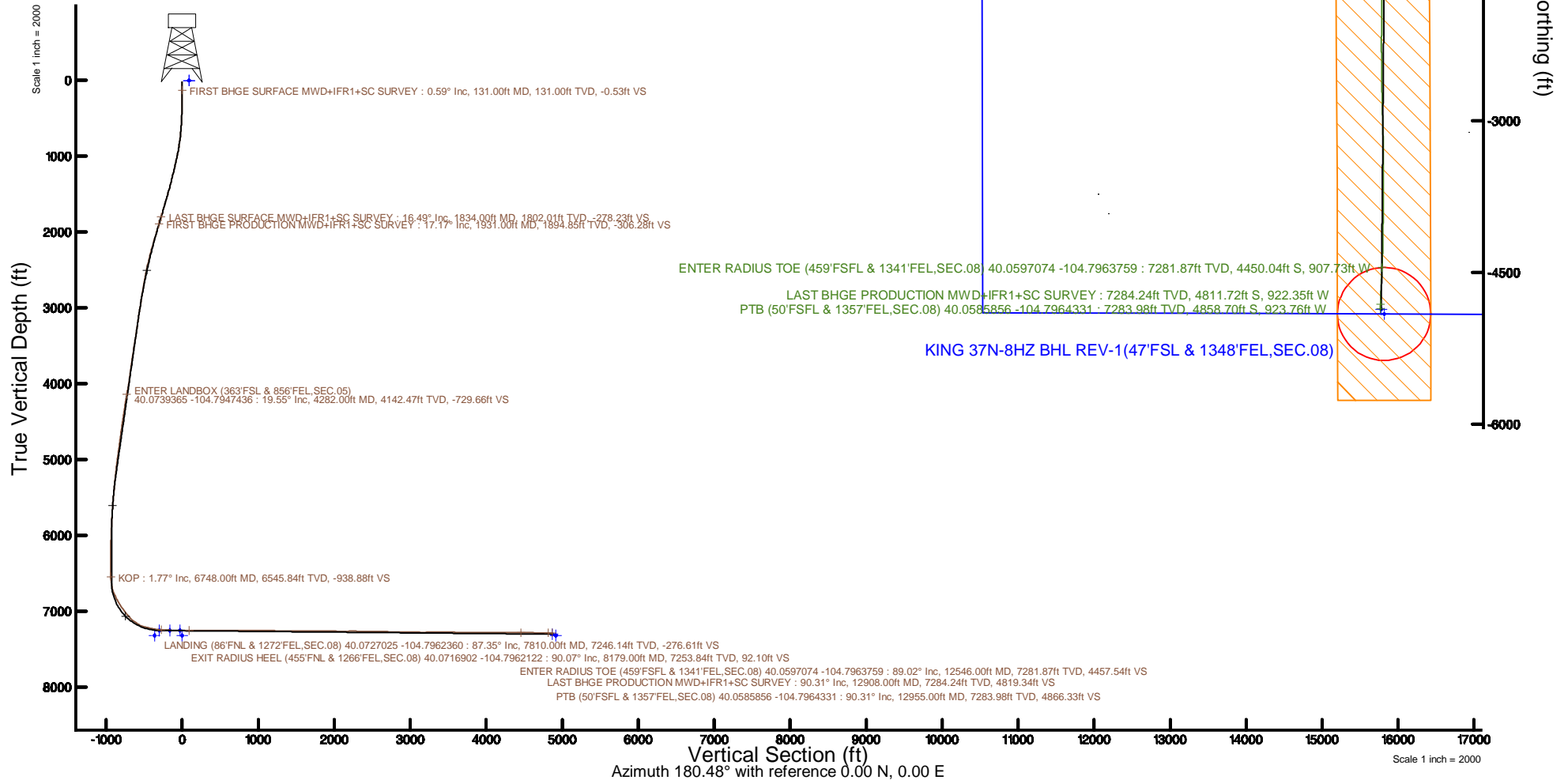


KERR-MCGEE OIL & GAS ONSHORE LP (WA)

Location: COLORADO Slot: SLOT#06 KING 37N-8HZ (370'FNL & 404'FEL,SEC.08)
Field: WELD COUNTY (UTM/TRUE NORTH) Well: KING 37N-8HZ
Facility: SEC.08-T1N-R66W Wellbore: KING 37N-8HZ PWB

Plot reference wellpath is KING 37N-8HZ PWP Rev-D.0	Grid System: NAD83 / UTM Zone 13 North, US feet
True vertical depths are referenced to PD 564 (26) (RT)	* = Wellpath was transformed from a different geodetic datum
Measured depths are referenced to PD 564 (26) (RT)	North Reference: True north
PD 564 (26) (RT) to Mean Sea Level: 4985 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#06 KING 37N-8HZ (370'FNL & 404'FEL,SEC.08)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: painsetr on 2017-07-18
	Database: WA_DEN_Anadarko_Defn



REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#06 KING 37N-8HZ (370'FNL & 404'FEL,SEC.08)
Area	COLORADO	Well	KING 37N-8HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	KING 37N-8HZ AWB
Facility	SEC.08-T1N-R66W		

REPORT SETUP INFORMATION			
Projection System	NAD83 / UTM Zone 13 North, US feet	Software System	WellArchitect® 5.0
North Reference	True	User	Painsetr
Scale	0.999604	Report Generated	7/18/2017 at 2:29 PM
Convergence at slot	0.14° East	Database/Source file	WA_DEN_Anadarko_Defn/KING_37N-8HZ_AWP.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	13259108.10	-1435672.81	1698289.15	14552990.98	40°04'18.923"N	104°47'35.279"W
Facility Reference Pt			3197771.84	1268891.29	3°29'21.596"N	100°43'48.828"W
Field Reference Pt			1698235.31	14552047.82	40°04'09.600"N	104°47'36.000"W

WELLPATH DATUM			
Calculation method	Minimum curvature	PD 564 (26') (RT) to Installation Vertical Datum	4985.00ft
Horizontal Reference Pt	Slot	PD 564 (26') (RT) to Mean Sea Level	4985.00ft
Vertical Reference Pt	PD 564 (26') (RT)	PD 564 (26') (RT) to Mud Line at Slot (SLOT#06 KING 37N-8HZ (370'FNL & 404'FEL,SEC.08))	4985.00ft
MD Reference Pt	PD 564 (26') (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	180.48°

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#06 KING 37N-8HZ (370'FNL & 404'FEL, SEC.08)
Area	COLORADO	Well	KING 37N-8HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	KING 37N-8HZ AWB
Facility	SEC.08-T1N-R66W		

WELLPATH DATA (152 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	10.690	0.00	0.00	0.00	0.00	1698289.14	14552990.98	40°04'18.923"N	104°47'35.279"W	0.00	
26.00	0.000	10.690	26.00	0.00	0.00	0.00	1698289.14	14552990.98	40°04'18.923"N	104°47'35.279"W	0.00	
131.00	0.590	10.690	131.00	-0.53	0.53	0.10	1698289.24	14552991.52	40°04'18.928"N	104°47'35.278"W	0.56	FIRST BHGE SURFACE MWD+IFR1+SC SURVEY
226.00	0.780	2.060	225.99	-1.66	1.66	0.21	1698289.35	14552992.64	40°04'18.939"N	104°47'35.276"W	0.23	
321.00	0.790	353.990	320.98	-2.96	2.96	0.17	1698289.31	14552993.94	40°04'18.952"N	104°47'35.277"W	0.12	
416.00	1.780	0.840	415.96	-5.08	5.08	0.12	1698289.25	14552996.06	40°04'18.973"N	104°47'35.277"W	1.05	
511.00	2.720	5.100	510.88	-8.81	8.80	0.34	1698289.47	14552999.78	40°04'19.010"N	104°47'35.275"W	1.00	
606.00	3.640	6.220	605.74	-14.05	14.05	0.87	1698289.98	14553005.03	40°04'19.062"N	104°47'35.268"W	0.97	
701.00	5.360	4.800	700.44	-21.48	21.47	1.57	1698290.66	14553012.45	40°04'19.135"N	104°47'35.259"W	1.81	
796.00	7.830	6.940	794.80	-32.33	32.31	2.72	1698291.79	14553023.29	40°04'19.242"N	104°47'35.244"W	2.61	
892.00	9.660	6.700	889.68	-46.84	46.81	4.45	1698293.49	14553037.78	40°04'19.386"N	104°47'35.222"W	1.91	
986.00	11.180	7.470	982.13	-63.73	63.67	6.56	1698295.55	14553054.65	40°04'19.552"N	104°47'35.195"W	1.62	
1081.00	12.410	358.230	1075.13	-83.07	83.01	7.44	1698296.39	14553073.98	40°04'19.743"N	104°47'35.183"W	2.37	
1176.00	13.800	357.470	1167.66	-104.59	104.54	6.62	1698295.52	14553095.49	40°04'19.956"N	104°47'35.194"W	1.47	
1271.00	13.800	2.800	1259.92	-127.22	127.17	6.68	1698295.52	14553118.12	40°04'20.180"N	104°47'35.193"W	1.34	
1367.00	14.360	2.770	1353.03	-150.56	150.50	7.81	1698296.60	14553141.44	40°04'20.410"N	104°47'35.179"W	0.58	
1462.00	15.130	6.130	1444.90	-174.67	174.59	9.71	1698298.44	14553165.53	40°04'20.648"N	104°47'35.154"W	1.21	
1556.00	16.430	9.030	1535.36	-200.03	199.92	13.10	1698301.78	14553190.86	40°04'20.899"N	104°47'35.110"W	1.62	
1652.00	16.130	6.610	1627.51	-226.71	226.58	16.77	1698305.38	14553217.51	40°04'21.162"N	104°47'35.063"W	0.77	
1746.00	16.720	6.090	1717.68	-253.15	252.99	19.71	1698308.25	14553243.92	40°04'21.423"N	104°47'35.026"W	0.65	
1834.00	16.490	3.110	1802.01	-278.23	278.05	21.73	1698310.22	14553268.97	40°04'21.671"N	104°47'35.000"W	1.00	LAST BHGE SURFACE MWD+IFR1+SC SURVEY
1931.00	17.170	3.310	1894.85	-306.28	306.09	23.30	1698311.72	14553297.01	40°04'21.948"N	104°47'34.979"W	0.70	FIRST BHGE PRODUCTION MWD+IFR1+SC SURVEY
2021.00	16.510	3.060	1980.99	-332.32	332.12	24.75	1698313.11	14553323.03	40°04'22.205"N	104°47'34.961"W	0.74	
2110.00	16.330	355.030	2066.37	-357.41	357.22	24.34	1698312.65	14553348.12	40°04'22.453"N	104°47'34.966"W	2.56	
2200.00	16.810	347.070	2152.65	-382.67	382.51	20.33	1698308.58	14553373.39	40°04'22.703"N	104°47'35.017"W	2.58	
2290.00	15.480	344.390	2239.10	-406.87	406.77	14.19	1698302.38	14553397.62	40°04'22.943"N	104°47'35.096"W	1.69	
2379.00	15.560	338.860	2324.86	-429.38	429.34	6.69	1698294.83	14553420.17	40°04'23.166"N	104°47'35.193"W	1.66	
2469.00	14.610	333.650	2411.76	-450.73	450.77	-2.71	1698285.39	14553441.57	40°04'23.378"N	104°47'35.314"W	1.84	
2558.00	13.910	325.880	2498.02	-469.56	469.69	-13.69	1698274.37	14553460.45	40°04'23.565"N	104°47'35.455"W	2.29	
2648.00	14.320	319.970	2585.31	-486.92	487.17	-26.92	1698261.11	14553477.89	40°04'23.737"N	104°47'35.625"W	1.66	
2737.00	14.310	313.460	2671.55	-502.79	503.16	-41.98	1698246.01	14553493.85	40°04'23.895"N	104°47'35.819"W	1.81	
2827.00	14.400	309.220	2758.75	-517.37	517.89	-58.73	1698229.24	14553508.53	40°04'24.041"N	104°47'36.034"W	1.17	
2917.00	15.680	306.730	2845.66	-531.57	532.24	-77.14	1698210.80	14553522.83	40°04'24.183"N	104°47'36.271"W	1.59	
3006.00	16.600	300.810	2931.16	-545.10	545.94	-97.70	1698190.21	14553536.48	40°04'24.318"N	104°47'36.536"W	2.12	
3096.00	18.350	300.720	3017.00	-558.73	559.77	-120.93	1698166.97	14553550.25	40°04'24.455"N	104°47'36.835"W	1.94	
3185.00	17.320	300.410	3101.72	-572.39	573.63	-144.40	1698143.47	14553564.05	40°04'24.592"N	104°47'37.136"W	1.16	
3275.00	16.100	300.040	3187.92	-585.23	586.66	-166.75	1698121.10	14553577.02	40°04'24.720"N	104°47'37.424"W	1.36	
3365.00	16.850	298.430	3274.23	-597.50	599.12	-189.03	1698098.80	14553589.42	40°04'24.844"N	104°47'37.711"W	0.98	
3454.00	17.590	294.780	3359.24	-609.08	610.90	-212.58	1698075.23	14553601.14	40°04'24.960"N	104°47'38.014"W	1.47	
3544.00	19.280	301.260	3444.63	-622.28	624.31	-237.63	1698050.16	14553614.49	40°04'25.093"N	104°47'38.336"W	2.95	
3634.00	17.530	300.840	3530.02	-636.73	638.97	-261.97	1698025.79	14553629.09	40°04'25.237"N	104°47'38.649"W	1.95	
3723.00	18.940	298.020	3614.55	-650.18	652.63	-286.24	1698001.51	14553642.68	40°04'25.372"N	104°47'38.961"W	1.87	
3812.00	20.140	294.660	3698.43	-663.14	665.80	-312.91	1697974.81	14553655.79	40°04'25.503"N	104°47'39.304"W	1.85	
3902.00	18.630	294.000	3783.32	-675.22	678.12	-340.13	1697947.58	14553668.04	40°04'25.624"N	104°47'39.654"W	1.70	
3991.00	16.880	293.350	3868.08	-685.91	689.02	-364.98	1697922.71	14553678.88	40°04'25.732"N	104°47'39.974"W	1.98	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#06 KING 37N-8HZ (370'FNL & 404'FEL,SEC.08)
Area	COLORADO	Well	KING 37N-8HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	KING 37N-8HZ AWB
Facility	SEC.08-T1N-R66W		

WELLPATH DATA (152 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
4081.00	18.840	293.810	3953.74	-696.75	700.07	-390.27	1697897.40	14553689.86	40°04'25.841"N	104°47'40.299"W	2.18	
4170.00	20.990	300.310	4037.42	-710.37	713.92	-417.19	1697870.46	14553703.65	40°04'25.978"N	104°47'40.646"W	3.46	
4260.00	19.860	300.280	4121.76	-725.98	729.76	-444.31	1697843.32	14553719.42	40°04'26.135"N	104°47'40.994"W	1.26	
4282.00†	19.552	300.073	4142.47	-729.66	733.49	-450.72	1697836.90	14553723.13	40°04'26.171"N	104°47'41.077"W	1.44	ENTER LANDBOX (363'FSL & 856'FEL,SEC.05) 40.0739365 -104.7947436
4350.00	18.600	299.390	4206.74	-740.52	744.51	-470.02	1697817.59	14553734.11	40°04'26.280"N	104°47'41.325"W	1.44	
4439.00	17.790	299.350	4291.29	-753.94	758.14	-494.23	1697793.35	14553747.68	40°04'26.415"N	104°47'41.637"W	0.91	
4529.00	16.920	299.770	4377.19	-766.99	771.39	-517.59	1697769.97	14553760.86	40°04'26.546"N	104°47'41.937"W	0.98	
4618.00	17.070	301.820	4462.30	-780.11	784.70	-539.93	1697747.61	14553774.12	40°04'26.678"N	104°47'42.224"W	0.69	
4708.00	17.960	296.820	4548.13	-793.14	797.93	-563.54	1697723.98	14553787.28	40°04'26.808"N	104°47'42.528"W	1.94	
4798.00	16.910	296.720	4634.00	-805.08	810.08	-587.61	1697699.89	14553799.37	40°04'26.928"N	104°47'42.838"W	1.17	
4823.00	16.870	296.700	4657.92	-808.29	813.34	-594.10	1697693.39	14553802.62	40°04'26.961"N	104°47'42.921"W	0.16	
4912.00	17.360	294.280	4742.98	-819.36	824.60	-617.74	1697669.73	14553813.82	40°04'27.072"N	104°47'43.225"W	0.97	
5002.00	17.820	294.100	4828.77	-830.29	835.75	-642.55	1697644.91	14553824.90	40°04'27.182"N	104°47'43.545"W	0.51	
5091.00	18.350	297.160	4913.38	-842.04	847.70	-667.45	1697619.99	14553836.80	40°04'27.300"N	104°47'43.865"W	1.22	
5181.00	17.130	297.520	4999.09	-854.42	860.30	-691.81	1697595.61	14553849.33	40°04'27.425"N	104°47'44.178"W	1.36	
5270.00	16.450	293.160	5084.30	-865.24	871.31	-715.02	1697572.39	14553860.28	40°04'27.533"N	104°47'44.477"W	1.61	
5360.00	15.090	293.680	5170.91	-874.76	881.03	-737.47	1697549.93	14553869.94	40°04'27.629"N	104°47'44.765"W	1.52	
5449.00	14.310	293.470	5257.00	-883.62	890.06	-758.17	1697529.22	14553878.92	40°04'27.719"N	104°47'45.032"W	0.88	
5539.00	13.120	294.290	5344.43	-892.09	898.69	-777.68	1697509.69	14553887.51	40°04'27.804"N	104°47'45.283"W	1.34	
5629.00	12.270	293.570	5432.23	-899.96	906.72	-795.75	1697491.60	14553895.49	40°04'27.883"N	104°47'45.515"W	0.96	
5718.00	10.370	299.490	5519.50	-907.56	914.44	-811.40	1697475.95	14553903.18	40°04'27.960"N	104°47'45.717"W	2.50	
5808.00	8.960	301.880	5608.22	-915.14	922.13	-824.40	1697462.93	14553910.83	40°04'28.036"N	104°47'45.884"W	1.63	
5897.00	7.150	298.780	5696.34	-921.37	928.46	-835.14	1697452.18	14553917.13	40°04'28.098"N	104°47'46.022"W	2.09	
5987.00	5.940	301.680	5785.75	-926.44	933.60	-844.01	1697443.30	14553922.25	40°04'28.149"N	104°47'46.136"W	1.39	
6076.00	4.570	304.410	5874.37	-930.80	938.02	-850.86	1697436.45	14553926.66	40°04'28.193"N	104°47'46.224"W	1.56	
6166.00	3.680	308.960	5964.14	-934.60	941.87	-856.06	1697431.24	14553930.48	40°04'28.231"N	104°47'46.291"W	1.05	
6255.00	2.940	308.830	6052.99	-937.80	945.09	-860.06	1697427.23	14553933.70	40°04'28.262"N	104°47'46.343"W	0.83	
6345.00	1.790	295.240	6142.91	-939.82	947.14	-863.13	1697424.16	14553935.74	40°04'28.283"N	104°47'46.382"W	1.41	
6435.00	1.160	243.640	6232.89	-939.99	947.34	-865.22	1697422.07	14553935.93	40°04'28.285"N	104°47'46.409"W	1.56	
6524.00	0.850	255.710	6321.87	-939.42	946.77	-866.67	1697420.63	14553935.36	40°04'28.279"N	104°47'46.427"W	0.42	
6613.00	0.990	256.640	6410.86	-939.07	946.43	-868.05	1697419.24	14553935.02	40°04'28.276"N	104°47'46.445"W	0.16	
6703.00	1.120	297.760	6500.85	-939.28	946.66	-869.59	1697417.71	14553935.25	40°04'28.278"N	104°47'46.465"W	0.83	
6748.00†	1.768	209.294	6545.84	-938.88	946.26	-870.32	1697416.98	14553934.84	40°04'28.274"N	104°47'46.474"W	4.59	KOP
6793.00	3.680	191.570	6590.79	-936.85	944.24	-870.95	1697416.35	14553932.82	40°04'28.254"N	104°47'46.483"W	4.59	
6882.00	12.580	184.610	6678.80	-924.35	931.76	-872.30	1697415.03	14553920.34	40°04'28.131"N	104°47'46.500"W	10.04	
6972.00	21.790	182.650	6764.69	-897.83	905.24	-873.86	1697413.53	14553893.83	40°04'27.869"N	104°47'46.520"W	10.25	
7061.00	28.560	181.040	6845.19	-860.00	867.43	-875.02	1697412.46	14553856.03	40°04'27.495"N	104°47'46.535"W	7.64	
7151.00	32.690	180.030	6922.63	-814.17	821.59	-875.42	1697412.17	14553810.21	40°04'27.042"N	104°47'46.540"W	4.62	
7241.00	37.790	177.680	6996.11	-762.29	769.70	-874.31	1697413.39	14553758.34	40°04'26.529"N	104°47'46.526"W	5.86	
7331.00	40.880	177.640	7065.71	-705.32	712.71	-871.98	1697415.85	14553701.38	40°04'25.966"N	104°47'46.496"W	3.43	
7420.00	50.640	182.670	7127.75	-641.67	649.06	-872.39	1697415.60	14553637.76	40°04'25.337"N	104°47'46.501"W	11.68	
7510.00	62.250	181.500	7177.41	-566.83	574.24	-875.06	1697413.10	14553562.96	40°04'24.598"N	104°47'46.535"W	12.95	
7599.00	76.180	178.830	7208.92	-483.84	491.25	-875.21	1697413.14	14553480.00	40°04'23.777"N	104°47'46.537"W	15.90	
7689.00	78.170	177.850	7228.90	-396.15	403.53	-872.67	1697415.89	14553392.33	40°04'22.911"N	104°47'46.504"W	2.45	
7779.00	83.080	177.960	7243.56	-307.47	314.82	-869.42	1697419.34	14553303.66	40°04'22.034"N	104°47'46.463"W	5.46	

REFERENCE WELLPATH IDENTIFICATION				
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)			Slot
Area	COLORADO			Well
Field	WELD COUNTY (UTM/TRUE NORTH)			Wellbore
Facility	SEC.08-T1N-R66W			KING 37N-8HZ AWP

WELLPATH DATA (152 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
7810.00	87.350	178.310	7246.14	-276.61	283.95	-868.42	1697420.42	14553272.81	40°04'21.729"N	104°47'46.450"W	13.82	LANDING (86°FNL & 1272°FEL,SEC.08) 40.0727025 -104.7962360
7868.00	88.210	178.070	7248.39	-218.70	226.03	-866.59	1697422.38	14553214.91	40°04'21.157"N	104°47'46.426"W	1.54	
7957.00	87.570	178.690	7251.67	-129.82	137.12	-864.07	1697425.10	14553126.05	40°04'20.278"N	104°47'46.394"W	1.00	
8047.00	89.480	179.980	7253.98	-39.87	47.17	-863.03	1697426.35	14553036.13	40°04'19.389"N	104°47'46.380"W	2.56	
8137.00	90.460	178.930	7254.03	50.11	-42.83	-862.17	1697427.42	14552946.17	40°04'18.500"N	104°47'46.369"W	1.60	
8179.00†	90.068	179.930	7253.84	92.10	-84.82	-861.75	1697427.93	14552904.19	40°04'18.085"N	104°47'46.364"W	2.56	EXIT RADIUS HEEL (455°FNL & 1266°FEL,SEC.08) 40.0716902 -104.7962122
8226.00	89.630	181.050	7253.96	139.10	-131.82	-862.16	1697427.64	14552857.21	40°04'17.620"N	104°47'46.369"W	2.56	
8316.00	91.110	181.100	7253.38	229.09	-221.80	-863.84	1697426.16	14552767.27	40°04'16.731"N	104°47'46.391"W	1.65	
8406.00	89.660	180.480	7252.77	319.08	-311.79	-865.09	1697425.13	14552677.31	40°04'15.842"N	104°47'46.407"W	1.75	
8495.00	90.120	180.030	7252.94	408.08	-400.79	-865.48	1697424.94	14552588.35	40°04'14.962"N	104°47'46.412"W	0.72	
8585.00	89.320	180.700	7253.38	498.08	-490.78	-866.06	1697424.58	14552498.39	40°04'14.073"N	104°47'46.419"W	1.16	
8674.00	90.920	180.060	7253.20	587.08	-579.78	-866.65	1697424.19	14552409.43	40°04'13.193"N	104°47'46.427"W	1.94	
8764.00	89.350	180.750	7252.99	677.07	-669.77	-867.28	1697423.77	14552319.47	40°04'12.304"N	104°47'46.435"W	1.91	
8854.00	89.660	180.560	7253.76	767.07	-759.76	-868.31	1697422.95	14552229.51	40°04'11.415"N	104°47'46.448"W	0.40	
8943.00	90.460	179.980	7253.67	856.07	-848.76	-868.73	1697422.74	14552140.55	40°04'10.535"N	104°47'46.453"W	1.11	
9033.00	90.430	182.660	7252.97	946.05	-938.72	-870.80	1697420.87	14552050.61	40°04'09.646"N	104°47'46.480"W	2.98	
9122.00	89.410	182.140	7253.10	1035.00	-1027.64	-874.53	1697417.35	14551961.72	40°04'08.767"N	104°47'46.528"W	1.29	
9212.00	88.210	183.130	7254.96	1124.91	-1117.53	-878.67	1697413.43	14551871.86	40°04'07.879"N	104°47'46.581"W	1.73	
9301.00	88.950	182.890	7257.17	1213.80	-1206.38	-883.34	1697408.96	14551783.04	40°04'07.001"N	104°47'46.641"W	0.87	
9391.00	89.630	183.300	7258.29	1303.69	-1296.24	-888.20	1697404.32	14551693.20	40°04'06.113"N	104°47'46.703"W	0.88	
9481.00	90.030	182.760	7258.55	1393.60	-1386.11	-892.95	1697399.77	14551603.35	40°04'05.225"N	104°47'46.765"W	0.75	
9570.00	90.650	182.310	7258.02	1482.55	-1475.02	-896.89	1697396.04	14551514.47	40°04'04.346"N	104°47'46.815"W	0.86	
9660.00	88.800	181.910	7258.46	1572.50	-1564.96	-900.20	1697392.94	14551424.56	40°04'03.458"N	104°47'46.858"W	2.10	
9749.00	89.040	181.740	7260.13	1661.46	-1653.89	-903.04	1697390.31	14551335.65	40°04'02.579"N	104°47'46.894"W	0.33	
9838.00	89.350	182.170	7261.38	1750.43	-1742.83	-906.07	1697387.48	14551246.74	40°04'01.700"N	104°47'46.933"W	0.60	
9928.00	90.180	182.260	7261.75	1840.38	-1832.76	-909.55	1697384.22	14551156.84	40°04'00.811"N	104°47'46.978"W	0.93	
10018.00	88.980	180.340	7262.41	1930.36	-1922.73	-911.59	1697382.38	14551066.90	40°03'59.922"N	104°47'47.004"W	2.52	
10107.00	89.260	180.320	7263.78	2019.35	-2011.72	-912.11	1697382.08	14550977.95	40°03'59.043"N	104°47'47.011"W	0.32	
10197.00	89.970	180.090	7264.38	2109.35	-2101.72	-912.43	1697381.97	14550887.99	40°03'58.153"N	104°47'47.015"W	0.83	
10287.00	90.990	180.690	7263.63	2199.35	-2191.71	-913.04	1697381.56	14550798.03	40°03'57.264"N	104°47'47.023"W	1.31	
10376.00	88.860	179.330	7263.75	2288.34	-2280.70	-913.06	1697381.75	14550709.07	40°03'56.384"N	104°47'47.023"W	2.84	
10466.00	89.350	179.360	7265.15	2378.31	-2370.69	-912.03	1697382.99	14550619.13	40°03'55.495"N	104°47'47.009"W	0.55	
10555.00	90.250	180.130	7265.46	2467.30	-2459.68	-911.63	1697383.59	14550530.17	40°03'54.616"N	104°47'47.004"W	1.33	
10645.00	88.520	179.170	7266.43	2557.28	-2549.67	-911.08	1697384.35	14550440.22	40°03'53.726"N	104°47'46.997"W	2.20	
10734.00	88.310	178.920	7268.89	2646.22	-2638.63	-909.60	1697386.04	14550351.30	40°03'52.847"N	104°47'46.978"W	0.37	
10824.00	88.890	178.600	7271.09	2736.15	-2728.58	-907.65	1697388.20	14550261.39	40°03'51.958"N	104°47'46.953"W	0.74	
10913.00	89.010	178.560	7272.72	2825.08	-2817.53	-905.45	1697390.61	14550172.48	40°03'51.079"N	104°47'46.925"W	0.14	
11003.00	89.140	178.950	7274.17	2915.03	-2907.50	-903.49	1697392.77	14550082.55	40°03'50.190"N	104°47'46.899"W	0.46	
11093.00	89.110	178.540	7275.55	3004.98	-2997.47	-901.52	1697394.95	14549992.62	40°03'49.301"N	104°47'46.874"W	0.46	
11182.00	89.200	178.350	7276.86	3093.91	-3086.43	-899.11	1697397.57	14549903.71	40°03'48.422"N	104°47'46.843"W	0.24	
11272.00	90.220	179.020	7277.32	3183.86	-3176.40	-897.04	1697399.84	14549813.77	40°03'47.533"N	104°47'46.816"W	1.36	
11361.00	90.340	178.850	7276.88	3272.83	-3265.38	-895.39	1697401.70	14549724.83	40°03'46.654"N	104°47'46.795"W	0.23	
11451.00	90.710	178.750	7276.06	3362.79	-3355.36	-893.50	1697403.80	14549634.89	40°03'45.764"N	104°47'46.771"W	0.43	
11540.00	90.520	181.000	7275.10	3451.77	-3444.35	-893.31	1697404.20	14549545.94	40°03'44.885"N	104°47'46.768"W	2.54	
11630.00	88.490	180.200	7275.88	3541.76	-3534.34	-894.25	1697403.46	14549455.99	40°03'43.996"N	104°47'46.780"W	2.42	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#06 KING 37N-8HZ (370'FNL & 404'FEL,SEC.08)
Area	COLORADO	Well	KING 37N-8HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	KING 37N-8HZ AWB
Facility	SEC.08-T1N-R66W		

WELLPATH DATA (152 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]
11719.00	88.670	180.560	7278.08	3630.74	-3623.31	-894.84	1697403.08	14549367.05	40°03'43.117"N	104°47'46.788"W	0.45
11809.00	88.860	180.380	7280.02	3720.71	-3713.28	-895.58	1697402.55	14549277.11	40°03'42.227"N	104°47'46.797"W	0.29
11898.00	89.080	180.760	7281.62	3809.70	-3802.26	-896.46	1697401.87	14549188.16	40°03'41.348"N	104°47'46.809"W	0.49
11988.00	89.570	179.810	7282.68	3899.69	-3892.25	-896.91	1697401.64	14549098.21	40°03'40.459"N	104°47'46.814"W	1.19
12078.00	90.180	180.730	7282.88	3989.69	-3982.25	-897.34	1697401.42	14549008.24	40°03'39.569"N	104°47'46.820"W	1.23
12167.00	90.490	180.540	7282.36	4078.69	-4071.24	-898.32	1697400.64	14548919.28	40°03'38.690"N	104°47'46.832"W	0.41
12257.00	90.860	179.940	7281.30	4168.68	-4161.24	-898.70	1697400.47	14548829.33	40°03'37.801"N	104°47'46.837"W	0.78
12346.00	91.140	181.920	7279.75	4257.66	-4250.21	-900.14	1697399.24	14548740.39	40°03'36.921"N	104°47'46.856"W	2.25
12436.00	88.830	182.090	7279.77	4347.62	-4340.15	-903.29	1697396.30	14548650.48	40°03'36.033"N	104°47'46.896"W	2.57
12526.00	88.950	182.470	7281.51	4437.56	-4430.06	-906.87	1697392.93	14548560.60	40°03'35.144"N	104°47'46.942"W	0.44
12546.00†	89.019	182.472	7281.87	4457.54	-4450.04	-907.73	1697392.11	14548540.62	40°03'34.947"N	104°47'46.953"W	0.34
12616.00	89.260	182.480	7282.92	4527.49	-4519.96	-910.76	1697389.25	14548470.72	40°03'34.256"N	104°47'46.992"W	0.34
12705.00	89.540	182.290	7283.85	4616.44	-4608.88	-914.46	1697385.76	14548381.83	40°03'33.377"N	104°47'47.040"W	0.38
12794.00	89.820	182.360	7284.35	4705.39	-4697.81	-918.07	1697382.36	14548292.93	40°03'32.498"N	104°47'47.086"W	0.32
12884.00	90.190	182.070	7284.34	4795.35	-4787.74	-921.55	1697379.09	14548203.02	40°03'31.609"N	104°47'47.131"W	0.52
12908.00	90.310	181.730	7284.24	4819.34	-4811.72	-922.35	1697378.35	14548179.05	40°03'31.372"N	104°47'47.141"W	1.50
12955.00	90.310	181.730	7283.98	4866.33	-4858.70	-923.76	1697377.04	14548132.08	40°03'30.908"N	104°47'47.159"W	0.00

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.05-T1N-R66W	2.00	-89.96	-0.54	1698288.81	14552901.06	40°04'18.034"N	104°47'35.286"W	polygon
SEC.08-T1N-R66W	2.00	-89.96	-0.54	1698288.81	14552901.06	40°04'18.034"N	104°47'35.286"W	polygon
KING 37N-8HZ HEEL REV-1(200'FNL & 1304'FEL,SEC.08)	7254.00	172.65	-901.17	1697387.93	14553161.47	40°04'20.629"N	104°47'46.871"W	point
KING 37N-8HZ HEEL REV-2(65'FNL & 1274'FEL,SEC.08)	7254.00	37.65	-871.17	1697418.23	14553026.60	40°04'19.295"N	104°47'46.485"W	point
KING 37N-8HZ HEEL REV-3(65'FNL & 1274'FEL,SEC.08)	7254.00	307.65	-871.17	1697417.61	14553296.49	40°04'21.963"N	104°47'46.485"W	point
KING 37N-8HZ BHL REV-1(47'FSL & 1348'FEL,SEC.08)	7303.00	-4861.85	-914.81	1697386.00	14548128.96	40°03'30.877"N	104°47'47.044"W	point
KING 37N-8HZ LANDBOX	7321.00	0.00	0.00	1698289.14	14552990.98	40°04'18.923"N	104°47'35.279"W	polygon
KING 37N-8HZ RADIUS 1	7321.00	372.69	-913.24	1697375.40	14553361.40	40°04'22.606"N	104°47'47.026"W	polygon
KING 37N-8HZ RADIUS 2	7321.00	-4908.79	-887.01	1697413.90	14548082.10	40°03'30.413"N	104°47'46.686"W	polygon

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#06 KING 37N-8HZ (370'FNL & 404'FEL,SEC.08)
Area	COLORADO	Well	KING 37N-8HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	KING 37N-8HZ AWB
Facility	SEC.08-T1N-R66W		

WELLPATH COMPOSITION - Ref Wellbore: KING 37N-8HZ AWB Ref Wellpath: KING 37N-8HZ AWP				
Start MD (ft)	End MD (ft)	Positional Uncertainty Model	Log Name/Comment	Wellbore
26.00	1834.00	Custom APC ISCWSA REV 2 MWD+IFR1+SC (approximation)	Custom APC ISCWSA Rev-2 MWD+IFR1+SC <131 - 1834>	KING 37N-8HZ AWB
1834.00	12908.00	Custom APC ISCWSA REV 2 MWD+IFR1+SC (approximation)	BHGE Custom APC ISCWSA Rev-2 MWD+IFR1+SC <1931 - 12908>	KING 37N-8HZ AWB
12908.00	12955.00	Blind Drilling (std)	Projection to bit	KING 37N-8HZ AWB

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#06 KING 37N-8HZ (370'FNL & 404'FEL,SEC.08)
Area	COLORADO	Well	KING 37N-8HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	KING 37N-8HZ AWB
Facility	SEC.08-T1N-R66W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
131.00	0.590	10.690	131.00	FIRST BHGE SURFACE MWD+IFR1+SC SURVEY
1834.00	16.490	3.110	1802.01	LAST BHGE SURFACE MWD+IFR1+SC SURVEY
1931.00	17.170	3.310	1894.85	FIRST BHGE PRODUCTION MWD+IFR1+SC SURVEY
4282.00	19.552	300.073	4142.47	ENTER LANDBOX (363'FSL & 856'FEL,SEC.05) 40.0739365 -104.7947436
6748.00	1.768	209.294	6545.84	KOP
7810.00	87.350	178.310	7246.14	LANDING (86'FNL & 1272'FEL,SEC.08) 40.0727025 -104.7962360
8179.00	90.068	179.930	7253.84	EXIT RADIUS HEEL (455'FNL & 1266'FEL,SEC.08) 40.0716902 -104.7962122
12546.00	89.019	182.472	7281.87	ENTER RADIUS TOE (459'FSFL & 1341'FEL,SEC.08) 40.0597074 -104.7963759
12908.00	90.310	181.730	7284.24	LAST BHGE PRODUCTION MWD+IFR1+SC SURVEY
12955.00	90.310	181.730	7283.98	PTB (50'FSFL & 1357'FEL,SEC.08) 40.0585856 -104.7964331