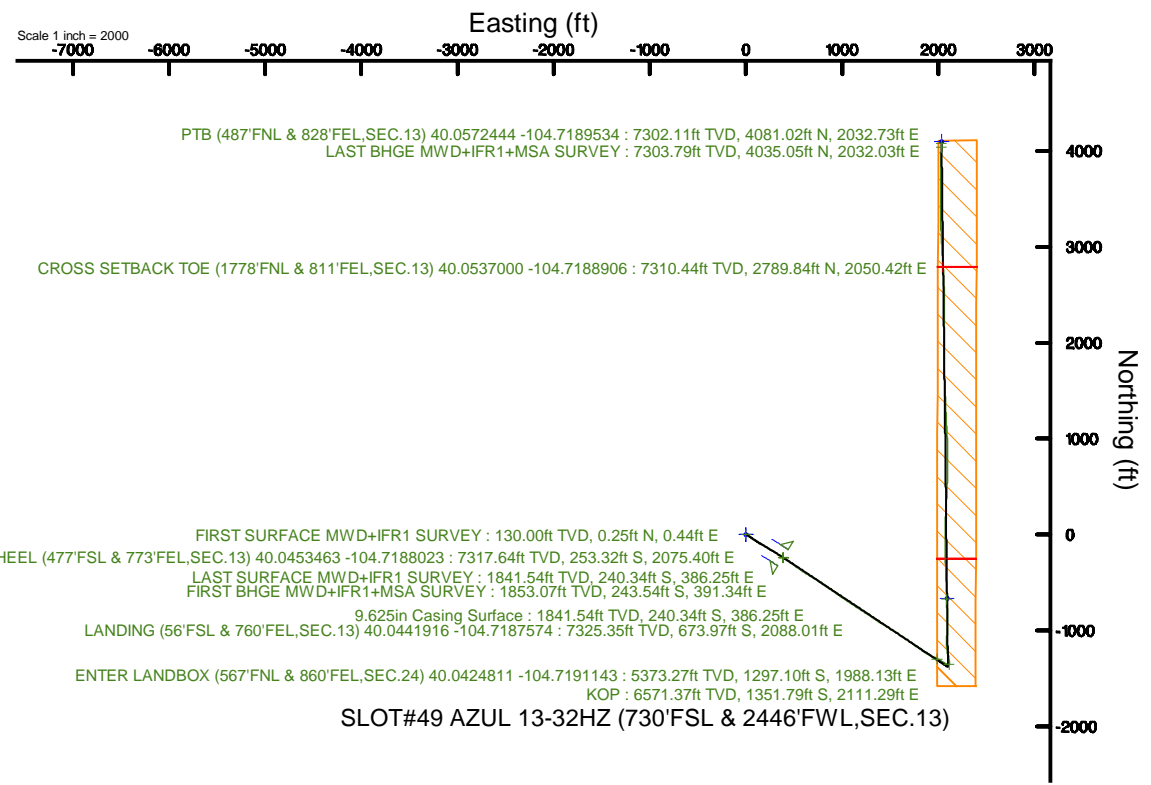
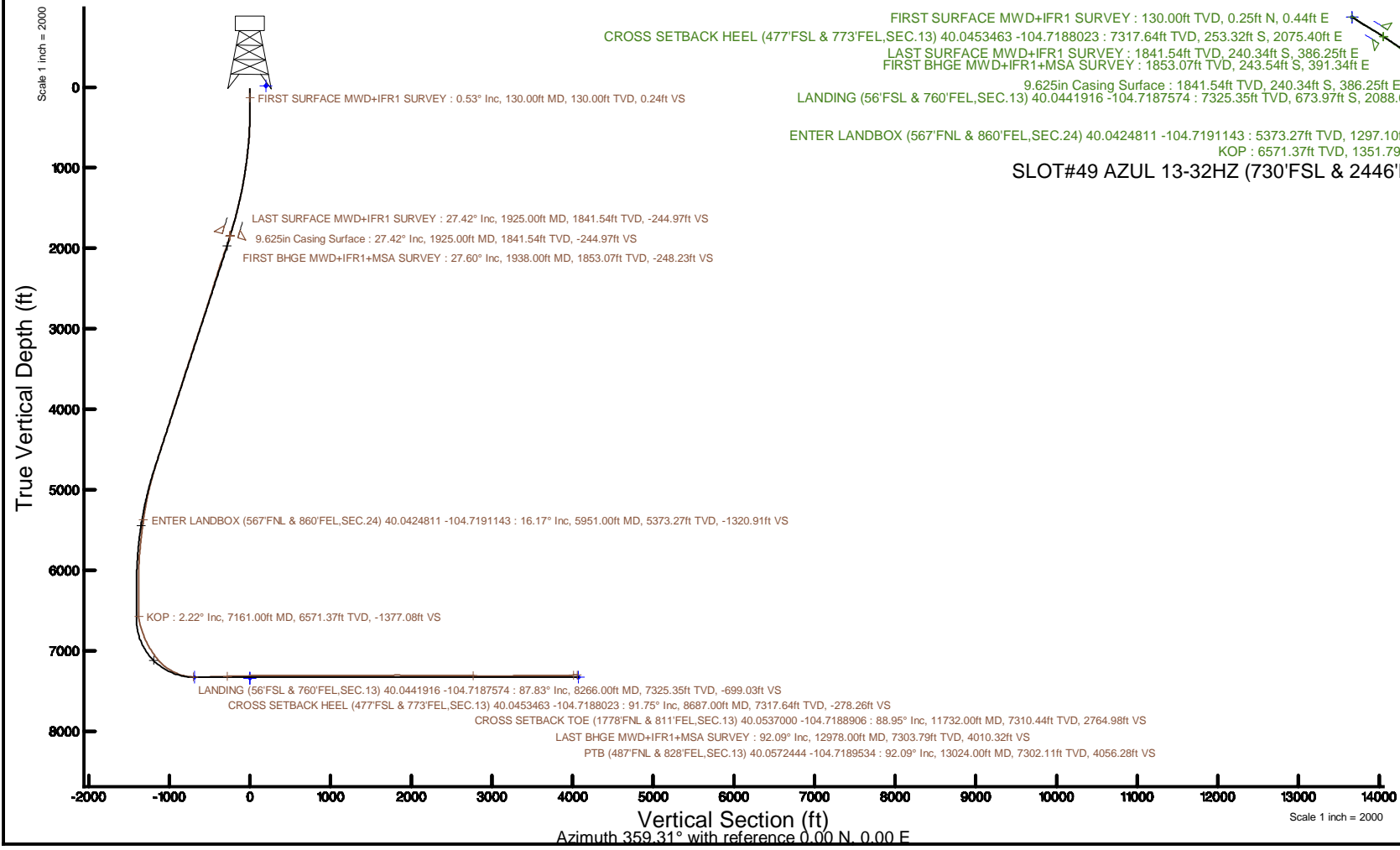


KERR-MCGEE OIL & GAS ONSHORE LP (WA)

Location: COLORADO	Slot: SLOT#49 AZUL 13-32HZ (730'FSL & 2446'FWL,SEC.13)
Field: WELD COUNTY (UTM/TRUE NORTH)	Well: AZUL 13-32HZ
Facility: SEC.13-T1N-R66W	Wellbore: AZUL 13-32HZ PWB
Plot reference wellpath is AZUL 13-32HZ PWP Rev-A.0	Grid System: NAD83 / UTM Zone 13 North, US feet
True vertical depths are referenced to PD 464 (21') (RT)	* = Wellpath was transformed from a different geodetic datum
Measured depths are referenced to PD 464 (21') (RT)	North Reference: True north
PD 464 (21') (RT) to Mean Sea Level: 5071 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#49 AZUL 13-32HZ (730'FSL & 2446'FWL,SEC.13)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: painsetr on 2018-04-17
	Database: WA, DEN, Anadarko, Defn



REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#49 AZUL 13-32HZ (730'FSL & 2446'FWL,SEC.13)
Area	COLORADO	Well	AZUL 13-32HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	AZUL 13-32HZ 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	4/17/2018 at 1:26 PM
Convergence at slot	0.18° East	Database/Source file	WA_DEN_Anadarko_Defn/AZUL_13-32HZ_AWP.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-4339.40	-444.85	1717038.95	14543617.06	40°02'45.751"N	104°43'34.374"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	PD 464 (21') (RT) to Facility Vertical Datum	5071.00ft
Horizontal Reference Pt	Slot	PD 464 (21') (RT) to Mean Sea Level	5071.00ft
Vertical Reference Pt	PD 464 (21') (RT)	PD 464 (21') (RT) to Mud Line at Slot (SLOT#49 AZUL 13-32HZ (730'FSL & 2446'FWL,SEC.13))	5071.00ft
MD Reference Pt	PD 464 (21') (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	359.31°

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#49 AZUL 13-32HZ (730'FSL & 2446'FWL, SEC.13)
Area	COLORADO	Well	AZUL 13-32HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	AZUL 13-32HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH DATA (185 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	60.750	0.00	0.00	0.00	0.00	1717038.94	14543617.06	40°02'45.751°N	104°43'34.374°W	0.00	
21.00	0.000	60.750	21.00	0.00	0.00	0.00	1717038.94	14543617.06	40°02'45.751°N	104°43'34.374°W	0.00	
130.00	0.530	60.750	130.00	0.24	0.25	0.44	1717039.38	14543617.31	40°02'45.753°N	104°43'34.368°W	0.49	FIRST SURFACE MWD+IFR1 SURVEY
162.00	0.570	48.620	162.00	0.42	0.42	0.69	1717039.63	14543617.49	40°02'45.755°N	104°43'34.365°W	0.38	
194.00	1.100	87.990	193.99	0.53	0.54	1.11	1717040.06	14543617.60	40°02'45.756°N	104°43'34.360°W	2.35	
226.00	1.580	119.720	225.99	0.31	0.33	1.80	1717040.75	14543617.40	40°02'45.754°N	104°43'34.351°W	2.71	
257.00	1.850	112.950	256.97	-0.11	-0.08	2.64	1717041.58	14543616.99	40°02'45.750°N	104°43'34.340°W	1.09	
289.00	2.240	113.220	288.95	-0.57	-0.52	3.69	1717042.63	14543616.55	40°02'45.746°N	104°43'34.327°W	1.22	
320.00	2.590	118.400	319.92	-1.15	-1.10	4.86	1717043.81	14543615.98	40°02'45.740°N	104°43'34.312°W	1.33	
352.00	2.290	117.610	351.89	-1.81	-1.74	6.06	1717045.01	14543615.35	40°02'45.734°N	104°43'34.296°W	0.94	
383.00	1.850	129.830	382.87	-2.43	-2.34	7.00	1717045.94	14543614.74	40°02'45.728°N	104°43'34.284°W	2.00	
415.00	1.540	125.520	414.86	-3.02	-2.92	7.74	1717046.69	14543614.16	40°02'45.722°N	104°43'34.274°W	1.05	
446.00	1.930	132.470	445.85	-3.62	-3.52	8.47	1717047.42	14543613.57	40°02'45.716°N	104°43'34.265°W	1.43	
478.00	2.680	126.840	477.82	-4.44	-4.33	9.46	1717048.42	14543612.76	40°02'45.708°N	104°43'34.252°W	2.45	
509.00	3.650	122.620	508.77	-5.43	-5.30	10.87	1717049.83	14543611.80	40°02'45.699°N	104°43'34.234°W	3.22	
541.00	4.750	120.340	540.69	-6.67	-6.52	12.88	1717051.84	14543610.59	40°02'45.687°N	104°43'34.208°W	3.48	
573.00	6.020	120.250	572.54	-8.22	-8.03	15.47	1717054.43	14543609.08	40°02'45.672°N	104°43'34.175°W	3.97	
605.00	7.160	119.190	604.33	-10.07	-9.85	18.66	1717057.63	14543607.27	40°02'45.654°N	104°43'34.134°W	3.58	
637.00	7.910	117.520	636.06	-12.11	-11.84	22.35	1717061.33	14543605.30	40°02'45.634°N	104°43'34.087°W	2.44	
668.00	8.610	119.630	666.73	-14.29	-13.97	26.26	1717065.24	14543603.18	40°02'45.613°N	104°43'34.036°W	2.46	
700.00	9.360	123.940	698.34	-16.97	-16.61	30.50	1717069.49	14543600.55	40°02'45.587°N	104°43'33.982°W	3.15	
732.00	10.110	123.850	729.88	-20.04	-19.63	34.99	1717073.99	14543597.55	40°02'45.557°N	104°43'33.924°W	2.34	
795.00	10.810	124.380	791.83	-26.57	-26.04	44.46	1717083.47	14543591.17	40°02'45.494°N	104°43'33.802°W	1.12	
827.00	11.250	123.850	823.24	-30.07	-29.47	49.53	1717088.55	14543587.75	40°02'45.460°N	104°43'33.737°W	1.41	
859.00	11.690	122.800	854.60	-33.63	-32.97	54.85	1717093.87	14543584.27	40°02'45.425°N	104°43'33.669°W	1.52	
891.00	12.480	124.470	885.89	-37.41	-36.68	60.42	1717099.46	14543580.58	40°02'45.388°N	104°43'33.597°W	2.70	
922.00	13.140	123.680	916.12	-41.32	-40.53	66.12	1717105.16	14543576.75	40°02'45.350°N	104°43'33.524°W	2.20	
954.00	13.710	124.200	947.25	-45.55	-44.68	72.28	1717111.33	14543572.62	40°02'45.309°N	104°43'33.445°W	1.82	
986.00	14.110	123.240	978.31	-49.89	-48.95	78.68	1717117.74	14543568.37	40°02'45.267°N	104°43'33.362°W	1.44	
1018.00	14.770	123.680	1009.30	-54.37	-53.35	85.34	1717124.41	14543563.99	40°02'45.224°N	104°43'33.277°W	2.09	
1049.00	15.690	122.800	1039.21	-58.92	-57.81	92.15	1717131.23	14543559.55	40°02'45.180°N	104°43'33.189°W	3.06	
1081.00	16.350	122.800	1069.97	-63.79	-62.60	99.57	1717138.67	14543554.80	40°02'45.132°N	104°43'33.094°W	2.06	
1113.00	16.960	122.530	1100.62	-68.83	-67.55	107.29	1717146.40	14543549.87	40°02'45.083°N	104°43'32.994°W	1.92	
1176.00	17.800	120.780	1160.75	-78.89	-77.42	123.31	1717162.45	14543540.06	40°02'44.986°N	104°43'32.788°W	1.57	
1208.00	18.410	120.510	1191.16	-84.06	-82.48	131.87	1717171.01	14543535.01	40°02'44.936°N	104°43'32.678°W	1.92	
1240.00	19.560	122.270	1221.42	-89.60	-87.91	140.75	1717179.91	14543529.62	40°02'44.882°N	104°43'32.564°W	4.01	
1272.00	20.000	121.650	1251.53	-95.44	-93.64	149.94	1717189.11	14543523.92	40°02'44.826°N	104°43'32.446°W	1.52	
1303.00	20.390	120.690	1280.63	-101.09	-99.18	159.10	1717198.28	14543518.41	40°02'44.771°N	104°43'32.328°W	1.65	
1335.00	20.960	121.130	1310.57	-107.01	-104.98	168.79	1717207.99	14543512.64	40°02'44.714°N	104°43'32.204°W	1.85	
1399.00	23.200	121.390	1369.87	-119.74	-117.47	189.35	1717228.58	14543500.22	40°02'44.590°N	104°43'31.939°W	3.50	
1430.00	23.380	121.830	1398.34	-126.29	-123.89	199.79	1717239.04	14543493.83	40°02'44.527°N	104°43'31.805°W	0.81	
1462.00	23.420	121.220	1427.71	-133.06	-130.54	210.62	1717249.89	14543487.22	40°02'44.461°N	104°43'31.666°W	0.77	
1494.00	23.640	120.690	1457.05	-139.76	-137.11	221.58	1717260.86	14543480.69	40°02'44.396°N	104°43'31.525°W	0.95	
1525.00	24.430	120.510	1485.36	-146.32	-143.54	232.45	1717271.74	14543474.30	40°02'44.333°N	104°43'31.385°W	2.56	
1557.00	24.870	120.510	1514.45	-153.23	-150.31	243.95	1717283.25	14543467.56	40°02'44.266°N	104°43'31.237°W	1.37	

Actual Wellpath Report

AZUL 13-32HZ AWP

Page 3 of 7



REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#49 AZUL 13-32HZ (730'FSL & 2446'FWL, SEC.13)
Area	COLORADO	Well	AZUL 13-32HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	AZUL 13-32HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH DATA (185 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
1588.00	25.220	120.510	1542.53	-160.03	-156.97	255.25	1717294.58	14543460.93	40°02'44.200"N	104°43'31.092"W	1.13	
1620.00	25.580	119.980	1571.44	-167.09	-163.89	267.11	1717306.45	14543454.06	40°02'44.131"N	104°43'30.939"W	1.33	
1652.00	26.240	120.070	1600.22	-174.23	-170.88	279.22	1717318.57	14543447.10	40°02'44.062"N	104°43'30.784"W	2.07	
1684.00	27.470	122.180	1628.77	-181.85	-178.36	291.58	1717330.96	14543439.67	40°02'43.988"N	104°43'30.625"W	4.86	
1715.00	27.730	123.760	1656.24	-189.81	-186.18	303.63	1717343.03	14543431.89	40°02'43.911"N	104°43'30.470"W	2.51	
1747.00	28.040	123.940	1684.53	-198.30	-194.51	316.06	1717355.48	14543423.60	40°02'43.829"N	104°43'30.310"W	1.00	
1779.00	28.780	123.590	1712.67	-206.91	-202.97	328.72	1717368.16	14543415.18	40°02'43.745"N	104°43'30.147"W	2.37	
1811.00	28.430	123.410	1740.77	-215.52	-211.43	341.49	1717380.95	14543406.76	40°02'43.662"N	104°43'29.983"W	1.13	
1843.00	28.390	123.760	1768.91	-224.10	-219.85	354.18	1717393.66	14543398.39	40°02'43.578"N	104°43'29.820"W	0.54	
1874.00	27.640	122.710	1796.28	-232.22	-227.83	366.36	1717405.85	14543390.44	40°02'43.499"N	104°43'29.663"W	2.90	
1885.00	27.420	122.090	1806.04	-235.00	-230.56	370.65	1717410.15	14543387.73	40°02'43.473"N	104°43'29.608"W	3.28	
1925.00	27.420	122.090	1841.54	-244.97	-240.34	386.25	1717425.78	14543378.00	40°02'43.376"N	104°43'29.407"W	0.00	LAST SURFACE MWD+IFR1 SURVEY
1938.00	27.600	122.260	1853.07	-248.23	-243.54	391.34	1717430.87	14543374.82	40°02'43.344"N	104°43'29.342"W	1.51	FIRST BHGE MWD+IFR1+MSA SURVEY
2028.00	29.770	124.070	1932.02	-272.31	-267.19	427.48	1717467.08	14543351.29	40°02'43.111"N	104°43'28.877"W	2.60	
2117.00	31.620	125.660	2008.55	-298.74	-293.17	464.74	1717504.40	14543325.44	40°02'42.854"N	104°43'28.398"W	2.27	
2207.00	31.240	125.000	2085.35	-326.34	-320.31	503.03	1717542.76	14543298.42	40°02'42.586"N	104°43'27.906"W	0.57	
2297.00	30.470	124.320	2162.61	-353.04	-346.56	540.99	1717580.79	14543272.30	40°02'42.326"N	104°43'27.418"W	0.94	
2386.00	30.110	123.970	2239.46	-378.69	-371.76	578.14	1717618.00	14543247.23	40°02'42.077"N	104°43'26.940"W	0.45	
2476.00	29.140	123.090	2317.69	-403.71	-396.34	615.23	1717655.14	14543222.77	40°02'41.834"N	104°43'26.463"W	1.18	
2565.00	30.520	122.040	2394.90	-427.98	-420.16	652.54	1717692.51	14543199.08	40°02'41.599"N	104°43'25.984"W	1.66	
2655.00	29.340	121.010	2472.90	-451.92	-443.64	690.81	1717730.84	14543175.72	40°02'41.367"N	104°43'25.492"W	1.43	
2745.00	29.720	123.580	2551.21	-476.07	-467.34	728.30	1717768.39	14543152.14	40°02'41.132"N	104°43'25.010"W	1.47	
2835.00	28.400	123.730	2629.88	-500.73	-491.57	764.68	1717804.83	14543128.04	40°02'40.893"N	104°43'24.542"W	1.47	
2924.00	29.150	124.720	2707.89	-525.25	-515.67	800.10	1717840.31	14543104.06	40°02'40.655"N	104°43'24.086"W	1.00	
3014.00	30.320	124.750	2786.03	-551.12	-541.10	836.79	1717877.06	14543078.75	40°02'40.404"N	104°43'23.615"W	1.30	
3104.00	29.120	123.390	2864.20	-576.57	-566.10	873.74	1717914.07	14543053.87	40°02'40.156"N	104°43'23.139"W	1.53	
3193.00	29.430	124.210	2941.83	-601.21	-590.31	909.90	1717950.30	14543029.78	40°02'39.917"N	104°43'22.674"W	0.57	
3283.00	30.280	126.150	3019.89	-627.47	-616.13	946.51	1717986.97	14543004.08	40°02'39.662"N	104°43'22.204"W	1.43	
3373.00	28.940	125.000	3098.13	-653.78	-642.01	982.67	1718023.20	14542978.33	40°02'39.406"N	104°43'21.739"W	1.62	
3462.00	31.280	123.970	3175.12	-679.48	-667.27	1019.48	1718060.07	14542953.19	40°02'39.157"N	104°43'21.266"W	2.69	
3552.00	29.930	123.330	3252.58	-705.33	-692.67	1057.62	1718098.27	14542927.92	40°02'38.906"N	104°43'20.775"W	1.54	
3641.00	28.780	123.220	3330.15	-729.71	-716.60	1094.09	1718134.80	14542904.11	40°02'38.669"N	104°43'20.306"W	1.29	
3731.00	30.550	123.900	3408.35	-754.78	-741.23	1131.21	1718171.98	14542879.60	40°02'38.426"N	104°43'19.829"W	2.00	
3821.00	31.090	123.460	3485.64	-780.81	-766.80	1169.58	1718210.41	14542854.16	40°02'38.173"N	104°43'19.336"W	0.65	
3910.00	29.390	121.600	3562.53	-805.38	-790.92	1207.35	1718248.24	14542830.17	40°02'37.935"N	104°43'18.850"W	2.18	
4000.00	30.100	123.070	3640.67	-829.72	-814.80	1245.07	1718286.03	14542806.41	40°02'37.699"N	104°43'18.365"W	1.13	
4090.00	28.910	123.700	3719.00	-854.55	-839.19	1282.09	1718323.10	14542782.15	40°02'37.458"N	104°43'17.889"W	1.37	
4179.00	28.670	126.650	3797.00	-879.65	-863.87	1317.11	1718358.19	14542757.58	40°02'37.214"N	104°43'17.439"W	1.62	
4269.00	30.860	122.960	3875.13	-905.54	-889.32	1353.81	1718394.95	14542732.26	40°02'36.962"N	104°43'16.967"W	3.17	
4359.00	31.350	122.630	3952.19	-931.19	-914.50	1392.89	1718434.09	14542707.20	40°02'36.713"N	104°43'16.464"W	0.58	
4448.00	29.180	121.440	4029.05	-955.45	-938.31	1430.91	1718472.16	14542683.53	40°02'36.478"N	104°43'15.976"W	2.53	
4561.00	29.130	123.170	4127.74	-985.42	-967.73	1477.43	1718518.76	14542654.26	40°02'36.187"N	104°43'15.377"W	0.75	
4651.00	30.800	120.850	4205.71	-1009.68	-991.53	1515.56	1718556.94	14542630.59	40°02'35.952"N	104°43'14.887"W	2.26	
4741.00	30.950	122.950	4282.96	-1034.56	-1015.93	1554.76	1718596.20	14542606.31	40°02'35.711"N	104°43'14.383"W	1.21	
4831.00	31.500	124.290	4359.92	-1060.86	-1041.77	1593.61	1718635.12	14542580.61	40°02'35.455"N	104°43'13.884"W	0.98	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#49 AZUL 13-32HZ (730'FSL & 2446'FWL, SEC.13)
Area	COLORADO	Well	AZUL 13-32HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	AZUL 13-32HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH DATA (185 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]	
4920.00	30.590	123.740	4436.17	-1086.99	-1067.45	1631.65	1718673.22	14542555.06	40°02'35.202"N	104°43'13.395"W	1.07	
5010.00	28.590	123.240	4514.43	-1111.96	-1091.97	1668.71	1718710.34	14542530.66	40°02'34.959"N	104°43'12.918"W	2.24	
5099.00	27.450	125.250	4593.00	-1135.89	-1115.48	1703.27	1718744.96	14542507.26	40°02'34.727"N	104°43'12.474"W	1.66	
5189.00	27.330	125.450	4672.91	-1160.24	-1139.44	1737.04	1718778.79	14542483.42	40°02'34.490"N	104°43'12.040"W	0.17	
5279.00	27.150	125.790	4752.93	-1184.64	-1163.43	1770.53	1718812.34	14542459.54	40°02'34.253"N	104°43'11.609"W	0.26	
5369.00	25.540	124.880	4833.58	-1208.13	-1186.54	1803.10	1718844.97	14542436.54	40°02'34.025"N	104°43'11.190"W	1.84	
5458.00	24.280	125.650	4914.30	-1230.14	-1208.17	1833.71	1718875.64	14542415.01	40°02'33.811"N	104°43'10.797"W	1.46	
5548.00	24.760	120.790	4996.19	-1250.95	-1228.61	1864.94	1718906.92	14542394.68	40°02'33.609"N	104°43'10.395"W	2.30	
5638.00	23.090	119.330	5078.45	-1269.62	-1246.90	1896.52	1718938.54	14542376.49	40°02'33.428"N	104°43'09.989"W	1.97	
5727.00	21.290	118.940	5160.86	-1286.34	-1263.27	1925.88	1718967.94	14542360.22	40°02'33.266"N	104°43'09.612"W	2.03	
5817.00	18.870	116.300	5245.38	-1301.02	-1277.63	1953.23	1718995.32	14542345.95	40°02'33.124"N	104°43'09.260"W	2.87	
5907.00	16.750	121.150	5331.07	-1314.47	-1290.79	1977.38	1719019.50	14542332.87	40°02'32.994"N	104°43'08.950"W	2.87	
5951.00†	16.172	119.642	5373.27	-1320.91	-1297.10	1988.13	1719030.27	14542326.59	40°02'32.932"N	104°43'08.811"W	1.63	ENTER LANDBOX (567'FNL & 860'FEL, SEC.24) 40.0424811 -104.7191143
5997.00	15.580	117.950	5417.51	-1327.11	-1303.16	1999.16	1719041.31	14542320.57	40°02'32.872"N	104°43'08.670"W	1.63	
6086.00	13.960	117.300	5503.57	-1337.87	-1313.69	2019.26	1719061.43	14542310.11	40°02'32.768"N	104°43'08.411"W	1.83	
6176.00	11.920	121.230	5591.28	-1347.88	-1323.49	2036.85	1719079.05	14542300.36	40°02'32.671"N	104°43'08.185"W	2.47	
6266.00	9.640	124.810	5679.69	-1357.17	-1332.61	2050.99	1719093.21	14542291.29	40°02'32.581"N	104°43'08.003"W	2.64	
6356.00	8.170	128.660	5768.60	-1365.61	-1340.91	2062.17	1719104.41	14542283.03	40°02'32.499"N	104°43'07.859"W	1.76	
6445.00	6.750	122.890	5856.85	-1372.51	-1347.70	2071.50	1719113.76	14542276.27	40°02'32.432"N	104°43'07.740"W	1.80	
6534.00	5.200	116.240	5945.36	-1377.23	-1352.32	2079.51	1719121.78	14542271.67	40°02'32.386"N	104°43'07.637"W	1.90	
6624.00	4.530	108.340	6035.04	-1380.23	-1355.24	2086.54	1719128.82	14542268.77	40°02'32.357"N	104°43'07.546"W	1.05	
6803.00	2.940	77.920	6213.67	-1381.63	-1356.51	2097.74	1719140.02	14542267.54	40°02'32.345"N	104°43'07.402"W	1.39	
6892.00	2.560	78.600	6302.56	-1380.81	-1355.64	2101.92	1719144.19	14542268.43	40°02'32.353"N	104°43'07.348"W	0.43	
6982.00	2.260	74.670	6392.49	-1379.99	-1354.77	2105.61	1719147.87	14542269.31	40°02'32.362"N	104°43'07.301"W	0.38	
7072.00	1.960	65.980	6482.42	-1378.93	-1353.67	2108.72	1719150.98	14542270.41	40°02'32.373"N	104°43'07.261"W	0.49	
7161.00	2.220	43.000	6571.37	-1377.08	-1351.79	2111.29	1719153.54	14542272.30	40°02'32.391"N	104°43'07.228"W	0.98	KOP
7251.00	12.890	0.050	6660.49	-1365.75	-1340.44	2112.49	1719154.71	14542283.65	40°02'32.504"N	104°43'07.212"W	12.63	
7340.00	18.120	355.710	6746.23	-1341.99	-1316.70	2111.46	1719153.61	14542307.38	40°02'32.738"N	104°43'07.226"W	6.02	
7430.00	23.170	353.110	6830.42	-1310.40	-1285.14	2108.29	1719150.34	14542338.91	40°02'33.050"N	104°43'07.266"W	5.70	
7520.00	27.590	343.360	6911.75	-1272.72	-1247.56	2100.19	1719142.13	14542376.45	40°02'33.421"N	104°43'07.371"W	6.74	
7609.00	32.240	354.450	6988.93	-1229.20	-1204.13	2091.98	1719133.79	14542419.84	40°02'33.851"N	104°43'07.476"W	8.10	
7699.00	35.790	359.520	7063.53	-1178.93	-1153.89	2089.44	1719131.09	14542470.05	40°02'34.347"N	104°43'07.509"W	5.05	
7788.00	42.070	1.240	7132.74	-1123.05	-1098.00	2089.87	1719131.35	14542525.92	40°02'34.899"N	104°43'07.503"W	7.16	
7878.00	53.350	2.450	7193.20	-1056.65	-1031.57	2092.07	1719133.35	14542592.33	40°02'35.556"N	104°43'07.475"W	12.57	
7968.00	59.560	0.470	7242.91	-981.74	-956.63	2093.93	1719134.98	14542667.25	40°02'36.297"N	104°43'07.451"W	7.14	
8057.00	66.980	359.220	7282.92	-902.31	-877.19	2093.69	1719134.49	14542746.65	40°02'37.081"N	104°43'07.454"W	8.43	
8147.00	76.640	358.040	7310.98	-816.92	-791.82	2091.62	1719132.16	14542831.99	40°02'37.925"N	104°43'07.480"W	10.81	
8236.00	86.640	358.330	7323.90	-728.99	-703.92	2088.84	1719129.11	14542919.84	40°02'38.794"N	104°43'07.516"W	11.24	
8266.00†	87.833	358.477	7325.35	-699.03	-673.97	2088.01	1719128.19	14542949.78	40°02'39.090"N	104°43'07.527"W	4.01	LANDING (56'FSL & 760'FEL, SEC.13) 40.0441916 -104.7187574
8326.00	90.220	358.770	7326.37	-639.05	-614.00	2086.56	1719126.56	14543009.72	40°02'39.682"N	104°43'07.545"W	4.01	
8416.00	91.110	359.100	7325.32	-549.06	-524.02	2084.89	1719124.61	14543099.66	40°02'40.572"N	104°43'07.566"W	1.05	
8505.00	91.360	358.410	7323.40	-460.08	-435.06	2082.96	1719122.41	14543188.57	40°02'41.451"N	104°43'07.591"W	0.82	
8595.00	92.070	357.490	7320.71	-370.15	-345.16	2079.74	1719118.91	14543278.43	40°02'42.339"N	104°43'07.632"W	1.29	
8685.00	91.760	357.100	7317.70	-280.25	-255.31	2075.50	1719114.39	14543368.23	40°02'43.227"N	104°43'07.687"W	0.55	
8687.00†	91.754	357.142	7317.64	-278.26	-253.32	2075.40	1719114.29	14543370.22	40°02'43.247"N	104°43'07.688"W	2.10	CROSS SETBACK HEEL (477'FSL & 773'FEL, SEC.13) 40.0453463 -104.7188023

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#49 AZUL 13-32HZ (730'FSL & 2446'FWL, SEC.13)
Area	COLORADO	Well	AZUL 13-32HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	AZUL 13-32HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH DATA (185 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
8774.00	91.480	358.950	7315.19	-191.32	-166.41	2072.43	1719111.06	14543457.09	40°02'44.106"N	104°43'07.726"W	2.10	
8864.00	91.230	0.660	7313.06	-101.35	-76.44	2072.12	1719110.47	14543547.02	40°02'44.995"N	104°43'07.730"W	1.92	
8954.00	92.000	0.430	7310.52	-11.41	13.52	2072.98	1719111.05	14543636.95	40°02'45.884"N	104°43'07.719"W	0.89	
9043.00	89.510	1.640	7309.35	77.54	102.49	2074.59	1719112.39	14543725.89	40°02'46.763"N	104°43'07.698"W	3.11	
9133.00	91.420	2.870	7308.62	167.41	192.41	2078.13	1719115.65	14543815.78	40°02'47.652"N	104°43'07.653"W	2.52	
9223.00	88.710	1.190	7308.52	257.30	282.35	2081.32	1719118.56	14543905.69	40°02'48.540"N	104°43'07.612"W	3.54	
9312.00	89.780	2.700	7309.69	346.19	371.28	2084.34	1719121.31	14543994.60	40°02'49.419"N	104°43'07.573"W	2.08	
9402.00	90.120	2.830	7309.77	436.03	461.18	2088.68	1719125.37	14544084.47	40°02'50.308"N	104°43'07.517"W	0.40	
9491.00	89.970	1.070	7309.70	524.93	550.12	2091.71	1719128.12	14544173.39	40°02'51.187"N	104°43'07.478"W	1.98	
9581.00	89.820	0.630	7309.86	614.90	640.11	2093.04	1719129.18	14544263.35	40°02'52.076"N	104°43'07.460"W	0.52	
9671.00	89.780	1.000	7310.18	704.87	730.10	2094.32	1719130.18	14544353.31	40°02'52.965"N	104°43'07.444"W	0.41	
9760.00	90.220	1.380	7310.18	793.82	819.08	2096.17	1719131.76	14544442.26	40°02'53.845"N	104°43'07.420"W	0.65	
9850.00	92.120	358.490	7308.34	883.78	909.05	2096.07	1719131.38	14544532.19	40°02'54.734"N	104°43'07.421"W	3.84	
9939.00	90.090	356.340	7306.62	972.70	997.93	2092.05	1719127.10	14544621.02	40°02'55.612"N	104°43'07.473"W	3.32	
10029.00	90.800	356.870	7305.92	1062.60	1087.77	2086.72	1719121.49	14544710.81	40°02'56.500"N	104°43'07.541"W	0.98	
10119.00	88.740	357.120	7306.28	1152.52	1177.64	2082.01	1719116.50	14544800.63	40°02'57.388"N	104°43'07.602"W	2.31	
10208.00	89.290	357.520	7307.81	1241.45	1266.53	2077.85	1719112.07	14544889.47	40°02'58.266"N	104°43'07.655"W	0.76	
10298.00	90.250	357.760	7308.18	1331.41	1356.45	2074.14	1719108.09	14544979.35	40°02'59.155"N	104°43'07.703"W	1.10	
10387.00	91.420	358.250	7306.88	1420.38	1445.39	2071.04	1719104.72	14545068.24	40°03'00.034"N	104°43'07.742"W	1.43	
10477.00	89.570	358.090	7306.10	1510.35	1535.34	2068.17	1719101.57	14545158.14	40°03'00.923"N	104°43'07.779"W	2.06	
10567.00	90.030	357.820	7306.42	1600.33	1625.28	2064.96	1719098.08	14545248.03	40°03'01.812"N	104°43'07.820"W	0.59	
10656.00	90.680	358.390	7305.86	1689.31	1714.23	2062.01	1719094.87	14545336.94	40°03'02.691"N	104°43'07.858"W	0.97	
10746.00	91.380	358.630	7304.25	1779.28	1804.18	2059.67	1719092.25	14545426.85	40°03'03.579"N	104°43'07.888"W	0.82	
10836.00	88.860	0.000	7304.06	1869.27	1894.16	2058.60	1719090.90	14545516.79	40°03'04.469"N	104°43'07.902"W	3.19	
10925.00	89.050	359.920	7305.68	1958.25	1983.15	2058.54	1719090.56	14545605.74	40°03'05.348"N	104°43'07.903"W	0.23	
11015.00	88.580	359.680	7307.54	2048.23	2073.13	2058.22	1719089.97	14545695.69	40°03'06.237"N	104°43'07.907"W	0.59	
11105.00	89.750	1.080	7308.85	2138.20	2163.11	2058.82	1719090.29	14545785.64	40°03'07.127"N	104°43'07.899"W	2.03	
11194.00	89.510	1.530	7309.43	2227.14	2252.09	2060.85	1719092.05	14545874.58	40°03'08.006"N	104°43'07.873"W	0.57	
11284.00	89.630	0.550	7310.10	2317.10	2342.07	2062.48	1719093.40	14545964.53	40°03'08.895"N	104°43'07.852"W	1.10	
11373.00	89.850	358.730	7310.51	2406.09	2431.06	2061.92	1719092.57	14546053.49	40°03'09.774"N	104°43'07.859"W	2.06	
11463.00	90.620	358.450	7310.14	2496.08	2521.03	2059.71	1719090.08	14546143.42	40°03'10.664"N	104°43'07.887"W	0.91	
11552.00	91.170	357.910	7308.75	2585.06	2609.98	2056.88	1719086.98	14546232.32	40°03'11.543"N	104°43'07.923"W	0.87	
11642.00	88.860	357.970	7308.73	2675.02	2699.91	2053.64	1719083.47	14546322.21	40°03'12.431"N	104°43'07.965"W	2.57	
11731.00	88.950	357.920	7310.43	2763.98	2788.84	2050.45	1719080.01	14546411.09	40°03'13.310"N	104°43'08.006"W	0.12	
11732.00†	88.947	357.910	7310.44	2764.98	2789.84	2050.42	1719079.97	14546412.09	40°03'13.320"N	104°43'08.006"W	1.03	CROSS SETBACK TOE (1778'FNL & 811'FEL, SEC.13) 40.0537000 -104.7188906
11821.00	88.710	357.020	7312.26	2853.92	2878.73	2046.48	1719075.76	14546500.93	40°03'14.198"N	104°43'08.057"W	1.03	
11911.00	88.830	356.430	7314.20	2943.80	2968.57	2041.34	1719070.35	14546590.71	40°03'15.086"N	104°43'08.123"W	0.67	
12000.00	89.660	356.950	7315.37	3032.70	3057.41	2036.20	1719064.94	14546679.50	40°03'15.964"N	104°43'08.189"W	1.10	
12090.00	91.080	357.890	7314.79	3122.65	3147.31	2032.15	1719060.61	14546769.36	40°03'16.853"N	104°43'08.241"W	1.89	
12179.00	91.600	359.350	7312.71	3211.61	3236.26	2030.01	1719058.20	14546858.26	40°03'17.732"N	104°43'08.268"W	1.74	
12269.00	92.890	359.300	7309.18	3301.54	3326.18	2028.95	1719056.86	14546948.15	40°03'18.620"N	104°43'08.282"W	1.43	
12359.00	90.520	0.130	7306.50	3391.49	3416.13	2028.50	1719056.14	14547038.06	40°03'19.509"N	104°43'08.287"W	2.79	
12448.00	90.490	0.130	7305.72	3480.48	3505.13	2028.70	1719056.07	14547127.02	40°03'20.389"N	104°43'08.285"W	0.03	
12538.00	89.630	0.000	7305.62	3570.47	3595.13	2028.81	1719055.89	14547216.99	40°03'21.278"N	104°43'08.283"W	0.97	
12628.00	89.450	0.160	7306.35	3660.46	3685.13	2028.93	1719055.74	14547306.95	40°03'22.167"N	104°43'08.282"W	0.27	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#49 AZUL 13-32HZ (730'FSL & 2446'FWL, SEC.13)
Area	COLORADO	Well	AZUL 13-32HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	AZUL 13-32HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH DATA (185 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
12717.00	89.290	0.110	7307.33	3749.45	3774.12	2029.14	1719055.68	14547395.91	40°03'23.047"N	104°43'08.279"W	0.19	
12807.00	90.430	0.500	7307.55	3839.43	3864.12	2029.62	1719055.88	14547485.87	40°03'23.936"N	104°43'08.273"W	1.34	
12896.00	91.290	0.940	7306.21	3928.39	3953.10	2030.74	1719056.72	14547574.82	40°03'24.816"N	104°43'08.258"W	1.09	
12978.00	92.090	0.870	7303.79	4010.32	4035.05	2032.03	1719057.77	14547656.74	40°03'25.625"N	104°43'08.241"W	0.98	LAST BHGE MWD+IFR1+MSA SURVEY
13024.00	92.090	0.870	7302.11	4056.28	4081.02	2032.73	1719058.32	14547702.69	40°03'26.080"N	104°43'08.232"W	0.00	PTB (487'FNL & 828'FEL, SEC.13) 40.0572444 -104.7189534

HOLE & CASING SECTIONS - Ref Wellbore: AZUL 13-32HZ AWB Ref Wellpath: AZUL 13-32HZ 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	21.00	1925.00	1904.00	21.00	1841.54	0.00	0.00	-240.34	386.25

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.13-T1N-R66W	-17.00	182.18	-1286.48	1715752.42	14543795.21	40°02'47.551"N	104°43'50.916"W	polygon
AZUL 13-32HZ BHL REV-1(471'FNL & 826'FEL, SEC.13)	7329.00	4096.93	2034.54	1719060.08	14547718.61	40°03'26.237"N	104°43'08.209"W	point
AZUL 13-32HZ HEEL REV-1(50'FSL & 756'FEL, SEC.13)	7329.00	-664.74	2091.78	1719131.93	14542959.01	40°02'39.181"N	104°43'07.478"W	point
AZUL 13-32HZ LANDBOX	7339.00	0.00	0.00	1717038.94	14543617.06	40°02'45.751"N	104°43'34.374"W	polygon
AZUL 13-32HZ SETBACK 1	7339.00	0.00	0.00	1717038.94	14543617.06	40°02'45.751"N	104°43'34.374"W	polygon
AZUL 13-32HZ SETBACK 2	7339.00	0.00	0.00	1717038.94	14543617.06	40°02'45.751"N	104°43'34.374"W	polygon

WELLPATH COMPOSITION - Ref Wellbore: AZUL 13-32HZ AWB Ref Wellpath: AZUL 13-32HZ AWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
21.00	1925.00	Custom APC ISCWSA REV 2 MWD+IFR1 (approximation)	Custom APC ISCWSA Rev-2 MWD+IFR1 <130 - 1925>	AZUL 13-32HZ AWB
1925.00	12978.00	Custom APC ISCWSA REV 2 MWD+IFR1+MSA (approximation)	BHGE Custom APC ISCWSA Rev-2 MWD+IFR1+MSA <1938 - 12978>	AZUL 13-32HZ AWB
12978.00	13024.00	Blind Drilling (std)	Projection to bit	AZUL 13-32HZ AWB

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#49 AZUL 13-32HZ (730'FSL & 2446'FWL, SEC.13)
Area	COLORADO	Well	AZUL 13-32HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	AZUL 13-32HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
130.00	0.530	60.750	130.00	FIRST SURFACE MWD+IFR1 SURVEY
1925.00	27.420	122.090	1841.54	LAST SURFACE MWD+IFR1 SURVEY
1938.00	27.600	122.260	1853.07	FIRST BHGE MWD+IFR1+MSA SURVEY
5951.00	16.172	119.642	5373.27	ENTER LANDBOX (567'FNL & 860'FEL, SEC.24) 40.0424811 -104.7191143
7161.00	2.220	43.000	6571.37	KOP
8266.00	87.833	358.477	7325.35	LANDING (56'FSL & 760'FEL, SEC.13) 40.0441916 -104.7187574
8687.00	91.754	357.142	7317.64	CROSS SETBACK HEEL (477'FSL & 773'FEL, SEC.13) 40.0453463 -104.7188023
11732.00	88.947	357.910	7310.44	CROSS SETBACK TOE (1778'FNL & 811'FEL, SEC.13) 40.0537000 -104.7188906
12978.00	92.090	0.870	7303.79	LAST BHGE MWD+IFR1+MSA SURVEY
13024.00	92.090	0.870	7302.11	PTB (487'FNL & 828'FEL, SEC.13) 40.0572444 -104.7189534