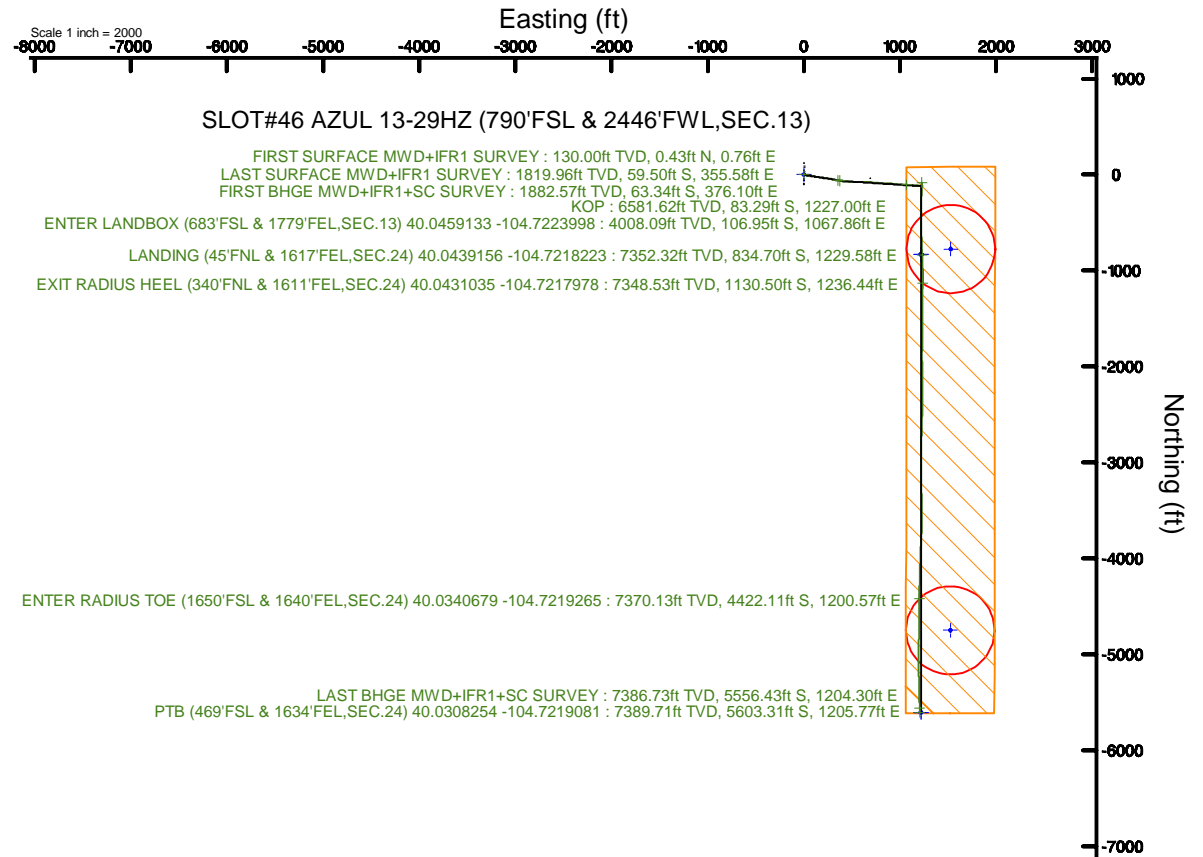
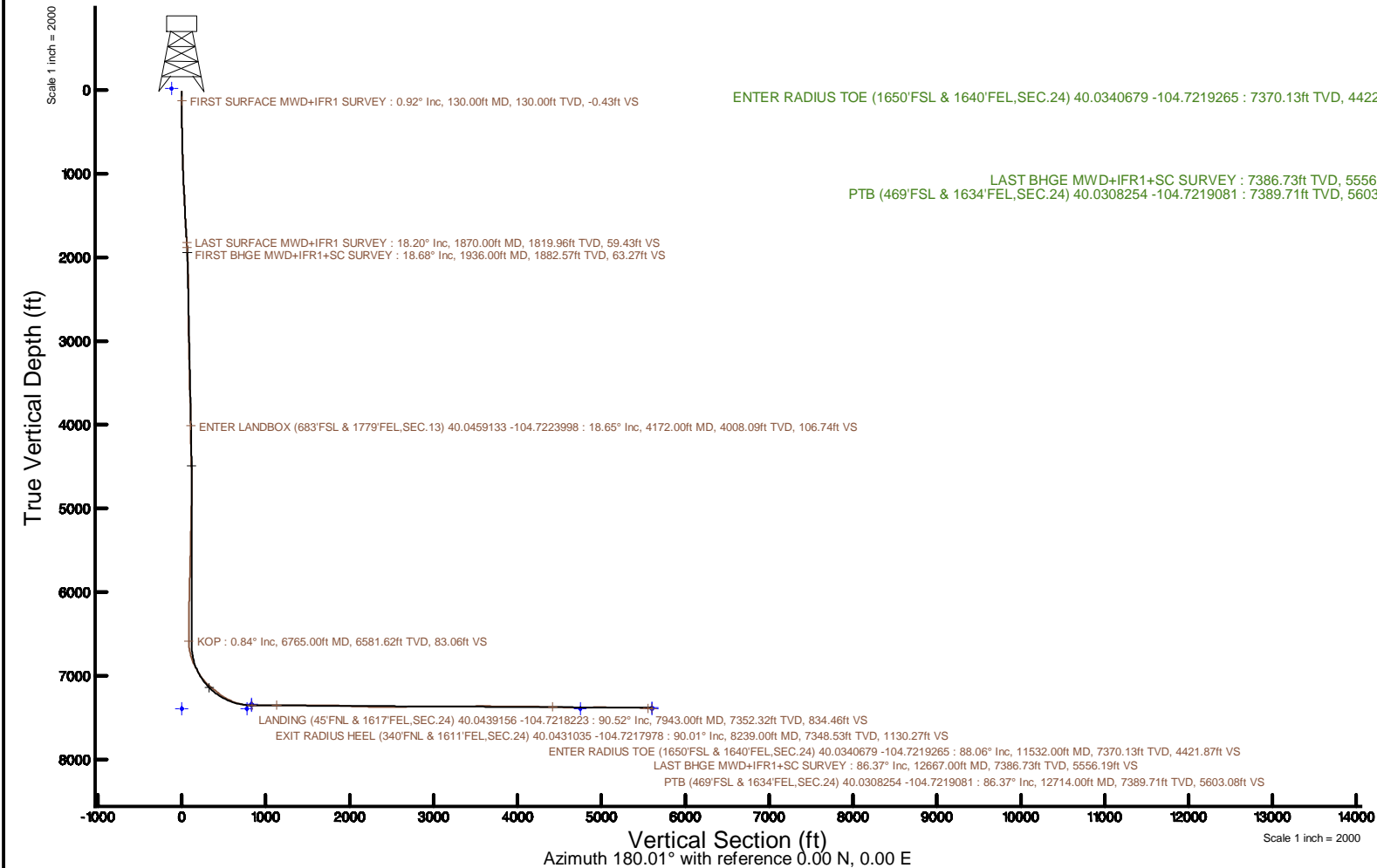


KERR-MCGEE OIL & GAS ONSHORE LP (WA)

Location: COLORADO	Slot: SLOT#46 AZUL 13-29HZ (790'FSL & 2446'FWL,SEC.13)
Field: WELD COUNTY (UTM/TRUE NORTH)/Well: AZUL 13-29HZ	
Facility: SEC.13-T1N-R66W	Wellbore: AZUL 13-29HZ PWB
Plot reference wellpath is AZUL 13-29HZ PWP Rev-8.0	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#46 AZUL 13-29HZ (790'FSL & 2446'FWL,SEC.13)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: painsetr on 2018-04-06
	Database: WA, DEN, Anadarko, Delfi



Actual Wellpath Report

AZUL 13-29HZ AWP

Page 1 of 7

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#46 AZUL 13-29HZ (790'FSL & 2446'FWL,SEC.13)
Area	COLORADO	Well	AZUL 13-29HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	AZUL 13-29HZ 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	4/6/2018 at 2:39 PM
Convergence at slot	0.18° East	Database/Source file	WA_DEN_Anadarko_Defn/AZUL_13-29HZ_AWP.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-4279.29	-444.54	1717039.07	14543677.15	40°02'46.345"N	104°43'34.370"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#46 AZUL 13-29HZ (790'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	180.01°

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#46 AZUL 13-29HZ (790'FSL & 2446'FWL,SEC.13)
Area	COLORADO	Well	AZUL 13-29HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	AZUL 13-29HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH DATA (184 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	0.00	60.310	0.00	0.00	0.00	0.00	1717039.07	14543677.15	40°02'46.345"N	104°43'34.370"W	0.00	
21.00	0.000	60.310	21.00	0.00	0.00	0.00	1717039.07	14543677.15	40°02'46.345"N	104°43'34.370"W	0.00	
130.00	0.920	60.310	130.00	-0.43	0.43	0.76	1717039.83	14543677.58	40°02'46.349"N	104°43'34.360"W	0.84	FIRST SURFACE MWD+IFR1 SURVEY
162.00	1.050	56.700	161.99	-0.72	0.72	1.23	1717040.30	14543677.87	40°02'46.352"N	104°43'34.354"W	0.45	
194.00	0.620	76.300	193.99	-0.92	0.92	1.64	1717040.71	14543678.07	40°02'46.354"N	104°43'34.349"W	1.59	
226.00	0.530	98.100	225.99	-0.94	0.94	1.96	1717041.02	14543678.10	40°02'46.354"N	104°43'34.345"W	0.73	
257.00	0.660	146.180	256.98	-0.78	0.78	2.20	1717041.27	14543677.93	40°02'46.353"N	104°43'34.342"W	1.61	
289.00	0.700	145.650	288.98	-0.46	0.46	2.41	1717041.48	14543677.61	40°02'46.350"N	104°43'34.339"W	0.13	
320.00	1.100	129.650	319.98	-0.12	0.11	2.75	1717041.82	14543677.27	40°02'46.346"N	104°43'34.335"W	1.51	
352.00	1.760	120.690	351.97	0.33	-0.33	3.41	1717042.48	14543676.82	40°02'46.342"N	104°43'34.326"W	2.17	
383.00	2.240	112.780	382.95	0.81	-0.81	4.37	1717043.45	14543676.35	40°02'46.337"N	104°43'34.314"W	1.78	
415.00	2.900	117.080	414.92	1.42	-1.42	5.67	1717044.74	14543675.74	40°02'46.331"N	104°43'34.297"W	2.15	
446.00	3.780	106.100	445.86	2.06	-2.06	7.35	1717046.43	14543675.11	40°02'46.325"N	104°43'34.275"W	3.50	
478.00	4.480	104.690	477.78	2.67	-2.67	9.57	1717048.65	14543674.51	40°02'46.319"N	104°43'34.247"W	2.21	
509.00	5.100	103.640	508.67	3.30	-3.30	12.08	1717051.16	14543673.88	40°02'46.312"N	104°43'34.215"W	2.02	
541.00	5.450	104.430	540.54	4.01	-4.02	14.94	1717054.01	14543673.18	40°02'46.305"N	104°43'34.178"W	1.12	
573.00	5.980	102.850	572.38	4.76	-4.77	18.03	1717057.11	14543672.44	40°02'46.298"N	104°43'34.138"W	1.73	
605.00	6.330	101.620	604.19	5.49	-5.49	21.39	1717060.47	14543671.72	40°02'46.291"N	104°43'34.095"W	1.17	
637.00	6.720	100.390	635.99	6.18	-6.18	24.96	1717064.04	14543671.04	40°02'46.284"N	104°43'34.049"W	1.29	
668.00	7.820	100.650	666.74	6.90	-6.90	28.81	1717067.89	14543670.34	40°02'46.277"N	104°43'34.000"W	3.55	
700.00	8.440	97.660	698.41	7.61	-7.62	33.28	1717072.36	14543669.63	40°02'46.270"N	104°43'33.942"W	2.34	
732.00	8.920	96.870	730.05	8.22	-8.23	38.07	1717077.15	14543669.04	40°02'46.264"N	104°43'33.880"W	1.55	
764.00	9.230	96.340	761.65	8.80	-8.81	43.08	1717082.17	14543668.47	40°02'46.258"N	104°43'33.816"W	1.00	
795.00	9.540	97.400	792.23	9.40	-9.41	48.10	1717087.18	14543667.88	40°02'46.252"N	104°43'33.751"W	1.14	
827.00	10.500	98.450	823.74	10.17	-10.18	53.62	1717092.70	14543667.13	40°02'46.244"N	104°43'33.681"W	3.05	
859.00	11.070	99.240	855.18	11.09	-11.10	59.53	1717098.62	14543666.23	40°02'46.235"N	104°43'33.604"W	1.84	
891.00	11.820	99.420	886.54	12.12	-12.13	65.80	1717104.88	14543665.22	40°02'46.225"N	104°43'33.524"W	2.35	
922.00	12.740	99.590	916.83	13.21	-13.22	72.30	1717111.38	14543664.15	40°02'46.214"N	104°43'33.440"W	2.97	
954.00	13.840	99.950	947.97	14.46	-14.47	79.55	1717118.63	14543662.92	40°02'46.202"N	104°43'33.347"W	3.45	
986.00	14.680	99.680	978.99	15.80	-15.82	87.32	1717126.40	14543661.61	40°02'46.189"N	104°43'33.247"W	2.63	
1018.00	15.120	99.420	1009.91	17.16	-17.18	95.43	1717134.52	14543660.27	40°02'46.175"N	104°43'33.143"W	1.39	
1049.00	15.820	98.980	1039.79	18.48	-18.50	103.59	1717142.68	14543658.97	40°02'46.162"N	104°43'33.038"W	2.29	
1081.00	16.300	98.100	1070.54	19.79	-19.82	112.35	1717151.44	14543657.68	40°02'46.149"N	104°43'32.925"W	1.68	
1113.00	16.610	97.840	1101.23	21.05	-21.07	121.33	1717160.41	14543656.46	40°02'46.137"N	104°43'32.810"W	1.00	
1144.00	17.360	96.610	1130.88	22.18	-22.21	130.31	1717169.40	14543655.35	40°02'46.126"N	104°43'32.694"W	2.68	
1176.00	18.540	99.240	1161.32	23.55	-23.58	140.07	1717179.16	14543654.01	40°02'46.112"N	104°43'32.569"W	4.47	
1208.00	18.810	100.650	1191.64	25.32	-25.35	150.17	1717189.25	14543652.27	40°02'46.095"N	104°43'32.439"W	1.64	
1240.00	18.900	100.390	1221.92	27.20	-27.23	160.33	1717199.42	14543650.42	40°02'46.076"N	104°43'32.308"W	0.38	
1272.00	17.530	100.300	1252.31	29.00	-29.03	170.17	1717209.27	14543648.65	40°02'46.058"N	104°43'32.182"W	4.28	
1303.00	17.050	100.300	1281.91	30.64	-30.68	179.24	1717218.33	14543647.03	40°02'46.042"N	104°43'32.065"W	1.55	
1335.00	17.400	99.070	1312.48	32.23	-32.27	188.58	1717227.67	14543645.47	40°02'46.026"N	104°43'31.945"W	1.58	
1367.00	17.750	98.100	1342.98	33.67	-33.71	198.13	1717237.23	14543644.06	40°02'46.012"N	104°43'31.822"W	1.43	
1399.00	18.060	96.960	1373.43	34.96	-35.00	207.89	1717246.98	14543642.80	40°02'45.999"N	104°43'31.697"W	1.46	
1430.00	17.970	96.080	1402.91	36.05	-36.09	217.41	1717256.51	14543641.74	40°02'45.988"N	104°43'31.574"W	0.92	
1462.00	17.890	97.920	1433.36	37.25	-37.29	227.19	1717266.28	14543640.57	40°02'45.976"N	104°43'31.449"W	1.79	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#46 AZUL 13-29HZ (790'FSL & 2446'FWL,SEC.13)
Area	COLORADO	Well	AZUL 13-29HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	AZUL 13-29HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH DATA (184 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
1494.00	17.930	98.360	1463.81	38.64	-38.68	236.93	1717276.02	14543639.21	40°02'45.963"N	104°43'31.324"W	0.44	
1525.00	17.970	98.100	1493.30	40.00	-40.05	246.38	1717285.48	14543637.87	40°02'45.949"N	104°43'31.202"W	0.29	
1557.00	18.190	97.220	1523.72	41.32	-41.37	256.23	1717295.32	14543636.58	40°02'45.936"N	104°43'31.075"W	1.10	
1588.00	18.500	96.250	1553.15	42.47	-42.52	265.92	1717305.01	14543635.46	40°02'45.925"N	104°43'30.951"W	1.40	
1620.00	18.720	100.470	1583.47	43.95	-44.00	276.01	1717315.11	14543634.01	40°02'45.910"N	104°43'30.821"W	4.26	
1652.00	19.030	101.530	1613.75	45.92	-45.98	286.17	1717325.27	14543632.06	40°02'45.891"N	104°43'30.690"W	1.44	
1684.00	19.160	101.440	1643.99	48.01	-48.06	296.43	1717335.53	14543630.01	40°02'45.870"N	104°43'30.558"W	0.42	
1715.00	18.500	101.700	1673.33	50.01	-50.07	306.23	1717345.34	14543628.04	40°02'45.850"N	104°43'30.432"W	2.15	
1747.00	18.410	101.260	1703.69	52.03	-52.09	316.16	1717355.27	14543626.05	40°02'45.830"N	104°43'30.305"W	0.52	
1779.00	19.030	100.910	1733.99	54.00	-54.06	326.24	1717365.35	14543624.11	40°02'45.811"N	104°43'30.175"W	1.97	
1811.00	19.420	101.000	1764.21	56.00	-56.06	336.59	1717375.69	14543622.14	40°02'45.791"N	104°43'30.042"W	1.22	
1830.00	19.600	100.120	1782.12	57.16	-57.22	342.82	1717381.93	14543621.00	40°02'45.779"N	104°43'29.962"W	1.81	
1870.00	18.200	100.120	1819.96	59.43	-59.50	355.58	1717394.69	14543618.76	40°02'45.757"N	104°43'29.798"W	3.50	LAST SURFACE MWD+IFR1 SURVEY
1936.00	18.680	101.080	1882.57	63.27	-63.34	376.10	1717415.21	14543614.98	40°02'45.719"N	104°43'29.534"W	0.86	FIRST BHGE MWD+IFR1+SC SURVEY
2026.00	19.190	96.670	1967.71	67.75	-67.83	404.93	1717444.05	14543610.59	40°02'45.675"N	104°43'29.163"W	1.69	
2116.00	18.610	95.880	2052.85	70.94	-71.02	433.91	1717473.03	14543607.49	40°02'45.643"N	104°43'28.791"W	0.70	
2206.00	18.150	95.130	2138.26	73.66	-73.75	462.16	1717501.27	14543604.85	40°02'45.616"N	104°43'28.427"W	0.57	
2295.00	17.780	94.890	2222.92	76.05	-76.14	489.50	1717528.61	14543602.54	40°02'45.592"N	104°43'28.076"W	0.42	
2385.00	18.940	90.010	2308.35	77.22	-77.32	517.80	1717556.91	14543601.45	40°02'45.581"N	104°43'27.712"W	2.14	
2475.00	18.110	89.160	2393.68	77.01	-77.12	546.40	1717585.49	14543601.74	40°02'45.583"N	104°43'27.344"W	0.97	
2564.00	17.340	88.600	2478.46	76.48	-76.59	573.49	1717612.56	14543602.35	40°02'45.588"N	104°43'26.996"W	0.89	
2654.00	18.300	90.760	2564.14	76.33	-76.45	601.02	1717640.09	14543602.58	40°02'45.589"N	104°43'26.642"W	1.29	
2744.00	17.720	89.200	2649.73	76.32	-76.44	628.85	1717667.90	14543602.66	40°02'45.589"N	104°43'26.284"W	0.84	
2833.00	18.610	94.320	2734.30	77.20	-77.32	656.55	1717695.60	14543601.87	40°02'45.581"N	104°43'25.928"W	2.05	
2923.00	17.430	92.400	2819.88	78.84	-78.97	684.34	1717723.38	14543600.31	40°02'45.564"N	104°43'25.571"W	1.47	
3013.00	17.920	95.510	2905.64	80.73	-80.87	711.59	1717750.63	14543598.50	40°02'45.546"N	104°43'25.220"W	1.18	
3102.00	19.020	95.410	2990.05	83.41	-83.55	739.66	1717778.69	14543595.90	40°02'45.519"N	104°43'24.859"W	1.24	
3192.00	17.650	95.060	3075.48	85.99	-86.13	767.85	1717806.88	14543593.41	40°02'45.494"N	104°43'24.497"W	1.53	
3282.00	19.280	92.730	3160.84	87.89	-88.04	796.29	1717835.31	14543591.58	40°02'45.475"N	104°43'24.131"W	1.99	
3371.00	17.800	91.060	3245.22	88.84	-89.00	824.57	1717863.58	14543590.72	40°02'45.465"N	104°43'23.768"W	1.77	
3461.00	18.020	92.310	3330.86	89.65	-89.81	852.23	1717891.24	14543589.99	40°02'45.457"N	104°43'23.412"W	0.49	
3551.00	18.300	94.890	3416.38	91.41	-91.58	880.22	1717919.22	14543588.31	40°02'45.440"N	104°43'23.052"W	0.95	
3640.00	16.560	92.840	3501.29	93.22	-93.40	906.81	1717945.81	14543586.57	40°02'45.422"N	104°43'22.710"W	2.07	
3730.00	17.990	96.720	3587.23	95.48	-95.66	933.43	1717972.42	14543584.39	40°02'45.400"N	104°43'22.368"W	2.04	
3819.00	17.520	98.790	3671.99	99.13	-99.31	960.31	1717999.31	14543580.82	40°02'45.363"N	104°43'22.022"W	0.88	
3909.00	17.730	96.030	3757.77	102.63	-102.82	987.33	1718026.32	14543577.40	40°02'45.329"N	104°43'21.675"W	0.96	
3999.00	18.060	92.940	3843.42	104.78	-104.98	1014.89	1718053.88	14543575.33	40°02'45.307"N	104°43'21.320"W	1.12	
4088.00	17.340	91.870	3928.20	105.92	-106.12	1041.93	1718080.91	14543574.27	40°02'45.296"N	104°43'20.973"W	0.89	
4172.00†	18.647	91.795	4008.09	106.74	-106.95	1067.86	1718106.83	14543573.52	40°02'45.288"N	104°43'20.639"W	1.56	ENTER LANDBOX (683'FSL & 1779'FEL,SEC.13) 40.0459133 -104.7223998
4178.00	18.740	91.790	4013.78	106.80	-107.01	1069.78	1718108.75	14543573.47	40°02'45.287"N	104°43'20.614"W	1.56	
4268.00	16.840	89.480	4099.47	107.13	-107.34	1097.27	1718136.23	14543573.22	40°02'45.284"N	104°43'20.261"W	2.25	
4357.00	16.740	93.650	4184.68	107.83	-108.04	1122.95	1718161.91	14543572.60	40°02'45.277"N	104°43'19.931"W	1.36	
4447.00	15.260	91.600	4271.19	108.98	-109.20	1147.73	1718186.68	14543571.52	40°02'45.266"N	104°43'19.612"W	1.76	
4537.00	13.700	98.610	4358.34	110.90	-111.12	1170.11	1718209.05	14543569.66	40°02'45.247"N	104°43'19.324"W	2.60	
4627.00	9.630	99.540	4446.46	113.74	-113.97	1188.08	1718227.03	14543566.87	40°02'45.218"N	104°43'19.093"W	4.53	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#46 AZUL 13-29HZ (790'FSL & 2446'FWL,SEC.13)
Area	COLORADO	Well	AZUL 13-29HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	AZUL 13-29HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH DATA (184 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
4716.00	7.030	100.500	4534.51	115.96	-116.19	1200.78	1718239.73	14543564.69	40°02'45.196"N	104°43'18.930"W	2.93	
4806.00	6.350	96.910	4623.90	117.56	-117.80	1211.13	1718250.08	14543563.12	40°02'45.181"N	104°43'18.797"W	0.89	
4896.00	6.000	102.140	4713.38	119.15	-119.39	1220.67	1718259.62	14543561.56	40°02'45.165"N	104°43'18.674"W	0.74	
4985.00	3.380	68.140	4802.09	119.15	-119.39	1227.66	1718266.61	14543561.58	40°02'45.165"N	104°43'18.584"W	4.17	
5075.00	1.420	338.690	4892.03	117.12	-117.36	1229.72	1718268.66	14543563.61	40°02'45.185"N	104°43'18.558"W	4.06	
5165.00	1.350	347.540	4982.00	115.05	-115.29	1229.08	1718268.02	14543565.68	40°02'45.205"N	104°43'18.566"W	0.25	
5254.00	1.250	346.660	5070.98	113.08	-113.32	1228.63	1718267.56	14543567.65	40°02'45.225"N	104°43'18.572"W	0.11	
5344.00	1.260	0.530	5160.96	111.14	-111.37	1228.41	1718267.34	14543569.59	40°02'45.244"N	104°43'18.575"W	0.34	
5434.00	1.240	357.140	5250.94	109.17	-109.41	1228.38	1718267.29	14543571.55	40°02'45.263"N	104°43'18.575"W	0.09	
5523.00	1.250	356.480	5339.92	107.24	-107.48	1228.27	1718267.18	14543573.48	40°02'45.283"N	104°43'18.577"W	0.02	
5613.00	1.310	356.830	5429.89	105.24	-105.47	1228.15	1718267.05	14543575.49	40°02'45.302"N	104°43'18.578"W	0.07	
5703.00	1.330	349.450	5519.87	103.18	-103.42	1227.90	1718266.80	14543577.54	40°02'45.323"N	104°43'18.581"W	0.19	
5792.00	1.390	351.210	5608.84	101.10	-101.34	1227.55	1718266.44	14543579.62	40°02'45.343"N	104°43'18.586"W	0.08	
5882.00	1.570	346.730	5698.81	98.82	-99.06	1227.10	1718265.98	14543581.90	40°02'45.366"N	104°43'18.592"W	0.24	
5972.00	1.490	347.290	5788.78	96.48	-96.72	1226.56	1718265.44	14543584.24	40°02'45.389"N	104°43'18.599"W	0.09	
6062.00	1.410	342.430	5878.75	94.28	-94.52	1225.97	1718264.84	14543586.43	40°02'45.411"N	104°43'18.606"W	0.16	
6152.00	1.440	338.670	5968.72	92.17	-92.41	1225.22	1718264.09	14543588.54	40°02'45.431"N	104°43'18.616"W	0.11	
6241.00	1.600	349.080	6057.69	89.91	-90.15	1224.58	1718263.44	14543590.80	40°02'45.454"N	104°43'18.624"W	0.36	
6331.00	1.180	2.710	6147.67	87.75	-87.99	1224.38	1718263.24	14543592.96	40°02'45.475"N	104°43'18.627"W	0.59	
6420.00	1.140	14.650	6236.65	85.98	-86.22	1224.65	1718263.50	14543594.73	40°02'45.493"N	104°43'18.623"W	0.27	
6510.00	0.850	24.280	6326.64	84.51	-84.74	1225.15	1718263.99	14543596.20	40°02'45.507"N	104°43'18.617"W	0.37	
6599.00	0.640	39.620	6415.63	83.52	-83.76	1225.74	1718264.58	14543597.19	40°02'45.517"N	104°43'18.609"W	0.32	
6689.00	0.630	50.230	6505.62	82.82	-83.05	1226.44	1718265.28	14543597.89	40°02'45.524"N	104°43'18.600"W	0.13	
6765.00†	0.843	154.759	6581.62	83.06	-83.29	1227.00	1718265.84	14543597.66	40°02'45.522"N	104°43'18.593"W	1.54	KOP
6778.00	1.020	160.630	6594.62	83.25	-83.49	1227.08	1718265.92	14543597.46	40°02'45.520"N	104°43'18.592"W	1.54	
6868.00	10.320	179.390	6684.08	92.09	-92.32	1227.43	1718266.30	14543588.63	40°02'45.432"N	104°43'18.587"W	10.40	
6957.00	16.280	175.710	6770.66	112.52	-112.75	1228.45	1718267.38	14543568.21	40°02'45.230"N	104°43'18.574"W	6.76	
7047.00	24.500	182.070	6854.96	143.80	-144.04	1228.72	1718267.74	14543536.94	40°02'44.921"N	104°43'18.571"W	9.45	
7137.00	28.850	185.680	6935.36	184.08	-184.32	1225.90	1718265.04	14543496.67	40°02'44.523"N	104°43'18.607"W	5.16	
7226.00	33.820	183.200	7011.36	230.21	-230.45	1222.39	1718261.68	14543450.55	40°02'44.067"N	104°43'18.652"W	5.77	
7316.00	45.770	180.180	7080.39	287.68	-287.91	1220.88	1718260.35	14543393.10	40°02'43.499"N	104°43'18.672"W	13.45	
7405.00	51.080	180.940	7139.43	354.23	-354.46	1220.21	1718259.89	14543326.57	40°02'42.842"N	104°43'18.680"W	6.00	
7495.00	51.010	181.900	7196.02	424.19	-424.43	1218.48	1718258.37	14543256.63	40°02'42.150"N	104°43'18.703"W	0.83	
7585.00	57.340	180.170	7248.67	497.11	-497.35	1217.21	1718257.32	14543183.74	40°02'41.430"N	104°43'18.719"W	7.20	
7674.00	65.290	177.620	7291.36	575.10	-575.34	1218.78	1718259.13	14543105.78	40°02'40.659"N	104°43'18.699"W	9.28	
7764.00	71.450	176.090	7324.52	658.59	-658.83	1223.39	1718263.99	14543022.34	40°02'39.834"N	104°43'18.640"W	7.02	
7853.00	81.010	178.730	7345.68	744.84	-745.08	1227.25	1718268.12	14542936.14	40°02'38.982"N	104°43'18.590"W	11.12	
7943.00	90.520	178.290	7352.32	834.46	-834.70	1229.58	1718270.73	14542846.56	40°02'38.096"N	104°43'18.560"W	10.58	LANDING (45'FNL & 1617'FEL, SEC.24) 40.0439156 -104.7218223
8033.00	90.650	176.690	7351.40	924.37	-924.60	1233.52	1718274.94	14542756.70	40°02'37.208"N	104°43'18.510"W	1.78	
8122.00	90.990	179.020	7350.13	1013.29	-1013.52	1236.85	1718278.54	14542667.83	40°02'36.329"N	104°43'18.467"W	2.65	
8212.00	90.800	180.990	7348.72	1103.27	-1103.51	1236.85	1718278.81	14542577.88	40°02'35.440"N	104°43'18.467"W	2.20	
8239.00†	90.005	180.750	7348.53	1130.27	-1130.50	1236.44	1718278.49	14542550.89	40°02'35.173"N	104°43'18.472"W	3.07	EXIT RADIUS HEEL (340'FNL & 1611'FEL, SEC.24) 40.0431035 -104.7217978
8301.00	88.180	180.200	7349.52	1192.25	-1192.49	1235.92	1718278.16	14542488.93	40°02'34.560"N	104°43'18.479"W	3.07	
8391.00	88.550	180.750	7352.08	1282.21	-1282.45	1235.18	1718277.69	14542399.00	40°02'33.671"N	104°43'18.489"W	0.74	
8481.00	89.020	180.170	7353.99	1372.19	-1372.43	1234.45	1718277.25	14542309.06	40°02'32.782"N	104°43'18.498"W	0.83	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#46 AZUL 13-29HZ (790'FSL & 2446'FWL,SEC.13)
Area	COLORADO	Well	AZUL 13-29HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	AZUL 13-29HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH DATA (184 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
8570.00	90.190	180.470	7354.61	1461.19	-1461.42	1233.96	1718277.02	14542220.10	40°02'31.903"N	104°43'18.504"W	1.36	
8660.00	89.970	181.040	7354.48	1551.18	-1551.41	1232.77	1718276.12	14542130.14	40°02'31.013"N	104°43'18.520"W	0.68	
8750.00	91.600	181.170	7353.25	1641.15	-1641.39	1231.03	1718274.66	14542040.20	40°02'30.124"N	104°43'18.542"W	1.82	
8839.00	90.280	179.790	7351.79	1730.13	-1730.37	1230.29	1718274.19	14541951.25	40°02'29.245"N	104°43'18.552"W	2.15	
8929.00	88.150	180.750	7353.02	1820.12	-1820.35	1229.87	1718274.04	14541861.30	40°02'28.356"N	104°43'18.557"W	2.60	
9019.00	87.410	179.810	7356.51	1910.05	-1910.28	1229.43	1718273.88	14541771.41	40°02'27.467"N	104°43'18.563"W	1.33	
9108.00	87.410	179.710	7360.53	1998.95	-1999.19	1229.80	1718274.52	14541682.54	40°02'26.588"N	104°43'18.558"W	0.11	
9198.00	87.260	179.820	7364.71	2088.86	-2089.09	1230.17	1718275.17	14541592.67	40°02'25.700"N	104°43'18.553"W	0.21	
9288.00	89.110	180.110	7367.56	2178.81	-2179.04	1230.22	1718275.50	14541502.76	40°02'24.811"N	104°43'18.553"W	2.08	
9377.00	88.580	180.050	7369.36	2267.79	-2268.02	1230.10	1718275.65	14541413.81	40°02'23.932"N	104°43'18.554"W	0.60	
9467.00	88.150	179.730	7371.93	2357.75	-2357.99	1230.27	1718276.10	14541323.88	40°02'23.042"N	104°43'18.552"W	0.60	
9556.00	89.070	179.920	7374.08	2446.72	-2446.96	1230.54	1718276.64	14541234.95	40°02'22.163"N	104°43'18.549"W	1.06	
9646.00	91.720	182.230	7373.46	2536.69	-2536.93	1228.85	1718275.23	14541145.01	40°02'21.274"N	104°43'18.571"W	3.91	
9736.00	92.310	181.900	7370.30	2626.58	-2626.81	1225.61	1718272.27	14541055.15	40°02'20.386"N	104°43'18.612"W	0.75	
9825.00	90.740	181.210	7367.93	2715.51	-2715.74	1223.20	1718270.13	14540966.25	40°02'19.507"N	104°43'18.643"W	1.93	
9915.00	91.510	180.870	7366.16	2805.48	-2805.71	1221.57	1718268.77	14540876.31	40°02'18.618"N	104°43'18.664"W	0.94	
10004.00	90.000	180.100	7364.99	2894.46	-2894.70	1220.81	1718268.29	14540787.36	40°02'17.739"N	104°43'18.674"W	1.90	
10094.00	90.650	179.900	7364.48	2984.46	-2984.70	1220.81	1718268.57	14540697.40	40°02'16.849"N	104°43'18.674"W	0.76	
10184.00	89.350	179.390	7364.48	3074.46	-3074.69	1221.37	1718269.40	14540607.44	40°02'15.960"N	104°43'18.667"W	1.55	
10273.00	90.370	180.010	7364.70	3163.45	-3163.69	1221.84	1718270.14	14540518.48	40°02'15.080"N	104°43'18.661"W	1.34	
10363.00	91.110	179.540	7363.54	3253.44	-3253.68	1222.19	1718270.77	14540428.52	40°02'14.191"N	104°43'18.657"W	0.97	
10452.00	89.750	179.090	7362.87	3342.43	-3342.67	1223.25	1718272.11	14540339.57	40°02'13.312"N	104°43'18.643"W	1.61	
10542.00	90.590	178.760	7362.60	3432.42	-3432.65	1224.94	1718274.07	14540249.63	40°02'12.422"N	104°43'18.621"W	1.00	
10632.00	91.050	179.640	7361.31	3522.40	-3522.63	1226.20	1718275.61	14540159.69	40°02'11.533"N	104°43'18.605"W	1.10	
10722.00	89.660	180.710	7360.76	3612.39	-3612.63	1225.92	1718275.61	14540069.73	40°02'10.644"N	104°43'18.609"W	1.95	
10811.00	88.460	181.650	7362.22	3701.36	-3701.59	1224.09	1718274.05	14539980.80	40°02'09.765"N	104°43'18.633"W	1.71	
10901.00	90.030	182.820	7363.40	3791.28	-3791.51	1220.58	1718270.82	14539890.90	40°02'08.876"N	104°43'18.678"W	2.18	
10990.00	89.380	182.890	7363.86	3880.17	-3880.40	1216.15	1718266.66	14539802.04	40°02'07.998"N	104°43'18.735"W	0.73	
11080.00	89.200	181.910	7364.98	3970.08	-3970.31	1212.38	1718263.17	14539712.15	40°02'07.109"N	104°43'18.783"W	1.11	
11170.00	89.230	181.940	7366.21	4060.02	-4060.25	1209.36	1718260.42	14539622.23	40°02'06.220"N	104°43'18.822"W	0.05	
11259.00	89.200	181.790	7367.43	4148.97	-4149.20	1206.46	1718257.80	14539533.31	40°02'05.341"N	104°43'18.860"W	0.17	
11349.00	89.630	181.400	7368.35	4238.93	-4239.16	1203.96	1718255.57	14539443.38	40°02'04.452"N	104°43'18.892"W	0.65	
11438.00	90.090	181.290	7368.56	4327.90	-4328.13	1201.87	1718253.76	14539354.44	40°02'03.573"N	104°43'18.919"W	0.53	
11528.00	88.090	180.330	7369.99	4417.88	-4418.11	1200.60	1718252.76	14539264.50	40°02'02.684"N	104°43'18.935"W	2.46	
11532.00†	88.059	180.309	7370.13	4421.87	-4422.11	1200.57	1718252.75	14539260.50	40°02'02.644"N	104°43'18.935"W	0.92	ENTER RADIUS TOE (1650'FSL & 1640'FEL,SEC.24) 40.0340679 -104.7219265
11617.00	87.410	179.870	7373.49	4506.81	-4507.04	1200.44	1718252.88	14539175.60	40°02'01.805"N	104°43'18.937"W	0.92	
11707.00	86.880	180.080	7377.97	4596.70	-4596.93	1200.48	1718253.20	14539085.75	40°02'00.917"N	104°43'18.937"W	0.63	
11796.00	90.120	180.900	7380.30	4685.65	-4685.88	1199.72	1718252.71	14538996.83	40°02'00.038"N	104°43'18.947"W	3.76	
11886.00	91.420	181.530	7379.09	4775.62	-4775.85	1197.81	1718251.08	14538906.89	40°01'59.149"N	104°43'18.971"W	1.61	
11976.00	92.060	181.200	7376.36	4865.55	-4865.78	1195.67	1718249.21	14538816.99	40°01'58.260"N	104°43'18.999"W	0.80	
12065.00	90.120	180.690	7374.66	4954.52	-4954.75	1194.20	1718248.02	14538728.05	40°01'57.381"N	104°43'19.018"W	2.25	
12155.00	89.480	179.530	7374.98	5044.52	-5044.75	1194.03	1718248.12	14538638.09	40°01'56.491"N	104°43'19.020"W	1.47	
12244.00	89.510	179.420	7375.76	5133.51	-5133.74	1194.84	1718249.21	14538549.13	40°01'55.612"N	104°43'19.009"W	0.13	
12334.00	89.230	178.840	7376.75	5223.49	-5223.72	1196.21	1718250.86	14538459.19	40°01'54.723"N	104°43'18.992"W	0.72	
12424.00	89.230	178.760	7377.96	5313.46	-5313.69	1198.09	1718253.02	14538369.26	40°01'53.833"N	104°43'18.968"W	0.09	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#46 AZUL 13-29HZ (790'FSL & 2446'FWL,SEC.13)
Area	COLORADO	Well	AZUL 13-29HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	AZUL 13-29HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH DATA (184 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
12513.00	88.550	178.530	7379.69	5402.42	-5402.65	1200.20	1718255.39	14538280.34	40°01'52.954"N	104°43'18.941"W	0.81	
12603.00	87.110	178.550	7383.09	5492.32	-5492.56	1202.49	1718257.96	14538190.48	40°01'52.066"N	104°43'18.911"W	1.60	
12667.00	86.370	178.200	7386.73	5556.19	-5556.43	1204.30	1718259.97	14538126.64	40°01'51.435"N	104°43'18.888"W	1.28	LAST BHGE MWD+IFR1+SC SURVEY
12714.00	86.370	178.200	7389.71	5603.08	-5603.31	1205.77	1718261.58	14538079.78	40°01'50.971"N	104°43'18.869"W	0.00	PTB (469'FSL & 1634'FEL,SEC.24) 40.0308254 -104.7219081

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.24-T1N-R66W	-17.00	122.07	-1286.79	1715752.42	14543795.21	40°02'47.551"N	104°43'50.916"W	polygon
AZUL 13-29HZ HEEL REV-1(50'FNL & 1628'FEL,SEC.24)	7338.00	-830.89	1219.02	1718260.16	14542850.33	40°02'38.134"N	104°43'18.696"W	point
AZUL 13-29HZ HEEL REV-2(50'FNL & 1628'FEL,SEC.24)	7351.00	-830.90	1219.02	1718260.16	14542850.33	40°02'38.134"N	104°43'18.696"W	point
AZUL 13-29HZ BHL REV-2(468'FSL & 1622'FEL,SEC.24)	7381.00	-5604.18	1218.13	1718273.94	14538078.95	40°01'50.963"N	104°43'18.710"W	point
AZUL 13-29HZ BHL REV-1(468'FSL & 1622'FEL,SEC.24)	7392.00	-5604.18	1218.13	1718273.94	14538078.95	40°01'50.963"N	104°43'18.710"W	point
AZUL 13-29HZ LANDBOX	7392.00	0.00	0.00	1717039.07	14543677.15	40°02'46.345"N	104°43'34.370"W	polygon
AZUL 13-29HZ RADIUS 1	7392.00	-4749.32	1522.44	1718575.50	14538934.40	40°01'59.411"N	104°43'14.798"W	polygon
AZUL 13-29HZ RADIUS 2	7392.00	-774.75	1528.26	1718569.10	14542907.40	40°02'38.688"N	104°43'14.720"W	polygon

WELLPATH COMPOSITION - Ref Wellbore: AZUL 13-29HZ AWB Ref Wellpath: AZUL 13-29HZ AWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
21.00	1870.00	Custom APC ISCWSA REV 2 MWD+IFR1 (approximation)	Custom APC ISCWSA Rev-2 MWD+IFR1 <130 - 1870>	AZUL 13-29HZ AWB
1870.00	12667.00	Custom APC ISCWSA REV 2 MWD+IFR1+SC (approximation)	BHGE Custom APC ISCWSA Rev-2 MWD+IFR1+SC <1936 - 12667>	AZUL 13-29HZ AWB
12667.00	12714.00	Blind Drilling (std)	Projection to bit	AZUL 13-29HZ AWB

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#46 AZUL 13-29HZ (790'FSL & 2446'FWL,SEC.13)
Area	COLORADO	Well	AZUL 13-29HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	AZUL 13-29HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
130.00	0.920	60.310	130.00	FIRST SURFACE MWD+IFR1 SURVEY
1870.00	18.200	100.120	1819.96	LAST SURFACE MWD+IFR1 SURVEY
1936.00	18.680	101.080	1882.57	FIRST BHGE MWD+IFR1+SC SURVEY
4172.00	18.647	91.795	4008.09	ENTER LANDBOX (683'FSL & 1779'FEL,SEC.13) 40.0459133 -104.7223998
6765.00	0.843	154.759	6581.62	KOP
7943.00	90.520	178.290	7352.32	LANDING (45'FNL & 1617'FEL,SEC.24) 40.0439156 -104.7218223
8239.00	90.005	180.750	7348.53	EXIT RADIUS HEEL (340'FNL & 1611'FEL,SEC.24) 40.0431035 -104.7217978
11532.00	88.059	180.309	7370.13	ENTER RADIUS TOE (1650'FSL & 1640'FEL,SEC.24) 40.0340679 -104.7219265
12667.00	86.370	178.200	7386.73	LAST BHGE MWD+IFR1+SC SURVEY
12714.00	86.370	178.200	7389.71	PTB (469'FSL & 1634'FEL,SEC.24) 40.0308254 -104.7219081