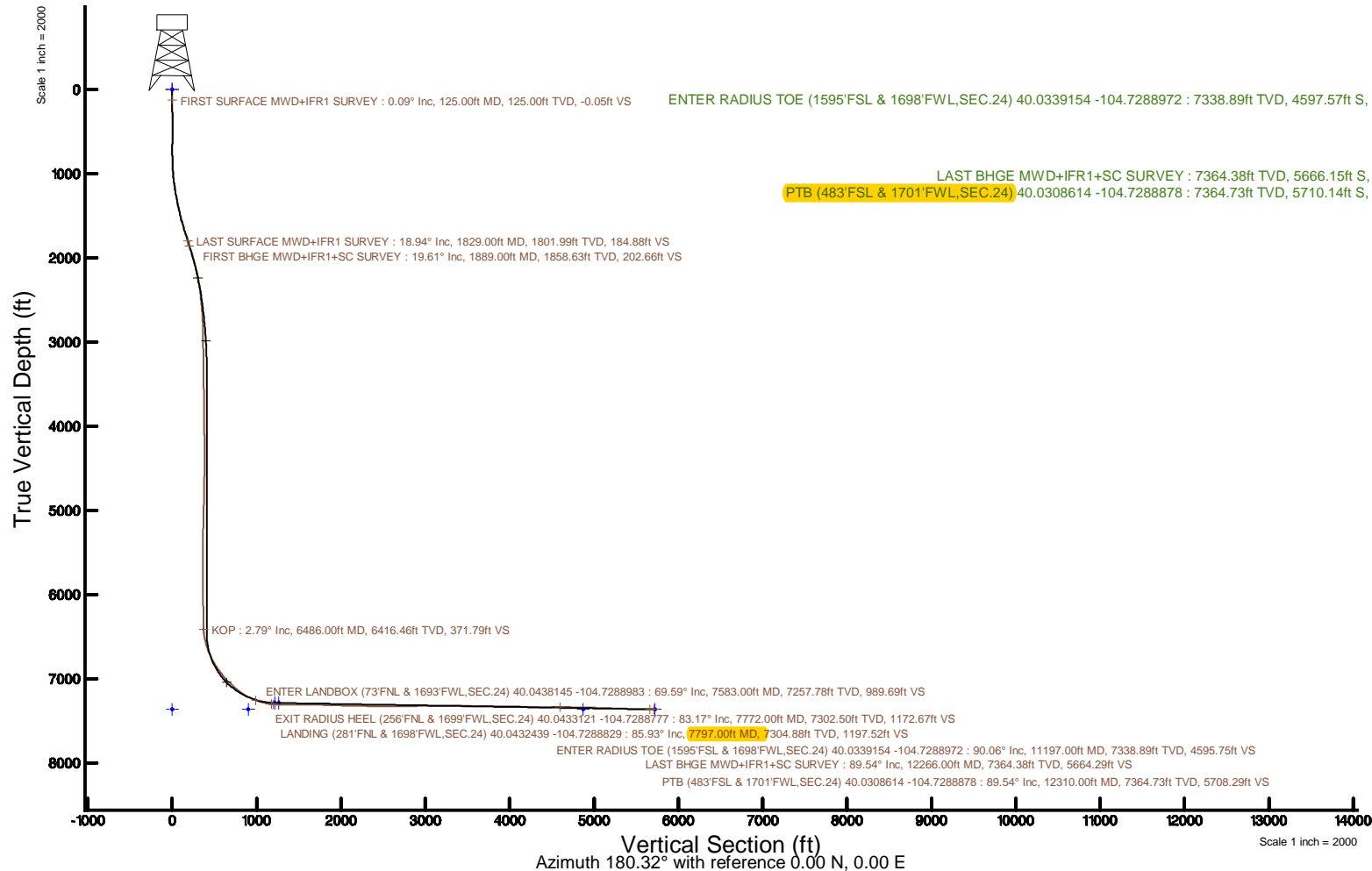


Location:	COLORADO	Slot:	SLOT#28 AZUL 13-11HZ (918FSL & 1384FWL,SEC.13)
Field:	WELD COUNTY (UTM/TRUE NORTH)	Well:	AZUL 13-11HZ
Facility:	SEC.13-T1N-R66W	Wellbore:	AZUL 13-11HZ PWB
Plot reference wellpath is AZUL 13-11HZ PWP Rev-B.0		Grid System: NAD83 / UTM Zone 13 North, US feet	
True vertical depths are referenced to Xreme 22 (17) (RT)		* = Wellpath was transformed from a different geoidetic datum	
Measured depths are referenced to Xreme 22 (17) (RT)		North Reference: True north	
Xreme 22 (17) (RT) to Mean Sea Level: 5088 feet		Scale: True distance	
Mean Sea Level to Mud line (At Slot: SLOT#28 AZUL 13-11HZ (918FSL & 1384FWL,SEC.13)): 0 feet		Depths are in feet	
Coordinates are in feet referenced to Slot		Created by: pairsnet on 2018-03-15	
		Database: WA_DEN_Anadarko_Defn	



REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#28 AZUL 13-11HZ (918'FSL & 1384'FWL,SEC.13)
Area	COLORADO	Well	AZUL 13-11HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	AZUL 13-11HZ AWB
Facility	SEC.13-T1N-R66W		

REPORT SETUP INFORMATION			
Projection System	NAD83 / UTM Zone 13 North, US feet	Software System	WellArchitect® 5.0
North Reference	True	User	Painsetr
Scale	0.999607	Report Generated	3/15/2018 at 12:56 PM
Convergence at slot	0.18° East	Database/Source file	WA_DEN_Anadarko_Defn/AZUL_13-11HZ_AWP.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-4159.34	-1506.26	1715977.41	14543793.77	40°02'47.530"N	104°43'48.022"W
Facility Reference Pt			1717470.20	14547956.10	40°03'28.634"N	104°43'28.654"W
Field Reference Pt			1698235.31	14552047.82	40°04'09.600"N	104°47'36.000"W

WELLPATH DATUM			
Calculation method	Minimum curvature	Xtreme 22 (17') (RT) to Facility Vertical Datum	5088.00ft
Horizontal Reference Pt	Slot	Xtreme 22 (17') (RT) to Mean Sea Level	5088.00ft
Vertical Reference Pt	Xtreme 22 (17') (RT)	Xtreme 22 (17') (RT) to Mud Line at Slot (SLOT#28 AZUL 13-11HZ (918'FSL & 1384'FWL,SEC.13))	5088.00ft
MD Reference Pt	Xtreme 22 (17') (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	180.32°

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#28 AZUL 13-11HZ (918'FSL & 1384'FWL,SEC.13)
Area	COLORADO	Well	AZUL 13-11HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	AZUL 13-11HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH DATA (183 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
0.00†	0.000	310.530	0.00	0.00	0.00	0.00	1715977.41	14543793.77	40°02'47.530"N	104°43'48.022"W	0.00	
17.00	0.000	310.530	17.00	0.00	0.00	0.00	1715977.41	14543793.77	40°02'47.530"N	104°43'48.022"W	0.00	
125.00	0.090	310.530	125.00	-0.05	0.06	-0.06	1715977.34	14543793.82	40°02'47.531"N	104°43'48.023"W	0.08	FIRST SURFACE MWD+IFR1 SURVEY
157.00	0.440	113.570	157.00	-0.02	0.02	0.03	1715977.44	14543793.79	40°02'47.530"N	104°43'48.022"W	1.65	
188.00	0.400	166.830	188.00	0.13	-0.13	0.16	1715977.57	14543793.64	40°02'47.529"N	104°43'48.020"W	1.22	
220.00	0.530	166.130	220.00	0.38	-0.38	0.22	1715977.63	14543793.39	40°02'47.526"N	104°43'48.019"W	0.41	
251.00	0.350	122.710	251.00	0.57	-0.57	0.34	1715977.75	14543793.20	40°02'47.524"N	104°43'48.018"W	1.18	
283.00	0.400	139.670	283.00	0.71	-0.71	0.49	1715977.90	14543793.06	40°02'47.523"N	104°43'48.016"W	0.38	
314.00	0.480	181.600	314.00	0.92	-0.92	0.56	1715977.97	14543792.85	40°02'47.521"N	104°43'48.015"W	1.04	
346.00	0.660	166.390	345.99	1.23	-1.24	0.60	1715978.01	14543792.53	40°02'47.518"N	104°43'48.014"W	0.73	
377.00	0.880	173.770	376.99	1.64	-1.65	0.67	1715978.08	14543792.13	40°02'47.514"N	104°43'48.013"W	0.78	
409.00	0.880	175.440	408.99	2.13	-2.14	0.71	1715978.12	14543791.64	40°02'47.509"N	104°43'48.013"W	0.08	
441.00	0.750	195.220	440.98	2.58	-2.58	0.68	1715978.09	14543791.19	40°02'47.504"N	104°43'48.013"W	0.96	
472.00	0.090	278.100	471.98	2.77	-2.78	0.60	1715978.01	14543791.00	40°02'47.503"N	104°43'48.014"W	2.40	
504.00	0.570	315.280	503.98	2.66	-2.66	0.46	1715977.88	14543791.11	40°02'47.504"N	104°43'48.016"W	1.57	
535.00	0.790	345.690	534.98	2.34	-2.34	0.30	1715977.71	14543791.43	40°02'47.507"N	104°43'48.018"W	1.34	
567.00	0.700	353.860	566.98	1.93	-1.93	0.23	1715977.64	14543791.84	40°02'47.511"N	104°43'48.019"W	0.43	
599.00	0.880	342.790	598.97	1.50	-1.51	0.13	1715977.54	14543792.27	40°02'47.515"N	104°43'48.020"W	0.74	
631.00	1.050	325.010	630.97	1.03	-1.03	-0.11	1715977.30	14543792.74	40°02'47.520"N	104°43'48.023"W	1.07	
663.00	1.230	324.770	662.96	0.51	-0.51	-0.47	1715976.93	14543793.26	40°02'47.525"N	104°43'48.028"W	0.56	
695.00	0.480	326.970	694.96	0.12	-0.12	-0.75	1715976.66	14543793.65	40°02'47.529"N	104°43'48.032"W	2.35	
726.00	0.220	212.090	725.96	0.06	-0.06	-0.85	1715976.56	14543793.71	40°02'47.529"N	104°43'48.033"W	1.96	
758.00	0.570	174.920	757.96	0.27	-0.27	-0.87	1715976.54	14543793.50	40°02'47.527"N	104°43'48.033"W	1.30	
790.00	1.010	146.790	789.96	0.67	-0.66	-0.70	1715976.71	14543793.10	40°02'47.523"N	104°43'48.031"W	1.79	
822.00	1.320	149.690	821.95	1.22	-1.22	-0.36	1715977.05	14543792.55	40°02'47.518"N	104°43'48.027"W	0.99	
854.00	2.070	146.260	853.94	2.02	-2.02	0.15	1715977.56	14543791.75	40°02'47.510"N	104°43'48.020"W	2.36	
885.00	2.640	144.950	884.91	3.06	-3.07	0.87	1715978.29	14543790.71	40°02'47.500"N	104°43'48.011"W	1.85	
917.00	3.300	145.470	916.87	4.42	-4.43	1.82	1715979.23	14543789.35	40°02'47.486"N	104°43'47.999"W	2.06	
949.00	3.650	149.250	948.81	6.05	-6.06	2.86	1715980.28	14543787.72	40°02'47.470"N	104°43'47.985"W	1.31	
980.00	4.530	148.020	979.73	7.93	-7.95	4.01	1715981.44	14543785.84	40°02'47.451"N	104°43'47.970"W	2.85	
1012.00	5.540	150.310	1011.60	10.33	-10.36	5.45	1715982.88	14543783.43	40°02'47.428"N	104°43'47.952"W	3.22	
1044.00	6.460	148.810	1043.43	13.20	-13.24	7.14	1715984.59	14543780.55	40°02'47.399"N	104°43'47.930"W	2.92	
1076.00	7.250	150.830	1075.20	16.50	-16.55	9.06	1715986.51	14543777.26	40°02'47.366"N	104°43'47.906"W	2.58	
1107.00	8.660	151.540	1105.90	20.24	-20.31	11.13	1715988.59	14543773.50	40°02'47.329"N	104°43'47.879"W	4.56	
1139.00	9.450	153.030	1137.50	24.69	-24.77	13.46	1715990.94	14543769.05	40°02'47.285"N	104°43'47.849"W	2.58	
1171.00	10.110	153.910	1169.04	29.54	-29.63	15.89	1715993.38	14543764.20	40°02'47.237"N	104°43'47.818"W	2.11	
1202.00	10.410	155.670	1199.54	34.52	-34.63	18.24	1715995.75	14543759.21	40°02'47.188"N	104°43'47.787"W	1.40	
1234.00	10.850	156.280	1230.99	39.90	-40.02	20.64	1715998.16	14543753.83	40°02'47.135"N	104°43'47.757"W	1.42	
1266.00	10.990	155.230	1262.41	45.41	-45.55	23.13	1716000.67	14543748.31	40°02'47.080"N	104°43'47.725"W	0.76	
1298.00	11.870	150.480	1293.78	51.03	-51.18	26.03	1716003.58	14543742.69	40°02'47.024"N	104°43'47.687"W	4.02	
1330.00	12.440	150.310	1325.06	56.87	-57.04	29.36	1716006.93	14543736.84	40°02'46.966"N	104°43'47.644"W	1.78	
1361.00	13.100	150.480	1355.29	62.81	-62.99	32.75	1716010.33	14543730.90	40°02'46.907"N	104°43'47.601"W	2.13	
1393.00	13.490	151.270	1386.44	69.22	-69.42	36.33	1716013.93	14543724.48	40°02'46.844"N	104°43'47.555"W	1.34	
1425.00	14.150	152.150	1417.51	75.93	-76.15	39.95	1716017.57	14543717.77	40°02'46.777"N	104°43'47.508"W	2.16	
1456.00	14.410	152.860	1447.55	82.69	-82.94	43.48	1716021.12	14543711.00	40°02'46.710"N	104°43'47.463"W	1.01	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#28 AZUL 13-11HZ (918'FSL & 1384'FWL,SEC.13)
Area	COLORADO	Well	AZUL 13-11HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	AZUL 13-11HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH DATA (183 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
1488.00	15.210	151.710	1478.49	89.91	-90.18	47.29	1716024.95	14543703.77	40°02'46.639"N	104°43'47.414"W	2.66	
1519.00	16.390	151.800	1508.32	97.32	-97.61	51.28	1716028.96	14543696.35	40°02'46.565"N	104°43'47.363"W	3.81	
1551.00	17.310	150.920	1538.94	105.44	-105.75	55.73	1716033.43	14543688.23	40°02'46.485"N	104°43'47.305"W	2.98	
1583.00	18.060	151.630	1569.43	113.94	-114.28	60.40	1716038.13	14543679.72	40°02'46.401"N	104°43'47.245"W	2.44	
1615.00	18.330	151.010	1599.83	122.67	-123.04	65.19	1716042.95	14543670.97	40°02'46.314"N	104°43'47.184"W	1.04	
1646.00	18.720	150.660	1629.22	131.25	-131.64	69.99	1716047.77	14543662.39	40°02'46.229"N	104°43'47.122"W	1.31	
1678.00	19.340	151.010	1659.47	140.33	-140.76	75.08	1716052.88	14543653.30	40°02'46.139"N	104°43'47.057"W	1.97	
1710.00	19.070	153.470	1689.69	149.61	-150.07	79.98	1716057.81	14543644.00	40°02'46.047"N	104°43'46.994"W	2.67	
1742.00	19.160	153.470	1719.93	158.96	-159.44	84.66	1716062.52	14543634.65	40°02'45.954"N	104°43'46.933"W	0.28	
1773.00	19.820	153.910	1749.15	168.21	-168.71	89.24	1716067.13	14543625.39	40°02'45.863"N	104°43'46.874"W	2.18	
1805.00	19.250	154.700	1779.31	177.82	-178.36	93.89	1716071.79	14543615.77	40°02'45.767"N	104°43'46.815"W	1.96	
1829.00	18.940	153.910	1801.99	184.88	-185.43	97.29	1716075.22	14543608.71	40°02'45.698"N	104°43'46.771"W	1.68	LAST SURFACE MWD+IFR1 SURVEY
1889.00	19.610	154.450	1858.63	202.66	-203.26	105.91	1716083.89	14543590.91	40°02'45.521"N	104°43'46.660"W	1.16	FIRST BHGE MWD+IFR1+SC SURVEY
1977.00	19.350	153.170	1941.59	228.92	-229.59	118.86	1716096.92	14543564.63	40°02'45.261"N	104°43'46.494"W	0.57	
2065.00	18.310	151.750	2024.88	254.03	-254.78	131.99	1716110.11	14543539.49	40°02'45.012"N	104°43'46.325"W	1.29	
2152.00	18.270	141.570	2107.51	276.67	-277.51	146.93	1716125.12	14543516.82	40°02'44.788"N	104°43'46.133"W	3.67	
2240.00	17.490	130.860	2191.28	296.03	-296.97	165.51	1716143.75	14543497.42	40°02'44.595"N	104°43'45.894"W	3.83	
2328.00	15.780	124.130	2275.60	311.29	-312.34	185.42	1716163.70	14543482.12	40°02'44.443"N	104°43'45.638"W	2.92	
2416.00	15.160	122.740	2360.41	324.11	-325.27	205.01	1716183.32	14543469.25	40°02'44.316"N	104°43'45.386"W	0.82	
2504.00	14.070	115.230	2445.57	334.79	-336.06	224.36	1716202.70	14543458.53	40°02'44.209"N	104°43'45.137"W	2.48	
2591.00	13.440	113.750	2530.07	343.26	-344.64	243.19	1716221.54	14543450.01	40°02'44.124"N	104°43'44.895"W	0.83	
2679.00	12.460	112.220	2615.84	350.87	-352.35	261.34	1716239.71	14543442.36	40°02'44.048"N	104°43'44.662"W	1.18	
2766.00	10.590	107.550	2701.08	356.74	-358.31	277.65	1716256.03	14543436.45	40°02'43.989"N	104°43'44.452"W	2.40	
2854.00	10.070	104.210	2787.65	360.98	-362.63	292.82	1716271.20	14543432.17	40°02'43.946"N	104°43'44.257"W	0.90	
2941.00	7.400	99.560	2873.64	363.70	-365.43	305.72	1716284.11	14543429.41	40°02'43.919"N	104°43'44.091"W	3.17	
3029.00	6.840	95.790	2960.96	365.11	-366.90	316.52	1716294.91	14543427.97	40°02'43.904"N	104°43'43.952"W	0.83	
3117.00	5.280	98.830	3048.47	366.21	-368.05	325.73	1716304.13	14543426.85	40°02'43.893"N	104°43'43.834"W	1.81	
3204.00	3.940	111.560	3135.18	367.88	-369.76	332.47	1716310.86	14543425.16	40°02'43.876"N	104°43'43.747"W	1.93	
3291.00	2.120	152.260	3222.07	370.39	-372.29	336.00	1716314.40	14543422.65	40°02'43.851"N	104°43'43.702"W	3.12	
3379.00	1.120	67.300	3310.04	371.49	-373.40	337.55	1716315.95	14543421.55	40°02'43.840"N	104°43'43.682"W	2.62	
3466.00	0.810	220.120	3397.04	371.63	-373.54	337.94	1716316.34	14543421.40	40°02'43.839"N	104°43'43.677"W	2.16	
3554.00	0.920	235.290	3485.03	372.51	-374.42	336.96	1716315.36	14543420.52	40°02'43.830"N	104°43'43.689"W	0.29	
3641.00	1.010	223.320	3572.01	373.47	-375.37	335.86	1716314.27	14543419.57	40°02'43.820"N	104°43'43.703"W	0.25	
3728.00	0.920	222.320	3659.00	374.55	-376.45	334.86	1716313.27	14543418.49	40°02'43.810"N	104°43'43.716"W	0.11	
3816.00	0.860	208.200	3746.99	375.66	-377.55	334.07	1716312.49	14543417.38	40°02'43.799"N	104°43'43.726"W	0.26	
3903.00	0.710	192.450	3833.98	376.77	-378.65	333.65	1716312.07	14543416.28	40°02'43.788"N	104°43'43.732"W	0.30	
3990.00	0.720	161.930	3920.98	377.81	-379.70	333.70	1716312.13	14543415.23	40°02'43.778"N	104°43'43.731"W	0.43	
4078.00	0.650	167.750	4008.97	378.82	-380.71	333.98	1716312.41	14543414.22	40°02'43.768"N	104°43'43.728"W	0.11	
4165.00	0.870	164.990	4095.96	379.94	-381.83	334.25	1716312.68	14543413.10	40°02'43.757"N	104°43'43.724"W	0.26	
4253.00	0.690	164.900	4183.95	381.10	-382.99	334.57	1716313.00	14543411.95	40°02'43.745"N	104°43'43.720"W	0.20	
4340.00	0.570	146.750	4270.95	381.96	-383.86	334.94	1716313.38	14543411.08	40°02'43.737"N	104°43'43.715"W	0.27	
4428.00	0.280	151.120	4358.95	382.51	-384.41	335.28	1716313.72	14543410.53	40°02'43.731"N	104°43'43.711"W	0.33	
4515.00	0.240	112.650	4445.95	382.77	-384.67	335.55	1716313.99	14543410.27	40°02'43.729"N	104°43'43.707"W	0.20	
4603.00	1.610	7.080	4533.93	381.61	-383.51	335.88	1716314.31	14543411.43	40°02'43.740"N	104°43'43.703"W	1.92	
4690.00	1.310	26.440	4620.91	379.51	-381.41	336.47	1716314.90	14543413.53	40°02'43.761"N	104°43'43.696"W	0.66	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#28 AZUL 13-11HZ (918'FSL & 1384'FWL,SEC.13)
Area	COLORADO	Well	AZUL 13-11HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	AZUL 13-11HZ AWP
Facility	SEC.13-T1N-R66W		

WELLPATH DATA (183 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
4778.00	1.070	37.790	4708.89	377.95	-379.86	337.42	1716315.84	14543415.09	40°02'43.776"N	104°43'43.683"W	0.38	
4865.00	1.980	311.690	4795.86	376.31	-378.22	336.80	1716315.21	14543416.73	40°02'43.792"N	104°43'43.691"W	2.51	
4953.00	1.830	313.240	4883.82	374.35	-376.24	334.64	1716313.05	14543418.69	40°02'43.812"N	104°43'43.719"W	0.18	
5040.00	1.920	310.900	4970.77	372.46	-374.34	332.52	1716310.93	14543420.59	40°02'43.831"N	104°43'43.746"W	0.14	
5128.00	1.810	319.200	5058.72	370.45	-372.32	330.50	1716308.90	14543422.60	40°02'43.851"N	104°43'43.772"W	0.33	
5215.00	1.820	323.230	5145.68	368.31	-370.17	328.78	1716307.17	14543424.74	40°02'43.872"N	104°43'43.795"W	0.15	
5303.00	1.550	334.700	5233.64	366.13	-367.98	327.43	1716305.82	14543426.93	40°02'43.894"N	104°43'43.812"W	0.49	
5390.00	1.410	349.540	5320.61	364.01	-365.86	326.74	1716305.12	14543429.05	40°02'43.914"N	104°43'43.821"W	0.47	
5478.00	1.210	0.270	5408.59	362.02	-363.87	326.54	1716304.92	14543431.04	40°02'43.934"N	104°43'43.823"W	0.36	
5565.00	0.440	154.170	5495.58	361.40	-363.25	326.69	1716305.07	14543431.66	40°02'43.940"N	104°43'43.821"W	1.86	
5652.00	0.460	133.270	5582.58	361.94	-363.79	327.09	1716305.47	14543431.12	40°02'43.935"N	104°43'43.816"W	0.19	
5740.00	0.390	44.570	5670.58	361.97	-363.82	327.56	1716305.94	14543431.09	40°02'43.935"N	104°43'43.810"W	0.68	
5827.00	0.520	55.030	5757.58	361.53	-363.38	328.09	1716306.47	14543431.53	40°02'43.939"N	104°43'43.803"W	0.18	
5914.00	1.170	225.730	5844.57	361.92	-363.77	327.78	1716306.16	14543431.13	40°02'43.935"N	104°43'43.807"W	1.94	
6002.00	0.720	209.460	5932.56	363.03	-364.88	326.86	1716305.24	14543430.02	40°02'43.924"N	104°43'43.819"W	0.59	
6090.00	1.630	218.220	6020.54	364.51	-366.35	325.82	1716304.20	14543428.56	40°02'43.910"N	104°43'43.833"W	1.05	
6177.00	1.110	198.350	6107.52	366.28	-368.12	324.79	1716303.18	14543426.78	40°02'43.892"N	104°43'43.846"W	0.80	
6265.00	1.050	189.180	6195.50	367.89	-369.72	324.39	1716302.79	14543425.18	40°02'43.876"N	104°43'43.851"W	0.21	
6352.00	1.050	205.550	6282.49	369.40	-371.23	323.92	1716302.32	14543423.67	40°02'43.861"N	104°43'43.857"W	0.34	
6440.00	0.480	173.950	6370.48	370.49	-372.32	323.61	1716302.01	14543422.57	40°02'43.851"N	104°43'43.861"W	0.78	
6486.00†	2.790	170.591	6416.46	371.79	-373.62	323.81	1716302.22	14543421.28	40°02'43.838"N	104°43'43.858"W	5.02	KOP
6528.00	4.900	170.290	6458.36	374.56	-376.40	324.28	1716302.70	14543418.50	40°02'43.810"N	104°43'43.852"W	5.02	
6615.00	14.250	188.050	6544.07	388.87	-390.70	323.41	1716301.87	14543404.21	40°02'43.669"N	104°43'43.864"W	11.15	
6703.00	19.060	196.560	6628.36	413.41	-415.21	317.79	1716296.33	14543379.69	40°02'43.427"N	104°43'43.936"W	6.11	
6790.00	23.210	189.670	6709.51	443.99	-445.75	310.86	1716289.49	14543349.14	40°02'43.125"N	104°43'44.025"W	5.55	
6877.00	29.060	184.120	6787.59	482.02	-483.76	306.46	1716285.21	14543311.13	40°02'42.749"N	104°43'44.082"W	7.28	
6964.00	33.610	180.410	6861.89	527.21	-528.94	304.77	1716283.65	14543265.97	40°02'42.303"N	104°43'44.103"W	5.68	
7052.00	37.360	179.060	6933.53	578.28	-580.01	305.03	1716284.07	14543214.92	40°02'41.798"N	104°43'44.100"W	4.35	
7140.00	41.730	177.750	7001.37	634.26	-636.00	306.62	1716285.83	14543158.95	40°02'41.245"N	104°43'44.079"W	5.06	
7227.00	44.940	177.710	7064.65	693.90	-695.65	308.98	1716288.37	14543099.33	40°02'40.655"N	104°43'44.049"W	3.69	
7315.00	51.650	181.800	7123.17	759.53	-761.28	309.14	1716288.73	14543033.73	40°02'40.007"N	104°43'44.047"W	8.37	
7402.00	55.580	182.640	7174.77	829.52	-831.26	306.42	1716286.22	14542963.77	40°02'39.315"N	104°43'44.082"W	4.58	
7490.00	62.490	178.450	7220.04	904.90	-906.64	305.80	1716285.83	14542888.42	40°02'38.570"N	104°43'44.090"W	8.85	
7578.00	69.220	175.840	7256.02	985.02	-986.78	309.84	1716290.12	14542808.32	40°02'37.778"N	104°43'44.038"W	8.11	
7583.00†	69.594	175.897	7257.78	989.69	-991.45	310.18	1716290.47	14542803.65	40°02'37.732"N	104°43'44.034"W	7.55	ENTER LANDBOX (73°FNL & 1693'FWL,SEC.24) 40.0438145 -104.7288983
7665.00	75.730	176.790	7282.20	1067.74	-1069.53	315.16	1716295.68	14542725.62	40°02'36.961"N	104°43'43.970"W	7.55	
7753.00	81.070	181.290	7299.90	1153.86	-1155.67	316.57	1716297.35	14542639.53	40°02'36.109"N	104°43'43.952"W	7.87	
7772.00†	83.167	182.549	7302.50	1172.67	-1174.47	315.94	1716296.78	14542620.72	40°02'35.924"N	104°43'43.960"W	12.84	EXIT RADIUS HEEL (256°FNL & 1699'FWL,SEC.24) 40.0433121 -104.7288777
7797.00	85.930	184.190	7304.88	1197.52	-1199.31	314.48	1716295.39	14542595.89	40°02'35.678"N	104°43'43.979"W	12.84	LANDING (281°FNL & 1698'FWL,SEC.24) 40.0432439 -104.7288829
7841.00	87.290	184.450	7307.48	1241.34	-1243.11	311.17	1716292.22	14542552.10	40°02'35.245"N	104°43'44.021"W	3.15	
7928.00	90.890	182.830	7308.86	1328.16	-1329.91	305.65	1716286.96	14542465.32	40°02'34.388"N	104°43'44.092"W	4.54	
8015.00	91.050	180.000	7307.39	1415.13	-1416.86	303.50	1716285.08	14542378.40	40°02'33.528"N	104°43'44.120"W	3.26	
8103.00	88.710	179.120	7307.57	1503.11	-1504.85	304.18	1716286.02	14542290.44	40°02'32.659"N	104°43'44.111"W	2.84	
8190.00	88.890	179.320	7309.40	1590.08	-1591.82	305.36	1716287.47	14542203.51	40°02'31.799"N	104°43'44.096"W	0.31	
8278.00	90.090	179.730	7310.18	1678.06	-1679.81	306.09	1716288.46	14542115.55	40°02'30.930"N	104°43'44.086"W	1.44	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#28 AZUL 13-11HZ (918'FSL & 1384'FWL,SEC.13)
Area	COLORADO	Well	AZUL 13-11HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	AZUL 13-11HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH DATA (183 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
8366.00	88.090	178.100	7311.58	1766.02	-1767.78	307.75	1716290.40	14542027.63	40°02'30.060"N	104°43'44.065"W	2.93	
8453.00	88.210	177.490	7314.38	1852.89	-1854.67	311.10	1716294.00	14541940.78	40°02'29.202"N	104°43'44.022"W	0.71	
8540.00	88.650	177.550	7316.77	1939.75	-1941.56	314.86	1716298.03	14541853.94	40°02'28.343"N	104°43'43.974"W	0.51	
8628.00	87.750	177.950	7319.53	2027.62	-2029.44	318.32	1716301.75	14541766.10	40°02'27.475"N	104°43'43.929"W	1.12	
8715.00	87.660	179.890	7323.02	2114.52	-2116.35	319.95	1716303.65	14541679.23	40°02'26.616"N	104°43'43.908"W	2.23	
8803.00	89.600	179.230	7325.12	2202.48	-2204.32	320.63	1716304.59	14541591.30	40°02'25.746"N	104°43'43.900"W	2.33	
8890.00	89.600	179.620	7325.73	2289.47	-2291.32	321.50	1716305.73	14541504.35	40°02'24.887"N	104°43'43.888"W	0.45	
8978.00	89.510	179.610	7326.41	2377.46	-2379.31	322.10	1716306.58	14541416.39	40°02'24.017"N	104°43'43.881"W	0.10	
9065.00	89.080	179.130	7327.48	2464.44	-2466.30	323.05	1716307.80	14541329.44	40°02'23.157"N	104°43'43.868"W	0.74	
9153.00	89.510	180.460	7328.56	2552.43	-2554.29	323.37	1716308.38	14541241.48	40°02'22.288"N	104°43'43.864"W	1.59	
9240.00	89.450	180.790	7329.35	2639.42	-2641.28	322.42	1716307.70	14541154.52	40°02'21.428"N	104°43'43.877"W	0.39	
9328.00	90.920	180.120	7329.07	2727.42	-2729.27	321.72	1716307.27	14541066.56	40°02'20.559"N	104°43'43.886"W	1.84	
9415.00	91.290	179.450	7327.39	2814.40	-2816.26	322.04	1716307.86	14540979.62	40°02'19.699"N	104°43'43.881"W	0.88	
9503.00	90.620	180.270	7325.93	2902.38	-2904.24	322.26	1716308.34	14540891.67	40°02'18.830"N	104°43'43.879"W	1.20	
9590.00	90.460	179.920	7325.11	2989.38	-2991.24	322.12	1716308.46	14540804.70	40°02'17.970"N	104°43'43.881"W	0.44	
9677.00	90.180	179.390	7324.62	3076.37	-3078.24	322.64	1716309.25	14540717.74	40°02'17.110"N	104°43'43.874"W	0.69	
9764.00	90.340	178.920	7324.23	3163.35	-3165.22	323.92	1716310.79	14540630.79	40°02'16.250"N	104°43'43.857"W	0.57	
9851.00	90.710	180.820	7323.43	3250.34	-3252.22	324.12	1716311.25	14540543.84	40°02'15.391"N	104°43'43.855"W	2.22	
9939.00	90.030	181.380	7322.86	3338.33	-3340.20	322.43	1716309.83	14540455.89	40°02'14.521"N	104°43'43.877"W	1.00	
10027.00	88.890	182.120	7323.69	3426.29	-3428.15	319.74	1716307.41	14540367.96	40°02'13.652"N	104°43'43.911"W	1.54	
10115.00	89.140	181.710	7325.20	3514.25	-3516.09	316.80	1716304.74	14540280.05	40°02'12.783"N	104°43'43.949"W	0.55	
10202.00	89.200	181.360	7326.46	3601.22	-3603.05	314.47	1716302.67	14540193.12	40°02'11.924"N	104°43'43.979"W	0.41	
10290.00	89.080	181.220	7327.78	3689.20	-3691.02	312.49	1716300.96	14540105.18	40°02'11.054"N	104°43'44.004"W	0.21	
10378.00	89.720	180.430	7328.70	3777.19	-3779.00	311.23	1716299.96	14540017.22	40°02'10.185"N	104°43'44.021"W	1.16	
10465.00	89.780	180.470	7329.08	3864.18	-3866.00	310.54	1716299.54	14539930.26	40°02'09.325"N	104°43'44.030"W	0.08	
10553.00	90.430	180.480	7328.92	3952.18	-3953.99	309.81	1716299.08	14539842.30	40°02'08.456"N	104°43'44.039"W	0.74	
10640.00	88.180	178.090	7329.98	4039.15	-4040.97	310.90	1716300.43	14539755.36	40°02'07.596"N	104°43'44.025"W	3.77	
10727.00	88.250	178.230	7332.69	4126.05	-4127.88	313.69	1716303.48	14539668.49	40°02'06.737"N	104°43'43.989"W	0.18	
10816.00	88.060	179.110	7335.55	4214.96	-4216.81	315.75	1716305.81	14539579.60	40°02'05.858"N	104°43'43.963"W	1.01	
10903.00	88.460	178.290	7338.20	4301.89	-4303.75	317.73	1716308.05	14539492.71	40°02'04.999"N	104°43'43.937"W	1.05	
10991.00	89.320	181.450	7339.90	4389.86	-4391.72	317.93	1716308.52	14539404.77	40°02'04.130"N	104°43'43.935"W	3.72	
11078.00	91.050	182.740	7339.62	4476.81	-4478.65	314.75	1716305.60	14539317.86	40°02'03.271"N	104°43'43.976"W	2.48	
11166.00	89.910	181.700	7338.88	4564.75	-4566.58	311.34	1716302.46	14539229.96	40°02'02.402"N	104°43'44.019"W	1.75	
11197.00†	90.063	181.308	7338.89	4595.75	-4597.57	310.52	1716301.74	14539198.98	40°02'02.096"N	104°43'44.030"W	1.36	ENTER RADIUS TOE (1595'FSL & 1698'FWL,SEC.24) 40.0339154 -104.7288972
11253.00	90.340	180.600	7338.69	4651.74	-4653.56	309.59	1716300.98	14539143.01	40°02'01.542"N	104°43'44.042"W	1.36	
11341.00	88.490	180.460	7339.59	4739.73	-4741.55	308.78	1716300.43	14539055.05	40°02'00.673"N	104°43'44.052"W	2.11	
11428.00	88.920	180.260	7341.56	4826.71	-4828.53	308.23	1716300.15	14538968.11	40°01'59.813"N	104°43'44.059"W	0.55	
11516.00	89.510	179.800	7342.76	4914.70	-4916.52	308.18	1716300.37	14538880.15	40°01'58.944"N	104°43'44.060"W	0.85	
11603.00	87.720	179.810	7344.87	5001.67	-5003.49	308.48	1716300.93	14538793.22	40°01'58.084"N	104°43'44.056"W	2.06	
11691.00	87.810	179.830	7348.30	5089.60	-5091.42	308.76	1716301.47	14538705.32	40°01'57.215"N	104°43'44.053"W	0.10	
11778.00	87.750	179.830	7351.67	5176.53	-5178.36	309.02	1716301.99	14538618.42	40°01'56.356"N	104°43'44.049"W	0.07	
11866.00	87.810	179.620	7355.08	5264.46	-5266.29	309.44	1716302.68	14538530.53	40°01'55.487"N	104°43'44.044"W	0.25	
11953.00	88.400	179.590	7357.95	5351.41	-5353.24	310.04	1716303.54	14538443.61	40°01'54.628"N	104°43'44.036"W	0.68	
12041.00	88.190	179.460	7360.57	5439.36	-5441.20	310.77	1716304.54	14538355.69	40°01'53.759"N	104°43'44.027"W	0.28	
12128.00	88.830	179.830	7362.83	5526.32	-5528.16	311.30	1716305.34	14538268.76	40°01'52.899"N	104°43'44.020"W	0.85	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#28 AZUL 13-11HZ (918'FSL & 1384'FWL,SEC.13)
Area	COLORADO	Well	AZUL 13-11HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	AZUL 13-11HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH DATA (183 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
12216.00	89.630	179.210	7364.02	5614.30	-5616.15	312.04	1716306.34	14538180.81	40°01'52.030"N	104°43'44.011"W	1.15	
12266.00	89.540	179.360	7364.38	5664.29	-5666.15	312.67	1716307.12	14538130.84	40°01'51.536"N	104°43'44.003"W	0.35	LAST BHGE MWD+IFR1+SC SURVEY
12310.00	89.540	179.360	7364.73	5708.29	-5710.14	313.16	1716307.74	14538086.86	40°01'51.101"N	104°43'43.996"W	0.00	PTB (483'FSL & 1701'FWL,SEC.24) 40.0308614 -104.7288878

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.13-T1N-R66W	0.00	2.13	-225.07	1715752.42	14543795.21	40°02'47.551"N	104°43'50.916"W	polygon
SEC.24-T1N-R66W	0.00	2.13	-225.07	1715752.42	14543795.21	40°02'47.551"N	104°43'50.916"W	polygon
AZUL 13-11HZ HEEL REV-1(350'FNL & 1709'FWL,SEC.24)	7288.00	-1265.22	321.74	1716302.85	14542530.03	40°02'35.027"N	104°43'43.885"W	point
AZUL 13-11HZ HEEL REV-2(300'FNL & 1709'FWL,SEC.24)	7288.00	-1215.22	321.74	1716302.70	14542580.01	40°02'35.521"N	104°43'43.885"W	point
AZUL 13-11HZ BHL REV-1(468'FSL & 1684'FWL,SEC.24)	7365.00	-5724.85	296.31	1716290.95	14538072.11	40°01'50.956"N	104°43'44.213"W	point
AZUL 13-11HZ LANDBOX	7365.00	0.00	0.00	1715977.41	14543793.77	40°02'47.530"N	104°43'48.022"W	polygon
AZUL 13-11HZ RADIUS 1	7365.00	-900.77	-53.96	1715926.20	14542893.20	40°02'38.628"N	104°43'48.716"W	polygon
AZUL 13-11HZ RADIUS 2	7365.00	-4871.64	-60.09	1715932.10	14538923.90	40°01'59.387"N	104°43'48.795"W	polygon

WELLPATH COMPOSITION - Ref Wellbore: AZUL 13-11HZ AWB					Ref Wellpath: AZUL 13-11HZ AWP		
Start MD [ft]	End MD [ft]	Positional Uncertainty Model			Log Name/Comment		Wellbore
17.00	1829.00	Custom APC ISCWSA REV 2 MWD+IFR1 (approximation)			Custom APC ISCWSA Rev-2 MWD+IFR1 <125 - 1829>		AZUL 13-11HZ AWB
1829.00	12266.00	Custom APC ISCWSA REV 2 MWD+IFR1+SC (approximation)			BHGE Custom APC ISCWSA Rev-2 MWD+IFR1+SC <1889 - 12266>		AZUL 13-11HZ AWB
12266.00	12310.00	Blind Drilling (std)			Projection to bit		AZUL 13-11HZ AWB

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#28 AZUL 13-11HZ (918'FSL & 1384'FWL,SEC.13)
Area	COLORADO	Well	AZUL 13-11HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	AZUL 13-11HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
125.00	0.090	310.530	125.00	FIRST SURFACE MWD+IFR1 SURVEY
1829.00	18.940	153.910	1801.99	LAST SURFACE MWD+IFR1 SURVEY
1889.00	19.610	154.450	1858.63	FIRST BHGE MWD+IFR1+SC SURVEY
6486.00	2.790	170.591	6416.46	KOP
7583.00	69.594	175.897	7257.78	ENTER LANDBOX (73'FNL & 1693'FWL,SEC.24) 40.0438145 -104.7288983
7772.00	83.167	182.549	7302.50	EXIT RADIUS HEEL (256'FNL & 1699'FWL,SEC.24) 40.0433121 -104.7288777
7797.00	85.930	184.190	7304.88	LANDING (281'FNL & 1698'FWL,SEC.24) 40.0432439 -104.7288829
11197.00	90.063	181.308	7338.89	ENTER RADIUS TOE (1595'FSL & 1698'FWL,SEC.24) 40.0339154 -104.7288972
12266.00	89.540	179.360	7364.38	LAST BHGE MWD+IFR1+SC SURVEY
12310.00	89.540	179.360	7364.73	PTB (483'FSL & 1701'FWL,SEC.24) 40.0308614 -104.7288878