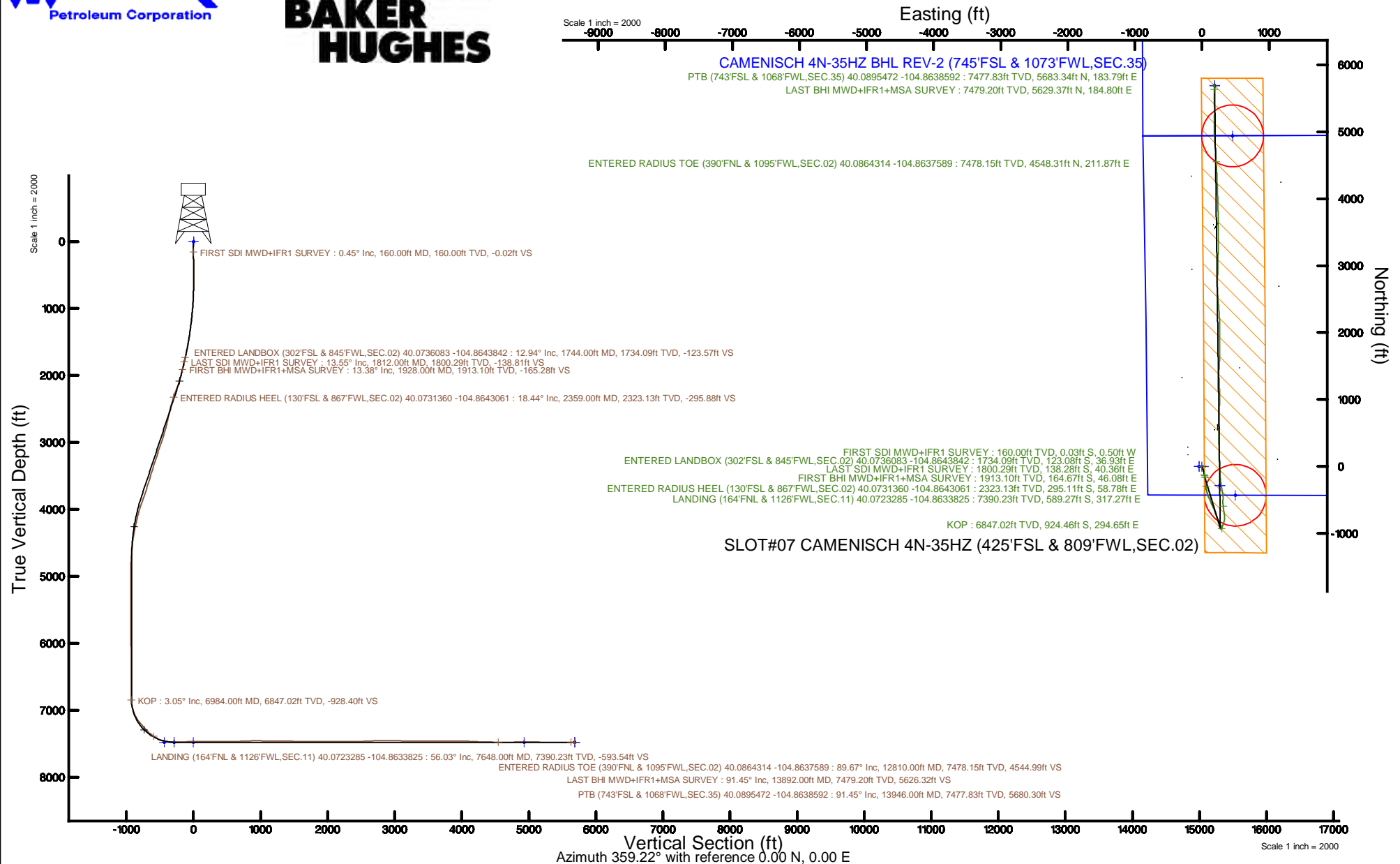


Location:	COLORADO	Slot:	SLOT#07 CAMENISCH 4N-35HZ (425'FSL & 809'FWL,SEC.02)
Field:	WELD COUNTY (UTM/TRUE NORTH)	Well:	CAMENISCH 4N-35HZ
Facility:	SEC.02-T1N-R67W	Wellbore:	CAMENISCH 4N-35HZ PWB

Plot reference wellpath is CAMENISCH 4N-35HZ PWP Rev-B.0	Grid System: NAD83 / UTM Zone 13 North, US feet
True vertical depths are referenced to NABORS X22 (32') (RT)	* = Wellpath was transformed from a different geodetic datum
Measured depths are referenced to NABORS X22 (32') (RT)	North Reference: True north
NABORS X22 (32') (RT) to Mean Sea Level: 5068 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#07 CAMENISCH 4N-35HZ (425'FSL & 809'FWL, SEC.02)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: painsetr on 2017-05-05
	Database: WA_DEN_Anadarko_Defn



REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#07 CAMENISCH 4N-35HZ (425'FSL & 809'FWL,SEC.02)
Area	COLORADO	Well	CAMENISCH 4N-35HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	CAMENISCH 4N-35HZ AWB
Facility	SEC.02-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	0.999602	Report Generated	5/5/2017 at 1:25 PM
Convergence at slot	0.09° East	Database/Source file	WA_DEN_Anadarko_Defn/CAMENISCH_4N-35HZ_AWP.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-3595.56	-212.46	1678318.11	14553689.26	40°04'26.206"N	104°51'52.258"W
Facility Reference Pt			1678524.98	14557283.70	40°05'01.738"N	104°51'49.525"W
Field Reference Pt			1698235.31	14552047.82	40°04'09.600"N	104°47'36.000"W

WELLPATH DATUM			
Calculation method	Minimum curvature	NABORS X22 (32') (RT) to Facility Vertical Datum	5068.00ft
Horizontal Reference Pt	Slot	NABORS X22 (32') (RT) to Mean Sea Level	5068.00ft
Vertical Reference Pt	NABORS X22 (32') (RT)	NABORS X22 (32') (RT) to Mud Line at Slot (SLOT#07 CAMENISCH 4N-35HZ (425'FSL & 809'FWL,SEC.02))	5068.00ft
MD Reference Pt	NABORS X22 (32') (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	359.22°

REFERENCE WELLPATH IDENTIFICATION				
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)		Slot	SLOT#07 CAMENISCH 4N-35HZ (425'FSL & 809'FWL,SEC.02)
Area	COLORADO		Well	CAMENISCH 4N-35HZ
Field	WELD COUNTY (UTM/TRUE NORTH)		Wellbore	CAMENISCH 4N-35HZ AWB
Facility	SEC.02-T1N-R67W			

WELLPATH DATA (156 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	267.010	0.00	0.00	0.00	0.00	1678318.10	14553689.26	40°04'26.206"N	104°51'52.258"W	0.00	
32.00	0.000	267.010	32.00	0.00	0.00	0.00	1678318.10	14553689.26	40°04'26.206"N	104°51'52.258"W	0.00	
160.00	0.450	267.010	160.00	-0.02	-0.03	-0.50	1678317.60	14553689.24	40°04'26.206"N	104°51'52.264"W	0.35	FIRST SDI MWD+IFR1 SURVEY
215.00	0.550	292.060	215.00	0.07	0.06	-0.96	1678317.14	14553689.32	40°04'26.207"N	104°51'52.270"W	0.43	
303.00	0.640	341.440	302.99	0.71	0.69	-1.51	1678316.59	14553689.95	40°04'26.213"N	104°51'52.277"W	0.57	
390.00	0.550	322.820	389.99	1.51	1.48	-1.92	1678316.19	14553690.74	40°04'26.221"N	104°51'52.283"W	0.24	
478.00	0.450	335.460	477.98	2.16	2.13	-2.32	1678315.79	14553691.39	40°04'26.227"N	104°51'52.288"W	0.17	
567.00	0.110	52.000	566.98	2.53	2.50	-2.39	1678315.71	14553691.76	40°04'26.231"N	104°51'52.289"W	0.49	
654.00	0.990	143.180	653.98	1.98	1.95	-1.88	1678316.23	14553691.21	40°04'26.225"N	104°51'52.282"W	1.15	
743.00	1.560	155.960	742.96	0.24	0.23	-0.92	1678317.18	14553689.49	40°04'26.208"N	104°51'52.270"W	0.71	
831.00	2.830	154.720	830.89	-2.84	-2.83	0.49	1678318.60	14553686.44	40°04'26.178"N	104°51'52.252"W	1.44	
920.00	3.990	158.200	919.73	-7.73	-7.69	2.58	1678320.70	14553681.58	40°04'26.130"N	104°51'52.225"W	1.32	
1007.00	5.260	158.840	1006.45	-14.29	-14.22	5.14	1678323.27	14553675.06	40°04'26.065"N	104°51'52.192"W	1.46	
1096.00	5.940	161.070	1095.02	-22.49	-22.38	8.11	1678326.25	14553666.90	40°04'25.985"N	104°51'52.154"W	0.80	
1180.00	7.210	158.430	1178.47	-31.55	-31.40	11.46	1678329.61	14553657.90	40°04'25.896"N	104°51'52.111"W	1.55	
1269.00	7.980	157.540	1266.69	-42.51	-42.30	15.87	1678334.04	14553647.01	40°04'25.788"N	104°51'52.054"W	0.88	
1354.00	8.560	159.480	1350.80	-53.95	-53.68	20.34	1678338.52	14553635.64	40°04'25.676"N	104°51'51.996"W	0.76	
1443.00	9.190	165.060	1438.74	-67.07	-66.75	24.50	1678342.69	14553622.58	40°04'25.546"N	104°51'51.943"W	1.20	
1531.00	10.140	167.120	1525.49	-81.46	-81.09	28.04	1678346.25	14553608.25	40°04'25.405"N	104°51'51.897"W	1.15	
1620.00	11.410	168.280	1612.92	-97.77	-97.35	31.57	1678349.81	14553592.00	40°04'25.244"N	104°51'51.852"W	1.45	
1707.00	12.610	168.360	1698.01	-115.54	-115.07	35.24	1678353.50	14553574.29	40°04'25.069"N	104°51'51.805"W	1.38	
1744.00†	12.940	167.773	1734.09	-123.57	-123.08	36.93	1678355.21	14553566.29	40°04'24.990"N	104°51'51.783"W	0.96	ENTERED LANDBOX (302'FSL & 845'FWL,SEC.02) 40.0736083 -104.8643842
1793.00	13.380	167.040	1781.81	-134.49	-133.97	39.36	1678357.65	14553555.41	40°04'24.882"N	104°51'51.752"W	0.96	
1812.00	13.550	166.890	1800.29	-138.81	-138.28	40.36	1678358.66	14553551.10	40°04'24.840"N	104°51'51.739"W	0.91	LAST SDI MWD+IFR1 SURVEY
1928.00	13.380	168.660	1913.10	-165.28	-164.67	46.08	1678364.42	14553524.73	40°04'24.579"N	104°51'51.665"W	0.38	FIRST BHI MWD+IFR1+MSA SURVEY
2022.00	13.930	172.540	2004.44	-187.21	-186.55	49.69	1678368.06	14553502.86	40°04'24.362"N	104°51'51.619"W	1.14	
2116.00	18.310	174.180	2094.72	-213.17	-212.48	52.66	1678371.06	14553476.95	40°04'24.106"N	104°51'51.581"W	4.68	
2210.00	20.990	176.730	2183.24	-244.71	-243.98	55.11	1678373.57	14553445.47	40°04'23.795"N	104°51'51.549"W	2.99	
2303.00	20.230	176.430	2270.29	-277.41	-276.66	57.07	1678375.57	14553412.80	40°04'23.472"N	104°51'51.524"W	0.83	
2359.00†	18.439	172.799	2323.13	-295.88	-295.11	58.78	1678377.31	14553394.36	40°04'23.290"N	104°51'51.502"W	3.85	ENTERED RADIUS HEEL (130'FSL & 867'FWL,SEC.02) 40.0731360 -104.8643061
2397.00	17.270	169.930	2359.30	-307.42	-306.63	60.52	1678379.07	14553382.85	40°04'23.176"N	104°51'51.480"W	3.85	
2491.00	15.980	168.200	2449.37	-333.89	-333.03	65.60	1678384.19	14553356.47	40°04'22.915"N	104°51'51.414"W	1.47	
2584.00	14.500	171.090	2539.10	-357.99	-357.07	70.03	1678388.65	14553332.45	40°04'22.677"N	104°51'51.357"W	1.79	
2677.00	11.600	169.960	2629.69	-378.74	-377.78	73.46	1678392.11	14553311.75	40°04'22.473"N	104°51'51.313"W	3.13	
2771.00	12.840	160.340	2721.57	-397.96	-396.92	78.62	1678397.30	14553292.62	40°04'22.284"N	104°51'51.247"W	2.53	
2865.00	16.470	162.250	2812.49	-420.59	-419.46	86.20	1678404.91	14553270.10	40°04'22.061"N	104°51'51.149"W	3.90	
2958.00	18.960	157.330	2901.08	-447.23	-445.96	96.05	1678414.79	14553243.63	40°04'21.799"N	104°51'51.023"W	3.12	
3053.00	20.640	156.560	2990.46	-477.00	-475.57	108.66	1678427.44	14553214.05	40°04'21.506"N	104°51'50.860"W	1.79	
3147.00	19.080	155.990	3078.87	-506.41	-504.80	121.50	1678440.32	14553184.85	40°04'21.217"N	104°51'50.695"W	1.67	
3241.00	19.180	158.260	3167.68	-534.95	-533.18	133.47	1678452.33	14553156.50	40°04'20.937"N	104°51'50.541"W	0.80	
3336.00	20.350	156.610	3257.08	-564.77	-562.84	145.81	1678464.71	14553126.87	40°04'20.644"N	104°51'50.382"W	1.36	
3429.00	18.170	154.040	3344.87	-592.82	-590.72	158.58	1678477.52	14553099.02	40°04'20.368"N	104°51'50.218"W	2.51	
3523.00	18.620	152.400	3434.07	-619.48	-617.20	171.94	1678490.92	14553072.58	40°04'20.107"N	104°51'50.046"W	0.73	
3617.00	18.130	159.290	3523.29	-646.63	-644.18	184.07	1678503.08	14553045.62	40°04'19.840"N	104°51'49.890"W	2.37	
3710.00	17.610	166.890	3611.81	-673.98	-671.42	192.38	1678511.43	14553018.41	40°04'19.571"N	104°51'49.783"W	2.57	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#07 CAMENISCH 4N-35HZ (425'FSL & 809'FWL,SEC.02)
Area	COLORADO	Well	CAMENISCH 4N-35HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	CAMENISCH 4N-35HZ AWP
Facility	SEC.02-T1N-R67W		

WELLPATH DATA (156 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
3804.00	19.340	153.960	3701.00	-701.96	-699.27	202.44	1678521.53	14552990.59	40°04'19.296"N	104°51'49.654"W	4.72	
3897.00	21.100	158.650	3788.27	-731.56	-728.70	215.30	1678534.43	14552961.18	40°04'19.005"N	104°51'49.489"W	2.57	
3991.00	21.210	159.340	3875.94	-763.39	-760.37	227.46	1678546.63	14552929.55	40°04'18.692"N	104°51'49.332"W	0.29	
4085.00	18.580	156.180	3964.32	-793.17	-789.98	239.51	1678558.72	14552899.96	40°04'18.399"N	104°51'49.177"W	3.02	
4179.00	15.990	162.930	4054.08	-819.39	-816.07	249.36	1678568.61	14552873.90	40°04'18.141"N	104°51'49.050"W	3.48	
4272.00	13.990	160.740	4143.91	-842.35	-838.93	256.83	1678576.11	14552851.06	40°04'17.916"N	104°51'48.954"W	2.23	
4366.00	12.420	159.480	4235.42	-862.64	-859.12	264.12	1678583.43	14552830.89	40°04'17.716"N	104°51'48.861"W	1.70	
4460.00	11.640	158.560	4327.36	-881.03	-877.42	271.13	1678590.46	14552812.61	40°04'17.535"N	104°51'48.770"W	0.85	
4554.00	9.900	151.440	4419.70	-897.05	-893.34	278.46	1678597.81	14552796.70	40°04'17.378"N	104°51'48.676"W	2.33	
4647.00	7.070	150.150	4511.68	-909.13	-905.33	285.13	1678604.50	14552784.73	40°04'17.259"N	104°51'48.590"W	3.05	
4741.00	5.770	153.450	4605.09	-918.44	-914.58	290.12	1678609.50	14552775.50	40°04'17.168"N	104°51'48.526"W	1.44	
4835.00	3.950	190.330	4698.77	-925.87	-921.99	291.66	1678611.05	14552768.09	40°04'17.095"N	104°51'48.506"W	3.75	
4929.00	3.520	185.560	4792.57	-931.92	-928.05	290.80	1678610.20	14552762.03	40°04'17.035"N	104°51'48.517"W	0.56	
5022.00	3.200	249.500	4885.44	-935.63	-931.80	288.09	1678607.49	14552758.28	40°04'16.998"N	104°51'48.552"W	3.84	
5143.00	3.260	252.320	5006.24	-937.77	-934.03	281.65	1678601.06	14552756.04	40°04'16.976"N	104°51'48.635"W	0.14	
5236.00	1.690	63.170	5099.21	-937.94	-934.21	280.35	1678599.76	14552755.85	40°04'16.974"N	104°51'48.652"W	5.31	
5425.00	1.170	67.480	5288.15	-936.00	-932.21	284.62	1678604.03	14552757.86	40°04'16.994"N	104°51'48.597"W	0.28	
5519.00	1.020	54.030	5382.13	-935.16	-931.35	286.18	1678605.59	14552758.72	40°04'17.002"N	104°51'48.577"W	0.32	
5612.00	0.540	44.690	5475.12	-934.38	-930.56	287.16	1678606.57	14552759.52	40°04'17.010"N	104°51'48.564"W	0.53	
5707.00	0.590	68.840	5570.12	-933.90	-930.06	287.93	1678607.34	14552760.01	40°04'17.015"N	104°51'48.554"W	0.25	
5801.00	0.290	25.760	5664.11	-933.51	-929.67	288.49	1678607.89	14552760.40	40°04'17.019"N	104°51'48.547"W	0.45	
5894.00	0.230	357.980	5757.11	-933.12	-929.27	288.58	1678607.99	14552760.80	40°04'17.023"N	104°51'48.546"W	0.15	
5989.00	0.340	349.020	5852.11	-932.65	-928.81	288.52	1678607.92	14552761.27	40°04'17.027"N	104°51'48.547"W	0.12	
6082.00	0.290	26.130	5945.11	-932.17	-928.33	288.57	1678607.97	14552761.75	40°04'17.032"N	104°51'48.546"W	0.22	
6177.00	0.340	347.990	6040.11	-931.68	-927.83	288.62	1678608.02	14552762.24	40°04'17.037"N	104°51'48.545"W	0.22	
6271.00	0.180	283.500	6134.11	-931.37	-927.53	288.42	1678607.82	14552762.55	40°04'17.040"N	104°51'48.548"W	0.33	
6364.00	0.300	339.760	6227.11	-931.10	-927.26	288.19	1678607.59	14552762.81	40°04'17.043"N	104°51'48.551"W	0.27	
6459.00	0.580	325.650	6322.10	-930.47	-926.63	287.83	1678607.23	14552763.44	40°04'17.049"N	104°51'48.556"W	0.31	
6553.00	0.360	22.400	6416.10	-929.80	-925.97	287.68	1678607.08	14552764.10	40°04'17.055"N	104°51'48.558"W	0.52	
6647.00	0.730	66.530	6510.10	-929.30	-925.46	288.34	1678607.74	14552764.62	40°04'17.060"N	104°51'48.549"W	0.57	
6741.00	1.050	89.790	6604.09	-929.07	-925.21	289.75	1678609.15	14552764.86	40°04'17.063"N	104°51'48.531"W	0.51	
6836.00	1.310	94.500	6699.07	-929.18	-925.30	291.70	1678611.10	14552764.78	40°04'17.062"N	104°51'48.506"W	0.29	
6930.00	0.960	106.060	6793.05	-929.51	-925.60	293.53	1678612.93	14552764.48	40°04'17.059"N	104°51'48.482"W	0.44	
6984.00†	3.049	28.516	6847.02	-928.39	-924.46	294.65	1678614.05	14552765.62	40°04'17.070"N	104°51'48.468"W	5.54	KOP
7024.00	5.200	20.830	6886.91	-925.77	-921.83	295.81	1678615.19	14552768.25	40°04'17.096"N	104°51'48.453"W	5.54	
7117.00	17.310	19.550	6977.95	-908.82	-904.79	301.96	1678621.32	14552785.29	40°04'17.265"N	104°51'48.374"W	13.02	
7208.00	26.570	19.790	7062.27	-877.00	-872.82	313.40	1678632.71	14552817.28	40°04'17.581"N	104°51'48.227"W	10.18	
7301.00	35.180	16.460	7142.02	-831.85	-827.46	328.06	1678647.30	14552862.63	40°04'18.029"N	104°51'48.038"W	9.44	
7393.00	40.500	1.610	7214.80	-776.54	-772.03	336.44	1678655.58	14552918.06	40°04'18.577"N	104°51'47.930"W	11.43	
7486.00	43.160	352.160	7284.16	-714.72	-710.26	332.94	1678651.99	14552979.80	40°04'19.187"N	104°51'47.975"W	7.35	
7578.00	49.280	352.230	7347.79	-648.83	-644.48	323.93	1678642.88	14553045.54	40°04'19.837"N	104°51'48.091"W	6.65	
7648.00†	56.031	353.933	7390.23	-593.53	-589.27	317.27	1678636.14	14553100.72	40°04'20.383"N	104°51'48.177"W	9.84	LANDING (164'FNL & 1126'FWL,SEC.11) 40.0723285 -104.8633825
7669.00	58.060	354.390	7401.65	-575.98	-571.74	315.47	1678634.32	14553118.24	40°04'20.556"N	104°51'48.200"W	9.84	
7761.00	71.100	3.430	7441.12	-493.18	-488.95	314.25	1678632.98	14553200.99	40°04'21.374"N	104°51'48.216"W	16.71	
7852.00	78.210	350.580	7465.28	-405.76	-401.59	309.52	1678628.11	14553288.31	40°04'22.237"N	104°51'48.277"W	15.69	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#07 CAMENISCH 4N-35HZ (425'FSL & 809'FWL,SEC.02)
Area	COLORADO	Well	CAMENISCH 4N-35HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	CAMENISCH 4N-35HZ AWB
Facility	SEC.02-T1N-R67W		

WELLPATH DATA (156 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
7945.00	88.800	348.410	7475.79	-314.83	-310.87	292.68	1678611.14	14553378.96	40°04'23.134"N	104°51'48.493"W	11.62	
8039.00	93.640	354.150	7473.79	-221.82	-218.05	278.43	1678596.76	14553471.73	40°04'24.051"N	104°51'48.676"W	7.99	
8134.00	90.340	356.920	7470.49	-127.09	-123.41	271.05	1678589.23	14553566.31	40°04'24.986"N	104°51'48.771"W	4.53	
8228.00	90.430	356.390	7469.86	-33.19	-29.58	265.56	1678583.60	14553660.10	40°04'25.914"N	104°51'48.842"W	0.57	
8322.00	90.400	358.820	7469.18	60.77	64.33	261.63	1678579.54	14553753.97	40°04'26.842"N	104°51'48.892"W	2.59	
8416.00	90.710	358.600	7468.27	154.76	158.30	259.52	1678577.28	14553847.90	40°04'27.770"N	104°51'48.920"W	0.40	
8510.00	91.690	358.180	7466.30	248.72	252.25	256.88	1678574.50	14553941.80	40°04'28.699"N	104°51'48.954"W	1.13	
8603.00	89.850	356.720	7465.05	341.67	345.14	252.74	1678570.22	14554034.65	40°04'29.617"N	104°51'49.007"W	2.53	
8697.00	91.110	0.720	7464.26	435.64	439.09	250.64	1678567.98	14554128.56	40°04'30.545"N	104°51'49.034"W	4.46	
8791.00	89.380	2.430	7463.86	529.55	533.05	253.22	1678570.42	14554222.48	40°04'31.474"N	104°51'49.001"W	2.59	
8884.00	90.030	1.510	7464.34	622.44	625.99	256.42	1678573.47	14554315.39	40°04'32.392"N	104°51'48.959"W	1.21	
8978.00	91.260	1.240	7463.28	716.37	719.95	258.68	1678575.58	14554409.32	40°04'33.321"N	104°51'48.930"W	1.34	
9071.00	93.180	0.420	7459.68	809.25	812.87	260.02	1678576.79	14554502.20	40°04'34.239"N	104°51'48.913"W	2.24	
9165.00	91.450	0.630	7455.88	903.15	906.79	260.88	1678577.50	14554596.08	40°04'35.167"N	104°51'48.902"W	1.85	
9259.00	87.900	0.260	7456.41	997.11	1000.77	261.61	1678578.09	14554690.03	40°04'36.096"N	104°51'48.893"W	3.80	
9353.00	88.270	359.720	7459.55	1091.05	1094.71	261.60	1678577.93	14554783.93	40°04'37.024"N	104°51'48.893"W	0.70	
9447.00	89.040	358.560	7461.76	1185.02	1188.67	260.19	1678576.38	14554877.86	40°04'37.953"N	104°51'48.911"W	1.48	
9541.00	89.380	356.700	7463.06	1278.97	1282.58	256.30	1678572.35	14554971.72	40°04'38.881"N	104°51'48.961"W	2.01	
9635.00	91.540	359.310	7462.30	1372.93	1376.51	253.03	1678568.94	14555065.60	40°04'39.809"N	104°51'49.003"W	3.60	
9729.00	87.160	3.650	7463.37	1466.81	1470.42	255.45	1678571.22	14555159.49	40°04'40.737"N	104°51'48.972"W	6.56	
9823.00	87.600	2.780	7467.66	1560.48	1564.18	260.72	1678576.34	14555253.21	40°04'41.663"N	104°51'48.904"W	1.04	
9917.00	89.600	1.580	7469.96	1654.32	1658.07	264.29	1678579.77	14555347.07	40°04'42.591"N	104°51'48.858"W	2.48	
10010.00	90.030	0.820	7470.26	1747.27	1751.05	266.24	1678581.57	14555440.02	40°04'43.510"N	104°51'48.833"W	0.94	
10104.00	90.680	0.190	7469.68	1841.24	1845.05	267.07	1678582.26	14555533.97	40°04'44.439"N	104°51'48.822"W	0.96	
10198.00	91.420	358.940	7467.96	1935.22	1939.03	266.36	1678581.40	14555627.91	40°04'45.368"N	104°51'48.831"W	1.55	
10292.00	90.090	359.820	7466.72	2029.21	2033.01	265.34	1678580.24	14555721.86	40°04'46.297"N	104°51'48.845"W	1.70	
10385.00	90.430	358.580	7466.30	2122.21	2126.00	264.04	1678578.80	14555814.81	40°04'47.215"N	104°51'48.861"W	1.38	
10479.00	91.330	357.340	7464.85	2216.17	2219.92	260.69	1678575.32	14555908.69	40°04'48.144"N	104°51'48.904"W	1.63	
10573.00	89.110	355.910	7464.49	2310.06	2313.75	255.16	1678569.64	14556002.47	40°04'49.071"N	104°51'48.975"W	2.81	
10667.00	90.120	355.490	7465.12	2403.88	2407.48	248.11	1678562.46	14556096.16	40°04'49.997"N	104°51'49.066"W	1.16	
10762.00	90.590	354.410	7464.53	2498.62	2502.11	239.75	1678553.95	14556190.73	40°04'50.932"N	104°51'49.174"W	1.24	
10856.00	93.300	357.270	7461.34	2592.38	2595.79	232.94	1678547.00	14556284.37	40°04'51.858"N	104°51'49.261"W	4.19	
10949.00	92.690	359.300	7456.48	2685.23	2688.62	230.16	1678544.08	14556377.15	40°04'52.775"N	104°51'49.297"W	2.28	
11043.00	89.040	2.050	7455.06	2779.17	2782.57	231.27	1678545.04	14556471.07	40°04'53.704"N	104°51'49.283"W	4.86	
11138.00	90.060	1.910	7455.81	2874.05	2877.51	234.55	1678548.18	14556565.98	40°04'54.642"N	104°51'49.241"W	1.08	
11232.00	91.080	1.360	7454.88	2967.96	2971.47	237.23	1678550.72	14556659.90	40°04'55.571"N	104°51'49.206"W	1.23	
11326.00	87.930	1.220	7455.69	3061.89	3065.43	239.35	1678552.69	14556753.83	40°04'56.499"N	104°51'49.179"W	3.35	
11420.00	88.150	0.640	7458.90	3155.79	3159.36	240.87	1678554.07	14556847.72	40°04'57.427"N	104°51'49.159"W	0.66	
11515.00	88.770	0.930	7461.46	3250.72	3254.32	242.17	1678555.23	14556942.64	40°04'58.366"N	104°51'49.142"W	0.72	
11609.00	89.570	0.880	7462.82	3344.67	3348.30	243.66	1678556.57	14557036.59	40°04'59.294"N	104°51'49.123"W	0.85	
11702.00	90.000	0.430	7463.17	3437.64	3441.29	244.72	1678557.49	14557129.54	40°05'00.213"N	104°51'49.110"W	0.67	
11797.00	90.830	0.470	7462.48	3532.61	3536.28	245.46	1678558.09	14557224.50	40°05'01.152"N	104°51'49.100"W	0.87	
11890.00	89.630	358.890	7462.10	3625.60	3629.28	244.95	1678557.43	14557317.45	40°05'02.071"N	104°51'49.107"W	2.13	
11984.00	90.090	358.750	7462.33	3719.60	3723.25	243.01	1678555.35	14557411.39	40°05'03.000"N	104°51'49.132"W	0.51	
12078.00	90.740	358.620	7461.65	3813.59	3817.23	240.85	1678553.05	14557505.32	40°05'03.929"N	104°51'49.159"W	0.71	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#07 CAMENISCH 4N-35HZ (425'FSL & 809'FWL,SEC.02)
Area	COLORADO	Well	CAMENISCH 4N-35HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	CAMENISCH 4N-35HZ AWP
Facility	SEC.02-T1N-R67W		

WELLPATH DATA (156 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
12172.00	89.260	357.950	7461.65	3907.58	3911.18	238.04	1678550.10	14557599.24	40°05'04.857"N	104°51'49.195"W	1.73	
12267.00	90.620	358.450	7461.75	4002.56	4006.13	235.06	1678546.97	14557694.14	40°05'05.795"N	104°51'49.234"W	1.53	
12361.00	87.160	357.980	7463.57	4096.51	4100.05	232.13	1678543.90	14557788.02	40°05'06.723"N	104°51'49.272"W	3.71	
12455.00	87.470	358.010	7467.98	4190.39	4193.89	228.84	1678540.47	14557881.82	40°05'07.651"N	104°51'49.314"W	0.33	
12550.00	87.780	357.760	7471.91	4285.28	4288.75	225.34	1678536.83	14557976.63	40°05'08.588"N	104°51'49.359"W	0.42	
12643.00	88.270	357.130	7475.12	4378.18	4381.60	221.20	1678532.55	14558069.44	40°05'09.506"N	104°51'49.412"W	0.86	
12737.00	89.040	356.730	7477.33	4472.08	4475.44	216.16	1678527.37	14558163.23	40°05'10.433"N	104°51'49.477"W	0.92	
12810.00†	89.669	356.520	7478.15	4545.00	4548.31	211.87	1678522.97	14558236.06	40°05'11.153"N	104°51'49.532"W	0.91	ENTERED RADIUS TOE (390'FNL & 1095'FWL,SEC.02) 40.0864314 -104.8637589
12831.00	89.850	356.460	7478.24	4565.98	4569.27	210.58	1678521.65	14558257.01	40°05'11.360"N	104°51'49.549"W	0.91	
12924.00	90.340	356.170	7478.08	4658.86	4662.07	204.60	1678515.53	14558349.78	40°05'12.277"N	104°51'49.626"W	0.61	
13017.00	90.770	356.450	7477.18	4751.73	4754.88	198.62	1678509.41	14558442.53	40°05'13.195"N	104°51'49.703"W	0.55	
13111.00	90.800	356.570	7475.89	4845.62	4848.69	192.90	1678503.55	14558536.30	40°05'14.122"N	104°51'49.776"W	0.13	
13205.00	91.200	356.710	7474.25	4939.51	4942.52	187.39	1678497.90	14558630.08	40°05'15.049"N	104°51'49.847"W	0.45	
13299.00	88.460	0.650	7474.53	5033.48	5036.46	185.22	1678495.59	14558723.99	40°05'15.977"N	104°51'49.875"W	5.11	
13394.00	89.040	0.760	7476.60	5128.42	5131.43	186.39	1678496.61	14558818.92	40°05'16.916"N	104°51'49.860"W	0.62	
13488.00	89.140	0.500	7478.10	5222.38	5225.42	187.43	1678497.50	14558912.87	40°05'17.845"N	104°51'49.847"W	0.30	
13582.00	89.290	359.970	7479.38	5316.36	5319.41	187.81	1678497.75	14559006.82	40°05'18.773"N	104°51'49.842"W	0.59	
13676.00	89.630	359.710	7480.27	5410.35	5413.40	187.55	1678497.34	14559100.78	40°05'19.702"N	104°51'49.845"W	0.46	
13770.00	89.910	359.270	7480.65	5504.34	5507.40	186.71	1678496.36	14559194.73	40°05'20.631"N	104°51'49.856"W	0.55	
13892.00	91.450	358.930	7479.20	5626.33	5629.37	184.80	1678494.26	14559316.65	40°05'21.836"N	104°51'49.880"W	1.29	LAST BHI MWD+IFR1+MSA SURVEY
13946.00	91.450	358.930	7477.83	5680.31	5683.34	183.79	1678493.17	14559370.60	40°05'22.370"N	104°51'49.893"W	0.00	PTB (743'FSL & 1068'FWL,SEC.35) 40.0895472 -104.8638592

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#07 CAMENISCH 4N-35HZ (425'FSL & 809'FWL,SEC.02)
Area	COLORADO	Well	CAMENISCH 4N-35HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	CAMENISCH 4N-35HZ AWB
Facility	SEC.02-T1N-R67W		

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.02-T1N-R67W	0.00	0.30	-45.01	1678273.11	14553689.50	40°04'26.209"N	104°51'52.837"W	polygon
SEC.35-T2N-R67W	0.00	0.30	-45.01	1678273.11	14553689.50	40°04'26.209"N	104°51'52.837"W	polygon
CAMENISCH 4N-35HZ BHL REV-1(750'FSL & 1073'FWL,SEC.35)	7478.00	5690.20	189.17	1678498.54	14559377.47	40°05'22.438"N	104°51'49.824"W	point
CAMENISCH 4N-35HZ BHL REV-2 (745'FSL & 1073'FWL,SEC.35)	7478.00	5685.20	189.17	1678498.55	14559372.47	40°05'22.388"N	104°51'49.824"W	point
CAMENISCH 4N-35HZ HEEL REV-1(143'FSL & 1077'FWL,SEC.02)	7478.00	-283.09	270.66	1678589.09	14553406.69	40°04'23.408"N	104°51'48.776"W	point
CAMENISCH 4N-35HZ HEEL REV-2(143'FSL & 1072'FWL,SEC.02)	7478.00	-283.09	265.66	1678584.09	14553406.69	40°04'23.408"N	104°51'48.841"W	point
CAMENISCH 4N-35HZ LANDBOX	7478.00	0.00	0.00	1678318.10	14553689.26	40°04'26.206"N	104°51'52.258"W	polygon
CAMENISCH 4N-35HZ RADIUS HEEL	7478.00	-429.29	498.24	1678816.80	14553260.90	40°04'21.964"N	104°51'45.849"W	polygon
CAMENISCH 4N-35HZ RADIUS TOE	7478.00	4938.33	455.59	1678766.00	14558626.30	40°05'15.007"N	104°51'46.396"W	polygon

WELLPATH COMPOSITION - Ref Wellbore: CAMENISCH 4N-35HZ AWB				Ref Wellpath: CAMENISCH 4N-35HZ AWP	
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment		Wellbore
32.00	1812.00	Custom APC ISCWSA REV 2 MWD+IFR1 (approximation)	SDI Custom APC ISCWSA Rev-2 MWD+IFR1 <160 - 1812>		CAMENISCH 4N-35HZ AWB
1812.00	13892.00	Custom APC ISCWSA REV 2 MWD+IFR1+MSA (approximation)	BHI Custom APC ISCWSA Rev-2 MWD+IFR1+MSA <1928 - 13892>		CAMENISCH 4N-35HZ AWB
13892.00	13946.00	Blind Drilling (std)	Projection to bit		CAMENISCH 4N-35HZ AWB

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#07 CAMENISCH 4N-35HZ (425'FSL & 809'FWL,SEC.02)
Area	COLORADO	Well	CAMENISCH 4N-35HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	CAMENISCH 4N-35HZ AWB
Facility	SEC.02-T1N-R67W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
160.00	0.450	267.010	160.00	FIRST SDI MWD+IFR1 SURVEY
1744.00	12.940	167.773	1734.09	ENTERED LANDBOX (302'FSL & 845'FWL,SEC.02) 40.0736083 -104.8643842
1812.00	13.550	166.890	1800.29	LAST SDI MWD+IFR1 SURVEY
1928.00	13.380	168.660	1913.10	FIRST BHI MWD+IFR1+MSA SURVEY
2359.00	18.439	172.799	2323.13	ENTERED RADIUS HEEL (130'FSL & 867'FWL,SEC.02) 40.0731360 -104.8643061
6984.00	3.049	28.516	6847.02	KOP
7648.00	56.031	353.933	7390.23	LANDING (164'FNL & 1126'FWL,SEC.11) 40.0723285 -104.8633825
12810.00	89.669	356.520	7478.15	ENTERED RADIUS TOE (390'FNL & 1095'FWL,SEC.02) 40.0864314 -104.8637589
13892.00	91.450	358.930	7479.20	LAST BHI MWD+IFR1+MSA SURVEY
13946.00	91.450	358.930	7477.83	PTB (743'FSL & 1068'FWL,SEC.35) 40.0895472 -104.8638592