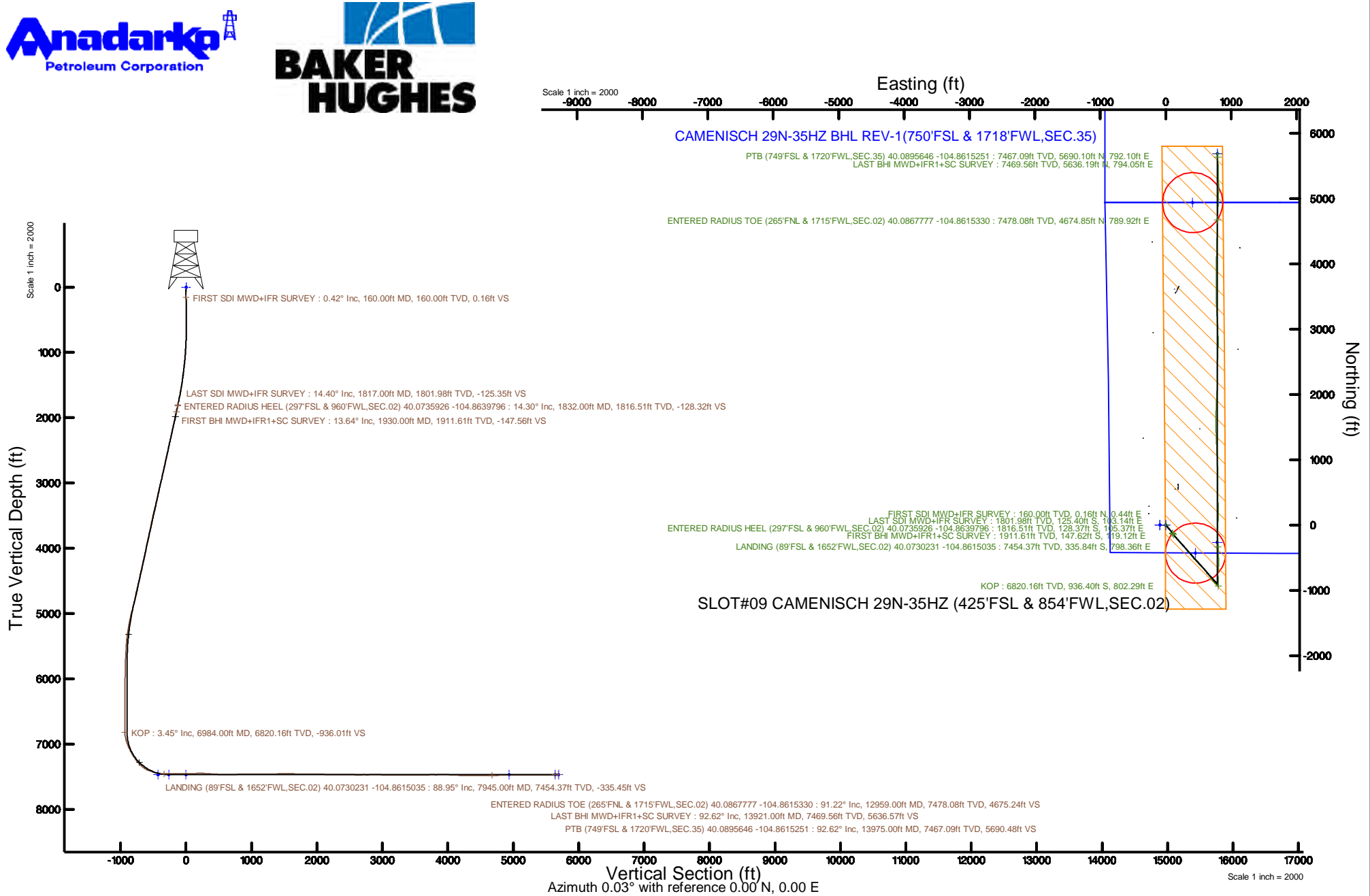


# KERR-MCGEE OIL & GAS ONSHORE LP (WA)

Location: COLORADO Slot: SLOT#09 CAMENISCH 29N-35HZ (425'FSL & 854'FWL,SEC.02)  
Field: WELD COUNTY (UTM/TRUE NORTH) Well: CAMENISCH 29N-35HZ  
Facility: SEC.02-T1N-R67W Wellbore: CAMENISCH 29N-35HZ PWB

Plot reference wellpath is CAMENISCH 29N-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#09 CAMENISCH 29N-35HZ (425'FSL & 854'FWL,SEC.02)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: painsetr on 2017-05-12
	Database: WA_DEN_Anadarko_Defn



REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#09 CAMENISCH 29N-35HZ (425'FSL & 854'FWL,SEC.02)
Area	COLORADO	Well	CAMENISCH 29N-35HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	CAMENISCH 29N-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	7/11/2017 at 10:18 AM
Convergence at slot	0.09° East	Database/Source file	WA_DEN_Anadarko_Defn/CAMENISCH_29N-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	-3595.96	-167.68	1678362.87	14553688.93	40°04'26.202"N	104°51'51.682"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#09 CAMENISCH 29N-35HZ (425'FSL & 854'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	0.03°

REFERENCE WELLPATH IDENTIFICATION				
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)		Slot	SLOT#09 CAMENISCH 29N-35HZ (425'FSL & 854'FWL,SEC.02)
Area	COLORADO		Well	CAMENISCH 29N-35HZ
Field	WELD COUNTY (UTM/TRUE NORTH)		Wellbore	CAMENISCH 29N-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	69.500	0.00	0.00	0.00	0.00	1678362.87	14553688.93	40°04'26.202"N	104°51'51.682"W	0.00	
32.00	0.000	69.500	32.00	0.00	0.00	0.00	1678362.87	14553688.93	40°04'26.202"N	104°51'51.682"W	0.00	
160.00	0.420	69.500	160.00	0.16	0.16	0.44	1678363.30	14553689.09	40°04'26.204"N	104°51'51.676"W	0.33	FIRST SDI MWD+IFR SURVEY
215.00	0.440	6.920	215.00	0.44	0.44	0.65	1678363.52	14553689.37	40°04'26.206"N	104°51'51.674"W	0.81	
303.00	0.350	45.530	303.00	0.97	0.97	0.89	1678363.75	14553689.90	40°04'26.212"N	104°51'51.671"W	0.31	
390.00	1.050	36.280	389.99	1.80	1.80	1.55	1678364.41	14553690.73	40°04'26.220"N	104°51'51.662"W	0.81	
478.00	1.080	44.010	477.97	3.04	3.04	2.60	1678365.46	14553691.97	40°04'26.232"N	104°51'51.649"W	0.17	
567.00	0.660	73.030	566.96	3.80	3.80	3.67	1678366.53	14553692.73	40°04'26.240"N	104°51'51.635"W	0.67	
654.00	0.810	109.230	653.96	3.74	3.74	4.73	1678367.59	14553692.67	40°04'26.239"N	104°51'51.621"W	0.55	
743.00	1.170	147.360	742.94	2.77	2.77	5.82	1678368.68	14553691.70	40°04'26.229"N	104°51'51.607"W	0.82	
831.00	2.590	162.230	830.89	0.12	0.12	6.91	1678369.77	14553689.05	40°04'26.203"N	104°51'51.593"W	1.69	
920.00	3.690	156.680	919.76	-4.42	-4.43	8.66	1678371.53	14553684.51	40°04'26.158"N	104°51'51.571"W	1.28	
1007.00	5.020	145.740	1006.51	-10.14	-10.14	11.91	1678374.78	14553678.80	40°04'26.102"N	104°51'51.529"W	1.80	
1096.00	6.350	144.650	1095.07	-17.37	-17.38	16.95	1678379.83	14553671.58	40°04'26.030"N	104°51'51.464"W	1.50	
1180.00	7.880	144.600	1178.42	-25.85	-25.86	22.97	1678385.87	14553663.11	40°04'25.946"N	104°51'51.387"W	1.82	
1269.00	9.100	139.670	1266.44	-36.18	-36.20	31.06	1678393.97	14553652.79	40°04'25.844"N	104°51'51.282"W	1.60	
1354.00	9.580	136.460	1350.32	-46.43	-46.45	40.28	1678403.20	14553642.56	40°04'25.743"N	104°51'51.164"W	0.83	
1443.00	10.570	138.190	1437.94	-57.88	-57.90	50.83	1678413.76	14553631.12	40°04'25.630"N	104°51'51.028"W	1.16	
1531.00	12.270	140.580	1524.20	-71.11	-71.14	62.15	1678425.10	14553617.91	40°04'25.499"N	104°51'50.883"W	2.00	
1620.00	13.640	142.390	1610.93	-86.73	-86.76	74.56	1678437.52	14553602.31	40°04'25.345"N	104°51'50.723"W	1.61	
1707.00	14.140	144.220	1695.39	-103.47	-103.51	87.03	1678450.02	14553585.59	40°04'25.179"N	104°51'50.562"W	0.76	
1793.00	14.410	143.380	1778.73	-120.57	-120.62	99.56	1678462.56	14553568.50	40°04'25.010"N	104°51'50.401"W	0.40	
1817.00	14.400	142.900	1801.98	-125.35	-125.40	103.14	1678466.15	14553563.73	40°04'24.963"N	104°51'50.355"W	0.50	LAST SDI MWD+IFR SURVEY
1832.00†	14.297	143.257	1816.51	-128.32	-128.37	105.37	1678468.39	14553560.77	40°04'24.933"N	104°51'50.327"W	0.90	ENTERED RADIUS HEEL (297'FSL & 960'FWL,SEC.02) 40.0735926 -104.8639796
1930.00	13.640	145.720	1911.61	-147.55	-147.62	119.12	1678482.16	14553541.55	40°04'24.743"N	104°51'50.150"W	0.90	FIRST BHI MWD+IFR1+SC SURVEY
2023.00	15.340	144.240	2001.65	-166.59	-166.66	132.48	1678495.55	14553522.53	40°04'24.555"N	104°51'49.978"W	1.87	
2117.00	16.890	139.400	2091.96	-187.04	-187.12	148.64	1678511.73	14553502.11	40°04'24.353"N	104°51'49.770"W	2.18	
2211.00	16.410	138.090	2182.02	-207.28	-207.37	166.39	1678529.51	14553481.89	40°04'24.153"N	104°51'49.542"W	0.65	
2304.00	15.130	137.710	2271.52	-226.03	-226.13	183.34	1678546.47	14553463.17	40°04'23.967"N	104°51'49.324"W	1.38	
2398.00	17.210	138.100	2361.79	-245.45	-245.55	200.88	1678564.04	14553443.78	40°04'23.775"N	104°51'49.098"W	2.22	
2492.00	15.900	136.700	2451.89	-265.16	-265.28	219.00	1678582.18	14553424.09	40°04'23.580"N	104°51'48.865"W	1.46	
2586.00	16.920	137.650	2542.06	-284.63	-284.76	237.04	1678600.25	14553404.65	40°04'23.388"N	104°51'48.633"W	1.12	
2678.00	15.700	136.260	2630.36	-303.51	-303.64	254.67	1678617.90	14553385.79	40°04'23.201"N	104°51'48.406"W	1.39	
2772.00	16.640	134.800	2720.64	-322.17	-322.32	273.01	1678636.26	14553367.15	40°04'23.017"N	104°51'48.170"W	1.09	
2866.00	18.050	141.820	2810.37	-343.10	-343.25	291.57	1678654.84	14553346.26	40°04'22.810"N	104°51'47.931"W	2.68	
2960.00	16.210	142.900	2900.20	-365.00	-365.17	308.49	1678671.78	14553324.38	40°04'22.593"N	104°51'47.714"W	1.99	
3054.00	18.240	138.850	2989.98	-386.54	-386.71	326.08	1678689.41	14553302.87	40°04'22.380"N	104°51'47.487"W	2.51	
3148.00	17.770	138.810	3079.38	-408.40	-408.58	345.21	1678708.56	14553281.03	40°04'22.164"N	104°51'47.241"W	0.50	
3243.00	15.820	137.620	3170.32	-428.87	-429.06	363.49	1678726.86	14553260.59	40°04'21.962"N	104°51'47.006"W	2.08	
3337.00	16.620	136.310	3260.58	-448.04	-448.24	381.41	1678744.80	14553241.44	40°04'21.772"N	104°51'46.776"W	0.94	
3430.00	18.080	142.620	3349.36	-469.12	-469.33	399.36	1678762.78	14553220.39	40°04'21.564"N	104°51'46.545"W	2.56	
3524.00	16.670	144.450	3439.06	-491.68	-491.89	416.06	1678779.50	14553197.86	40°04'21.341"N	104°51'46.330"W	1.61	
3618.00	14.640	141.350	3529.57	-511.92	-512.14	431.32	1678794.79	14553177.65	40°04'21.141"N	104°51'46.134"W	2.34	
3711.00	15.230	129.660	3619.45	-528.89	-529.12	448.06	1678811.56	14553160.70	40°04'20.973"N	104°51'45.918"W	3.30	
3805.00	16.340	139.140	3709.92	-546.76	-547.01	466.22	1678829.73	14553142.85	40°04'20.796"N	104°51'45.685"W	2.98	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#09 CAMENISCH 29N-35HZ (425'FSL & 854'FWL,SEC.02)
Area	COLORADO	Well	CAMENISCH 29N-35HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	CAMENISCH 29N-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
3898.00	18.200	136.540	3798.73	-567.19	-567.44	484.77	1678848.31	14553122.45	40°04'20.594"N	104°51'45.446"W	2.16	
3992.00	16.860	137.160	3888.36	-587.83	-588.10	504.14	1678867.70	14553101.84	40°04'20.390"N	104°51'45.197"W	1.44	
4086.00	14.330	136.480	3978.89	-606.26	-606.53	521.42	1678885.00	14553083.44	40°04'20.208"N	104°51'44.975"W	2.70	
4180.00	14.590	127.970	4069.92	-621.97	-622.25	538.77	1678902.37	14553067.75	40°04'20.053"N	104°51'44.752"W	2.28	
4273.00	18.150	137.110	4159.15	-639.79	-640.08	557.87	1678921.49	14553049.96	40°04'19.877"N	104°51'44.506"W	4.71	
4367.00	16.550	139.010	4248.88	-660.61	-660.91	576.62	1678940.26	14553029.16	40°04'19.671"N	104°51'44.265"W	1.81	
4461.00	15.290	139.920	4339.27	-680.19	-680.50	593.38	1678957.04	14553009.60	40°04'19.477"N	104°51'44.049"W	1.37	
4555.00	16.550	145.180	4429.67	-700.66	-700.98	609.01	1678972.69	14552989.16	40°04'19.275"N	104°51'43.848"W	2.04	
4648.00	15.510	143.820	4519.05	-721.56	-721.89	623.91	1678987.62	14552968.28	40°04'19.068"N	104°51'43.657"W	1.19	
4742.00	13.710	133.710	4610.02	-739.40	-739.74	639.38	1679003.12	14552950.46	40°04'18.892"N	104°51'43.458"W	3.31	
4837.00	17.060	145.770	4701.63	-758.70	-759.05	655.37	1679019.13	14552931.18	40°04'18.701"N	104°51'43.252"W	4.86	
4930.00	17.110	145.440	4790.52	-781.24	-781.59	670.80	1679034.59	14552908.67	40°04'18.478"N	104°51'43.053"W	0.12	
5023.00	19.140	144.060	4878.90	-804.84	-805.21	687.52	1679051.33	14552885.09	40°04'18.245"N	104°51'42.838"W	2.23	
5118.00	17.790	143.300	4969.01	-829.08	-829.45	705.33	1679069.18	14552860.88	40°04'18.005"N	104°51'42.609"W	1.44	
5143.00	17.210	142.770	4992.85	-835.09	-835.46	709.85	1679073.70	14552854.89	40°04'17.946"N	104°51'42.551"W	2.41	
5237.00	15.460	139.520	5083.06	-855.68	-856.06	726.40	1679090.28	14552834.31	40°04'17.742"N	104°51'42.338"W	2.10	
5331.00	13.710	139.030	5174.03	-873.62	-874.00	741.84	1679105.74	14552816.40	40°04'17.565"N	104°51'42.140"W	1.87	
5425.00	12.620	137.220	5265.55	-889.56	-889.95	756.12	1679120.03	14552800.48	40°04'17.407"N	104°51'41.956"W	1.24	
5519.00	10.420	127.700	5357.66	-902.29	-902.69	769.82	1679133.75	14552787.77	40°04'17.281"N	104°51'41.780"W	3.09	
5613.00	7.140	121.360	5450.55	-910.52	-910.93	781.54	1679145.48	14552779.55	40°04'17.200"N	104°51'41.629"W	3.63	
5707.00	6.570	121.100	5543.88	-916.33	-916.75	791.13	1679155.07	14552773.75	40°04'17.142"N	104°51'41.506"W	0.61	
5801.00	3.730	152.310	5637.51	-921.82	-922.24	797.16	1679161.11	14552768.27	40°04'17.088"N	104°51'41.428"W	4.14	
5895.00	3.580	146.730	5731.32	-926.98	-927.40	800.19	1679164.15	14552763.12	40°04'17.037"N	104°51'41.389"W	0.41	
5989.00	0.770	206.620	5825.24	-930.00	-930.42	801.52	1679165.48	14552760.10	40°04'17.007"N	104°51'41.372"W	3.47	
6083.00	0.580	201.550	5919.24	-931.00	-931.42	801.06	1679165.02	14552759.10	40°04'16.997"N	104°51'41.378"W	0.21	
6177.00	0.840	221.890	6013.23	-931.96	-932.38	800.42	1679164.39	14552758.14	40°04'16.988"N	104°51'41.386"W	0.38	
6271.00	0.540	214.970	6107.22	-932.84	-933.26	799.71	1679163.68	14552757.26	40°04'16.979"N	104°51'41.395"W	0.33	
6365.00	0.400	215.910	6201.22	-933.47	-933.88	799.26	1679163.23	14552756.64	40°04'16.973"N	104°51'41.401"W	0.15	
6459.00	0.570	159.640	6295.22	-934.17	-934.59	799.23	1679163.20	14552755.93	40°04'16.966"N	104°51'41.401"W	0.51	
6553.00	0.610	177.750	6389.21	-935.11	-935.53	799.42	1679163.38	14552754.99	40°04'16.957"N	104°51'41.399"W	0.20	
6647.00	0.320	194.160	6483.21	-935.86	-936.28	799.37	1679163.34	14552754.24	40°04'16.949"N	104°51'41.400"W	0.34	
6742.00	0.420	91.290	6578.21	-936.13	-936.55	799.65	1679163.62	14552753.97	40°04'16.947"N	104°51'41.396"W	0.61	
6836.00	0.900	121.620	6672.20	-936.52	-936.94	800.63	1679164.60	14552753.58	40°04'16.943"N	104°51'41.384"W	0.61	
6930.00	0.780	131.980	6766.19	-937.34	-937.76	801.73	1679165.70	14552752.77	40°04'16.935"N	104°51'41.369"W	0.21	
6984.00†	3.454	9.943	6820.16	-935.98	-936.40	802.29	1679166.26	14552754.13	40°04'16.948"N	104°51'41.362"W	7.27	KOP
7025.00	6.410	5.440	6861.01	-932.48	-932.90	802.72	1679166.68	14552757.62	40°04'16.983"N	104°51'41.357"W	7.27	
7117.00	18.140	0.800	6950.75	-912.98	-913.40	803.41	1679167.34	14552777.11	40°04'17.175"N	104°51'41.348"W	12.78	
7209.00	22.690	357.260	7036.95	-880.92	-881.34	802.76	1679166.64	14552809.16	40°04'17.492"N	104°51'41.356"W	5.12	
7301.00	28.880	358.500	7119.75	-840.95	-841.37	801.33	1679165.15	14552849.12	40°04'17.887"N	104°51'41.374"W	6.75	
7394.00	31.530	353.100	7200.13	-794.34	-794.76	797.81	1679161.57	14552895.70	40°04'18.348"N	104°51'41.420"W	4.08	
7486.00	39.390	2.530	7275.06	-741.17	-741.59	796.21	1679159.89	14552948.85	40°04'18.873"N	104°51'41.440"W	10.39	
7578.00	49.910	6.400	7340.43	-676.84	-677.26	801.44	1679165.01	14553013.16	40°04'19.509"N	104°51'41.373"W	11.81	
7669.00	61.820	1.470	7391.43	-601.85	-602.28	806.37	1679169.82	14553088.12	40°04'20.250"N	104°51'41.310"W	13.83	
7762.00	75.400	357.470	7425.28	-515.49	-515.91	805.43	1679168.75	14553174.45	40°04'21.104"N	104°51'41.322"W	15.14	
7853.00	79.450	357.240	7445.09	-426.79	-427.21	801.33	1679164.52	14553263.11	40°04'21.980"N	104°51'41.374"W	4.46	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#09 CAMENISCH 29N-35HZ (425'FSL & 854'FWL,SEC.02)
Area	COLORADO	Well	CAMENISCH 29N-35HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	CAMENISCH 29N-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	88.950	359.020	7454.37	-335.42	-335.84	798.36	1679161.41	14553354.44	40°04'22.883"N	104°51'41.412"W	10.50	LANDING (89'FSL & 1652'FWL,SEC.02) 40.0730231 -104.8615035
8040.00	91.330	359.090	7454.14	-240.44	-240.86	796.79	1679159.70	14553449.38	40°04'23.822"N	104°51'41.433"W	2.51	
8134.00	88.210	0.150	7454.52	-146.45	-146.87	796.17	1679158.93	14553543.33	40°04'24.750"N	104°51'41.441"W	3.51	
8228.00	89.780	0.460	7456.17	-52.47	-52.89	796.67	1679159.29	14553637.27	40°04'25.679"N	104°51'41.434"W	1.70	
8323.00	91.910	0.650	7454.77	42.51	42.09	797.59	1679160.07	14553732.21	40°04'26.618"N	104°51'41.422"W	2.25	
8416.00	92.280	1.090	7451.37	135.43	135.02	799.00	1679161.34	14553825.11	40°04'27.536"N	104°51'41.404"W	0.62	
8510.00	90.000	0.230	7449.50	229.40	228.98	800.08	1679162.27	14553919.04	40°04'28.465"N	104°51'41.390"W	2.59	
8604.00	85.470	358.060	7453.21	323.29	322.87	798.68	1679160.73	14554012.88	40°04'29.393"N	104°51'41.408"W	5.34	
8698.00	86.080	357.430	7460.14	416.96	416.54	794.99	1679156.90	14554106.51	40°04'30.318"N	104°51'41.455"W	0.93	
8791.00	88.460	359.290	7464.57	509.80	509.39	792.34	1679154.11	14554199.32	40°04'31.236"N	104°51'41.490"W	3.25	
8885.00	90.580	0.170	7465.35	603.79	603.38	791.89	1679153.52	14554293.27	40°04'32.165"N	104°51'41.495"W	2.44	
8979.00	90.090	0.620	7464.81	697.79	697.37	792.54	1679154.03	14554387.23	40°04'33.093"N	104°51'41.487"W	0.71	
9071.00	91.660	0.430	7463.40	789.77	789.35	793.38	1679154.73	14554479.17	40°04'34.002"N	104°51'41.476"W	1.72	
9166.00	91.670	357.780	7460.64	884.71	884.29	791.90	1679153.10	14554574.07	40°04'34.941"N	104°51'41.495"W	2.79	
9259.00	89.540	357.390	7459.66	977.61	977.20	787.98	1679149.04	14554666.94	40°04'35.859"N	104°51'41.545"W	2.33	
9353.00	91.110	357.290	7459.12	1071.51	1071.10	783.62	1679144.54	14554760.79	40°04'36.787"N	104°51'41.601"W	1.67	
9447.00	88.580	358.340	7459.38	1165.43	1165.02	780.04	1679140.81	14554854.66	40°04'37.715"N	104°51'41.648"W	2.91	
9542.00	90.220	358.090	7460.37	1260.37	1259.96	777.08	1679137.71	14554949.57	40°04'38.653"N	104°51'41.686"W	1.75	
9636.00	91.940	358.220	7458.60	1354.30	1353.89	774.05	1679134.54	14555043.46	40°04'39.581"N	104°51'41.724"W	1.84	
9729.00	91.260	356.840	7456.01	1447.17	1446.77	770.04	1679130.40	14555136.29	40°04'40.499"N	104°51'41.776"W	1.65	
9824.00	89.630	359.510	7455.27	1542.11	1541.71	767.02	1679127.23	14555231.18	40°04'41.437"N	104°51'41.815"W	3.29	
9917.00	88.710	1.640	7456.61	1635.09	1634.68	767.95	1679128.02	14555324.13	40°04'42.356"N	104°51'41.803"W	2.49	
10011.00	89.940	1.100	7457.72	1729.05	1728.65	770.20	1679130.12	14555418.06	40°04'43.285"N	104°51'41.774"W	1.43	
10104.00	88.030	2.860	7459.37	1821.98	1821.57	773.41	1679133.19	14555510.94	40°04'44.203"N	104°51'41.732"W	2.79	
10198.00	88.800	2.450	7461.97	1915.84	1915.43	777.76	1679137.40	14555604.78	40°04'45.131"N	104°51'41.676"W	0.93	
10292.00	90.490	2.590	7462.55	2009.75	2009.34	781.90	1679141.39	14555698.65	40°04'46.059"N	104°51'41.623"W	1.80	
10385.00	88.580	2.200	7463.31	2102.66	2102.25	785.78	1679145.13	14555791.53	40°04'46.977"N	104°51'41.573"W	2.10	
10479.00	90.060	1.770	7464.42	2196.60	2196.18	789.04	1679148.24	14555885.43	40°04'47.905"N	104°51'41.531"W	1.64	
10574.00	87.500	0.150	7466.44	2291.55	2291.14	790.63	1679149.69	14555980.35	40°04'48.843"N	104°51'41.511"W	3.19	
10668.00	88.770	359.880	7469.50	2385.50	2385.09	790.66	1679149.57	14556074.26	40°04'49.772"N	104°51'41.510"W	1.38	
10762.00	90.770	0.040	7469.88	2479.49	2479.08	790.59	1679149.36	14556168.22	40°04'50.701"N	104°51'41.511"W	2.13	
10856.00	88.920	1.940	7470.14	2573.47	2573.06	792.21	1679150.84	14556262.16	40°04'51.629"N	104°51'41.490"W	2.82	
10950.00	90.590	2.660	7470.54	2667.39	2666.98	795.99	1679154.47	14556356.04	40°04'52.557"N	104°51'41.442"W	1.93	
11044.00	89.660	0.010	7470.33	2761.36	2760.94	798.18	1679156.51	14556449.98	40°04'53.486"N	104°51'41.414"W	2.99	
11138.00	91.730	359.960	7469.19	2855.35	2854.93	798.15	1679156.35	14556543.93	40°04'54.415"N	104°51'41.414"W	2.20	
11232.00	88.090	358.060	7469.34	2949.31	2948.89	796.53	1679154.58	14556637.85	40°04'55.343"N	104°51'41.435"W	4.37	
11327.00	89.690	357.520	7471.18	3044.22	3043.80	792.86	1679150.77	14556732.72	40°04'56.281"N	104°51'41.482"W	1.78	
11421.00	88.490	356.380	7472.67	3138.07	3137.65	787.86	1679145.63	14556826.52	40°04'57.209"N	104°51'41.546"W	1.76	
11515.00	90.150	356.590	7473.79	3231.88	3231.47	782.10	1679139.73	14556920.29	40°04'58.136"N	104°51'41.620"W	1.78	
11609.00	88.890	358.980	7474.58	3325.79	3325.39	778.47	1679135.96	14557014.16	40°04'59.064"N	104°51'41.667"W	2.87	
11703.00	90.430	358.840	7475.13	3419.77	3419.36	776.68	1679134.02	14557108.10	40°04'59.993"N	104°51'41.690"W	1.65	
11797.00	92.070	358.800	7473.08	3513.72	3513.32	774.75	1679131.95	14557202.01	40°05'00.921"N	104°51'41.715"W	1.75	
11891.00	90.180	0.910	7471.24	3607.70	3607.29	774.51	1679131.57	14557295.95	40°05'01.850"N	104°51'41.718"W	3.01	
11985.00	90.770	0.530	7470.46	3701.68	3701.28	775.69	1679132.60	14557389.90	40°05'02.779"N	104°51'41.702"W	0.75	
12078.00	89.540	359.950	7470.21	3794.68	3794.28	776.08	1679132.85	14557482.86	40°05'03.698"N	104°51'41.697"W	1.46	

REFERENCE WELLPATH IDENTIFICATION				
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)		Slot	SLOT#09 CAMENISCH 29N-35HZ (425'FSL & 854'FWL,SEC.02)
Area	COLORADO		Well	CAMENISCH 29N-35HZ
Field	WELD COUNTY (UTM/TRUE NORTH)		Wellbore	CAMENISCH 29N-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
12173.00	91.140	359.700	7469.64	3889.68	3889.27	775.79	1679132.42	14557577.82	40°05'04.636"N	104°51'41.701"W	1.70	
12267.00	89.110	0.070	7469.44	3983.67	3983.27	775.60	1679132.09	14557671.77	40°05'05.565"N	104°51'41.703"W	2.20	
12361.00	87.010	1.270	7472.62	4077.60	4077.20	776.70	1679133.04	14557765.67	40°05'06.494"N	104°51'41.689"W	2.57	
12456.00	87.630	1.530	7477.06	4172.47	4172.07	779.02	1679135.21	14557860.50	40°05'07.431"N	104°51'41.659"W	0.71	
12550.00	89.290	1.300	7479.59	4266.41	4266.00	781.34	1679137.39	14557954.40	40°05'08.359"N	104°51'41.630"W	1.78	
12644.00	91.260	1.370	7479.14	4360.38	4359.97	783.53	1679139.44	14558048.34	40°05'09.288"N	104°51'41.601"W	2.10	
12738.00	88.370	1.300	7479.44	4454.34	4453.93	785.72	1679141.48	14558142.27	40°05'10.216"N	104°51'41.573"W	3.08	
12831.00	90.150	1.100	7480.64	4547.31	4546.90	787.66	1679143.29	14558235.20	40°05'11.135"N	104°51'41.548"W	1.93	
12924.00	91.850	0.840	7479.02	4640.28	4639.87	789.24	1679144.72	14558328.14	40°05'12.054"N	104°51'41.528"W	1.85	
12959.00†	91.217	1.384	7478.08	4675.26	4674.85	789.92	1679145.34	14558363.10	40°05'12.400"N	104°51'41.519"W	2.38	ENTERED RADIUS TOE (265'FNL & 1715'FWL,SEC.02) 40.0867777 -104.8615330
13018.00	90.150	2.300	7477.38	4734.23	4733.81	791.81	1679147.15	14558422.05	40°05'12.982"N	104°51'41.495"W	2.38	
13112.00	91.970	2.390	7475.64	4828.13	4827.71	795.66	1679150.85	14558515.92	40°05'13.910"N	104°51'41.445"W	1.94	
13206.00	92.370	2.590	7472.08	4921.98	4921.56	799.74	1679154.79	14558609.73	40°05'14.838"N	104°51'41.392"W	0.48	
13300.00	89.350	1.680	7470.67	5015.89	5015.47	803.24	1679158.14	14558703.61	40°05'15.766"N	104°51'41.347"W	3.36	
13394.00	88.800	0.110	7472.19	5109.86	5109.44	804.71	1679159.47	14558797.54	40°05'16.694"N	104°51'41.328"W	1.77	
13489.00	90.120	359.740	7473.08	5204.86	5204.44	804.58	1679159.20	14558892.50	40°05'17.633"N	104°51'41.330"W	1.44	
13582.00	91.750	359.720	7471.56	5297.84	5297.42	804.15	1679158.62	14558985.45	40°05'18.552"N	104°51'41.336"W	1.75	
13676.00	88.610	358.240	7471.27	5391.81	5391.39	802.47	1679156.80	14559079.38	40°05'19.481"N	104°51'41.357"W	3.69	
13770.00	89.720	358.010	7472.64	5485.75	5485.33	799.40	1679153.58	14559173.27	40°05'20.409"N	104°51'41.397"W	1.21	
13921.00	92.620	357.930	7469.56	5636.60	5636.19	794.05	1679148.01	14559324.06	40°05'21.900"N	104°51'41.465"W	1.92	LAST BHI MWD+IFR1+SC SURVEY
13975.00	92.620	357.930	7467.09	5690.51	5690.10	792.10	1679145.98	14559377.94	40°05'22.432"N	104°51'41.490"W	0.00	PTB (749'FSL & 1720'FWL,SEC.35) 40.0895646 -104.8615251

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	0.71	-89.79	1678273.11	14553689.50	40°04'26.209"N	104°51'52.837"W	polygon
SEC.35-T2N-R67W	0.00	0.71	-89.79	1678273.11	14553689.50	40°04'26.209"N	104°51'52.837"W	polygon
CAMENISCH 29N-35HZ BHL REV-1(750'FSL & 1718'FWL,SEC.35)	7468.00	5691.37	789.65	1679143.53	14559379.21	40°05'22.445"N	104°51'41.522"W	point
CAMENISCH 29N-35HZ BHL REV-2 (700'FSL & 1718'FWL,SEC.35)	7468.00	5641.35	789.62	1679143.57	14559329.21	40°05'21.951"N	104°51'41.522"W	point
CAMENISCH 29N-35HZ HEEL REV-1(164'FSL & 1638'FWL,SEC.02)	7468.00	-264.10	786.73	1679149.68	14553426.13	40°04'23.592"N	104°51'41.562"W	point
CAMENISCH 29N-35HZ LANDBOX	7468.00	0.00	0.00	1678362.87	14553688.93	40°04'26.202"N	104°51'51.682"W	polygon
CAMENISCH 29N-35HZ RADIUS HEEL	7468.00	-428.89	453.46	1678816.80	14553260.90	40°04'21.964"N	104°51'45.849"W	polygon
CAMENISCH 29N-35HZ RADIUS TOE	7468.00	4938.73	410.82	1678766.00	14558626.30	40°05'15.007"N	104°51'46.396"W	polygon

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#09 CAMENISCH 29N-35HZ (425'FSL & 854'FWL,SEC.02)
Area	COLORADO	Well	CAMENISCH 29N-35HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	CAMENISCH 29N-35HZ AWB
Facility	SEC.02-T1N-R67W		

WELLPATH COMPOSITION - Ref Wellbore: CAMENISCH 29N-35HZ AWB				Ref Wellpath: CAMENISCH 29N-35HZ AWP	
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment		Wellbore
32.00	1817.00	Custom APC ISCWSA REV 2 MWD+IFR1 (approximation)	SDI Custom APC ISCWSA Rev-2 MWD+IFR1 <160 - 1817>		CAMENISCH 29N-35HZ AWB
1817.00	13921.00	Custom APC ISCWSA REV 2 MWD+IFR1+SC (approximation)	BHI Custom APC ISCWSA Rev-2 MWD+IFR1+SC <1930 - 13921>		CAMENISCH 29N-35HZ AWB
13921.00	13975.00	Blind Drilling (std)	Projection to bit		CAMENISCH 29N-35HZ AWB

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#09 CAMENISCH 29N-35HZ (425'FSL & 854'FWL,SEC.02)
Area	COLORADO	Well	CAMENISCH 29N-35HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	CAMENISCH 29N-35HZ AWB
Facility	SEC.02-T1N-R67W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
160.00	0.420	69.500	160.00	FIRST SDI MWD+IFR SURVEY
1817.00	14.400	142.900	1801.98	LAST SDI MWD+IFR SURVEY
1832.00	14.297	143.257	1816.51	ENTERED RADIUS HEEL (297'FSL & 960'FWL,SEC.02) 40.0735926 -104.8639796
1930.00	13.640	145.720	1911.61	FIRST BHI MWD+IFR1+SC SURVEY
6984.00	3.454	9.943	6820.16	KOP
7945.00	88.950	359.020	7454.37	LANDING (89'FSL & 1652'FWL,SEC.02) 40.0730231 -104.8615035
12959.00	91.217	1.384	7478.08	ENTERED RADIUS TOE (265'FNL & 1715'FWL,SEC.02) 40.0867777 -104.8615330
13921.00	92.620	357.930	7469.56	LAST BHI MWD+IFR1+SC SURVEY
13975.00	92.620	357.930	7467.09	PTB (749'FSL & 1720'FWL,SEC.35) 40.0895646 -104.8615251