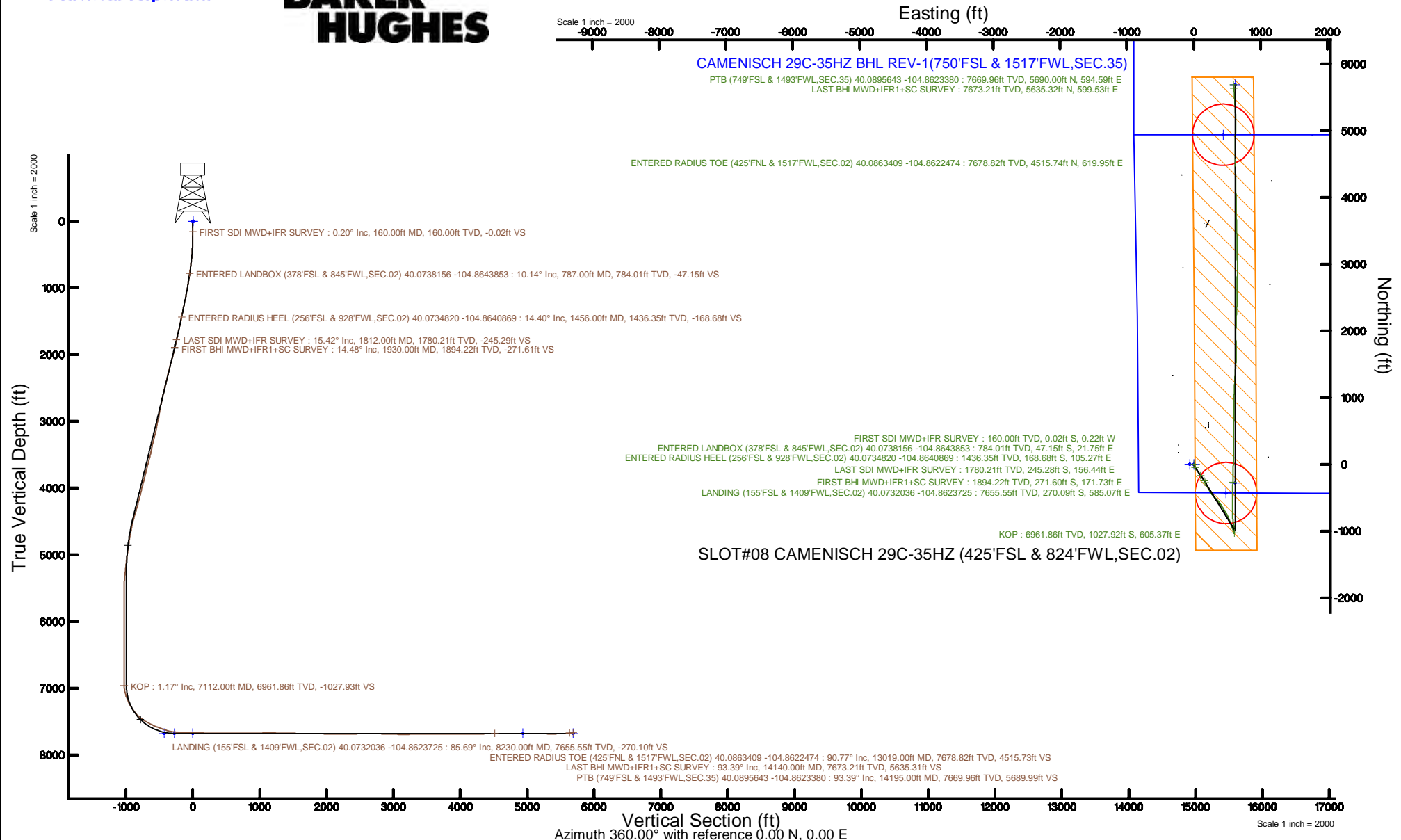


Location:	COLORADO	Slot:	SLOT#08 CAMENISCH 29C-35HZ (425'FSL & 824'FWL, SEC.02)
Field:	WELD COUNTY (UTM/TRUE NORTH)	Well:	CAMENISCH 29C-35HZ
Facility:	SEC.02-T1N-R67W	Wellbore:	CAMENISCH 29C-35HZ PWB

Plot reference wellpath is CAMENISCH 29C-35HZ PWP Rev-A.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#08 CAMENISCH 29C-35HZ (425'FSL & 824'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#08 CAMENISCH 29C-35HZ (425'FSL & 824'FWL,SEC.02)
Area	COLORADO	Well	CAMENISCH 29C-35HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	CAMENISCH 29C-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 1:41 PM
Convergence at slot	0.09° East	Database/Source file	WA_DEN_Anadarko_Defn/CAMENISCH_29C-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	-197.61	1678332.95	14553688.88	40°04'26.202"N	104°51'52.067"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#08 CAMENISCH 29C-35HZ (425'FSL & 824'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	5.97°

REFERENCE WELLPATH IDENTIFICATION				
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)		Slot	SLOT#08 CAMENISCH 29C-35HZ (425'FSL & 824'FWL,SEC.02)
Area	COLORADO		Well	CAMENISCH 29C-35HZ
Field	WELD COUNTY (UTM/TRUE NORTH)		Wellbore	CAMENISCH 29C-35HZ AWB
Facility	SEC.02-T1N-R67W			

WELLPATH DATA (154 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	265.420	0.00	0.00	0.00	0.00	1678332.95	14553688.88	40°04'26.202"N	104°51'52.067"W	0.00	
32.00	0.000	265.420	32.00	0.00	0.00	0.00	1678332.95	14553688.88	40°04'26.202"N	104°51'52.067"W	0.00	
160.00	0.200	265.420	160.00	-0.04	-0.02	-0.22	1678332.73	14553688.86	40°04'26.202"N	104°51'52.070"W	0.16	FIRST SDI MWD+IFR SURVEY
215.00	0.470	172.790	215.00	-0.28	-0.25	-0.29	1678332.66	14553688.63	40°04'26.200"N	104°51'52.071"W	0.94	
345.00	2.750	158.880	344.94	-3.57	-3.69	0.90	1678333.85	14553685.20	40°04'26.166"N	104°51'52.055"W	1.77	
434.00	4.210	156.000	433.77	-8.31	-8.66	3.00	1678335.96	14553680.22	40°04'26.116"N	104°51'52.028"W	1.65	
523.00	5.480	151.960	522.45	-14.66	-15.40	6.33	1678339.29	14553673.50	40°04'26.050"N	104°51'51.986"W	1.48	
612.00	6.940	157.280	610.93	-22.90	-24.11	10.40	1678343.38	14553664.80	40°04'25.964"N	104°51'51.933"W	1.76	
698.00	8.330	154.340	696.17	-32.76	-34.52	15.10	1678348.10	14553654.40	40°04'25.861"N	104°51'51.873"W	1.68	
787.00	10.140	150.560	784.01	-44.64	-47.15	21.75	1678354.76	14553641.78	40°04'25.736"N	104°51'51.787"W	2.14	ENTERED LANDBOX (378'FSL & 845'FWL,SEC.02) 40.0738156 -104.8643853
876.00	10.770	145.880	871.53	-57.39	-60.86	30.26	1678363.29	14553628.09	40°04'25.601"N	104°51'51.678"W	1.19	
965.00	11.680	142.520	958.83	-70.29	-74.90	40.41	1678373.46	14553614.08	40°04'25.462"N	104°51'51.547"W	1.26	
1052.00	12.800	145.300	1043.85	-83.99	-89.81	51.25	1678384.32	14553599.19	40°04'25.315"N	104°51'51.408"W	1.45	
1138.00	12.700	146.670	1127.73	-98.54	-105.54	61.87	1678394.96	14553583.48	40°04'25.159"N	104°51'51.271"W	0.37	
1225.00	14.160	146.470	1212.35	-114.15	-122.40	73.01	1678406.11	14553566.64	40°04'24.992"N	104°51'51.128"W	1.68	
1312.00	14.170	144.900	1296.70	-130.39	-139.98	85.01	1678418.13	14553549.08	40°04'24.819"N	104°51'50.974"W	0.44	
1398.00	13.980	144.810	1380.12	-146.15	-157.08	97.05	1678430.19	14553532.01	40°04'24.650"N	104°51'50.819"W	0.22	
1456.00†	14.397	144.479	1436.35	-156.82	-168.68	105.27	1678438.44	14553520.43	40°04'24.535"N	104°51'50.713"W	0.73	ENTERED RADIUS HEEL (256'FSL & 928'FWL,SEC.02) 40.0734820 -104.8640869
1487.00	14.620	144.310	1466.37	-162.63	-174.99	109.79	1678442.96	14553514.12	40°04'24.473"N	104°51'50.655"W	0.73	
1576.00	14.930	144.230	1552.42	-179.58	-193.42	123.05	1678456.24	14553495.73	40°04'24.291"N	104°51'50.484"W	0.35	
1664.00	15.100	147.290	1637.42	-196.99	-212.26	135.87	1678469.09	14553476.91	40°04'24.104"N	104°51'50.319"W	0.92	
1751.00	15.250	148.050	1721.39	-214.86	-231.50	148.05	1678481.29	14553457.69	40°04'23.914"N	104°51'50.163"W	0.29	
1812.00	15.420	149.270	1780.21	-227.70	-245.28	156.44	1678489.70	14553443.93	40°04'23.778"N	104°51'50.055"W	0.60	LAST SDI MWD+IFR SURVEY
1930.00	14.480	150.460	1894.22	-252.28	-271.60	171.73	1678505.02	14553417.65	40°04'23.518"N	104°51'49.858"W	0.84	FIRST BHI MWD+IFR1+SC SURVEY
2024.00	14.870	152.120	1985.15	-271.87	-292.49	183.16	1678516.48	14553396.79	40°04'23.312"N	104°51'49.711"W	0.61	
2118.00	16.780	154.830	2075.59	-293.50	-315.43	194.57	1678527.92	14553373.87	40°04'23.085"N	104°51'49.564"W	2.18	
2212.00	16.430	153.110	2165.67	-316.28	-339.57	206.36	1678539.74	14553349.76	40°04'22.846"N	104°51'49.413"W	0.64	
2305.00	15.630	151.310	2255.05	-337.64	-362.29	218.32	1678551.73	14553327.07	40°04'22.622"N	104°51'49.259"W	1.01	
2399.00	14.950	149.760	2345.72	-357.84	-383.87	230.51	1678563.95	14553305.51	40°04'22.408"N	104°51'49.102"W	0.84	
2493.00	16.720	147.750	2436.15	-378.25	-405.79	243.83	1678577.30	14553283.63	40°04'22.192"N	104°51'48.931"W	1.97	
2586.00	15.930	147.070	2525.40	-398.69	-427.81	257.91	1678591.40	14553261.63	40°04'21.974"N	104°51'48.749"W	0.87	
2679.00	14.950	143.740	2615.05	-417.51	-448.20	271.94	1678605.46	14553241.28	40°04'21.773"N	104°51'48.569"W	1.42	
2773.00	15.510	140.750	2705.75	-435.34	-467.71	287.06	1678620.61	14553221.80	40°04'21.580"N	104°51'48.374"W	1.03	
2867.00	13.950	139.030	2796.66	-451.93	-486.00	302.45	1678636.01	14553203.54	40°04'21.399"N	104°51'48.177"W	1.72	
2961.00	15.000	131.880	2887.68	-466.81	-502.68	318.93	1678652.52	14553186.89	40°04'21.234"N	104°51'47.964"W	2.20	
3055.00	16.620	137.330	2978.12	-482.83	-520.68	337.10	1678670.71	14553168.92	40°04'21.056"N	104°51'47.731"W	2.34	
3149.00	15.360	136.080	3068.49	-499.73	-539.54	354.85	1678688.48	14553150.10	40°04'20.870"N	104°51'47.502"W	1.39	
3243.00	16.150	137.790	3158.95	-516.47	-558.19	372.27	1678705.92	14553131.49	40°04'20.686"N	104°51'47.278"W	0.97	
3338.00	16.720	150.450	3250.10	-536.41	-579.87	387.89	1678721.57	14553109.84	40°04'20.472"N	104°51'47.077"W	3.81	
3431.00	14.830	148.970	3339.59	-556.81	-601.71	400.63	1678734.33	14553088.03	40°04'20.256"N	104°51'46.914"W	2.08	
3525.00	14.140	140.260	3430.62	-574.44	-620.85	414.17	1678747.90	14553068.91	40°04'20.067"N	104°51'46.739"W	2.43	
3619.00	16.500	149.810	3521.29	-593.24	-641.22	428.23	1678761.98	14553048.57	40°04'19.865"N	104°51'46.559"W	3.67	
3712.00	16.520	150.120	3610.45	-614.62	-664.10	441.46	1678775.24	14553025.72	40°04'19.639"N	104°51'46.388"W	0.10	
3806.00	17.050	149.250	3700.45	-636.50	-687.53	455.16	1678788.97	14553002.32	40°04'19.408"N	104°51'46.212"W	0.62	
3899.00	15.050	146.630	3789.82	-656.77	-709.33	468.77	1678802.61	14552980.55	40°04'19.192"N	104°51'46.037"W	2.29	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#08 CAMENISCH 29C-35HZ (425'FSL & 824'FWL,SEC.02)
Area	COLORADO	Well	CAMENISCH 29C-35HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	CAMENISCH 29C-35HZ AWB
Facility	SEC.02-T1N-R67W		

WELLPATH DATA (154 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
3993.00	16.150	149.290	3880.35	-676.70	-730.77	482.16	1678816.03	14552959.14	40°04'18.980"N	104°51'45.865"W	1.40	
4087.00	17.120	153.030	3970.42	-698.80	-754.34	495.11	1678829.01	14552935.60	40°04'18.747"N	104°51'45.698"W	1.54	
4181.00	15.170	151.340	4060.71	-720.53	-777.46	507.29	1678841.22	14552912.50	40°04'18.519"N	104°51'45.542"W	2.13	
4274.00	16.080	157.740	4150.28	-741.89	-800.06	518.01	1678851.96	14552889.93	40°04'18.296"N	104°51'45.404"W	2.09	
4368.00	15.300	156.130	4240.78	-764.12	-823.45	527.96	1678861.94	14552866.56	40°04'18.064"N	104°51'45.276"W	0.95	
4462.00	17.930	161.270	4330.85	-788.03	-848.50	537.62	1678871.65	14552841.54	40°04'17.817"N	104°51'45.152"W	3.20	
4556.00	16.800	160.810	4420.56	-813.47	-875.04	546.73	1678880.79	14552815.03	40°04'17.555"N	104°51'45.034"W	1.21	
4649.00	14.530	158.730	4510.10	-836.02	-898.60	555.39	1678889.48	14552791.48	40°04'17.322"N	104°51'44.923"W	2.51	
4743.00	12.100	158.520	4601.57	-855.25	-918.76	563.27	1678897.39	14552771.34	40°04'17.123"N	104°51'44.822"W	2.59	
4838.00	10.920	158.570	4694.66	-872.07	-936.41	570.21	1678904.35	14552753.72	40°04'16.948"N	104°51'44.732"W	1.24	
4931.00	9.500	157.140	4786.18	-886.62	-951.68	576.41	1678910.57	14552738.46	40°04'16.797"N	104°51'44.653"W	1.55	
5024.00	9.050	158.420	4877.97	-899.83	-965.55	582.08	1678916.26	14552724.60	40°04'16.660"N	104°51'44.580"W	0.53	
5145.00	8.010	160.200	4997.63	-915.86	-982.33	588.43	1678922.64	14552707.84	40°04'16.494"N	104°51'44.498"W	0.89	
5238.00	7.010	162.310	5089.83	-926.89	-993.84	592.35	1678926.58	14552696.34	40°04'16.381"N	104°51'44.448"W	1.12	
5332.00	6.220	163.650	5183.20	-936.86	-1004.19	595.53	1678929.77	14552686.00	40°04'16.278"N	104°51'44.407"W	0.86	
5427.00	5.850	166.340	5277.68	-946.18	-1013.83	598.12	1678932.37	14552676.37	40°04'16.183"N	104°51'44.373"W	0.49	
5521.00	6.010	181.810	5371.18	-955.60	-1023.41	599.10	1678933.36	14552666.80	40°04'16.088"N	104°51'44.361"W	1.70	
5614.00	1.940	183.370	5463.94	-962.03	-1029.85	598.85	1678933.13	14552660.36	40°04'16.025"N	104°51'44.364"W	4.38	
5709.00	0.290	22.440	5558.92	-963.41	-1031.23	598.85	1678933.13	14552658.98	40°04'16.011"N	104°51'44.364"W	2.33	
5803.00	0.180	354.280	5652.92	-963.03	-1030.86	598.92	1678933.20	14552659.34	40°04'16.015"N	104°51'44.363"W	0.17	
5896.00	0.220	328.520	5745.92	-962.75	-1030.56	598.82	1678933.09	14552659.64	40°04'16.018"N	104°51'44.364"W	0.10	
5991.00	0.150	307.930	5840.92	-962.54	-1030.33	598.62	1678932.90	14552659.87	40°04'16.020"N	104°51'44.367"W	0.10	
6084.00	0.040	161.530	5933.92	-962.50	-1030.29	598.54	1678932.81	14552659.92	40°04'16.020"N	104°51'44.368"W	0.20	
6179.00	0.160	180.490	6028.92	-962.66	-1030.45	598.55	1678932.82	14552659.75	40°04'16.019"N	104°51'44.368"W	0.13	
6273.00	0.160	74.120	6122.92	-962.75	-1030.55	598.67	1678932.95	14552659.66	40°04'16.018"N	104°51'44.366"W	0.27	
6366.00	0.260	43.680	6215.92	-962.53	-1030.36	598.94	1678933.22	14552659.85	40°04'16.020"N	104°51'44.363"W	0.16	
6461.00	0.400	16.300	6310.92	-962.03	-1029.89	599.18	1678933.46	14552660.32	40°04'16.024"N	104°51'44.360"W	0.22	
6555.00	0.250	307.640	6404.91	-961.60	-1029.45	599.11	1678933.39	14552660.76	40°04'16.029"N	104°51'44.361"W	0.41	
6649.00	0.370	24.970	6498.91	-961.21	-1029.05	599.08	1678933.35	14552661.16	40°04'16.033"N	104°51'44.361"W	0.42	
6743.00	0.700	84.320	6592.91	-960.81	-1028.71	599.78	1678934.05	14552661.49	40°04'16.036"N	104°51'44.352"W	0.64	
6838.00	0.770	90.190	6687.90	-960.62	-1028.66	601.00	1678935.27	14552661.55	40°04'16.037"N	104°51'44.336"W	0.11	
6932.00	1.000	88.510	6781.89	-960.45	-1028.64	602.45	1678936.72	14552661.57	40°04'16.037"N	104°51'44.318"W	0.25	
7026.00	1.050	91.910	6875.88	-960.29	-1028.65	604.13	1678938.40	14552661.57	40°04'16.037"N	104°51'44.296"W	0.08	
7112.00†	1.174	31.272	6961.86	-959.44	-1027.92	605.37	1678939.64	14552662.30	40°04'16.044"N	104°51'44.280"W	1.31	KOP
7119.00	1.230	27.800	6968.86	-959.30	-1027.79	605.45	1678939.71	14552662.42	40°04'16.045"N	104°51'44.279"W	1.31	
7210.00	14.050	8.160	7058.87	-947.31	-1015.94	607.48	1678941.73	14552674.27	40°04'16.162"N	104°51'44.253"W	14.17	
7303.00	22.000	3.250	7147.24	-918.58	-987.33	610.07	1678944.28	14552702.88	40°04'16.445"N	104°51'44.220"W	8.70	
7395.00	25.500	347.420	7231.52	-882.54	-950.75	606.73	1678940.88	14552739.44	40°04'16.806"N	104°51'44.263"W	7.87	
7488.00	35.810	349.040	7311.42	-837.41	-904.37	597.17	1678931.26	14552785.78	40°04'17.265"N	104°51'44.386"W	11.12	
7580.00	42.140	352.990	7382.91	-781.52	-847.25	588.28	1678922.28	14552842.87	40°04'17.829"N	104°51'44.500"W	7.39	
7671.00	51.090	354.680	7445.36	-716.92	-781.56	581.25	1678915.16	14552908.52	40°04'18.478"N	104°51'44.590"W	9.93	
7763.00	60.540	1.510	7497.04	-641.65	-705.65	578.98	1678912.77	14552984.39	40°04'19.229"N	104°51'44.619"W	11.96	
7854.00	62.170	0.700	7540.66	-562.08	-625.81	580.52	1678914.19	14553064.21	40°04'20.018"N	104°51'44.600"W	1.95	
7947.00	68.090	359.690	7579.75	-478.18	-541.47	580.79	1678914.33	14553148.51	40°04'20.851"N	104°51'44.596"W	6.44	
8041.00	70.090	1.580	7613.30	-390.76	-453.68	581.77	1678915.18	14553236.27	40°04'21.719"N	104°51'44.584"W	2.84	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#08 CAMENISCH 29C-35HZ (425'FSL & 824'FWL,SEC.02)
Area	COLORADO	Well	CAMENISCH 29C-35HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	CAMENISCH 29C-35HZ AWB
Facility	SEC.02-T1N-R67W		

WELLPATH DATA (154 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
8136.00	76.240	0.910	7640.81	-300.18	-362.81	583.74	1678917.00	14553327.10	40°04'22.617"N	104°51'44.558"W	6.51	
8230.00	85.690	0.740	7655.55	-207.82	-270.09	585.07	1678918.20	14553419.79	40°04'23.533"N	104°51'44.541"W	10.05	LANDING (155'FSL & 1409'FWL,SEC.02) 40.0732036 -104.8623725
8324.00	88.710	0.510	7660.14	-114.36	-176.22	586.09	1678919.08	14553513.62	40°04'24.460"N	104°51'44.528"W	3.22	
8418.00	89.080	2.350	7661.95	-20.67	-82.27	588.44	1678921.28	14553607.54	40°04'25.389"N	104°51'44.498"W	2.00	
8512.00	87.380	2.660	7664.86	73.11	11.59	592.55	1678925.24	14553701.37	40°04'26.316"N	104°51'44.445"W	1.84	
8605.00	87.750	1.160	7668.81	165.79	104.45	595.64	1678928.19	14553794.19	40°04'27.234"N	104°51'44.405"W	1.66	
8700.00	89.450	0.650	7671.13	260.39	199.41	597.14	1678929.55	14553889.11	40°04'28.172"N	104°51'44.386"W	1.87	
8793.00	88.030	0.220	7673.17	352.93	292.38	597.85	1678930.11	14553982.05	40°04'29.091"N	104°51'44.376"W	1.60	
8886.00	89.110	359.870	7675.50	445.40	385.35	597.92	1678930.04	14554074.98	40°04'30.010"N	104°51'44.376"W	1.22	
8980.00	90.250	358.780	7676.02	538.77	479.34	596.81	1678928.79	14554168.93	40°04'30.939"N	104°51'44.390"W	1.68	
9073.00	90.400	0.980	7675.49	631.24	572.33	596.62	1678928.46	14554261.89	40°04'31.858"N	104°51'44.392"W	2.37	
9167.00	91.880	1.150	7673.62	724.87	666.29	598.37	1678930.06	14554355.82	40°04'32.786"N	104°51'44.370"W	1.58	
9261.00	89.200	0.580	7672.74	818.49	760.27	599.79	1678931.33	14554449.76	40°04'33.715"N	104°51'44.351"W	2.91	
9355.00	90.370	359.790	7673.09	912.01	854.26	600.09	1678931.49	14554543.71	40°04'34.644"N	104°51'44.347"W	1.50	
9449.00	90.680	1.880	7672.23	1005.62	948.24	601.46	1678932.72	14554637.66	40°04'35.573"N	104°51'44.330"W	2.25	
9543.00	91.540	1.790	7670.41	1099.36	1042.18	604.47	1678935.59	14554731.56	40°04'36.501"N	104°51'44.291"W	0.92	
9637.00	90.370	2.700	7668.84	1193.14	1136.09	608.15	1678939.12	14554825.44	40°04'37.429"N	104°51'44.244"W	1.58	
9731.00	87.970	3.010	7670.20	1286.99	1229.96	612.83	1678943.66	14554919.28	40°04'38.357"N	104°51'44.183"W	2.57	
9825.00	89.820	3.420	7672.02	1380.86	1323.79	618.10	1678948.79	14555013.08	40°04'39.284"N	104°51'44.116"W	2.02	
9919.00	88.400	3.790	7673.48	1474.76	1417.59	624.01	1678954.55	14555106.85	40°04'40.211"N	104°51'44.040"W	1.56	
10013.00	88.460	4.050	7676.05	1568.67	1511.33	630.43	1678960.83	14555200.57	40°04'41.137"N	104°51'43.957"W	0.28	
10106.00	88.060	0.090	7678.88	1661.39	1604.21	633.79	1678964.04	14555293.41	40°04'42.055"N	104°51'43.914"W	4.28	
10294.00	91.420	359.210	7679.73	1848.22	1792.17	632.64	1678962.61	14555481.30	40°04'43.913"N	104°51'43.928"W	1.85	
10387.00	87.660	358.600	7680.48	1940.50	1885.14	630.87	1678960.69	14555574.22	40°04'44.831"N	104°51'43.951"W	4.10	
10481.00	86.670	0.840	7685.12	2033.82	1979.01	630.41	1678960.09	14555668.06	40°04'45.759"N	104°51'43.957"W	2.60	
10575.00	88.950	1.490	7688.72	2127.41	2072.92	632.32	1678961.86	14555761.93	40°04'46.687"N	104°51'43.932"W	2.52	
10669.00	91.290	1.910	7688.52	2221.14	2166.87	635.11	1678964.50	14555855.85	40°04'47.615"N	104°51'43.897"W	2.53	
10764.00	90.400	2.870	7687.12	2315.95	2261.78	639.07	1678968.31	14555950.72	40°04'48.553"N	104°51'43.846"W	1.38	
10858.00	90.520	3.470	7686.36	2409.83	2355.63	644.26	1678973.37	14556044.54	40°04'49.481"N	104°51'43.779"W	0.65	
10951.00	92.000	1.410	7684.32	2502.63	2448.51	648.22	1678977.18	14556137.40	40°04'50.399"N	104°51'43.728"W	2.73	
11046.00	91.080	0.330	7681.77	2597.21	2543.47	649.66	1678978.48	14556232.32	40°04'51.337"N	104°51'43.709"W	1.49	
11140.00	90.490	0.230	7680.48	2690.74	2637.46	650.12	1678978.80	14556326.27	40°04'52.266"N	104°51'43.703"W	0.64	
11328.00	87.290	0.520	7684.12	2877.79	2825.39	651.35	1678979.74	14556514.13	40°04'54.123"N	104°51'43.687"W	1.71	
11422.00	89.110	0.330	7687.07	2971.30	2919.34	652.05	1678980.29	14556608.04	40°04'55.051"N	104°51'43.678"W	1.95	
11517.00	88.430	359.310	7689.11	3065.73	3014.32	651.75	1678979.85	14556702.98	40°04'55.990"N	104°51'43.682"W	1.29	
11611.00	89.260	359.370	7691.01	3159.08	3108.29	650.67	1678978.62	14556796.91	40°04'56.919"N	104°51'43.696"W	0.89	
11705.00	90.890	359.160	7690.88	3252.44	3202.28	649.46	1678977.28	14556890.86	40°04'57.847"N	104°51'43.712"W	1.75	
11799.00	90.680	358.540	7689.60	3345.70	3296.25	647.58	1678975.25	14556984.79	40°04'58.776"N	104°51'43.736"W	0.70	
11892.00	91.420	359.380	7687.89	3437.99	3389.22	645.89	1678973.42	14557077.72	40°04'59.695"N	104°51'43.757"W	1.20	
11987.00	90.370	358.190	7686.41	3532.23	3484.18	643.88	1678971.26	14557172.64	40°05'00.633"N	104°51'43.783"W	1.67	
12080.00	89.140	358.050	7686.80	3624.36	3577.13	640.82	1678968.07	14557265.55	40°05'01.552"N	104°51'43.823"W	1.33	
12174.00	91.420	358.460	7686.35	3717.50	3671.08	637.96	1678965.07	14557359.46	40°05'02.480"N	104°51'43.859"W	2.46	
12269.00	89.820	359.140	7685.32	3811.75	3766.05	635.97	1678962.93	14557454.38	40°05'03.419"N	104°51'43.885"W	1.83	
12363.00	91.050	359.090	7684.60	3905.07	3860.03	634.52	1678961.34	14557548.33	40°05'04.347"N	104°51'43.904"W	1.31	
12457.00	89.420	359.260	7684.22	3998.41	3954.02	633.17	1678959.84	14557642.28	40°05'05.276"N	104°51'43.921"W	1.74	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#08 CAMENISCH 29C-35HZ (425'FSL & 824'FWL,SEC.02)
Area	COLORADO	Well	CAMENISCH 29C-35HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	CAMENISCH 29C-35HZ AWB
Facility	SEC.02-T1N-R67W		

WELLPATH DATA (154 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
12552.00	90.620	358.580	7684.18	4092.69	4049.00	631.38	1678957.91	14557737.22	40°05'06.215"N	104°51'43.944"W	1.45	
12645.00	89.410	359.500	7684.16	4185.01	4141.98	629.82	1678956.21	14557830.16	40°05'07.134"N	104°51'43.964"W	1.63	
12739.00	89.660	358.360	7684.92	4278.30	4235.96	628.06	1678954.31	14557924.10	40°05'08.062"N	104°51'43.986"W	1.24	
12833.00	90.860	358.310	7684.50	4371.46	4329.92	625.33	1678951.44	14558018.01	40°05'08.991"N	104°51'44.022"W	1.28	
12926.00	92.680	357.820	7681.62	4463.53	4422.82	622.19	1678948.16	14558110.87	40°05'09.909"N	104°51'44.062"W	2.03	
13019.00	90.770	359.410	7678.82	4555.72	4515.74	619.95	1678945.77	14558203.75	40°05'10.827"N	104°51'44.091"W	2.67	ENTERED RADIUS TOE (425'FNL & 1517'FWL,SEC.02) 40.0863409 -104.8622474
13113.00	88.800	0.290	7679.18	4649.18	4609.74	619.70	1678945.38	14558297.71	40°05'11.756"N	104°51'44.094"W	2.30	
13208.00	90.710	0.560	7679.58	4743.73	4704.73	620.41	1678945.94	14558392.66	40°05'12.695"N	104°51'44.085"W	2.03	
13302.00	88.370	1.370	7680.34	4837.36	4798.70	621.99	1678947.38	14558486.60	40°05'13.624"N	104°51'44.064"W	2.63	
13396.00	89.970	0.890	7681.70	4931.01	4892.67	623.84	1678949.09	14558580.54	40°05'14.552"N	104°51'44.041"W	1.78	
13490.00	91.850	0.770	7680.21	5024.62	4986.65	625.21	1678950.31	14558674.48	40°05'15.481"N	104°51'44.023"W	2.00	
13584.00	89.480	2.080	7679.12	5118.31	5080.60	627.54	1678952.50	14558768.40	40°05'16.409"N	104°51'43.993"W	2.88	
13678.00	89.080	358.310	7680.30	5211.81	5174.58	627.86	1678952.68	14558862.34	40°05'17.338"N	104°51'43.989"W	4.03	
13772.00	88.060	356.470	7682.64	5304.72	5268.44	623.58	1678948.26	14558956.16	40°05'18.266"N	104°51'44.044"W	2.24	
13866.00	89.720	357.160	7684.46	5397.51	5362.28	618.36	1678942.90	14559049.95	40°05'19.193"N	104°51'44.111"W	1.91	
13960.00	91.940	356.280	7683.10	5490.27	5456.11	612.99	1678937.38	14559143.73	40°05'20.120"N	104°51'44.180"W	2.54	
14054.00	93.670	355.820	7678.50	5582.75	5549.77	606.52	1678930.77	14559237.34	40°05'21.046"N	104°51'44.263"W	1.90	
14140.00	93.390	354.840	7673.21	5667.11	5635.32	599.53	1678923.66	14559322.85	40°05'21.891"N	104°51'44.353"W	1.18	LAST BHI MWD+IFR1+SC SURVEY
14195.00	93.390	354.840	7669.96	5720.98	5690.00	594.59	1678918.64	14559377.50	40°05'22.432"N	104°51'44.417"W	0.00	PTB (749'FSL & 1493'FWL,SEC.35) 40.0895643 -104.8623380

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	-59.86	1678273.11	14553689.50	40°04'26.209"N	104°51'52.837"W	polygon
SEC.35-T2N-R67W	0.00	0.71	-59.86	1678273.11	14553689.50	40°04'26.209"N	104°51'52.837"W	polygon
CAMENISCH 29C-35HZ BHL REV-1(750'FSL & 1517'FWL,SEC.35)	7678.00	5690.98	618.65	1678942.68	14559378.52	40°05'22.441"N	104°51'44.107"W	point
CAMENISCH 29C-35HZ HEEL REV-1(149'FSL & 1440'FWL,SEC.02)	7678.00	-277.95	618.80	1678951.92	14553411.99	40°04'23.455"N	104°51'44.107"W	point
CAMENISCH 29C-35HZ LANDBOX	7678.00	0.00	0.00	1678332.95	14553688.88	40°04'26.202"N	104°51'52.067"W	polygon
CAMENISCH 29C-35HZ RADIUS HEEL	7678.00	-428.89	483.39	1678816.80	14553260.90	40°04'21.964"N	104°51'45.849"W	polygon
CAMENISCH 29C-35HZ RADIUS TOE	7678.00	4938.73	440.75	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#08 CAMENISCH 29C-35HZ (425'FSL & 824'FWL,SEC.02)
Area	COLORADO	Well	CAMENISCH 29C-35HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	CAMENISCH 29C-35HZ AWB
Facility	SEC.02-T1N-R67W		

WELLPATH COMPOSITION - Ref Wellbore: CAMENISCH 29C-35HZ AWB				Ref Wellpath: CAMENISCH 29C-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 29C-35HZ AWB
1812.00	14140.00	Custom APC ISCWSA REV 2 MWD+IFR1+SC (approximation)	BHI Custom APC ISCWSA Rev-2 MWD+IFR1+SC <1930 - 14140>		CAMENISCH 29C-35HZ AWB
14140.00	14195.00	Blind Drilling (std)	Projection to bit		CAMENISCH 29C-35HZ AWB

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#08 CAMENISCH 29C-35HZ (425'FSL & 824'FWL,SEC.02)
Area	COLORADO	Well	CAMENISCH 29C-35HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	CAMENISCH 29C-35HZ AWB
Facility	SEC.02-T1N-R67W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
160.00	0.200	265.420	160.00	FIRST SDI MWD+IFR SURVEY
787.00	10.140	150.560	784.01	ENTERED LANDBOX (378'FSL & 845'FWL,SEC.02) 40.0738156 -104.8643853
1456.00	14.397	144.479	1436.35	ENTERED RADIUS HEEL (256'FSL & 928'FWL,SEC.02) 40.0734820 -104.8640869
1812.00	15.420	149.270	1780.21	LAST SDI MWD+IFR SURVEY
1930.00	14.480	150.460	1894.22	FIRST BHI MWD+IFR1+SC SURVEY
7112.00	1.174	31.272	6961.86	KOP
8230.00	85.690	0.740	7655.55	LANDING (155'FSL & 1409'FWL,SEC.02) 40.0732036 -104.8623725
13019.00	90.770	359.410	7678.82	ENTERED RADIUS TOE (425'FNL & 1517'FWL,SEC.02) 40.0863409 -104.8622474
14140.00	93.390	354.840	7673.21	LAST BHI MWD+IFR1+SC SURVEY
14195.00	93.390	354.840	7669.96	PTB (749'FSL & 1493'FWL,SEC.35) 40.0895643 -104.8623380