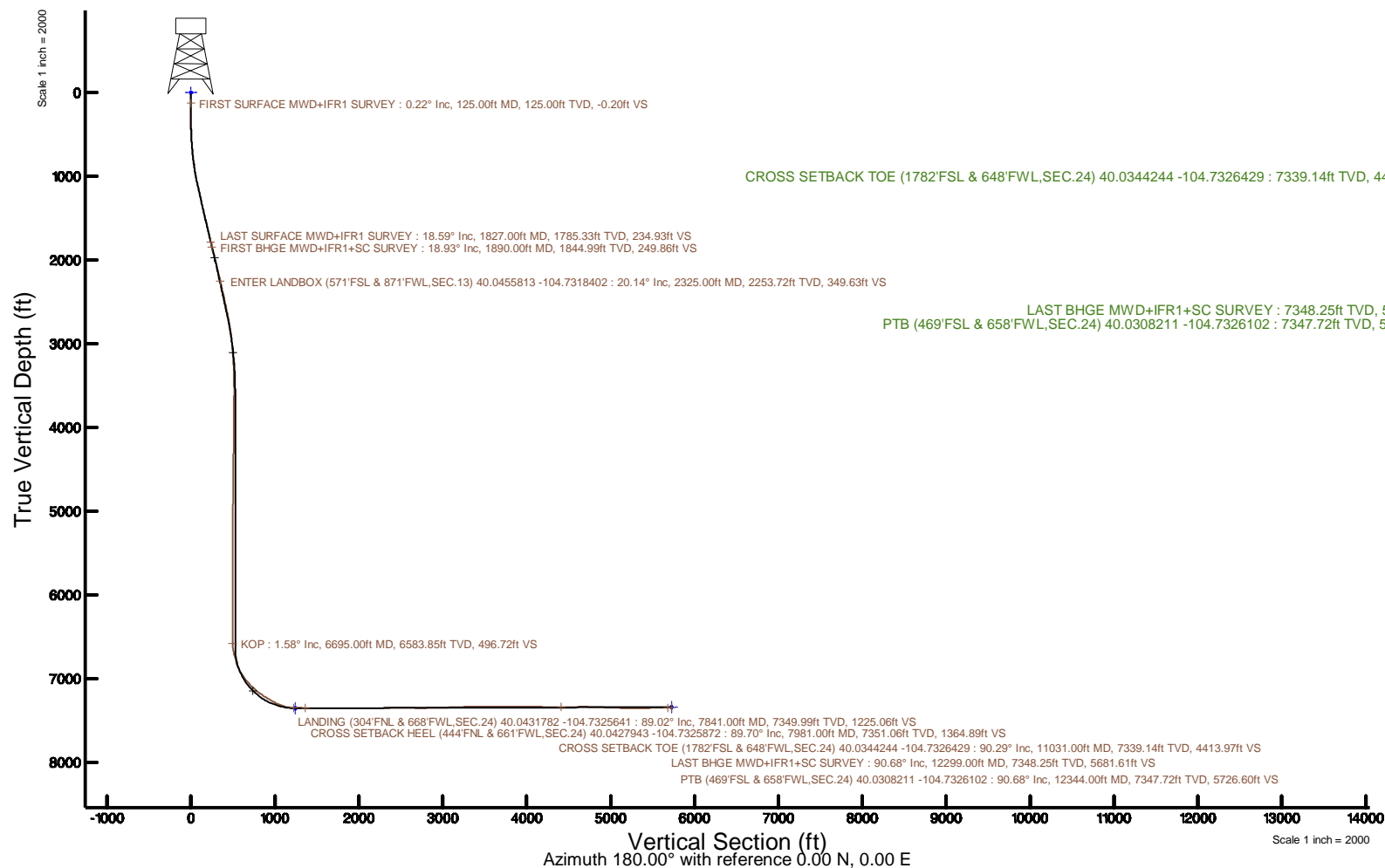


Location: COLORADO	Slot: SLOT#20 AZUL 13-3HZ (921'FSL & 1204'FWL,SEC.13)
Field: WELD COUNTY (UTM/TRUE NORTH)Well:	AZUL 13-3HZ
Facility: SEC.13-T1N-R66W	Wellbore: AZUL 13-3HZ PWB
Plot reference wellpath is AZUL 13-3HZ PWP Rev-A.0	Grid System: NAD83 / UTM Zone 13 North, US feet
True vertical depths are referenced to Xreme 22 (17) (RT)	* = Wellpath was transformed from a different geoidic 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#20 AZUL 13-3HZ (921'FSL & 1204'FWL,SEC.13)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: painstmr on 2018-04-13
	Database: WA_DEN Anadarko_Dein



# Actual Wellpath Report

AZUL 13-3HZ AWP

Page 1 of 7

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#20 AZUL 13-3HZ (921'FSL & 1204'FWL,SEC.13)
Area	COLORADO	Well	AZUL 13-3HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	AZUL 13-3HZ 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	4/13/2018 at 9:09 AM
Convergence at slot	0.18° East	Database/Source file	WA_DEN_Anadarko_Defn/AZUL_13-3HZ_AWP.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-4157.50	-1686.22	1715797.51	14543795.05	40°02'47.548"N	104°43'50.336"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#20 AZUL 13-3HZ (921'FSL & 1204'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	180.00°

# Actual Wellpath Report

AZUL 13-3HZ AWP

Page 2 of 7

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#20 AZUL 13-3HZ (921'FSL & 1204'FWL,SEC.13)
Area	COLORADO	Well	AZUL 13-3HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	AZUL 13-3HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH DATA (182 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	19.090	0.00	0.00	0.00	0.00	1715797.51	14543795.05	40°02'47.548"N	104°43'50.336"W	0.00	
17.00	0.000	19.090	17.00	0.00	0.00	0.00	1715797.51	14543795.05	40°02'47.548"N	104°43'50.336"W	0.00	
125.00	0.220	19.090	125.00	-0.20	0.20	0.07	1715797.58	14543795.24	40°02'47.550"N	104°43'50.335"W	0.20	FIRST SURFACE MWD+IFR1 SURVEY
157.00	0.440	11.620	157.00	-0.37	0.37	0.11	1715797.62	14543795.42	40°02'47.552"N	104°43'50.335"W	0.70	
188.00	0.350	204.010	188.00	-0.40	0.40	0.10	1715797.61	14543795.45	40°02'47.552"N	104°43'50.335"W	2.53	
220.00	0.350	119.550	220.00	-0.27	0.27	0.14	1715797.65	14543795.31	40°02'47.551"N	104°43'50.334"W	1.47	
251.00	0.090	357.990	251.00	-0.24	0.24	0.22	1715797.74	14543795.29	40°02'47.550"N	104°43'50.333"W	1.30	
283.00	0.440	42.200	283.00	-0.36	0.36	0.31	1715797.82	14543795.41	40°02'47.552"N	104°43'50.332"W	1.19	
314.00	0.220	332.420	314.00	-0.50	0.50	0.36	1715797.87	14543795.55	40°02'47.553"N	104°43'50.331"W	1.35	
346.00	0.130	119.900	346.00	-0.54	0.54	0.36	1715797.87	14543795.58	40°02'47.553"N	104°43'50.331"W	1.05	
377.00	0.880	225.370	377.00	-0.35	0.35	0.22	1715797.73	14543795.40	40°02'47.551"N	104°43'50.333"W	2.98	
409.00	1.760	223.430	408.99	0.18	-0.18	-0.29	1715797.22	14543794.87	40°02'47.546"N	104°43'50.340"W	2.75	
441.00	2.240	231.960	440.97	0.92	-0.92	-1.12	1715796.40	14543794.12	40°02'47.539"N	104°43'50.350"W	1.76	
472.00	2.370	233.980	471.94	1.67	-1.67	-2.12	1715795.40	14543793.37	40°02'47.532"N	104°43'50.363"W	0.49	
504.00	2.680	222.730	503.91	2.61	-2.61	-3.16	1715794.36	14543792.43	40°02'47.522"N	104°43'50.377"W	1.82	
535.00	3.690	218.690	534.86	3.92	-3.92	-4.27	1715793.25	14543791.12	40°02'47.509"N	104°43'50.391"W	3.34	
537.00	4.440	220.270	536.86	4.03	-4.03	-4.36	1715793.16	14543791.01	40°02'47.508"N	104°43'50.392"W	37.91	
599.00	5.230	215.960	598.64	8.15	-8.15	-7.57	1715789.97	14543786.88	40°02'47.467"N	104°43'50.433"W	1.40	
631.00	5.710	215.350	630.49	10.62	-10.63	-9.35	1715788.20	14543784.40	40°02'47.443"N	104°43'50.456"W	1.51	
663.00	5.800	215.790	662.33	13.23	-13.24	-11.22	1715786.34	14543781.78	40°02'47.417"N	104°43'50.480"W	0.31	
695.00	6.500	218.860	694.15	15.96	-15.96	-13.30	1715784.26	14543779.05	40°02'47.390"N	104°43'50.507"W	2.42	
726.00	7.340	217.100	724.92	18.90	-18.90	-15.60	1715781.98	14543776.10	40°02'47.361"N	104°43'50.537"W	2.79	
758.00	8.090	220.800	756.63	22.24	-22.24	-18.30	1715779.29	14543772.76	40°02'47.328"N	104°43'50.571"W	2.81	
790.00	8.790	218.510	788.28	25.85	-25.86	-21.29	1715776.30	14543769.14	40°02'47.292"N	104°43'50.610"W	2.43	
822.00	9.360	219.740	819.88	29.77	-29.77	-24.48	1715773.13	14543765.21	40°02'47.254"N	104°43'50.651"W	1.88	
854.00	10.060	221.500	851.42	33.86	-33.86	-28.00	1715769.63	14543761.11	40°02'47.213"N	104°43'50.696"W	2.38	
885.00	10.200	222.730	881.94	37.91	-37.91	-31.65	1715765.99	14543757.06	40°02'47.173"N	104°43'50.743"W	0.83	
917.00	11.510	222.550	913.37	42.34	-42.34	-35.73	1715761.92	14543752.61	40°02'47.130"N	104°43'50.795"W	4.10	
949.00	12.880	222.110	944.65	47.34	-47.34	-40.28	1715757.39	14543747.60	40°02'47.080"N	104°43'50.854"W	4.29	
980.00	13.890	224.400	974.80	52.56	-52.56	-45.21	1715752.48	14543742.37	40°02'47.029"N	104°43'50.917"W	3.68	
1012.00	14.550	222.820	1005.82	58.25	-58.25	-50.62	1715747.08	14543736.66	40°02'46.972"N	104°43'50.987"W	2.39	
1044.00	15.560	223.780	1036.72	64.30	-64.30	-56.33	1715741.40	14543730.60	40°02'46.913"N	104°43'51.060"W	3.25	
1076.00	16.260	223.170	1067.50	70.67	-70.67	-62.36	1715735.39	14543724.22	40°02'46.850"N	104°43'51.138"W	2.25	
1107.00	17.090	222.820	1097.19	77.17	-77.17	-68.43	1715729.35	14543717.70	40°02'46.785"N	104°43'51.216"W	2.70	
1139.00	17.710	222.110	1127.73	84.23	-84.23	-74.89	1715722.91	14543710.62	40°02'46.716"N	104°43'51.299"W	2.05	
1171.00	16.920	222.990	1158.28	91.25	-91.25	-81.33	1715716.50	14543703.59	40°02'46.646"N	104°43'51.382"W	2.60	
1202.00	16.570	221.670	1187.96	97.85	-97.85	-87.34	1715710.50	14543696.97	40°02'46.581"N	104°43'51.459"W	1.67	
1234.00	16.830	220.800	1218.62	104.76	-104.77	-93.40	1715704.47	14543690.04	40°02'46.513"N	104°43'51.537"W	1.13	
1266.00	17.490	221.230	1249.19	111.89	-111.89	-99.60	1715698.29	14543682.90	40°02'46.442"N	104°43'51.617"W	2.10	
1298.00	16.790	222.730	1279.77	118.90	-118.90	-105.90	1715692.01	14543675.87	40°02'46.373"N	104°43'51.698"W	2.59	
1330.00	16.300	222.640	1310.44	125.60	-125.60	-112.08	1715685.86	14543669.16	40°02'46.307"N	104°43'51.777"W	1.53	
1361.00	16.660	221.410	1340.17	132.13	-132.13	-117.97	1715679.99	14543662.61	40°02'46.242"N	104°43'51.853"W	1.62	
1393.00	17.050	221.940	1370.80	139.06	-139.06	-124.14	1715673.85	14543655.66	40°02'46.174"N	104°43'51.932"W	1.31	
1425.00	17.360	222.900	1401.36	146.05	-146.05	-130.52	1715667.48	14543648.66	40°02'46.105"N	104°43'52.014"W	1.31	
1456.00	17.580	222.380	1430.93	152.89	-152.90	-136.83	1715661.20	14543641.80	40°02'46.037"N	104°43'52.095"W	0.87	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#20 AZUL 13-3HZ (921'FSL & 1204'FWL,SEC.13)
Area	COLORADO	Well	AZUL 13-3HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	AZUL 13-3HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH DATA (182 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
1488.00	17.840	222.820	1461.42	160.06	-160.06	-143.41	1715654.64	14543634.61	40°02'45.966"N	104°43'52.180"W	0.91	
1519.00	17.010	222.200	1490.99	166.90	-166.90	-149.69	1715648.39	14543627.75	40°02'45.899"N	104°43'52.261"W	2.74	
1551.00	16.700	220.440	1521.62	173.87	-173.87	-155.81	1715642.29	14543620.77	40°02'45.830"N	104°43'52.340"W	1.87	
1583.00	16.660	220.180	1552.27	180.87	-180.88	-161.76	1715636.37	14543613.75	40°02'45.761"N	104°43'52.416"W	0.26	
1615.00	16.790	222.820	1582.92	187.76	-187.77	-167.86	1715630.29	14543606.84	40°02'45.692"N	104°43'52.494"W	2.41	
1646.00	16.440	221.940	1612.63	194.31	-194.32	-173.83	1715624.34	14543600.28	40°02'45.628"N	104°43'52.571"W	1.39	
1678.00	16.880	222.380	1643.28	201.11	-201.12	-179.99	1715618.20	14543593.46	40°02'45.561"N	104°43'52.650"W	1.43	
1710.00	17.180	222.290	1673.88	208.04	-208.05	-186.30	1715611.91	14543586.52	40°02'45.492"N	104°43'52.732"W	0.94	
1742.00	17.090	219.650	1704.46	215.16	-215.16	-192.48	1715605.76	14543579.39	40°02'45.422"N	104°43'52.811"W	2.45	
1773.00	17.800	220.090	1734.03	222.29	-222.29	-198.44	1715599.82	14543572.24	40°02'45.351"N	104°43'52.888"W	2.33	
1805.00	18.280	221.940	1764.46	229.76	-229.77	-204.95	1715593.34	14543564.75	40°02'45.277"N	104°43'52.971"W	2.34	
1827.00	18.590	222.030	1785.33	234.93	-234.94	-209.60	1715588.71	14543559.57	40°02'45.226"N	104°43'53.031"W	1.42	LAST SURFACE MWD+IFR1 SURVEY
1890.00	18.930	223.050	1844.99	249.86	-249.87	-223.30	1715575.06	14543544.60	40°02'45.079"N	104°43'53.207"W	0.75	FIRST BHGE MWD+IFR1+SC SURVEY
1977.00	20.030	225.800	1927.01	270.56	-270.57	-243.61	1715554.81	14543523.85	40°02'44.874"N	104°43'53.468"W	1.65	
2065.00	19.710	225.420	2009.77	291.48	-291.49	-264.99	1715533.51	14543502.87	40°02'44.667"N	104°43'53.743"W	0.39	
2153.00	20.080	231.140	2092.52	311.38	-311.39	-287.32	1715511.25	14543482.91	40°02'44.471"N	104°43'54.030"W	2.25	
2241.00	20.720	230.390	2175.00	330.78	-330.79	-311.08	1715487.56	14543463.45	40°02'44.279"N	104°43'54.336"W	0.79	
2325.00†	20.141	229.580	2253.72	349.63	-349.64	-333.54	1715465.17	14543444.54	40°02'44.093"N	104°43'54.625"W	0.77	ENTER LANDBOX (571'FSL & 871'FWL,SEC.13) 40.0455813 -104.7318402
2328.00	20.120	229.550	2256.54	350.30	-350.31	-334.32	1715464.38	14543443.86	40°02'44.086"N	104°43'54.635"W	0.77	
2416.00	20.770	234.290	2339.00	369.23	-369.24	-358.51	1715440.26	14543424.87	40°02'43.899"N	104°43'54.946"W	2.02	
2504.00	19.620	233.090	2421.59	387.21	-387.22	-383.00	1715415.84	14543406.82	40°02'43.721"N	104°43'55.261"W	1.39	
2591.00	20.140	234.040	2503.40	404.77	-404.79	-406.80	1715392.10	14543389.19	40°02'43.548"N	104°43'55.567"W	0.70	
2679.00	18.760	231.980	2586.38	422.39	-422.40	-430.21	1715368.75	14543371.51	40°02'43.374"N	104°43'55.868"W	1.75	
2766.00	18.240	231.670	2668.88	439.45	-439.46	-451.91	1715347.11	14543354.39	40°02'43.205"N	104°43'56.147"W	0.61	
2854.00	16.140	235.680	2752.95	454.88	-454.90	-472.82	1715326.26	14543338.90	40°02'43.053"N	104°43'56.416"W	2.74	
2942.00	14.610	233.100	2837.80	468.45	-468.46	-491.80	1715307.33	14543325.28	40°02'42.918"N	104°43'56.660"W	1.90	
3029.00	12.210	236.810	2922.42	480.07	-480.09	-508.28	1715290.89	14543313.61	40°02'42.804"N	104°43'56.871"W	2.93	
3117.00	10.420	238.020	3008.71	489.38	-489.40	-522.82	1715276.39	14543304.26	40°02'42.712"N	104°43'57.058"W	2.05	
3204.00	8.040	234.790	3094.58	497.06	-497.07	-534.46	1715264.77	14543296.55	40°02'42.636"N	104°43'57.208"W	2.80	
3292.00	6.490	240.350	3181.87	503.06	-503.08	-543.81	1715255.44	14543290.52	40°02'42.576"N	104°43'57.328"W	1.93	
3379.00	4.480	246.060	3268.47	506.88	-506.89	-551.19	1715248.07	14543286.69	40°02'42.539"N	104°43'57.423"W	2.39	
3466.00	3.250	219.630	3355.27	510.15	-510.17	-555.87	1715243.41	14543283.40	40°02'42.506"N	104°43'57.483"W	2.45	
3554.00	0.640	199.180	3443.22	512.54	-512.56	-557.62	1715241.66	14543281.01	40°02'42.483"N	104°43'57.506"W	3.02	
3641.00	0.750	208.870	3530.21	513.50	-513.52	-558.06	1715241.23	14543280.05	40°02'42.473"N	104°43'57.512"W	0.18	
3729.00	1.240	53.020	3618.20	513.43	-513.45	-557.58	1715241.71	14543280.12	40°02'42.474"N	104°43'57.505"W	2.21	
3816.00	0.680	38.600	3705.19	512.46	-512.48	-556.50	1715242.78	14543281.09	40°02'42.484"N	104°43'57.492"W	0.70	
3903.00	0.510	22.110	3792.19	511.70	-511.72	-556.03	1715243.25	14543281.85	40°02'42.491"N	104°43'57.486"W	0.28	
3991.00	0.470	27.140	3880.18	511.01	-511.03	-555.72	1715243.56	14543282.54	40°02'42.498"N	104°43'57.482"W	0.07	
4078.00	0.620	34.090	3967.18	510.31	-510.32	-555.29	1715243.98	14543283.25	40°02'42.505"N	104°43'57.476"W	0.19	
4166.00	0.930	46.190	4055.17	509.42	-509.44	-554.51	1715244.76	14543284.14	40°02'42.514"N	104°43'57.466"W	0.40	
4253.00	0.960	43.410	4142.16	508.40	-508.42	-553.50	1715245.77	14543285.16	40°02'42.524"N	104°43'57.453"W	0.06	
4341.00	1.110	63.040	4230.15	507.48	-507.50	-552.24	1715247.03	14543286.08	40°02'42.533"N	104°43'57.437"W	0.43	
4428.00	1.360	60.580	4317.13	506.59	-506.61	-550.59	1715248.68	14543286.98	40°02'42.542"N	104°43'57.415"W	0.29	
4516.00	1.580	61.240	4405.10	505.49	-505.51	-548.61	1715250.65	14543288.08	40°02'42.552"N	104°43'57.390"W	0.25	
4603.00	0.760	87.500	4492.08	504.89	-504.91	-546.98	1715252.27	14543288.69	40°02'42.558"N	104°43'57.369"W	1.10	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#20 AZUL 13-3HZ (921'FSL & 1204'FWL,SEC.13)
Area	COLORADO	Well	AZUL 13-3HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	AZUL 13-3HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH DATA (182 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
4690.00	1.150	63.780	4579.07	504.48	-504.50	-545.62	1715253.63	14543289.10	40°02'42.562"N	104°43'57.352"W	0.63	
4778.00	0.810	330.420	4667.06	503.68	-503.70	-545.06	1715254.19	14543289.90	40°02'42.570"N	104°43'57.344"W	1.51	
4865.00	0.820	357.790	4754.05	502.66	-502.67	-545.32	1715253.93	14543290.92	40°02'42.580"N	104°43'57.348"W	0.45	
4953.00	0.840	354.900	4842.04	501.38	-501.40	-545.40	1715253.85	14543292.19	40°02'42.593"N	104°43'57.349"W	0.05	
5040.00	1.030	1.640	4929.03	499.97	-499.99	-545.43	1715253.81	14543293.61	40°02'42.607"N	104°43'57.349"W	0.25	
5128.00	0.860	4.940	5017.02	498.52	-498.54	-545.35	1715253.89	14543295.06	40°02'42.621"N	104°43'57.348"W	0.20	
5216.00	0.970	24.610	5105.01	497.18	-497.20	-544.99	1715254.25	14543296.39	40°02'42.634"N	104°43'57.343"W	0.38	
5303.00	0.680	195.060	5192.01	497.01	-497.03	-544.81	1715254.42	14543296.57	40°02'42.636"N	104°43'57.341"W	1.89	
5390.00	0.220	166.840	5279.00	497.67	-497.69	-544.91	1715254.33	14543295.90	40°02'42.630"N	104°43'57.343"W	0.57	
5478.00	0.400	88.520	5367.00	497.83	-497.85	-544.56	1715254.67	14543295.75	40°02'42.628"N	104°43'57.338"W	0.47	
5565.00	0.850	90.790	5454.00	497.83	-497.85	-543.61	1715255.62	14543295.75	40°02'42.628"N	104°43'57.326"W	0.52	
5653.00	0.840	265.400	5541.99	497.89	-497.91	-543.61	1715255.63	14543295.69	40°02'42.627"N	104°43'57.326"W	1.92	
5740.00	0.160	289.840	5628.99	497.90	-497.92	-544.36	1715254.88	14543295.68	40°02'42.627"N	104°43'57.335"W	0.80	
5827.00	0.750	32.150	5715.99	497.38	-497.40	-544.17	1715255.07	14543296.20	40°02'42.633"N	104°43'57.333"W	0.92	
5915.00	0.840	31.120	5803.98	496.34	-496.36	-543.53	1715255.70	14543297.24	40°02'42.643"N	104°43'57.325"W	0.10	
6002.00	0.960	15.150	5890.97	495.09	-495.11	-543.01	1715256.22	14543298.49	40°02'42.655"N	104°43'57.318"W	0.32	
6090.00	0.830	168.310	5978.96	495.00	-495.02	-542.68	1715256.54	14543298.58	40°02'42.656"N	104°43'57.314"W	1.98	
6177.00	0.680	138.500	6065.96	496.01	-496.02	-542.21	1715257.01	14543297.58	40°02'42.646"N	104°43'57.308"W	0.48	
6265.00	0.310	195.210	6153.95	496.63	-496.65	-541.93	1715257.30	14543296.96	40°02'42.640"N	104°43'57.304"W	0.65	
6353.00	1.160	273.690	6241.95	496.80	-496.82	-542.88	1715256.35	14543296.79	40°02'42.638"N	104°43'57.316"W	1.29	
6440.00	1.650	283.250	6328.92	496.45	-496.47	-544.98	1715254.25	14543297.12	40°02'42.642"N	104°43'57.343"W	0.62	
6528.00	1.790	306.250	6416.88	495.35	-495.37	-547.32	1715251.91	14543298.22	40°02'42.653"N	104°43'57.374"W	0.79	
6615.00	0.850	149.750	6503.87	495.11	-495.12	-548.09	1715251.14	14543298.46	40°02'42.655"N	104°43'57.383"W	2.98	
6695.00†	1.581	184.718	6583.85	496.72	-496.74	-547.88	1715251.35	14543296.85	40°02'42.639"N	104°43'57.381"W	1.26	KOP
6703.00	1.670	186.390	6591.85	496.94	-496.96	-547.91	1715251.33	14543296.62	40°02'42.637"N	104°43'57.381"W	1.26	
6790.00	12.000	185.000	6678.11	507.24	-507.26	-548.84	1715250.43	14543286.33	40°02'42.535"N	104°43'57.393"W	11.87	
6877.00	15.540	186.140	6762.60	527.84	-527.86	-550.87	1715248.45	14543265.73	40°02'42.331"N	104°43'57.419"W	4.08	
6965.00	20.340	178.780	6846.31	554.87	-554.89	-551.81	1715247.60	14543238.70	40°02'42.064"N	104°43'57.431"W	6.02	
7052.00	30.650	176.790	6924.73	592.23	-592.25	-550.24	1715249.28	14543201.37	40°02'41.695"N	104°43'57.411"W	11.89	
7140.00	37.380	179.410	6997.64	641.40	-641.42	-548.71	1715250.96	14543152.22	40°02'41.209"N	104°43'57.391"W	7.83	
7227.00	43.160	178.850	7063.99	697.61	-697.62	-547.84	1715252.00	14543096.04	40°02'40.654"N	104°43'57.380"W	6.66	
7315.00	47.360	178.770	7125.92	760.08	-760.10	-546.54	1715253.49	14543033.59	40°02'40.036"N	104°43'57.363"W	4.77	
7402.00	54.890	174.240	7180.50	827.60	-827.62	-542.27	1715257.96	14542966.12	40°02'39.369"N	104°43'57.309"W	9.55	
7490.00	57.020	174.610	7229.76	900.17	-900.19	-535.19	1715265.25	14542893.60	40°02'38.652"N	104°43'57.217"W	2.45	
7578.00	62.530	177.320	7274.05	975.98	-976.00	-529.90	1715270.78	14542817.83	40°02'37.903"N	104°43'57.149"W	6.80	
7666.00	67.540	180.140	7311.19	1055.70	-1055.72	-528.17	1715272.75	14542738.15	40°02'37.115"N	104°43'57.127"W	6.39	
7753.00	75.890	183.220	7338.46	1138.19	-1138.21	-530.64	1715270.52	14542655.69	40°02'36.300"N	104°43'57.159"W	10.17	
7841.00	89.020	184.130	7349.99	1225.06	-1225.07	-536.23	1715265.20	14542568.84	40°02'35.441"N	104°43'57.231"W	14.96	LANDING (304'FNL & 668'FWL,SEC.24) 40.0431782 -104.7325641
7928.00	89.850	181.990	7350.85	1311.92	-1311.94	-540.88	1715260.82	14542481.99	40°02'34.583"N	104°43'57.290"W	2.64	
7981.00†	89.699	181.978	7351.06	1364.89	-1364.91	-542.71	1715259.15	14542429.04	40°02'34.060"N	104°43'57.314"W	0.28	CROSS SETBACK HEEL (444'FNL & 661'FWL,SEC.24) 40.0427943 -104.7325872
8016.00	89.600	181.970	7351.27	1399.87	-1399.89	-543.92	1715258.05	14542394.07	40°02'33.714"N	104°43'57.329"W	0.28	
8103.00	88.950	181.180	7352.38	1486.83	-1486.85	-546.31	1715255.92	14542307.14	40°02'32.855"N	104°43'57.360"W	1.18	
8191.00	90.000	180.520	7353.18	1574.81	-1574.83	-547.61	1715254.88	14542219.19	40°02'31.985"N	104°43'57.377"W	1.41	
8278.00	89.170	179.760	7353.81	1661.81	-1661.83	-547.82	1715254.93	14542132.23	40°02'31.125"N	104°43'57.380"W	1.29	
8366.00	89.820	180.630	7354.59	1749.80	-1749.82	-548.12	1715254.90	14542044.27	40°02'30.256"N	104°43'57.383"W	1.23	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#20 AZUL 13-3HZ (921'FSL & 1204'FWL,SEC.13)
Area	COLORADO	Well	AZUL 13-3HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	AZUL 13-3HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH DATA (182 stations) † = interpolated/extrapolated station												Comments
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	
8453.00	89.410	180.490	7355.17	1836.80	-1836.82	-548.97	1715254.31	14541957.31	40°02'29.396"N	104°43'57.394"W	0.50	
8540.00	90.400	180.080	7355.32	1923.79	-1923.81	-549.41	1715254.14	14541870.34	40°02'28.536"N	104°43'57.400"W	1.23	
8628.00	89.850	180.120	7355.12	2011.79	-2011.81	-549.56	1715254.25	14541782.38	40°02'27.667"N	104°43'57.402"W	0.63	
8716.00	90.650	178.320	7354.74	2099.78	-2099.80	-548.36	1715255.72	14541694.43	40°02'26.797"N	104°43'57.386"W	2.24	
8803.00	89.570	177.570	7354.57	2186.72	-2186.74	-545.24	1715259.10	14541607.53	40°02'25.938"N	104°43'57.346"W	1.51	
8890.00	91.570	178.730	7353.71	2273.67	-2273.69	-542.43	1715262.17	14541520.63	40°02'25.079"N	104°43'57.310"W	2.66	
8978.00	91.970	177.900	7350.99	2361.59	-2361.60	-539.85	1715265.02	14541432.75	40°02'24.210"N	104°43'57.277"W	1.05	
9065.00	89.970	178.620	7349.52	2448.53	-2448.55	-537.21	1715267.92	14541345.85	40°02'23.351"N	104°43'57.243"W	2.44	
9153.00	89.230	180.400	7350.13	2536.52	-2536.54	-536.46	1715268.94	14541257.90	40°02'22.481"N	104°43'57.233"W	2.19	
9241.00	89.940	181.020	7350.77	2624.51	-2624.53	-537.55	1715268.12	14541169.94	40°02'21.612"N	104°43'57.247"W	1.07	
9328.00	89.230	179.760	7351.40	2711.50	-2711.52	-538.14	1715267.79	14541082.98	40°02'20.752"N	104°43'57.255"W	1.66	
9415.00	91.050	180.250	7351.19	2798.50	-2798.52	-538.15	1715268.04	14540996.02	40°02'19.892"N	104°43'57.255"W	2.17	
9503.00	90.220	179.970	7350.21	2886.49	-2886.51	-538.31	1715268.14	14540908.06	40°02'19.023"N	104°43'57.257"W	1.00	
9590.00	92.220	180.440	7348.36	2973.47	-2973.48	-538.63	1715268.09	14540821.12	40°02'18.163"N	104°43'57.261"W	2.36	
9677.00	92.220	180.580	7344.99	3060.40	-3060.42	-539.40	1715267.58	14540734.22	40°02'17.304"N	104°43'57.271"W	0.16	
9764.00	92.590	180.300	7341.34	3147.32	-3147.34	-540.07	1715267.18	14540647.34	40°02'16.445"N	104°43'57.279"W	0.53	
9852.00	91.630	181.600	7338.10	3235.24	-3235.26	-541.52	1715265.99	14540559.44	40°02'15.576"N	104°43'57.298"W	1.84	
9939.00	91.050	180.260	7336.06	3322.21	-3322.22	-542.94	1715264.84	14540472.51	40°02'14.717"N	104°43'57.316"W	1.68	
10027.00	91.390	180.540	7334.19	3410.18	-3410.20	-543.55	1715264.49	14540384.56	40°02'13.847"N	104°43'57.324"W	0.50	
10115.00	89.420	180.130	7333.57	3498.17	-3498.19	-544.07	1715264.24	14540296.61	40°02'12.978"N	104°43'57.331"W	2.29	
10203.00	89.750	180.560	7334.21	3586.17	-3586.19	-544.59	1715263.98	14540208.64	40°02'12.108"N	104°43'57.338"W	0.62	
10291.00	89.570	181.100	7334.73	3674.16	-3674.18	-545.87	1715262.97	14540120.69	40°02'11.239"N	104°43'57.354"W	0.65	
10378.00	90.120	181.360	7334.96	3761.14	-3761.16	-547.74	1715261.37	14540033.74	40°02'10.379"N	104°43'57.378"W	0.70	
10466.00	89.540	181.250	7335.22	3849.11	-3849.13	-549.74	1715259.63	14539945.79	40°02'09.510"N	104°43'57.404"W	0.67	
10553.00	90.060	181.830	7335.53	3936.08	-3936.10	-552.08	1715257.55	14539858.85	40°02'08.650"N	104°43'57.434"W	0.90	
10640.00	89.600	182.210	7335.79	4023.03	-4023.05	-555.15	1715254.75	14539771.93	40°02'07.791"N	104°43'57.473"W	0.69	
10728.00	89.380	180.570	7336.57	4110.99	-4111.01	-557.28	1715252.88	14539683.99	40°02'06.922"N	104°43'57.501"W	1.88	
10816.00	88.860	180.630	7337.92	4198.98	-4199.00	-558.20	1715252.23	14539596.04	40°02'06.052"N	104°43'57.512"W	0.59	
10904.00	89.750	179.390	7338.99	4286.97	-4286.99	-558.22	1715252.48	14539508.08	40°02'05.183"N	104°43'57.513"W	1.73	
10991.00	89.940	180.550	7339.22	4373.97	-4373.99	-558.17	1715252.79	14539421.12	40°02'04.323"N	104°43'57.512"W	1.35	
11031.00†	90.294	180.017	7339.14	4413.97	-4413.99	-558.37	1715252.71	14539381.14	40°02'03.928"N	104°43'57.514"W	1.60	CROSS SETBACK TOE (1782'FSL & 648'FWL,SEC.24) 40.0344244 -104.7326429
11078.00	90.710	179.390	7338.73	4460.96	-4460.98	-558.13	1715253.10	14539334.16	40°02'03.463"N	104°43'57.511"W	1.60	
11166.00	90.030	179.630	7338.16	4548.96	-4548.98	-557.37	1715254.12	14539246.20	40°02'02.594"N	104°43'57.502"W	0.82	
11253.00	90.920	180.040	7337.44	4635.95	-4635.97	-557.12	1715254.63	14539159.24	40°02'01.734"N	104°43'57.498"W	1.13	
11341.00	88.920	179.500	7337.56	4723.95	-4723.97	-556.77	1715255.25	14539071.28	40°02'00.864"N	104°43'57.494"W	2.35	
11429.00	88.030	179.550	7339.91	4811.91	-4811.93	-556.04	1715256.24	14538983.36	40°01'59.995"N	104°43'57.484"W	1.01	
11516.00	87.570	179.710	7343.24	4898.85	-4898.87	-555.48	1715257.07	14538896.46	40°01'59.136"N	104°43'57.477"W	0.56	
11604.00	86.980	179.970	7347.43	4986.75	-4986.77	-555.23	1715257.58	14538808.59	40°01'58.267"N	104°43'57.474"W	0.73	
11691.00	89.140	180.080	7350.37	5073.69	-5073.71	-555.27	1715257.80	14538721.68	40°01'57.408"N	104°43'57.474"W	2.49	
11779.00	88.610	179.090	7352.10	5161.67	-5161.69	-554.63	1715258.71	14538633.74	40°01'56.539"N	104°43'57.466"W	1.28	
11866.00	90.590	179.980	7352.71	5248.66	-5248.68	-553.93	1715259.67	14538546.79	40°01'55.679"N	104°43'57.457"W	2.50	
11954.00	90.000	179.310	7352.26	5336.66	-5336.68	-553.38	1715260.49	14538458.83	40°01'54.810"N	104°43'57.450"W	1.01	
12041.00	90.960	179.780	7351.53	5423.65	-5423.67	-552.69	1715261.44	14538371.87	40°01'53.950"N	104°43'57.441"W	1.23	
12129.00	90.650	179.760	7350.29	5511.64	-5511.66	-552.34	1715262.06	14538283.92	40°01'53.080"N	104°43'57.437"W	0.35	
12216.00	90.710	179.050	7349.26	5598.63	-5598.65	-551.44	1715263.22	14538196.97	40°01'52.221"N	104°43'57.425"W	0.82	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#20 AZUL 13-3HZ (921'FSL & 1204'FWL,SEC.13)
Area	COLORADO	Well	AZUL 13-3HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	AZUL 13-3HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH DATA (182 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
12299.00	90.680	179.000	7348.25	5681.61	-5681.63	-550.02	1715264.89	14538114.02	40°01'51.401"N	104°43'57.407"W	0.07	LAST BHGE MWD+IFR1+SC SURVEY
12344.00	90.680	179.000	7347.72	5726.60	-5726.62	-549.24	1715265.81	14538069.05	40°01'50.956"N	104°43'57.397"W	0.00	PTB (469'FSL & 658'FWL,SEC.24) 40.0308211 -104.7326102

HOLE & CASING SECTIONS - Ref Wellbore: AZUL 13-3HZ AWB Ref Wellpath: AZUL 13-3HZ 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	17.00	1858.00	1841.00	17.00	1814.70	0.00	0.00	-242.28	-216.28

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	0.30	-45.11	1715752.42	14543795.21	40°02'47.551"N	104°43'50.916"W	polygon
SEC.24-T1N-R66W	0.00	0.30	-45.11	1715752.42	14543795.21	40°02'47.551"N	104°43'50.916"W	polygon
AZUL 13-3HZ BHL REV-1(468'FSL & 655'FWL,SEC.24)	7341.00	-5727.75	-551.99	1715263.06	14538067.91	40°01'50.945"N	104°43'57.432"W	point
AZUL 13-3HZ HEEL REV-1(320'FNL & 655'FWL,SEC.24)	7354.00	-1245.18	-552.17	1715249.33	14542548.70	40°02'35.243"N	104°43'57.436"W	point
AZUL 13-3HZ LANDBOX	7354.00	0.00	0.00	1715797.51	14543795.05	40°02'47.548"N	104°43'50.336"W	polygon
AZUL 13-3HZ SETBACK 1	7354.00	0.00	0.00	1715797.51	14543795.05	40°02'47.548"N	104°43'50.336"W	polygon
AZUL 13-3HZ SETBACK 2	7354.00	0.00	0.00	1715797.51	14543795.05	40°02'47.548"N	104°43'50.336"W	polygon

WELLPATH COMPOSITION - Ref Wellbore: AZUL 13-3HZ AWB Ref Wellpath: AZUL 13-3HZ AWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	1827.00	Custom APC ISCWSA REV 2 MWD+IFR1 (approximation)	Custom APC ISCWSA Rev-2 MWD+IFR1 <125 - 1827>	AZUL 13-3HZ AWB
1827.00	12299.00	Custom APC ISCWSA REV 2 MWD+IFR1+SC (approximation)	BHGE Custom APC ISCWSA Rev-2 MWD+IFR1+SC <1890 - 12299>	AZUL 13-3HZ AWB
12299.00	12344.00	Blind Drilling (std)	Projection to bit	AZUL 13-3HZ AWB

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#20 AZUL 13-3HZ (921'FSL & 1204'FWL,SEC.13)
Area	COLORADO	Well	AZUL 13-3HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	AZUL 13-3HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
125.00	0.220	19.090	125.00	FIRST SURFACE MWD+IFR1 SURVEY
1827.00	18.590	222.030	1785.33	LAST SURFACE MWD+IFR1 SURVEY
1890.00	18.930	223.050	1844.99	FIRST BHGE MWD+IFR1+SC SURVEY
2325.00	20.141	229.580	2253.72	ENTER LANDBOX (571'FSL & 871'FWL,SEC.13) 40.0455813 -104.7318402
6695.00	1.581	184.718	6583.85	KOP
7841.00	89.020	184.130	7349.99	LANDING (304'FNL & 668'FWL,SEC.24) 40.0431782 -104.7325641
7981.00	89.699	181.978	7351.06	CROSS SETBACK HEEL (444'FNL & 661'FWL,SEC.24) 40.0427943 -104.7325872
11031.00	90.294	180.017	7339.14	CROSS SETBACK TOE (1782'FSL & 648'FWL,SEC.24) 40.0344244 -104.7326429
12299.00	90.680	179.000	7348.25	LAST BHGE MWD+IFR1+SC SURVEY
12344.00	90.680	179.000	7347.72	PTB (469'FSL & 658'FWL,SEC.24) 40.0308211 -104.7326102