPATH DATA (156 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
13242.00	89.940	179.930	6007.01	6945.75	-6844.50	1229.79	40°44'25.358"N	103°56'24.454"W	2.79	
13337.00	89.880	179.710	6007.16	7040.00	-6939.50	1230.09	40°44'24.420"N	103°56'24.472"W	0.24	
13431.00	89.880	178.980	6007.36	7133.35	-7033.49	1231.17	40°44'23.491"N	103°56'24.480"W	0.78	
13526.00	89.850	179.410	6007.58	7227.73	-7128.48	1232.50	40°44'22.552"N	103°56'24.484"W	0.45	
13621.00	90.000	179.290	6007.70	7322.07	-7223.47	1233.58	40°44'21.613"N	103°56'24.492"W	0.20	
13715.00	89.970	180.270	6007.73	7415.34	-7317.47	1233.94	40°44'20.685"N	103°56'24.508"W	1.04	
13809.00	90.090	179.260	6007.68	7508.61	-7411.47	1234.33	40°44'19.756"N	103°56'24.525"W	1.08	
13904.00	89.850	179.570	6007.73	7602.94	-7506.47	1235.30	40°44'18.817"N	103°56'24.534"W	0.41	
13998.00	90.030	180.000	6007.83	7696.21	-7600.46	1235.65	40°44'17.888"N	103°56'24.551"W	0.50	
14092.00	89.940	177.930	6007.85	7789.63	-7694.44	1237.35	40°44'16.960"N	103°56'24.550"W	2.20	
14187.00	89.910	175.550	6007.98	7884.37	-7789.28	1242.75	40°44'16.022"N	103°56'24.502"W	2.51	
14281.00	90.150	174.620	6007.93	7978.29	-7882.94	1250.80	40°44'15.095"N	103°56'24.419"W	1.02	
14376.00	89.970	173.770	6007.83	8073.25	-7977.45	1260.41	40°44'14.160"N	103°56'24.315"W	0.91	
14470.00	89.780	174.090	6008.03	8167.22	-8070.92	1270.35	40°44'13.235"N	103°56'24.208"W	0.40	
14565.00	89.910	174.990	6008.29	8262.17	-8165.49	1279.39	40°44'12.299"N	103°56'24.112"W	0.96	
14659.00	90.030	176.480	6008.34	8356.03	-8259.23	1286.38	40°44'11.371"N	103°56'24.042"W	1.59	
14754.00	89.850	177.110	6008.44	8450.78	-8354.08	1291.69	40°44'10.433"N	103°56'23.995"W	0.69	
14848.00	89.880	177.600	6008.66	8544.46	-8447.98	1296.03	40°44'09.505"N	103°56'23.960"W	0.52	
14943.00	90.030	179.030	6008.73	8638.99	-8542.93	1298.82	40°44'08.566"N	103°56'23.946"W	1.51	
15037.00	90.090	178.520	6008.64	8732.44	-8636.91	1300.83	40°44'07.638"N	103°56'23.941"W	0.55	
15132.00	90.180	177.500	6008.41	8827.02	-8731.85	1304.13	40°44'06.699"N	103°56'23.920"W	1.08	
15227.00	90.060	176.260	6008.21	8921.76	-8826.71	1309.30	40°44'05.761"N	103°56'23.874"W	1.31	
15322.00	90.250	176.680	6007.96	9016.54	-8921.53	1315.15	40°44'04.823"N	103°56'23.820"W	0.49	
15416.00	90.120	177.310	6007.65	9110.27	-9015.40	1320.08	40°44'03.895"N	103°56'23.778"W	0.68	
15511.00	90.150	179.270	6007.43	9204.80	-9110.35	1322.91	40°44'02.956"N	103°56'23.762"W	2.06	
15605.00	90.060	181.540	6007.26	9297.93	-9204.34	1322.25	40°44'02.028"N	103°56'23.793"W	2.42	
15700.00	90.090	181.730	6007.13	9391.76	-9299.30	1319.54	40°44'01.090"N	103°56'23.849"W	0.20	
15794.00	90.150	182.610	6006.94	9484.45	-9393.23	1315.98	40°44'00.163"N	103°56'23.917"W	0.94	
15889.00	90.180	182.880	6006.66	9577.97	-9488.13	1311.43	40°43'59.226"N	103°56'23.998"W	0.29	
15983.00	90.060	181.710	6006.47	9670.64	-9582.05	1307.66	40°43'58.299"N	103°56'24.068"W	1.25	

REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#01 EARP FEDERAL LC23-735 (363'FSL & 2285'FEL, SEC.11)
Area	COLORADO	Well	EARP FEDERAL LC23-735
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	EARP FEDERAL LC23-735 AWB
Facility	SEC.11-T09N-R59W		

WELLPATH DATA (156 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
16078.00	90.340	177.780	6006.13	9764.88	-9677.03	1308.09	40°43'57.360"N	103°56'24.085"W	4.15	
16172.00	90.220	180.310	6005.67	9858.29	-9771.01	1309.65	40°43'56.432"N	103°56'24.086"W	2.69	
16267.00	90.180	181.940	6005.34	9952.24	-9865.98	1307.79	40°43'55.494"N	103°56'24.132"W	1.72	
16362.00	90.280	183.040	6004.96	10045.83	-9960.89	1303.66	40°43'54.557"N	103°56'24.207"W	1.16	
16456.00	90.150	184.150	6004.61	10138.11	-10054.70	1297.77	40°43'53.631"N	103°56'24.305"W	1.19	Last BHI MWD Survey
16570.00	90.150	185.000	6004.31	10249.64	-10168.34	1288.67	40°43'52.510"N	103°56'24.449"W	0.75	Projection to Bit

HOLE & CASING SECTIONS - Ref Wellbore: EARP FEDERAL LC23-735 AWB Ref Wellpath: EARP FEDERAL LC23-735 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	1902.00	1872.00	30.00	1901.94	0.01	0.00	-6.90	10.34
8.5in Open Hole	1902.00	16570.00	14668.00	1901.94	6004.31	-6.90	10.34	-10168.34	1288.67

REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#01 EARP FEDERAL LC23-735 (363'FSL & 2285'FEL, SEC.11)
Area	COLORADO	Well	EARP FEDERAL LC23-735
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	EARP FEDERAL LC23-735 AWB
Facility	SEC.11-T09N-R59W		

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.11-T09N-R59W	6.00	0.00	0.00	3431007.60	1523210.40	40°45'33.192"N	103°56'38.868"W	polygon
SEC.14-T09N-R59W	6.00	0.00	0.00	3431007.60	1523210.40	40°45'33.192"N	103°56'38.868"W	polygon
SEC.23-T09N-R59W	6.00	0.00	0.00	3431007.60	1523210.40	40°45'33.192"N	103°56'38.868"W	polygon
EARP FEDERAL LC23-735 BHL REV-1 (810'FSL & 1210'FEL, SEC.23)	6002.20	-10179.75	1317.90	3432325.49	1513030.71	40°43'52.392"N	103°56'24.072"W	point
EARP FEDERAL LC23-735 BHL REV-2 (810'FSL & 1210'FEL, SEC.23)	6005.00	-10179.75	1317.90	3432325.49	1513030.71	40°43'52.392"N	103°56'24.072"W	point
EARP FEDERAL LC23-735 Landing Point	6005.00	-30.00	1070.00	3432077.59	1523180.40	40°45'32.710"N	103°56'24.973"W	point
SEC.11-T09N-R59W 300' SETBACK	6006.00	0.00	0.00	3431007.60	1523210.40	40°45'33.192"N	103°56'38.868"W	polygon
SEC.14-T09N-R59W 300' SETBACK	6006.00	0.00	0.00	3431007.60	1523210.40	40°45'33.192"N	103°56'38.868"W	polygon
SEC.23-T09N-R59W 300' SETBACK	6006.00	0.00	0.00	3431007.60	1523210.40	40°45'33.192"N	103°56'38.868"W	polygon

WELLPATH COMPOSITION - Ref Wellbore: EARP FEDERAL LC23-735 AWB					Ref Wellpath: EARP FEDERAL LC23-735 AWP	
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment		Wellbore	
0.00	1896.00	Gyrodata standard - Drop gyro or Multi-shot	Gyrodata Surface gyros from Noble <78'-1896'>		EARP FEDERAL LC23-735 AWB	
1896.00	16456.00	OWSG MWD rev2 + IFR1 + Multi-Station Correction	BHI/ATC 8.5" Hole OWSG MWD+IFR+MSA <1982'-16456'>		EARP FEDERAL LC23-735 AWB	
16456.00	16570.00	Blind Drilling (std)	Projection to bit		EARP FEDERAL LC23-735 AWB	



Actual Wellpath Report
EARP FEDERAL LC23-735 AWP
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REFERENCE WELLPATH IDENTIFICATION			
Operator	NOBLE ENERGY, INC	Slot	SLOT#01 EARP FEDERAL LC23-735 (363'FSL & 2285'FEL, SEC.11)
Area	COLORADO	Well	EARP FEDERAL LC23-735
Field	WELD COUNTY (NOBLE NAD 83 GRID)	Wellbore	EARP FEDERAL LC23-735 AWB
Facility	SEC.11-T09N-R59W		

WELLPATH COMMENTS					
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment	
1896.00	0.820	192.440	1895.94	Tie to Surface Gyro	
16456.00	90.150	184.150	6004.61	Last BHI MWD Survey	
16570.00	90.150	185.000	6004.31	Projection to Bit	