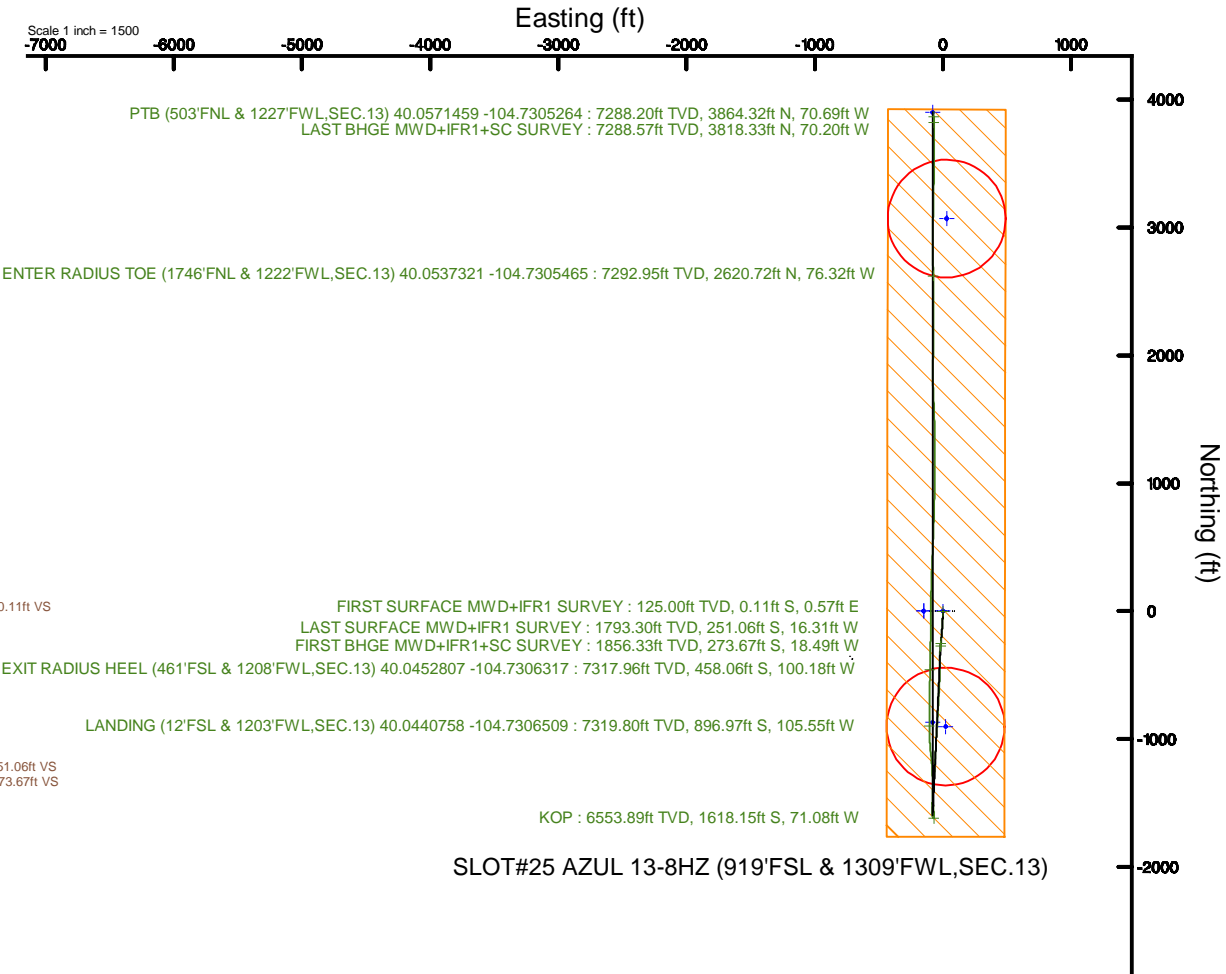
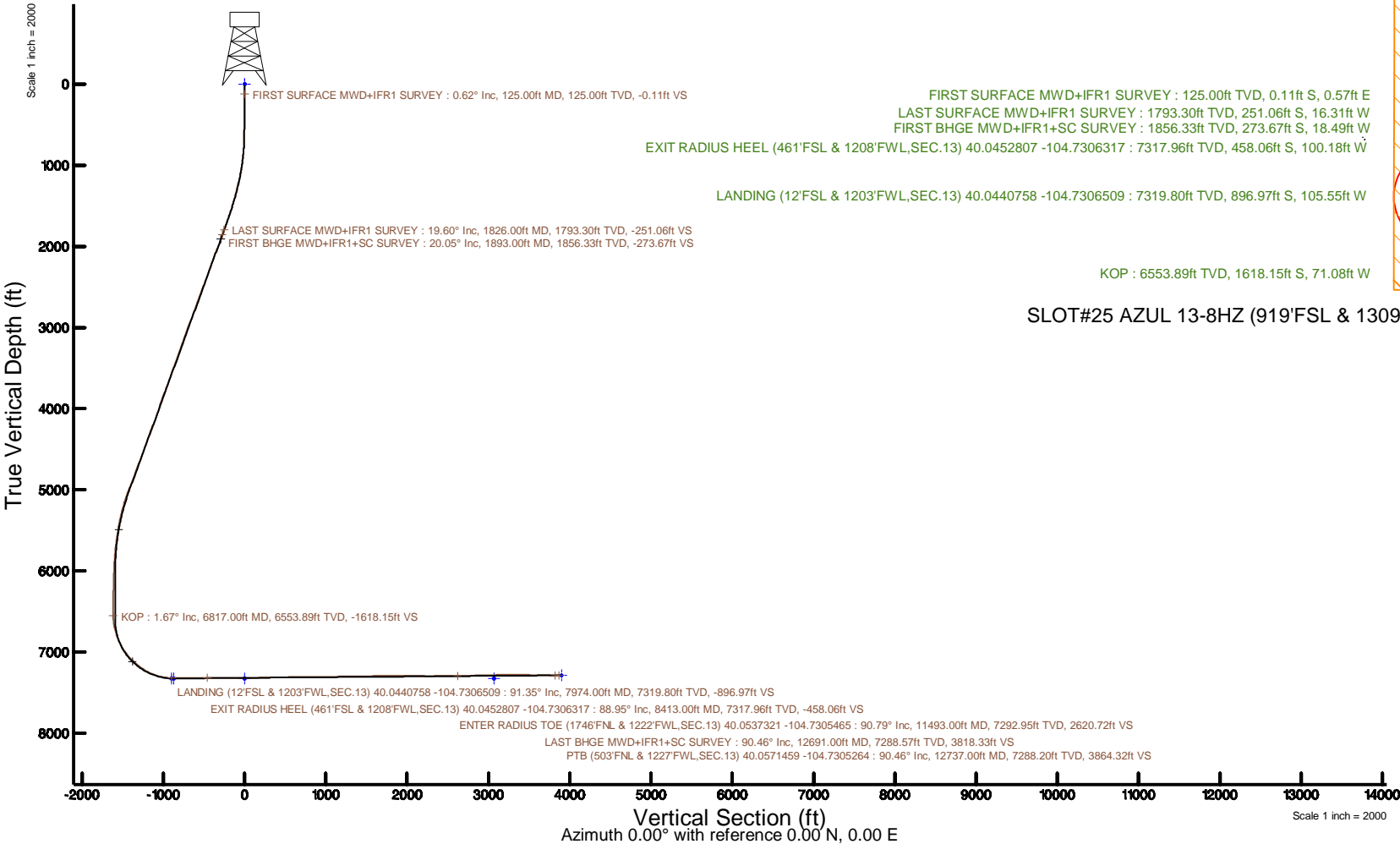


KERR-MCGEE OIL & GAS ONSHORE LP (WA)

Location: COLORADO Slot: SLOT#25 AZUL 13-8HZ (919'FSL & 1309'FWL,SEC.13)
Field: WELD COUNTY (UTM/TRUE NORTH) Well: AZUL 13-8HZ
Facility: SEC.13-T1N-R66W Wellbore: AZUL 13-8HZ PWB

Plot reference wellpath is AZUL 13-8HZ PWP Rev-A.0	Grid System: NAD83 / UTM Zone 13 North, US feet
True vertical depths are referenced to Xtreme 22 (17) (RT)	* = Wellpath was transformed from a different geodetic datum
Measured depths are referenced to Xtreme 22 (17) (RT)	North Reference: True north
Xtreme 22 (17) (RT) to Mean Sea Level: 5088 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#25 AZUL 13-8HZ (919'FSL & 1309'FWL,SEC.13)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: painsetr on 2018-03-29
	Database: WA, DEN, Anadarko, Defn



SLOT#25 AZUL 13-8HZ (919'FSL & 1309'FWL,SEC.13)

Actual Wellpath Report

AZUL 13-8HZ AWP

Page 1 of 7

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#25 AZUL 13-8HZ (919'FSL & 1309'FWL,SEC.13)
Area	COLORADO	Well	AZUL 13-8HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	AZUL 13-8HZ AWP
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	3/29/2018 at 2:30 PM
Convergence at slot	0.18° East	Database/Source file	WA_DEN_Anadarko_Defn/AZUL_13-8HZ_AWP.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-4158.62	-1581.23	1715902.46	14543794.25	40°02'47.537"N	104°43'48.986"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#25 AZUL 13-8HZ (919'FSL & 1309'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	0.00°

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#25 AZUL 13-8HZ (919'FSL & 1309'FWL,SEC.13)
Area	COLORADO	Well	AZUL 13-8HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	AZUL 13-8HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH DATA (187 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	100.560	0.00	0.00	0.00	0.00	1715902.46	14543794.25	40°02'47.537"N	104°43'48.986"W	0.00	
17.00	0.000	100.560	17.00	0.00	0.00	0.00	1715902.46	14543794.25	40°02'47.537"N	104°43'48.986"W	0.00	
125.00	0.620	100.560	125.00	-0.11	-0.11	0.57	1715903.04	14543794.15	40°02'47.536"N	104°43'48.979"W	0.57	FIRST SURFACE MWD+IFR1 SURVEY
157.00	0.310	141.340	157.00	-0.21	-0.21	0.80	1715903.26	14543794.05	40°02'47.535"N	104°43'48.976"W	1.36	
188.00	0.620	105.220	188.00	-0.32	-0.32	1.01	1715903.48	14543793.94	40°02'47.534"N	104°43'48.973"W	1.33	
220.00	0.480	179.570	219.99	-0.50	-0.50	1.18	1715903.65	14543793.76	40°02'47.532"N	104°43'48.971"W	2.11	
251.00	0.220	202.870	250.99	-0.68	-0.68	1.16	1715903.62	14543793.57	40°02'47.530"N	104°43'48.971"W	0.94	
283.00	0.570	218.860	282.99	-0.86	-0.86	1.04	1715903.50	14543793.39	40°02'47.528"N	104°43'48.973"W	1.14	
314.00	0.830	216.580	313.99	-1.16	-1.16	0.80	1715903.27	14543793.09	40°02'47.526"N	104°43'48.976"W	0.84	
346.00	0.920	181.680	345.99	-1.60	-1.60	0.66	1715903.13	14543792.65	40°02'47.521"N	104°43'48.978"W	1.66	
377.00	0.830	141.610	376.98	-2.03	-2.03	0.79	1715903.26	14543792.22	40°02'47.517"N	104°43'48.976"W	1.95	
409.00	0.700	135.100	408.98	-2.35	-2.35	1.07	1715903.54	14543791.91	40°02'47.514"N	104°43'48.972"W	0.49	
441.00	0.970	120.340	440.98	-2.62	-2.62	1.44	1715903.92	14543791.63	40°02'47.511"N	104°43'48.967"W	1.07	
472.00	1.010	106.010	471.97	-2.83	-2.83	1.93	1715904.41	14543791.43	40°02'47.509"N	104°43'48.961"W	0.81	
504.00	0.830	107.860	503.97	-2.98	-2.98	2.43	1715904.90	14543791.28	40°02'47.508"N	104°43'48.955"W	0.57	
535.00	0.880	141.250	534.97	-3.24	-3.24	2.79	1715905.26	14543791.02	40°02'47.505"N	104°43'48.950"W	1.59	
567.00	0.400	188.450	566.96	-3.54	-3.54	2.93	1715905.40	14543790.72	40°02'47.502"N	104°43'48.948"W	2.11	
599.00	0.400	185.460	598.96	-3.76	-3.76	2.90	1715905.37	14543790.50	40°02'47.500"N	104°43'48.949"W	0.07	
631.00	0.480	223.430	630.96	-3.97	-3.97	2.80	1715905.27	14543790.29	40°02'47.498"N	104°43'48.950"W	0.93	
663.00	1.010	205.150	662.96	-4.32	-4.32	2.58	1715905.06	14543789.94	40°02'47.494"N	104°43'48.953"W	1.79	
695.00	2.020	201.020	694.95	-5.10	-5.10	2.26	1715904.74	14543789.16	40°02'47.487"N	104°43'48.957"W	3.17	
726.00	2.940	198.470	725.92	-6.37	-6.37	1.81	1715904.30	14543787.89	40°02'47.474"N	104°43'48.963"W	2.99	
758.00	3.300	197.060	757.87	-8.03	-8.03	1.28	1715903.77	14543786.23	40°02'47.458"N	104°43'48.969"W	1.15	
790.00	3.870	198.120	789.81	-9.93	-9.93	0.68	1715903.17	14543784.32	40°02'47.439"N	104°43'48.977"W	1.79	
822.00	4.970	190.300	821.71	-12.32	-12.32	0.09	1715902.59	14543781.93	40°02'47.415"N	104°43'48.985"W	3.91	
854.00	5.710	186.610	853.57	-15.27	-15.27	-0.34	1715902.17	14543778.99	40°02'47.386"N	104°43'48.990"W	2.55	
885.00	6.150	188.360	884.41	-18.44	-18.44	-0.76	1715901.76	14543775.81	40°02'47.355"N	104°43'48.996"W	1.53	
917.00	6.590	185.900	916.21	-21.96	-21.96	-1.19	1715901.34	14543772.29	40°02'47.320"N	104°43'49.001"W	1.62	
949.00	7.250	182.560	947.98	-25.81	-25.81	-1.47	1715901.07	14543768.45	40°02'47.282"N	104°43'49.005"W	2.41	
980.00	7.820	183.530	978.71	-29.87	-29.87	-1.69	1715900.86	14543764.39	40°02'47.242"N	104°43'49.008"W	1.88	
1012.00	8.350	180.630	1010.39	-34.36	-34.36	-1.85	1715900.72	14543759.89	40°02'47.197"N	104°43'49.010"W	2.09	
1044.00	9.360	180.280	1042.01	-39.29	-39.29	-1.89	1715900.69	14543754.97	40°02'47.149"N	104°43'49.010"W	3.16	
1076.00	10.060	180.980	1073.55	-44.69	-44.69	-1.95	1715900.65	14543749.58	40°02'47.095"N	104°43'49.011"W	2.22	
1107.00	10.630	180.450	1104.05	-50.25	-50.25	-2.02	1715900.60	14543744.01	40°02'47.040"N	104°43'49.012"W	1.86	
1139.00	10.850	181.070	1135.49	-56.22	-56.22	-2.10	1715900.54	14543738.05	40°02'46.981"N	104°43'49.013"W	0.78	
1171.00	11.870	181.860	1166.86	-62.52	-62.52	-2.26	1715900.39	14543731.75	40°02'46.919"N	104°43'49.015"W	3.22	
1202.00	12.830	182.120	1197.14	-69.14	-69.14	-2.49	1715900.18	14543725.13	40°02'46.854"N	104°43'49.018"W	3.10	
1234.00	13.320	181.770	1228.31	-76.38	-76.38	-2.74	1715899.96	14543717.90	40°02'46.782"N	104°43'49.021"W	1.55	
1266.00	12.960	182.740	1259.47	-83.65	-83.65	-3.02	1715899.70	14543710.63	40°02'46.710"N	104°43'49.025"W	1.32	
1298.00	13.620	182.830	1290.62	-90.99	-90.99	-3.38	1715899.36	14543703.28	40°02'46.638"N	104°43'49.029"W	2.06	
1330.00	14.630	184.140	1321.65	-98.79	-98.79	-3.86	1715898.91	14543695.49	40°02'46.561"N	104°43'49.036"W	3.31	
1361.00	15.030	183.350	1351.62	-106.70	-106.70	-4.37	1715898.41	14543687.58	40°02'46.483"N	104°43'49.042"W	1.45	
1393.00	15.600	183.970	1382.48	-115.14	-115.14	-4.91	1715897.90	14543679.14	40°02'46.399"N	104°43'49.049"W	1.85	
1425.00	15.950	185.640	1413.27	-123.81	-123.81	-5.64	1715897.20	14543670.48	40°02'46.314"N	104°43'49.059"W	1.79	
1456.00	16.220	185.200	1443.06	-132.36	-132.36	-6.46	1715896.41	14543661.93	40°02'46.229"N	104°43'49.069"W	0.96	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#25 AZUL 13-8HZ (919'FSL & 1309'FWL,SEC.13)
Area	COLORADO	Well	AZUL 13-8HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	AZUL 13-8HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH DATA (187 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	17.230	184.060	1473.71	-141.54	-141.54	-7.20	1715895.70	14543652.75	40°02'46.138"N	104°43'49.079"W	3.32	
1519.00	17.970	184.970	1503.26	-150.88	-150.88	-7.94	1715894.99	14543643.41	40°02'46.046"N	104°43'49.088"W	2.55	
1551.00	17.750	186.170	1533.71	-160.65	-160.65	-8.89	1715894.07	14543633.64	40°02'45.949"N	104°43'49.100"W	1.34	
1583.00	18.020	185.550	1564.17	-170.42	-170.42	-9.89	1715893.09	14543623.87	40°02'45.853"N	104°43'49.113"W	1.03	
1615.00	18.850	184.320	1594.53	-180.50	-180.50	-10.76	1715892.26	14543613.79	40°02'45.753"N	104°43'49.124"W	2.86	
1646.00	19.290	183.350	1623.82	-190.61	-190.61	-11.44	1715891.61	14543603.68	40°02'45.653"N	104°43'49.133"W	1.75	
1678.00	19.510	184.320	1654.01	-201.22	-201.22	-12.15	1715890.93	14543593.08	40°02'45.549"N	104°43'49.142"W	1.22	
1710.00	19.950	184.230	1684.13	-211.99	-211.99	-12.95	1715890.16	14543582.31	40°02'45.442"N	104°43'49.153"W	1.38	
1742.00	20.080	185.200	1714.20	-222.90	-222.90	-13.85	1715889.29	14543571.39	40°02'45.334"N	104°43'49.164"W	1.11	
1773.00	19.600	185.200	1743.36	-233.38	-233.38	-14.81	1715888.37	14543560.92	40°02'45.231"N	104°43'49.176"W	1.55	
1805.00	19.510	184.760	1773.51	-244.05	-244.05	-15.74	1715887.47	14543550.25	40°02'45.125"N	104°43'49.188"W	0.54	
1826.00	19.600	184.670	1793.30	-251.06	-251.06	-16.31	1715886.92	14543543.24	40°02'45.056"N	104°43'49.196"W	0.45	LAST SURFACE MWD+IFR1 SURVEY
1893.00	20.050	186.290	1856.33	-273.67	-273.67	-18.49	1715884.81	14543520.63	40°02'44.832"N	104°43'49.224"W	1.06	FIRST BHGE MWD+IFR1+SC SURVEY
1981.00	19.690	185.390	1939.09	-303.43	-303.43	-21.53	1715881.86	14543490.88	40°02'44.538"N	104°43'49.263"W	0.54	
2067.00	20.620	183.800	2019.82	-332.96	-332.96	-23.90	1715879.58	14543461.35	40°02'44.247"N	104°43'49.293"W	1.25	
2155.00	20.050	182.980	2102.34	-363.49	-363.49	-25.71	1715877.87	14543430.83	40°02'43.945"N	104°43'49.317"W	0.72	
2243.00	20.440	180.080	2184.90	-393.92	-393.92	-26.51	1715877.15	14543400.41	40°02'43.644"N	104°43'49.327"W	1.22	
2331.00	20.130	177.970	2267.45	-424.42	-424.42	-26.00	1715877.76	14543369.92	40°02'43.343"N	104°43'49.320"W	0.90	
2419.00	20.710	180.010	2349.92	-455.11	-455.11	-25.46	1715878.39	14543339.24	40°02'43.039"N	104°43'49.313"W	1.04	
2506.00	19.780	179.950	2431.54	-485.22	-485.22	-25.45	1715878.49	14543309.15	40°02'42.742"N	104°43'49.313"W	1.07	
2594.00	20.080	181.630	2514.27	-515.21	-515.21	-25.87	1715878.16	14543279.17	40°02'42.446"N	104°43'49.319"W	0.73	
2681.00	20.730	182.260	2595.81	-545.52	-545.52	-26.90	1715877.22	14543248.86	40°02'42.146"N	104°43'49.332"W	0.79	
2769.00	20.940	183.800	2678.06	-576.78	-576.78	-28.56	1715875.66	14543217.62	40°02'41.837"N	104°43'49.353"W	0.67	
2856.00	19.930	182.780	2759.58	-607.10	-607.10	-30.31	1715874.00	14543187.30	40°02'41.537"N	104°43'49.376"W	1.23	
2944.00	20.050	183.400	2842.28	-637.14	-637.14	-31.93	1715872.47	14543157.27	40°02'41.241"N	104°43'49.397"W	0.28	
3032.00	20.170	183.480	2924.92	-667.34	-667.34	-33.75	1715870.75	14543127.07	40°02'40.942"N	104°43'49.420"W	0.14	
3119.00	20.420	182.570	3006.52	-697.47	-697.47	-35.34	1715869.25	14543096.95	40°02'40.644"N	104°43'49.440"W	0.46	
3207.00	18.700	181.730	3089.43	-726.91	-726.91	-36.45	1715868.23	14543067.52	40°02'40.353"N	104°43'49.455"W	1.98	
3294.00	19.650	184.690	3171.61	-755.43	-755.43	-38.07	1715866.70	14543039.00	40°02'40.072"N	104°43'49.475"W	1.56	
3381.00	19.970	183.290	3253.46	-784.84	-784.84	-40.12	1715864.74	14543009.60	40°02'39.781"N	104°43'49.502"W	0.66	
3469.00	19.990	182.090	3336.16	-814.88	-814.88	-41.53	1715863.42	14542979.57	40°02'39.484"N	104°43'49.520"W	0.47	
3556.00	19.790	184.130	3417.98	-844.43	-844.43	-43.13	1715861.91	14542950.03	40°02'39.192"N	104°43'49.541"W	0.83	
3644.00	19.730	183.270	3500.79	-874.12	-874.12	-45.05	1715860.08	14542920.35	40°02'38.899"N	104°43'49.565"W	0.34	
3731.00	20.340	183.530	3582.53	-903.87	-903.87	-46.82	1715858.40	14542890.60	40°02'38.605"N	104°43'49.588"W	0.71	
3818.00	19.960	184.000	3664.20	-933.78	-933.78	-48.79	1715856.52	14542860.70	40°02'38.309"N	104°43'49.613"W	0.47	
3906.00	20.420	183.950	3746.80	-964.07	-964.07	-50.89	1715854.51	14542830.41	40°02'38.010"N	104°43'49.640"W	0.52	
3993.00	20.760	183.340	3828.24	-994.61	-994.61	-52.84	1715852.66	14542799.88	40°02'37.708"N	104°43'49.665"W	0.46	
4080.00	18.780	181.890	3910.11	-1024.00	-1024.00	-54.20	1715851.39	14542770.50	40°02'37.418"N	104°43'49.683"W	2.34	
4168.00	18.290	182.430	3993.54	-1051.95	-1051.95	-55.25	1715850.42	14542742.55	40°02'37.141"N	104°43'49.696"W	0.59	
4256.00	18.420	183.060	4077.06	-1079.63	-1079.63	-56.58	1715849.18	14542714.88	40°02'36.868"N	104°43'49.713"W	0.27	
4343.00	19.270	184.350	4159.40	-1107.67	-1107.67	-58.40	1715847.44	14542686.84	40°02'36.591"N	104°43'49.737"W	1.09	
4430.00	20.670	184.640	4241.17	-1137.30	-1137.30	-60.73	1715845.20	14542657.23	40°02'36.298"N	104°43'49.767"W	1.61	
4518.00	21.200	183.180	4323.36	-1168.66	-1168.66	-62.87	1715843.16	14542625.86	40°02'35.988"N	104°43'49.794"W	0.85	
4605.00	20.210	182.670	4404.74	-1199.38	-1199.38	-64.44	1715841.68	14542595.15	40°02'35.684"N	104°43'49.815"W	1.16	
4693.00	20.900	182.500	4487.14	-1230.25	-1230.25	-65.84	1715840.38	14542564.30	40°02'35.379"N	104°43'49.832"W	0.79	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#25 AZUL 13-8HZ (919'FSL & 1309'FWL,SEC.13)
Area	COLORADO	Well	AZUL 13-8HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	AZUL 13-8HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH DATA (187 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
4780.00	20.370	182.820	4568.55	-1260.87	-1260.87	-67.26	1715839.05	14542533.68	40°02'35.077"N	104°43'49.851"W	0.62	
4868.00	20.340	184.060	4651.06	-1291.43	-1291.43	-69.09	1715837.31	14542503.13	40°02'34.775"N	104°43'49.874"W	0.49	
4955.00	21.220	184.930	4732.40	-1322.20	-1322.20	-71.52	1715834.98	14542472.37	40°02'34.471"N	104°43'49.906"W	1.07	
5043.00	20.010	184.530	4814.76	-1353.07	-1353.07	-74.08	1715832.51	14542441.49	40°02'34.166"N	104°43'49.938"W	1.38	
5130.00	20.640	184.410	4896.35	-1383.20	-1383.20	-76.43	1715830.25	14542411.37	40°02'33.868"N	104°43'49.969"W	0.73	
5218.00	21.430	182.680	4978.48	-1414.72	-1414.72	-78.37	1715828.40	14542379.86	40°02'33.556"N	104°43'49.994"W	1.14	
5306.00	20.550	182.130	5060.64	-1446.22	-1446.22	-79.70	1715827.17	14542348.37	40°02'33.245"N	104°43'50.011"W	1.02	
5392.00	17.650	182.340	5141.90	-1474.33	-1474.33	-80.79	1715826.17	14542320.26	40°02'32.967"N	104°43'50.025"W	3.37	
5480.00	15.450	183.690	5226.25	-1499.36	-1499.36	-82.09	1715824.94	14542295.24	40°02'32.720"N	104°43'50.042"W	2.54	
5568.00	12.770	183.230	5311.59	-1520.77	-1520.77	-83.40	1715823.71	14542273.83	40°02'32.508"N	104°43'50.058"W	3.05	
5655.00	10.500	182.680	5396.79	-1538.30	-1538.30	-84.31	1715822.85	14542256.32	40°02'32.335"N	104°43'50.070"W	2.61	
5742.00	10.390	179.230	5482.35	-1554.06	-1554.06	-84.57	1715822.63	14542240.56	40°02'32.179"N	104°43'50.073"W	0.73	
5829.00	8.970	179.360	5568.11	-1568.69	-1568.69	-84.39	1715822.85	14542225.94	40°02'32.035"N	104°43'50.071"W	1.63	
5917.00	7.150	178.320	5655.24	-1581.02	-1581.02	-84.16	1715823.13	14542213.61	40°02'31.913"N	104°43'50.068"W	2.07	
6004.00	5.340	172.790	5741.72	-1590.45	-1590.45	-83.49	1715823.82	14542204.18	40°02'31.820"N	104°43'50.059"W	2.19	
6092.00	4.240	171.660	5829.41	-1597.73	-1597.73	-82.50	1715824.83	14542196.91	40°02'31.748"N	104°43'50.047"W	1.25	
6180.00	3.030	165.090	5917.23	-1603.20	-1603.20	-81.43	1715825.92	14542191.45	40°02'31.694"N	104°43'50.033"W	1.45	
6267.00	2.490	151.860	6004.13	-1607.09	-1607.09	-79.95	1715827.41	14542187.56	40°02'31.655"N	104°43'50.014"W	0.96	
6355.00	2.330	142.230	6092.05	-1610.19	-1610.19	-77.95	1715829.42	14542184.47	40°02'31.625"N	104°43'49.988"W	0.49	
6443.00	2.060	133.360	6179.99	-1612.69	-1612.69	-75.71	1715831.67	14542181.98	40°02'31.600"N	104°43'49.959"W	0.49	
6530.00	1.740	155.020	6266.94	-1614.96	-1614.96	-74.01	1715833.37	14542179.72	40°02'31.578"N	104°43'49.938"W	0.90	
6618.00	1.550	149.570	6354.91	-1617.19	-1617.19	-72.84	1715834.54	14542177.48	40°02'31.555"N	104°43'49.923"W	0.28	
6705.00	0.380	98.590	6441.89	-1618.25	-1618.25	-71.96	1715835.43	14542176.43	40°02'31.545"N	104°43'49.911"W	1.54	
6792.00	0.570	112.500	6528.89	-1618.46	-1618.46	-71.28	1715836.11	14542176.22	40°02'31.543"N	104°43'49.902"W	0.25	
6817.00†	1.669	14.054	6553.89	-1618.15	-1618.15	-71.08	1715836.32	14542176.53	40°02'31.546"N	104°43'49.900"W	7.37	KOP
6880.00	6.250	0.900	6616.72	-1613.83	-1613.83	-70.80	1715836.58	14542180.85	40°02'31.589"N	104°43'49.896"W	7.37	
6967.00	12.870	359.090	6702.46	-1599.39	-1599.39	-70.88	1715836.46	14542195.28	40°02'31.731"N	104°43'49.897"W	7.62	
7055.00	18.740	357.910	6787.10	-1575.45	-1575.45	-71.55	1715835.71	14542219.22	40°02'31.968"N	104°43'49.906"W	6.68	
7142.00	25.000	353.400	6867.80	-1543.18	-1543.18	-74.18	1715832.99	14542251.46	40°02'32.287"N	104°43'49.940"W	7.45	
7230.00	30.160	357.020	6945.78	-1502.61	-1502.61	-77.46	1715829.58	14542292.01	40°02'32.688"N	104°43'49.982"W	6.16	
7317.00	37.240	358.080	7018.12	-1454.41	-1454.41	-79.48	1715827.41	14542340.18	40°02'33.164"N	104°43'50.008"W	8.17	
7405.00	43.680	359.670	7085.04	-1397.35	-1397.35	-80.55	1715826.17	14542397.22	40°02'33.728"N	104°43'50.022"W	7.41	
7492.00	49.000	359.480	7145.08	-1334.43	-1334.43	-81.02	1715825.51	14542460.11	40°02'34.350"N	104°43'50.028"W	6.12	
7581.00	55.510	357.670	7199.54	-1264.12	-1264.12	-82.82	1715823.50	14542530.38	40°02'35.045"N	104°43'50.051"W	7.49	
7668.00	62.690	354.850	7244.19	-1189.69	-1189.69	-87.76	1715818.34	14542604.77	40°02'35.780"N	104°43'50.114"W	8.71	
7756.00	69.670	354.140	7279.71	-1109.61	-1109.61	-95.49	1715810.37	14542684.79	40°02'36.572"N	104°43'50.214"W	7.97	
7843.00	76.500	356.450	7305.01	-1026.71	-1026.71	-102.28	1715803.33	14542767.64	40°02'37.391"N	104°43'50.301"W	8.25	
7930.00	85.520	359.320	7318.60	-940.94	-940.94	-105.42	1715799.93	14542853.37	40°02'38.238"N	104°43'50.341"W	10.87	
7974.00	91.350	0.340	7319.80	-896.97	-896.97	-105.55	1715799.67	14542897.32	40°02'38.673"N	104°43'50.343"W	13.45	LANDING (12'FSL & 1203'FWL,SEC.13) 40.0440758 -104.7306509
8018.00	91.690	0.120	7318.63	-852.99	-852.99	-105.37	1715799.71	14542941.28	40°02'39.108"N	104°43'50.341"W	0.92	
8105.00	90.310	0.500	7317.11	-766.00	-766.00	-104.90	1715799.92	14543028.23	40°02'39.967"N	104°43'50.335"W	1.65	
8193.00	90.090	0.230	7316.80	-678.01	-678.01	-104.34	1715800.21	14543116.20	40°02'40.837"N	104°43'50.328"W	0.40	
8280.00	89.910	1.520	7316.80	-591.02	-591.02	-103.02	1715801.28	14543203.16	40°02'41.696"N	104°43'50.311"W	1.50	
8368.00	89.420	1.170	7317.32	-503.05	-503.05	-100.95	1715803.08	14543291.10	40°02'42.566"N	104°43'50.284"W	0.68	
8413.00†	88.954	0.792	7317.96	-458.06	-458.06	-100.18	1715803.71	14543336.07	40°02'43.010"N	104°43'50.274"W	1.33	EXIT RADIUS HEEL (461'FSL & 1208'FWL,SEC.13) 40.0452807 -104.7306317

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#25 AZUL 13-8HZ (919'FSL & 1309'FWL,SEC.13)
Area	COLORADO	Well	AZUL 13-8HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	AZUL 13-8HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH DATA (187 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
8455.00	88.520	0.440	7318.88	-416.07	-416.07	-99.73	1715804.04	14543378.05	40°02'43.425"N	104°43'50.268"W	1.33	
8543.00	89.320	0.740	7320.54	-328.09	-328.09	-98.82	1715804.68	14543465.99	40°02'44.295"N	104°43'50.257"W	0.97	
8630.00	89.820	1.570	7321.19	-241.11	-241.11	-97.07	1715806.16	14543552.94	40°02'45.154"N	104°43'50.234"W	1.11	
8718.00	90.090	1.340	7321.26	-153.14	-153.14	-94.83	1715808.13	14543640.88	40°02'46.024"N	104°43'50.205"W	0.40	
8805.00	90.060	0.700	7321.15	-66.15	-66.15	-93.28	1715809.42	14543727.84	40°02'46.883"N	104°43'50.185"W	0.74	
8893.00	91.420	0.230	7320.01	21.83	21.83	-92.57	1715809.86	14543815.79	40°02'47.753"N	104°43'50.176"W	1.64	
8980.00	92.150	359.980	7317.30	108.79	108.79	-92.41	1715809.76	14543902.72	40°02'48.612"N	104°43'50.174"W	0.89	
9068.00	91.420	1.600	7314.56	196.74	196.74	-91.20	1715810.71	14543990.63	40°02'49.481"N	104°43'50.159"W	2.02	
9155.00	90.620	2.400	7313.01	283.67	283.67	-88.16	1715813.48	14544077.54	40°02'50.340"N	104°43'50.120"W	1.30	
9243.00	90.770	2.170	7311.95	371.59	371.59	-84.65	1715816.72	14544165.44	40°02'51.209"N	104°43'50.075"W	0.31	
9330.00	91.260	2.450	7310.40	458.51	458.51	-81.15	1715819.96	14544252.33	40°02'52.068"N	104°43'50.029"W	0.65	
9418.00	91.850	2.390	7308.02	546.39	546.39	-77.43	1715823.41	14544340.19	40°02'52.937"N	104°43'49.982"W	0.67	
9505.00	90.120	1.920	7306.52	633.32	633.32	-74.16	1715826.41	14544427.09	40°02'53.796"N	104°43'49.940"W	2.06	
9592.00	90.000	1.850	7306.43	720.27	720.27	-71.30	1715829.01	14544514.02	40°02'54.655"N	104°43'49.903"W	0.16	
9679.00	89.780	1.500	7306.60	807.23	807.23	-68.76	1715831.29	14544600.95	40°02'55.514"N	104°43'49.870"W	0.48	
9766.00	90.090	1.050	7306.70	894.21	894.21	-66.82	1715832.96	14544687.90	40°02'56.374"N	104°43'49.845"W	0.63	
9854.00	90.580	0.780	7306.18	982.20	982.20	-65.42	1715834.10	14544775.86	40°02'57.243"N	104°43'49.827"W	0.64	
9942.00	91.350	0.970	7304.70	1070.17	1070.17	-64.07	1715835.18	14544863.80	40°02'58.113"N	104°43'49.810"W	0.90	
10029.00	92.030	0.370	7302.13	1157.13	1157.13	-63.06	1715835.93	14544950.73	40°02'58.972"N	104°43'49.797"W	1.04	
10117.00	90.460	359.550	7300.22	1245.10	1245.10	-63.12	1715835.60	14545038.67	40°02'59.841"N	104°43'49.798"W	2.01	
10205.00	91.080	359.410	7299.04	1333.09	1333.09	-63.92	1715834.54	14545126.62	40°03'00.711"N	104°43'49.808"W	0.72	
10293.00	91.230	358.860	7297.26	1421.06	1421.06	-65.24	1715832.94	14545214.55	40°03'01.580"N	104°43'49.825"W	0.65	
10381.00	90.680	358.490	7295.80	1509.03	1509.03	-67.28	1715830.64	14545302.47	40°03'02.450"N	104°43'49.851"W	0.75	
10468.00	90.280	357.440	7295.07	1595.97	1595.97	-70.37	1715827.29	14545389.37	40°03'03.309"N	104°43'49.891"W	1.29	
10555.00	90.740	357.210	7294.29	1682.87	1682.87	-74.43	1715822.97	14545476.22	40°03'04.168"N	104°43'49.943"W	0.59	
10643.00	90.280	358.570	7293.51	1770.81	1770.81	-77.67	1715819.46	14545564.11	40°03'05.037"N	104°43'49.985"W	1.63	
10730.00	89.940	0.160	7293.34	1857.80	1857.80	-78.63	1715818.24	14545651.07	40°03'05.896"N	104°43'49.997"W	1.87	
10818.00	90.650	1.060	7292.89	1945.79	1945.79	-77.70	1715818.91	14545739.03	40°03'06.766"N	104°43'49.985"W	1.30	
10906.00	89.720	1.230	7292.61	2033.77	2033.77	-75.94	1715820.40	14545826.98	40°03'07.635"N	104°43'49.963"W	1.07	
10993.00	88.950	0.470	7293.62	2120.75	2120.75	-74.65	1715821.43	14545913.93	40°03'08.495"N	104°43'49.946"W	1.24	
11081.00	89.200	359.820	7295.04	2208.74	2208.74	-74.42	1715821.38	14546001.88	40°03'09.364"N	104°43'49.943"W	0.79	
11168.00	90.220	359.670	7295.48	2295.74	2295.74	-74.81	1715820.73	14546088.84	40°03'10.224"N	104°43'49.948"W	1.19	
11256.00	90.620	359.670	7294.83	2383.73	2383.73	-75.32	1715819.96	14546176.80	40°03'11.094"N	104°43'49.955"W	0.45	
11344.00	90.430	359.730	7294.03	2471.73	2471.73	-75.78	1715819.23	14546264.76	40°03'11.963"N	104°43'49.960"W	0.23	
11431.00	90.250	359.910	7293.51	2558.73	2558.73	-76.05	1715818.69	14546351.72	40°03'12.823"N	104°43'49.964"W	0.29	
11493.00†	90.785	359.600	7292.95	2620.72	2620.72	-76.32	1715818.24	14546413.69	40°03'13.436"N	104°43'49.967"W	1.00	ENTER RADIUS TOE (1746'FNL & 1222'FWL, SEC.13) 40.0537321 -104.7305465
11519.00	91.010	359.470	7292.54	2646.72	2646.72	-76.53	1715817.95	14546439.68	40°03'13.693"N	104°43'49.970"W	1.00	
11606.00	91.140	359.210	7290.91	2733.70	2733.70	-77.53	1715816.69	14546526.62	40°03'14.552"N	104°43'49.983"W	0.33	
11693.00	91.480	358.480	7288.92	2820.66	2820.66	-79.28	1715814.67	14546613.54	40°03'15.411"N	104°43'50.006"W	0.93	
11781.00	91.790	0.610	7286.41	2908.61	2908.61	-79.98	1715813.71	14546701.46	40°03'16.281"N	104°43'50.015"W	2.44	
11868.00	91.450	0.750	7283.95	2995.57	2995.57	-78.95	1715814.48	14546788.39	40°03'17.140"N	104°43'50.001"W	0.42	
11956.00	91.020	1.820	7282.05	3083.53	3083.53	-76.98	1715816.18	14546876.31	40°03'18.009"N	104°43'49.976"W	1.31	
12043.00	90.370	1.190	7281.00	3170.49	3170.49	-74.69	1715818.20	14546963.25	40°03'18.869"N	104°43'49.947"W	1.04	
12131.00	89.690	0.770	7280.95	3258.48	3258.48	-73.19	1715819.44	14547051.20	40°03'19.738"N	104°43'49.927"W	0.91	
12218.00	89.850	0.750	7281.30	3345.47	3345.47	-72.03	1715820.33	14547138.16	40°03'20.598"N	104°43'49.912"W	0.19	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#25 AZUL 13-8HZ (919'FSL & 1309'FWL,SEC.13)
Area	COLORADO	Well	AZUL 13-8HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	AZUL 13-8HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH DATA (187 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
12306.00	90.710	0.890	7280.87	3433.46	3433.46	-70.77	1715821.32	14547226.12	40°03'21.467"N	104°43'49.896"W	0.99	
12394.00	87.570	0.240	7282.19	3521.43	3521.43	-69.91	1715821.92	14547314.06	40°03'22.337"N	104°43'49.885"W	3.64	
12481.00	87.840	359.920	7285.68	3608.36	3608.36	-69.78	1715821.78	14547400.96	40°03'23.196"N	104°43'49.883"W	0.48	
12568.00	89.170	0.000	7287.95	3695.33	3695.33	-69.85	1715821.46	14547487.89	40°03'24.055"N	104°43'49.884"W	1.53	
12656.00	89.880	359.840	7288.68	3783.33	3783.33	-69.97	1715821.07	14547575.85	40°03'24.925"N	104°43'49.886"W	0.83	
12691.00	90.460	359.390	7288.57	3818.33	3818.33	-70.20	1715820.73	14547610.84	40°03'25.271"N	104°43'49.889"W	2.10	LAST BHGE MWD+IFR1+SC SURVEY
12737.00	90.460	359.390	7288.20	3864.32	3864.32	-70.69	1715820.10	14547656.81	40°03'25.725"N	104°43'49.895"W	0.00	PTB (503'FNL & 1227'FWL, SEC.13) 40.0571459 -104.7305264

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	1.42	-150.10	1715752.42	14543795.21	40°02'47.551"N	104°43'50.916"W	polygon
SEC.24-T1N-R66W	0.00	1.42	-150.10	1715752.42	14543795.21	40°02'47.551"N	104°43'50.916"W	polygon
AZUL 13-8HZ BHL REV-1(469'FNL & 1218'FWL,SEC.13)	7286.00	3898.25	-80.09	1715810.60	14547690.70	40°03'26.060"N	104°43'50.016"W	point
AZUL 13-8HZ HEEL REV-1(50'FSL & 1232'FWL,SEC.13)	7325.00	-869.58	-80.11	1715825.02	14542924.78	40°02'38.944"N	104°43'50.016"W	point
AZUL 13-8HZ LANDBOX	7325.00	0.00	0.00	1715902.46	14543794.25	40°02'47.537"N	104°43'48.986"W	polygon
AZUL 13-8HZ RADIUS 1	7325.00	-901.47	21.02	1715926.20	14542893.20	40°02'38.628"N	104°43'48.716"W	polygon
AZUL 13-8HZ RADIUS 2	7325.00	3068.59	28.84	1715922.00	14546861.70	40°03'17.862"N	104°43'48.615"W	polygon

WELLPATH COMPOSITION - Ref Wellbore: AZUL 13-8HZ AWB Ref Wellpath: AZUL 13-8HZ AWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	1826.00	Custom APC ISCWSA REV 2 MWD+IFR1 (approximation)	Custom APC ISCWSA Rev-2 MWD+IFR1 <125 - 1826>	AZUL 13-8HZ AWB
1826.00	12691.00	Custom APC ISCWSA REV 2 MWD+IFR1+SC (approximation)	BHGE Custom APC ISCWSA Rev-2 MWD+IFR1+SC <1893 - 12691>	AZUL 13-8HZ AWB
12691.00	12737.00	Blind Drilling (std)	Projection to bit	AZUL 13-8HZ AWB

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#25 AZUL 13-8HZ (919'FSL & 1309'FWL,SEC.13)
Area	COLORADO	Well	AZUL 13-8HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	AZUL 13-8HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
125.00	0.620	100.560	125.00	FIRST SURFACE MWD+IFR1 SURVEY
1826.00	19.600	184.670	1793.30	LAST SURFACE MWD+IFR1 SURVEY
1893.00	20.050	186.290	1856.33	FIRST BHGE MWD+IFR1+SC SURVEY
6817.00	1.669	14.054	6553.89	KOP
7974.00	91.350	0.340	7319.80	LANDING (12'FSL & 1203'FWL,SEC.13) 40.0440758 -104.7306509
8413.00	88.954	0.792	7317.96	EXIT RADIUS HEEL (461'FSL & 1208'FWL,SEC.13) 40.0452807 -104.7306317
11493.00	90.785	359.600	7292.95	ENTER RADIUS TOE (1746'FNL & 1222'FWL,SEC.13) 40.0537321 -104.7305465
12691.00	90.460	359.390	7288.57	LAST BHGE MWD+IFR1+SC SURVEY
12737.00	90.460	359.390	7288.20	PTB (503'FNL & 1227'FWL,SEC.13) 40.0571459 -104.7305264