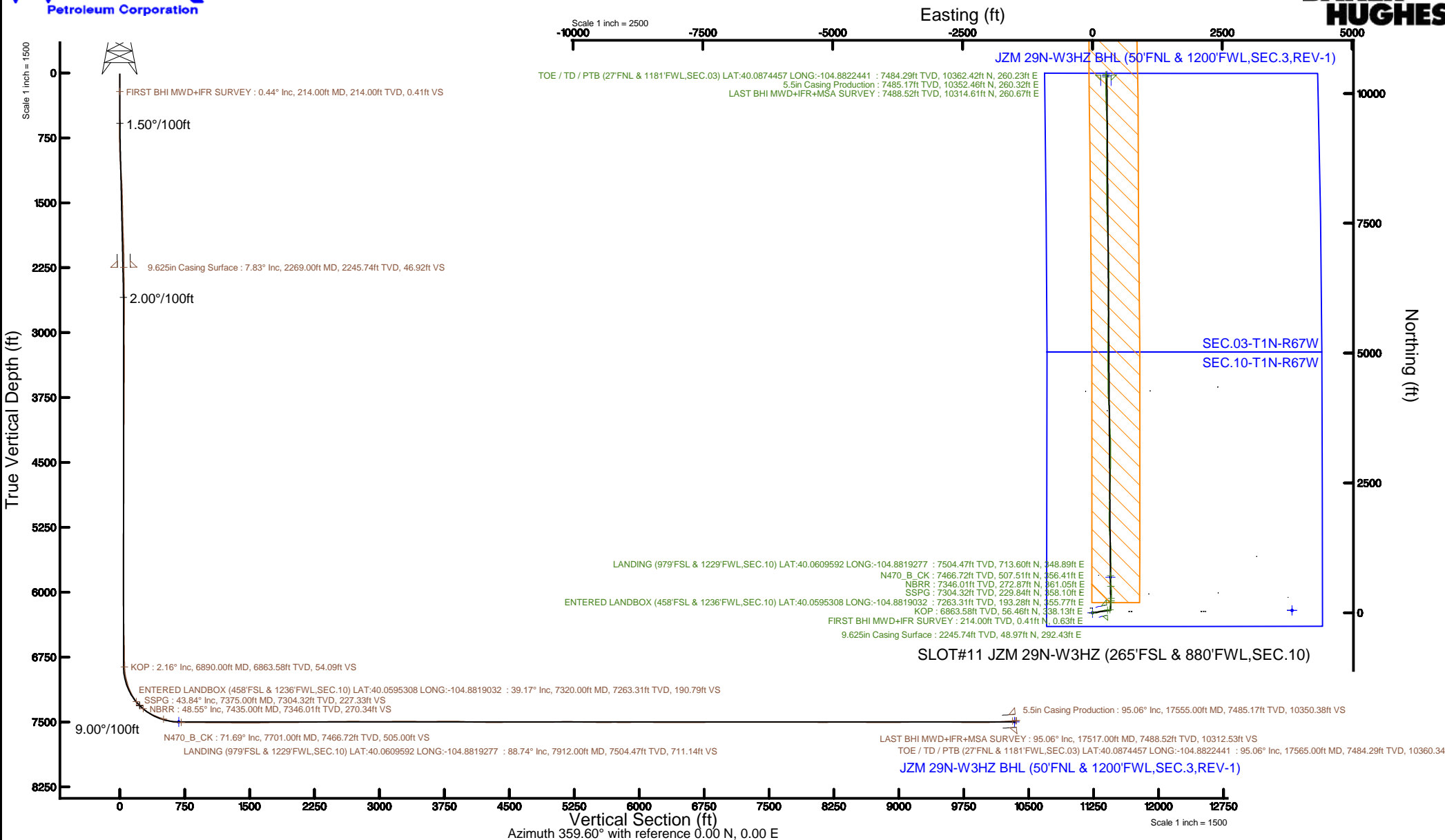


KERR-MCGEE OIL & GAS ONSHORE LP (WA)

Location: COLORADO Slot: SLOT#11 JZM 29N-W3HZ (265'FSL & 880'FWL,SEC.10)
 Field: WELD COUNTY (UTM/TRUE NORTH) Well: JZM 29N-W3HZ
 Facility: SEC.10-T1N-R67W Wellbore: JZM 29N-W3HZ PWB

Plot reference wellpath is JZM 29N-W3HZ (REV-B.0) PWP	Grid System: NAD83 / UTM Zone 13 North, US feet
True vertical depths are referenced to Rig on SLOT#05 JZM 29N-W3HZ (265'FSL & 880'FWL,SEC.10) (RKB)	* = Wellpath was transformed from a different geodetic datum
Measured depths are referenced to Rig on SLOT#05 JZM 29N-W3HZ (265'FSL & 880'FWL,SEC.10) (RKB)	North Reference: True north
Rig on SLOT#05 JZM 29N-W3HZ (265'FSL & 880'FWL,SEC.10) (RKB) to Mean Sea Level: 5083 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#11 JZM 29N-W3HZ (265'FSL & 880'FWL,SEC.10)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: painsetr on 2017-01-31
	Database: WA_DEN_Anadarko_Defn



REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#11 JZM 29N-W3HZ (265'FSL & 880'FWL,SEC.10)
Area	COLORADO	Well	JZM 29N-W3HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	JZM 29N-W3HZ AWB
Facility	SEC.10-T1N-R67W		

REPORT SETUP INFORMATION			
Projection System	NAD83 / UTM Zone 13 North, US feet	Software System	WellArchitect® 5.0
North Reference	True	User	Painsetr
Scale	0.999601	Report Generated	31/Jan/2017 at 15:51
Convergence at slot	0.08° East	Database/Source file	WA_DEN_Anadarko_Defn/JZM_29N-W3HZ_AWP.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-89.55	40.28	1673105.68	14548239.42	40°03'32.401"N	104°52'59.427"W
Facility Reference Pt			1673065.30	14548328.88	40°03'33.286"N	104°52'59.945"W
Field Reference Pt			1698235.31	14552047.82	40°04'09.600"N	104°47'36.000"W

WELLPATH DATUM			
Calculation method	Minimum curvature	Rig on SLOT#05 JZM 29N-W3HZ (265'FSL & 880'FWL,SEC.10) (RKB) to Facility Vertical Datum	5083.00ft
Horizontal Reference Pt	Slot	Rig on SLOT#05 JZM 29N-W3HZ (265'FSL & 880'FWL,SEC.10) (RKB) to Mean Sea Level	5083.00ft
Vertical Reference Pt	Rig on SLOT#05 JZM 29N-W3HZ (265'FSL & 880'FWL,SEC.10) (RKB)	Rig on SLOT#05 JZM 29N-W3HZ (265'FSL & 880'FWL,SEC.10) (RKB) to Mud Line at Slot (SLOT#11 JZM 29N-W3HZ (265'FSL & 880'FWL,SEC.10))	5083.00ft
MD Reference Pt	Rig on SLOT#05 JZM 29N-W3HZ (265'FSL & 880'FWL,SEC.10) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	359.60°

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#11 JZM 29N-W3HZ (265'FSL & 880'FWL,SEC.10)
Area	COLORADO	Well	JZM 29N-W3HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	JZM 29N-W3HZ AWB
Facility	SEC.10-T1N-R67W		

WELLPATH DATA (208 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	56.960	0.00	0.00	0.00	0.00	1673105.68	14548239.42	40°03'32.401"N	104°52'59.427"W	0.00	
17.00	0.000	56.960	17.00	0.00	0.00	0.00	1673105.68	14548239.42	40°03'32.401"N	104°52'59.427"W	0.00	
214.00	0.440	56.960	214.00	0.41	0.41	0.63	1673106.31	14548239.83	40°03'32.405"N	104°52'59.419"W	0.22	FIRST BHI MWD+IFR SURVEY
305.00	2.640	91.230	304.96	0.54	0.56	3.02	1673108.70	14548239.98	40°03'32.407"N	104°52'59.388"W	2.52	
397.00	3.680	94.150	396.82	0.24	0.30	8.09	1673113.76	14548239.73	40°03'32.404"N	104°52'59.323"W	1.14	
488.00	6.410	92.550	487.46	-0.25	-0.14	16.07	1673121.75	14548239.30	40°03'32.400"N	104°52'59.220"W	3.00	
579.00	8.180	92.010	577.72	-0.79	-0.59	27.62	1673133.29	14548238.86	40°03'32.395"N	104°52'59.072"W	1.95	
671.00	9.350	89.400	668.64	-1.03	-0.74	41.63	1673147.30	14548238.73	40°03'32.394"N	104°52'58.892"W	1.34	
759.00	10.130	89.860	755.37	-1.04	-0.65	56.52	1673162.18	14548238.84	40°03'32.395"N	104°52'58.700"W	0.89	
846.00	9.890	84.480	841.05	-0.41	0.09	71.61	1673177.26	14548239.60	40°03'32.402"N	104°52'58.506"W	1.11	
934.00	9.660	74.240	927.78	2.22	2.82	86.24	1673191.88	14548242.35	40°03'32.429"N	104°52'58.318"W	1.99	
1021.00	9.920	70.470	1013.51	6.61	7.31	100.33	1673205.96	14548246.86	40°03'32.473"N	104°52'58.137"W	0.79	
1109.00	9.200	70.000	1100.29	11.45	12.25	114.08	1673219.70	14548251.81	40°03'32.522"N	104°52'57.960"W	0.82	
1196.00	9.340	67.520	1186.16	16.44	17.33	127.14	1673232.75	14548256.90	40°03'32.572"N	104°52'57.792"W	0.49	
1283.00	9.050	69.550	1272.04	21.44	22.42	140.07	1673245.67	14548262.01	40°03'32.623"N	104°52'57.626"W	0.50	
1372.00	8.530	75.050	1359.99	25.49	26.57	153.01	1673258.59	14548266.17	40°03'32.664"N	104°52'57.459"W	1.11	
1459.00	8.630	80.080	1446.02	28.19	29.35	165.67	1673271.25	14548268.98	40°03'32.691"N	104°52'57.296"W	0.87	
1547.00	9.420	84.490	1532.93	29.93	31.18	179.35	1673284.91	14548270.82	40°03'32.709"N	104°52'57.120"W	1.19	
1634.00	9.630	83.720	1618.73	31.31	32.66	193.67	1673299.23	14548272.32	40°03'32.724"N	104°52'56.936"W	0.28	
1722.00	9.640	80.680	1705.49	33.20	34.66	208.25	1673313.81	14548274.34	40°03'32.744"N	104°52'56.749"W	0.58	
1809.00	9.610	78.350	1791.27	35.75	37.31	222.55	1673328.10	14548277.00	40°03'32.770"N	104°52'56.565"W	0.45	
1897.00	9.380	76.180	1878.06	38.85	40.50	236.71	1673342.24	14548280.22	40°03'32.801"N	104°52'56.383"W	0.48	
1984.00	8.980	78.830	1963.95	41.76	43.51	250.26	1673355.78	14548283.24	40°03'32.831"N	104°52'56.208"W	0.67	
2072.00	9.240	80.450	2050.84	44.17	46.02	263.96	1673369.48	14548285.76	40°03'32.856"N	104°52'56.032"W	0.42	
2159.00	8.320	84.930	2136.82	45.79	47.73	277.12	1673382.63	14548287.49	40°03'32.873"N	104°52'55.863"W	1.32	
2209.00	8.000	85.090	2186.31	46.36	48.35	284.19	1673389.69	14548288.12	40°03'32.879"N	104°52'55.772"W	0.64	
2331.00	7.650	87.530	2307.18	47.32	49.42	300.76	1673406.26	14548289.22	40°03'32.889"N	104°52'55.559"W	0.40	
2418.00	7.420	84.550	2393.43	48.02	50.21	312.14	1673417.63	14548290.01	40°03'32.897"N	104°52'55.413"W	0.52	
2506.00	6.020	81.790	2480.82	49.15	51.41	322.36	1673427.85	14548291.23	40°03'32.909"N	104°52'55.281"W	1.63	
2593.00	4.180	80.050	2567.47	50.29	52.61	330.00	1673435.48	14548292.44	40°03'32.921"N	104°52'55.183"W	2.12	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#11 JZM 29N-W3HZ (265'FSL & 880'FWL,SEC.10)
Area	COLORADO	Well	JZM 29N-W3HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	JZM 29N-W3HZ AWB
Facility	SEC.10-T1N-R67W		

WELLPATH DATA (208 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
2681.00	3.760	74.900	2655.26	51.56	53.91	335.95	1673441.42	14548293.75	40°03'32.934"N	104°52'55.106"W	0.63	
2768.00	2.660	97.220	2742.13	52.02	54.40	340.71	1673446.18	14548294.24	40°03'32.939"N	104°52'55.045"W	1.89	
2855.00	2.200	112.580	2829.05	51.10	53.51	344.25	1673449.72	14548293.35	40°03'32.930"N	104°52'55.000"W	0.91	
2943.00	1.170	104.720	2917.01	50.20	52.63	346.68	1673452.15	14548292.48	40°03'32.921"N	104°52'54.968"W	1.20	
3030.00	0.900	88.280	3003.99	49.99	52.42	348.22	1673453.69	14548292.28	40°03'32.919"N	104°52'54.949"W	0.46	
3118.00	1.060	81.150	3091.98	50.12	52.57	349.72	1673455.19	14548292.43	40°03'32.920"N	104°52'54.929"W	0.23	
3205.00	0.220	277.780	3178.98	50.26	52.72	350.35	1673455.82	14548292.57	40°03'32.922"N	104°52'54.921"W	1.46	
3293.00	0.370	320.240	3266.98	50.51	52.96	350.00	1673455.47	14548292.81	40°03'32.924"N	104°52'54.926"W	0.29	
3381.00	0.870	312.020	3354.97	51.18	53.62	349.32	1673454.79	14548293.48	40°03'32.931"N	104°52'54.935"W	0.58	
3468.00	0.860	242.150	3441.96	51.32	53.76	348.25	1673453.72	14548293.61	40°03'32.932"N	104°52'54.948"W	1.14	
3556.00	1.180	243.580	3529.95	50.62	53.05	346.86	1673452.33	14548292.90	40°03'32.925"N	104°52'54.966"W	0.36	
3643.00	1.470	244.190	3616.93	49.75	52.16	345.05	1673450.52	14548292.01	40°03'32.916"N	104°52'54.989"W	0.33	
3731.00	0.470	247.850	3704.91	49.13	51.54	343.70	1673449.17	14548291.38	40°03'32.910"N	104°52'55.007"W	1.14	
3818.00	0.730	298.320	3791.91	49.26	51.67	342.88	1673448.35	14548291.51	40°03'32.912"N	104°52'55.017"W	0.65	
3906.00	0.430	140.090	3879.91	49.28	51.68	342.60	1673448.07	14548291.52	40°03'32.912"N	104°52'55.021"W	1.30	
3994.00	0.800	141.050	3967.90	48.54	50.95	343.20	1673448.67	14548290.79	40°03'32.904"N	104°52'55.013"W	0.42	
4081.00	0.470	158.940	4054.90	47.73	50.14	343.71	1673449.18	14548289.99	40°03'32.896"N	104°52'55.007"W	0.44	
4168.00	0.560	209.810	4141.89	47.03	49.44	343.62	1673449.10	14548289.29	40°03'32.890"N	104°52'55.008"W	0.52	
4255.00	0.850	264.800	4228.89	46.61	49.01	342.77	1673448.25	14548288.86	40°03'32.885"N	104°52'55.019"W	0.80	
4343.00	0.150	349.330	4316.88	46.67	49.07	342.10	1673447.58	14548288.91	40°03'32.886"N	104°52'55.027"W	0.96	
4430.00	0.030	96.250	4403.88	46.78	49.18	342.10	1673447.58	14548289.02	40°03'32.887"N	104°52'55.027"W	0.19	
4517.00	0.500	234.850	4490.88	46.56	48.95	341.81	1673447.29	14548288.80	40°03'32.885"N	104°52'55.031"W	0.60	
4605.00	0.720	243.780	4578.88	46.10	48.49	341.00	1673446.48	14548288.33	40°03'32.880"N	104°52'55.041"W	0.27	
4692.00	0.900	251.080	4665.87	45.65	48.03	339.86	1673445.35	14548287.87	40°03'32.876"N	104°52'55.056"W	0.24	
4779.00	0.070	84.140	4752.86	45.43	47.81	339.27	1673444.75	14548287.65	40°03'32.873"N	104°52'55.064"W	1.11	
4867.00	1.050	93.710	4840.86	45.38	47.76	340.13	1673445.61	14548287.61	40°03'32.873"N	104°52'55.053"W	1.11	
4955.00	1.020	94.280	4928.85	45.26	47.65	341.72	1673447.20	14548287.50	40°03'32.872"N	104°52'55.032"W	0.04	
5043.00	0.450	152.450	5016.84	44.89	47.29	342.66	1673448.14	14548287.14	40°03'32.868"N	104°52'55.020"W	0.99	
5130.00	0.630	218.380	5103.84	44.21	46.61	342.52	1673448.00	14548286.46	40°03'32.862"N	104°52'55.022"W	0.70	
5217.00	1.210	248.340	5190.82	43.51	45.90	341.37	1673446.85	14548285.74	40°03'32.855"N	104°52'55.037"W	0.84	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#11 JZM 29N-W3HZ (265'FSL & 880'FWL,SEC.10)
Area	COLORADO	Well	JZM 29N-W3HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	JZM 29N-W3HZ AWB
Facility	SEC.10-T1N-R67W		

WELLPATH DATA (208 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
5304.00	1.650	253.940	5277.80	42.83	45.21	339.31	1673444.79	14548285.06	40°03'32.848"N	104°52'55.063"W	0.53	
5329.00	1.610	259.660	5302.79	42.68	45.05	338.62	1673444.10	14548284.89	40°03'32.846"N	104°52'55.072"W	0.67	
5416.00	0.310	198.450	5389.77	42.24	44.61	337.34	1673442.83	14548284.45	40°03'32.842"N	104°52'55.089"W	1.71	
5504.00	0.390	226.760	5477.77	41.81	44.17	337.05	1673442.53	14548284.02	40°03'32.838"N	104°52'55.092"W	0.21	
5591.00	0.590	261.580	5564.77	41.55	43.91	336.39	1673441.88	14548283.75	40°03'32.835"N	104°52'55.101"W	0.40	
5679.00	0.900	267.540	5652.76	41.46	43.81	335.25	1673440.74	14548283.65	40°03'32.834"N	104°52'55.115"W	0.36	
5766.00	0.670	67.290	5739.76	41.63	43.98	335.04	1673440.52	14548283.82	40°03'32.836"N	104°52'55.118"W	1.78	
5854.00	0.440	70.750	5827.75	41.94	44.29	335.83	1673441.32	14548284.13	40°03'32.839"N	104°52'55.108"W	0.26	
5941.00	0.070	300.410	5914.75	42.07	44.42	336.10	1673441.59	14548284.26	40°03'32.840"N	104°52'55.105"W	0.56	
6028.00	1.000	84.510	6001.75	42.17	44.52	336.81	1673442.30	14548284.37	40°03'32.841"N	104°52'55.095"W	1.22	
6115.00	0.530	82.380	6088.74	42.28	44.65	337.96	1673443.45	14548284.49	40°03'32.842"N	104°52'55.081"W	0.54	
6203.00	1.380	63.880	6176.73	42.79	45.17	339.32	1673444.80	14548285.01	40°03'32.847"N	104°52'55.063"W	1.02	
6290.00	1.000	44.460	6263.71	43.79	46.17	340.79	1673446.27	14548286.02	40°03'32.857"N	104°52'55.044"W	0.63	
6378.00	0.940	337.360	6351.70	45.00	47.39	341.05	1673446.53	14548287.23	40°03'32.869"N	104°52'55.041"W	1.22	
6466.00	1.290	29.640	6439.69	46.52	48.91	341.26	1673446.74	14548288.76	40°03'32.884"N	104°52'55.038"W	1.17	
6553.00	1.350	3.860	6526.66	48.39	50.79	341.82	1673447.29	14548290.63	40°03'32.903"N	104°52'55.031"W	0.68	
6641.00	1.380	323.750	6614.64	50.29	52.68	341.26	1673446.73	14548292.52	40°03'32.922"N	104°52'55.038"W	1.06	
6728.00	1.550	310.860	6701.61	51.91	54.29	339.75	1673445.22	14548294.13	40°03'32.938"N	104°52'55.058"W	0.42	
6816.00	0.250	278.220	6789.60	52.73	55.10	338.66	1673444.13	14548294.94	40°03'32.945"N	104°52'55.072"W	1.53	
6890.00†	2.156	344.486	6863.58	54.09	56.46	338.13	1673443.60	14548296.30	40°03'32.959"N	104°52'55.078"W	2.80	KOP
6902.00	2.490	345.340	6875.57	54.57	56.93	338.00	1673443.47	14548296.77	40°03'32.964"N	104°52'55.080"W	2.80	
6989.00	9.890	3.300	6962.01	63.87	66.23	337.95	1673443.41	14548306.07	40°03'33.056"N	104°52'55.081"W	8.69	
7077.00	16.360	8.020	7047.67	83.69	86.07	340.12	1673445.55	14548325.90	40°03'33.252"N	104°52'55.053"W	7.45	
7164.00	22.670	10.700	7129.63	112.29	114.71	344.95	1673450.34	14548354.53	40°03'33.535"N	104°52'54.991"W	7.32	
7252.00	31.540	8.520	7207.89	151.75	154.21	351.52	1673456.86	14548394.03	40°03'33.925"N	104°52'54.906"W	10.14	
7320.00†	39.175	4.305	7263.31	190.79	193.28	355.77	1673461.06	14548433.09	40°03'34.311"N	104°52'54.851"W	11.78	ENTERED LANDBOX (458'FSL & 1236'FWL,SEC.10) LAT:40.0595308 LONG:-104.8819032
7339.00	41.330	3.370	7277.81	203.03	205.53	356.59	1673461.86	14548445.34	40°03'34.432"N	104°52'54.841"W	11.78	
7375.00†	43.841	3.697	7304.32	227.33	229.84	358.10	1673463.33	14548469.64	40°03'34.672"N	104°52'54.822"W	7.00	SSPG
7427.00	47.470	4.120	7340.66	264.41	266.94	360.63	1673465.82	14548506.72	40°03'35.039"N	104°52'54.789"W	7.00	
7435.00†	48.549	3.847	7346.01	270.34	272.87	361.05	1673466.22	14548512.65	40°03'35.098"N	104°52'54.784"W	13.72	NBRR

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#11 JZM 29N-W3HZ (265'FSL & 880'FWL,SEC.10)
Area	COLORADO	Well	JZM 29N-W3HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	JZM 29N-W3HZ AWB
Facility	SEC.10-T1N-R67W		

WELLPATH DATA (208 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
7514.00	59.230	1.550	7392.50	333.97	336.53	363.96	1673469.05	14548576.29	40°03'35.727"N	104°52'54.746"W	13.72	
7601.00	67.190	356.900	7431.70	411.54	414.09	362.80	1673467.79	14548653.82	40°03'36.493"N	104°52'54.761"W	10.32	
7689.00	71.270	355.460	7462.90	493.65	496.17	357.31	1673462.19	14548735.85	40°03'37.304"N	104°52'54.832"W	4.88	
7701.00†	71.688	355.529	7466.72	505.00	507.51	356.41	1673461.28	14548747.19	40°03'37.416"N	104°52'54.843"W	3.52	N470 B CK
7776.00	74.300	355.950	7488.65	576.55	579.02	351.09	1673455.87	14548818.67	40°03'38.123"N	104°52'54.912"W	3.52	
7864.00	87.200	0.550	7502.77	663.18	665.63	348.50	1673453.17	14548905.24	40°03'38.979"N	104°52'54.945"W	15.54	
7912.00†	88.745	0.373	7504.47	711.14	713.60	348.89	1673453.49	14548953.19	40°03'39.453"N	104°52'54.940"W	3.24	LANDING (979'FSL & 1229'FWL,SEC.10) LAT:40.0609592 LONG:-104.8819277
7951.00	90.000	0.230	7504.90	750.14	752.60	349.10	1673453.65	14548992.17	40°03'39.838"N	104°52'54.937"W	3.24	
8039.00	90.430	0.270	7504.57	838.13	840.60	349.48	1673453.92	14549080.13	40°03'40.708"N	104°52'54.932"W	0.49	
8126.00	89.480	359.940	7504.64	925.12	927.59	349.64	1673453.96	14549167.10	40°03'41.568"N	104°52'54.930"W	1.16	
8214.00	89.600	1.470	7505.34	1013.10	1015.58	350.72	1673454.93	14549255.05	40°03'42.437"N	104°52'54.916"W	1.74	
8301.00	89.320	359.930	7506.16	1100.08	1102.57	351.78	1673455.88	14549342.01	40°03'43.297"N	104°52'54.903"W	1.80	
8389.00	89.630	359.150	7506.97	1188.08	1190.56	351.08	1673455.06	14549429.96	40°03'44.166"N	104°52'54.912"W	0.95	
8476.00	89.540	357.770	7507.60	1275.05	1277.53	348.74	1673452.60	14549516.89	40°03'45.026"N	104°52'54.942"W	1.59	
8564.00	89.540	355.910	7508.31	1362.95	1365.39	343.89	1673447.64	14549604.71	40°03'45.894"N	104°52'55.004"W	2.11	
8651.00	89.570	356.660	7508.98	1449.80	1452.20	338.25	1673441.89	14549691.48	40°03'46.752"N	104°52'55.077"W	0.86	
8739.00	90.680	357.080	7508.79	1537.70	1540.07	333.45	1673436.97	14549779.30	40°03'47.620"N	104°52'55.138"W	1.35	
8826.00	90.980	356.670	7507.53	1624.59	1626.93	328.71	1673432.12	14549866.12	40°03'48.479"N	104°52'55.199"W	0.58	
8914.00	91.750	359.670	7505.43	1712.52	1714.85	325.90	1673429.20	14549954.00	40°03'49.347"N	104°52'55.235"W	3.52	
9001.00	90.120	0.350	7504.01	1799.51	1801.83	325.91	1673429.10	14550040.95	40°03'50.207"N	104°52'55.235"W	2.03	
9089.00	89.660	0.540	7504.18	1887.50	1889.83	326.59	1673429.66	14550128.92	40°03'51.077"N	104°52'55.226"W	0.57	
9176.00	90.520	1.090	7504.04	1974.48	1976.82	327.83	1673430.79	14550215.87	40°03'51.936"N	104°52'55.211"W	1.17	
9264.00	91.140	1.440	7502.77	2062.43	2064.79	329.77	1673432.61	14550303.81	40°03'52.806"N	104°52'55.186"W	0.81	
9351.00	90.180	1.440	7501.77	2149.38	2151.75	331.96	1673434.69	14550390.74	40°03'53.665"N	104°52'55.157"W	1.10	
9439.00	90.890	1.080	7500.95	2237.34	2239.73	333.90	1673436.50	14550478.68	40°03'54.534"N	104°52'55.132"W	0.90	
9526.00	91.690	1.430	7498.99	2324.28	2326.68	335.80	1673438.29	14550565.61	40°03'55.394"N	104°52'55.108"W	1.00	
9614.00	90.580	1.380	7497.24	2412.21	2414.64	337.96	1673440.34	14550653.53	40°03'56.263"N	104°52'55.080"W	1.26	
9701.00	90.920	1.410	7496.11	2499.16	2501.61	340.08	1673442.34	14550740.46	40°03'57.122"N	104°52'55.053"W	0.39	
9789.00	90.310	1.000	7495.16	2587.12	2589.58	341.93	1673444.07	14550828.41	40°03'57.992"N	104°52'55.029"W	0.84	
9876.00	90.710	0.940	7494.39	2674.10	2676.56	343.40	1673445.43	14550915.36	40°03'58.851"N	104°52'55.010"W	0.46	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#11 JZM 29N-W3HZ (265'FSL & 880'FWL,SEC.10)
Area	COLORADO	Well	JZM 29N-W3HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	JZM 29N-W3HZ AWB
Facility	SEC.10-T1N-R67W		

WELLPATH DATA (208 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
9964.00	88.710	0.370	7494.83	2762.07	2764.55	344.41	1673446.32	14551003.31	40°03'59.721"N	104°52'54.997"W	2.36	
10051.00	89.630	0.590	7496.09	2849.05	2851.54	345.13	1673446.94	14551090.26	40°04'00.581"N	104°52'54.988"W	1.09	
10139.00	90.150	0.550	7496.26	2937.04	2939.53	346.01	1673447.69	14551178.23	40°04'01.450"N	104°52'54.977"W	0.59	
10226.00	90.890	0.240	7495.47	3024.03	3026.53	346.61	1673448.18	14551265.19	40°04'02.310"N	104°52'54.969"W	0.92	
10314.00	89.780	0.240	7494.96	3112.02	3114.52	346.98	1673448.43	14551353.15	40°04'03.179"N	104°52'54.964"W	1.26	
10401.00	91.170	0.400	7494.24	3199.01	3201.52	347.46	1673448.80	14551440.11	40°04'04.039"N	104°52'54.958"W	1.61	
10489.00	90.120	357.550	7493.25	3286.99	3289.49	345.89	1673447.12	14551528.04	40°04'04.908"N	104°52'54.978"W	3.45	
10576.00	88.830	357.640	7494.04	3373.93	3376.41	342.24	1673443.35	14551614.92	40°04'05.767"N	104°52'55.025"W	1.49	
10664.00	89.260	357.870	7495.51	3461.87	3464.33	338.79	1673439.79	14551702.80	40°04'06.636"N	104°52'55.069"W	0.55	
10751.00	90.180	358.190	7495.93	3548.84	3551.27	335.80	1673436.69	14551789.70	40°04'07.495"N	104°52'55.108"W	1.12	
10839.00	90.580	358.550	7495.35	3636.81	3639.23	333.30	1673434.07	14551877.63	40°04'08.365"N	104°52'55.140"W	0.61	
10926.00	91.480	358.950	7493.79	3723.79	3726.20	331.40	1673432.06	14551964.55	40°04'09.224"N	104°52'55.164"W	1.13	
11016.00	90.180	357.680	7492.48	3813.75	3816.15	328.75	1673429.30	14552054.46	40°04'10.113"N	104°52'55.198"W	2.02	
11108.00	87.570	356.300	7494.29	3905.63	3907.99	323.93	1673424.35	14552146.27	40°04'11.021"N	104°52'55.260"W	3.21	
11199.00	88.180	356.620	7497.66	3996.43	3998.76	318.31	1673418.62	14552236.98	40°04'11.918"N	104°52'55.333"W	0.76	
11291.00	88.620	356.660	7500.23	4088.27	4090.56	312.92	1673413.11	14552328.75	40°04'12.825"N	104°52'55.402"W	0.48	
11382.00	89.080	356.830	7502.06	4179.14	4181.40	307.76	1673407.83	14552419.54	40°04'13.722"N	104°52'55.468"W	0.54	
11470.00	90.220	358.550	7502.60	4267.08	4269.32	304.21	1673404.17	14552507.42	40°04'14.591"N	104°52'55.514"W	2.34	
11557.00	89.690	0.130	7502.66	4354.08	4356.31	303.21	1673403.05	14552594.37	40°04'15.451"N	104°52'55.527"W	1.92	
11645.00	90.830	0.130	7502.27	4442.07	4444.31	303.41	1673403.13	14552682.34	40°04'16.321"N	104°52'55.524"W	1.30	
11732.00	89.540	359.860	7501.98	4529.07	4531.30	303.40	1673403.01	14552769.30	40°04'17.180"N	104°52'55.524"W	1.51	
11819.00	89.850	359.020	7502.45	4616.07	4618.30	302.55	1673402.05	14552856.26	40°04'18.040"N	104°52'55.535"W	1.03	
11906.00	90.520	359.120	7502.17	4703.06	4705.29	301.14	1673400.52	14552943.21	40°04'18.900"N	104°52'55.553"W	0.78	
11993.00	90.430	0.100	7501.45	4790.06	4792.28	300.54	1673399.82	14553030.17	40°04'19.759"N	104°52'55.561"W	1.13	
12081.00	89.660	0.300	7501.38	4878.05	4880.28	300.85	1673400.01	14553118.13	40°04'20.629"N	104°52'55.557"W	0.90	
12168.00	90.680	0.150	7501.12	4965.05	4967.28	301.19	1673400.24	14553205.09	40°04'21.489"N	104°52'55.553"W	1.19	
12256.00	92.060	0.130	7499.01	5053.02	5055.25	301.41	1673400.34	14553293.03	40°04'22.358"N	104°52'55.550"W	1.57	
12343.00	90.800	0.220	7496.84	5139.98	5142.22	301.67	1673400.49	14553379.97	40°04'23.217"N	104°52'55.546"W	1.45	
12431.00	88.520	0.140	7497.37	5227.97	5230.21	301.95	1673400.65	14553467.92	40°04'24.087"N	104°52'55.543"W	2.59	
12518.00	88.680	0.320	7499.49	5314.94	5317.18	302.30	1673400.88	14553554.86	40°04'24.947"N	104°52'55.538"W	0.28	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#11 JZM 29N-W3HZ (265'FSL & 880'FWL, SEC.10)
Area	COLORADO	Well	JZM 29N-W3HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	JZM 29N-W3HZ AWB
Facility	SEC.10-T1N-R67W		

WELLPATH DATA (208 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 [7/100ft]	Comments
12606.00	89.080	0.450	7501.21	5402.91	5405.17	302.89	1673401.36	14553642.81	40°04'25.816"N	104°52'55.531"W	0.48	
12693.00	89.420	0.660	7502.35	5489.89	5492.15	303.73	1673402.09	14553729.76	40°04'26.676"N	104°52'55.520"W	0.46	
12781.00	89.780	0.540	7502.96	5577.88	5580.15	304.65	1673402.89	14553817.72	40°04'27.545"N	104°52'55.508"W	0.43	
12868.00	90.550	1.110	7502.71	5664.86	5667.14	305.91	1673404.03	14553904.68	40°04'28.405"N	104°52'55.492"W	1.10	
12956.00	89.660	0.830	7502.55	5752.83	5755.12	307.40	1673405.40	14553992.63	40°04'29.274"N	104°52'55.473"W	1.06	
13043.00	90.060	0.290	7502.76	5839.82	5842.12	308.25	1673406.14	14554079.59	40°04'30.134"N	104°52'55.462"W	0.77	
13131.00	90.580	359.420	7502.27	5927.81	5930.11	308.02	1673405.80	14554167.55	40°04'31.004"N	104°52'55.465"W	1.15	
13218.00	89.660	0.250	7502.09	6014.81	6017.11	307.77	1673405.44	14554254.52	40°04'31.863"N	104°52'55.468"W	1.42	
13306.00	89.940	0.100	7502.40	6102.81	6105.11	308.04	1673405.59	14554342.48	40°04'32.733"N	104°52'55.464"W	0.36	
13394.00	89.750	0.330	7502.64	6190.80	6193.11	308.37	1673405.81	14554430.45	40°04'33.603"N	104°52'55.460"W	0.34	
13481.00	90.180	0.740	7502.69	6277.79	6280.11	309.18	1673406.50	14554517.41	40°04'34.462"N	104°52'55.450"W	0.68	
13569.00	89.450	1.150	7502.97	6365.76	6368.09	310.64	1673407.84	14554605.36	40°04'35.332"N	104°52'55.431"W	0.95	
13656.00	89.600	0.910	7503.70	6452.73	6455.08	312.20	1673409.29	14554692.31	40°04'36.191"N	104°52'55.411"W	0.33	
13744.00	90.890	0.970	7503.32	6540.71	6543.06	313.64	1673410.62	14554780.26	40°04'37.061"N	104°52'55.392"W	1.47	
13832.00	90.090	358.700	7502.57	6628.70	6631.05	313.39	1673410.25	14554868.22	40°04'37.930"N	104°52'55.395"W	2.73	
13919.00	89.850	358.380	7502.61	6715.68	6718.02	311.17	1673407.92	14554955.15	40°04'38.790"N	104°52'55.424"W	0.46	
14007.00	90.950	359.230	7502.00	6803.67	6806.00	309.34	1673405.97	14555043.09	40°04'39.659"N	104°52'55.448"W	1.58	
14094.00	89.380	358.370	7501.75	6890.66	6892.98	307.52	1673404.03	14555130.03	40°04'40.519"N	104°52'55.471"W	2.06	
14182.00	90.770	358.500	7501.63	6978.64	6980.94	305.11	1673401.51	14555217.96	40°04'41.388"N	104°52'55.502"W	1.59	
14269.00	89.380	358.100	7501.52	7065.61	7067.90	302.53	1673398.82	14555304.88	40°04'42.247"N	104°52'55.535"W	1.66	
14357.00	89.820	358.950	7502.13	7153.59	7155.87	300.27	1673396.44	14555392.81	40°04'43.117"N	104°52'55.564"W	1.09	
14445.00	89.880	357.940	7502.36	7241.57	7243.83	297.88	1673393.94	14555480.73	40°04'43.986"N	104°52'55.595"W	1.15	
14532.00	89.910	357.540	7502.52	7328.53	7330.77	294.45	1673390.39	14555567.63	40°04'44.845"N	104°52'55.639"W	0.46	
14620.00	90.610	357.540	7502.12	7416.47	7418.68	290.67	1673386.50	14555655.50	40°04'45.714"N	104°52'55.688"W	0.80	
14707.00	89.780	358.540	7501.83	7503.43	7505.63	287.70	1673383.42	14555742.41	40°04'46.573"N	104°52'55.726"W	1.49	
14795.00	90.590	358.890	7501.54	7591.42	7593.61	285.72	1673381.33	14555830.35	40°04'47.443"N	104°52'55.751"W	1.00	
14882.00	89.510	358.480	7501.47	7678.41	7680.58	283.73	1673379.22	14555917.29	40°04'48.302"N	104°52'55.777"W	1.33	
14970.00	90.590	358.890	7501.39	7766.40	7768.56	281.71	1673377.08	14556005.23	40°04'49.171"N	104°52'55.803"W	1.31	
15058.00	89.390	359.620	7501.40	7854.39	7856.55	280.56	1673375.82	14556093.18	40°04'50.041"N	104°52'55.818"W	1.60	
15145.00	90.650	0.070	7501.37	7941.39	7943.55	280.33	1673375.47	14556180.14	40°04'50.901"N	104°52'55.821"W	1.54	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#11 JZM 29N-W3HZ (265'FSL & 880'FWL,SEC.10)
Area	COLORADO	Well	JZM 29N-W3HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	JZM 29N-W3HZ AWB
Facility	SEC.10-T1N-R67W		

WELLPATH DATA (208 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 [ft/100ft]	Comments
15233.00	88.680	359.350	7501.89	8029.38	8031.54	279.88	1673374.91	14556268.10	40°04'51.770"N	104°52'55.826"W	2.38	
15320.00	89.880	359.640	7502.98	8116.37	8118.53	279.11	1673374.03	14556355.05	40°04'52.630"N	104°52'55.836"W	1.42	
15408.00	90.950	359.810	7502.34	8204.37	8206.52	278.69	1673373.50	14556443.01	40°04'53.499"N	104°52'55.842"W	1.23	
15495.00	89.880	359.580	7501.71	8291.37	8293.52	278.23	1673372.92	14556529.97	40°04'54.359"N	104°52'55.848"W	1.26	
15583.00	90.830	359.400	7501.17	8379.36	8381.51	277.45	1673372.02	14556617.93	40°04'55.229"N	104°52'55.858"W	1.10	
15671.00	89.820	0.920	7500.67	8467.35	8469.51	277.69	1673372.15	14556705.89	40°04'56.098"N	104°52'55.854"W	2.07	
15758.00	88.920	0.160	7501.63	8554.34	8556.49	278.51	1673372.86	14556792.84	40°04'56.958"N	104°52'55.844"W	1.35	
15846.00	89.570	0.200	7502.79	8642.32	8644.49	278.79	1673373.02	14556880.80	40°04'57.828"N	104°52'55.840"W	0.74	
15933.00	90.490	359.940	7502.74	8729.32	8731.49	278.89	1673373.01	14556967.76	40°04'58.687"N	104°52'55.839"W	1.10	
16021.00	89.110	0.410	7503.05	8817.31	8819.48	279.16	1673373.16	14557055.72	40°04'59.557"N	104°52'55.835"W	1.66	
16109.00	89.780	0.460	7503.90	8905.30	8907.47	279.83	1673373.72	14557143.68	40°05'00.426"N	104°52'55.827"W	0.76	
16196.00	91.230	0.030	7503.13	8992.29	8994.47	280.20	1673373.97	14557230.64	40°05'01.286"N	104°52'55.822"W	1.74	
16371.00	91.570	0.670	7498.86	9167.22	9169.41	281.27	1673374.81	14557405.52	40°05'03.015"N	104°52'55.808"W	0.41	
16459.00	89.140	359.330	7498.31	9255.21	9257.40	281.27	1673374.70	14557493.47	40°05'03.884"N	104°52'55.808"W	3.15	
16546.00	89.380	359.160	7499.44	9342.20	9344.39	280.13	1673373.44	14557580.42	40°05'04.744"N	104°52'55.823"W	0.34	
16634.00	89.970	359.310	7499.94	9430.19	9432.38	278.95	1673372.15	14557668.37	40°05'05.614"N	104°52'55.838"W	0.69	
16721.00	90.740	359.010	7499.40	9517.19	9519.36	277.68	1673370.76	14557755.32	40°05'06.473"N	104°52'55.854"W	0.95	
16809.00	88.640	357.380	7499.87	9605.15	9607.31	274.90	1673367.87	14557843.23	40°05'07.342"N	104°52'55.890"W	3.02	
16896.00	88.830	358.020	7501.79	9692.08	9694.22	271.41	1673364.27	14557930.10	40°05'08.201"N	104°52'55.935"W	0.77	
16983.00	89.350	358.000	7503.18	9779.04	9781.16	268.39	1673361.13	14558017.00	40°05'09.060"N	104°52'55.974"W	0.60	
17071.00	89.260	358.300	7504.24	9867.00	9869.10	265.55	1673358.18	14558104.91	40°05'09.929"N	104°52'56.010"W	0.36	
17158.00	90.430	358.660	7504.48	9953.99	9956.07	263.24	1673355.76	14558191.84	40°05'10.789"N	104°52'56.040"W	1.41	
17246.00	91.700	358.680	7502.84	10041.96	10044.03	261.20	1673353.60	14558279.76	40°05'11.658"N	104°52'56.066"W	1.44	
17333.00	92.280	0.520	7499.82	10128.90	10130.97	260.59	1673352.88	14558366.66	40°05'12.517"N	104°52'56.074"W	2.22	
17421.00	93.360	0.050	7495.49	10216.79	10218.86	261.03	1673353.20	14558454.52	40°05'13.386"N	104°52'56.069"W	1.34	
17508.00	94.810	359.570	7489.29	10303.56	10305.64	260.74	1673352.80	14558541.26	40°05'14.243"N	104°52'56.072"W	1.76	
17517.00	95.060	359.470	7488.52	10312.53	10314.61	260.67	1673352.72	14558550.22	40°05'14.332"N	104°52'56.073"W	2.99	LAST BHI MWD+IFR+MSA SURVEY
17565.00	95.060	359.470	7484.29	10360.34	10362.42	260.23	1673352.21	14558598.01	40°05'14.804"N	104°52'56.079"W	0.00	FOE / TD / PTB (27'FNL & 1181'FWL,SEC.03) LAT:40.0874457 LONG:-104.8822441

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#11 JZM 29N-W3HZ (265'FSL & 880'FWL,SEC.10)
Area	COLORADO	Well	JZM 29N-W3HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	JZM 29N-W3HZ AWB
Facility	SEC.10-T1N-R67W		

HOLE & CASING SECTIONS - Ref Wellbore: JZM 29N-W3HZ AWB Ref Wellpath: JZM 29N-W3HZ 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	2269.00	2252.00	17.00	2245.74	0.00	0.00	48.97	292.43
5.5in Casing Production	17.00	17555.00	17538.00	17.00	7485.17	0.00	0.00	10352.46	260.32

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.03-T1N-R67W	5066.00	43.91	3842.55	1676946.63	14548288.35	40°03'32.832"N	104°52'10.009"W	polygon
SEC.10-T1N-R67W	5066.00	43.91	3842.55	1676946.63	14548288.35	40°03'32.832"N	104°52'10.009"W	polygon
JZM 29N-W3HZ LANDBOX	5083.00	0.00	0.00	1673105.68	14548239.42	40°03'32.401"N	104°52'59.427"W	polygon
JZM 29N-W3HZ BHL (50'FNL & 1200'FWL,SEC.3,REV-1)	7498.00	10338.90	278.87	1673370.88	14558574.53	40°05'14.572"N	104°52'55.839"W	point
JZM 29N-W3HZ HL (948'FSL & 1226'FWL,SEC.10,REV-1)	7498.00	683.05	346.47	1673451.12	14548922.65	40°03'39.151"N	104°52'54.971"W	point

WELLPATH COMPOSITION - Ref Wellbore: JZM 29N-W3HZ AWB Ref Wellpath: JZM 29N-W3HZ AWP					
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore	
17.00	2209.00	Custom APC_ISCWSA REV 2 MWD+IFR1 (approximation)	BHI MWD+IFR SURVEYS 13.5" HOLE <214-2209>	JZM 29N-W3HZ AWB	
2209.00	17517.00	Custom APC_ISCWSA REV 2 MWD+IFR1+MSA (approximation)	BHI MWD ISCWSA REV 2 MWD+IFR1+MSA <2331-17517>	JZM 29N-W3HZ AWB	
17517.00	17565.00	Blind Drilling (std)	Projection to bit	JZM 29N-W3HZ AWB	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#11 JZM 29N-W3HZ (265'FSL & 880'FWL,SEC.10)
Area	COLORADO	Well	JZM 29N-W3HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	JZM 29N-W3HZ AWB
Facility	SEC.10-T1N-R67W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
214.00	0.440	56.960	214.00	FIRST BHI MWD+IFR SURVEY
6890.00	2.156	344.486	6863.58	KOP
7320.00	39.175	4.305	7263.31	ENTERED LANDBOX (458'FSL & 1236'FWL,SEC.10) LAT:40.0595308 LONG:-104.8819032
7375.00	43.841	3.697	7304.32	SSPG
7435.00	48.549	3.847	7346.01	NBRR
7701.00	71.688	355.529	7466.72	N470_B_CK
7912.00	88.745	0.373	7504.47	LANDING (979'FSL & 1229'FWL,SEC.10) LAT:40.0609592 LONG:-104.8819277
17517.00	95.060	359.470	7488.52	LAST BHI MWD+IFR+MSA SURVEY
17565.00	95.060	359.470	7484.29	TOE / TD / PTB (27'FNL & 1181'FWL,SEC.03) LAT:40.0874457 LONG:-104.8822441