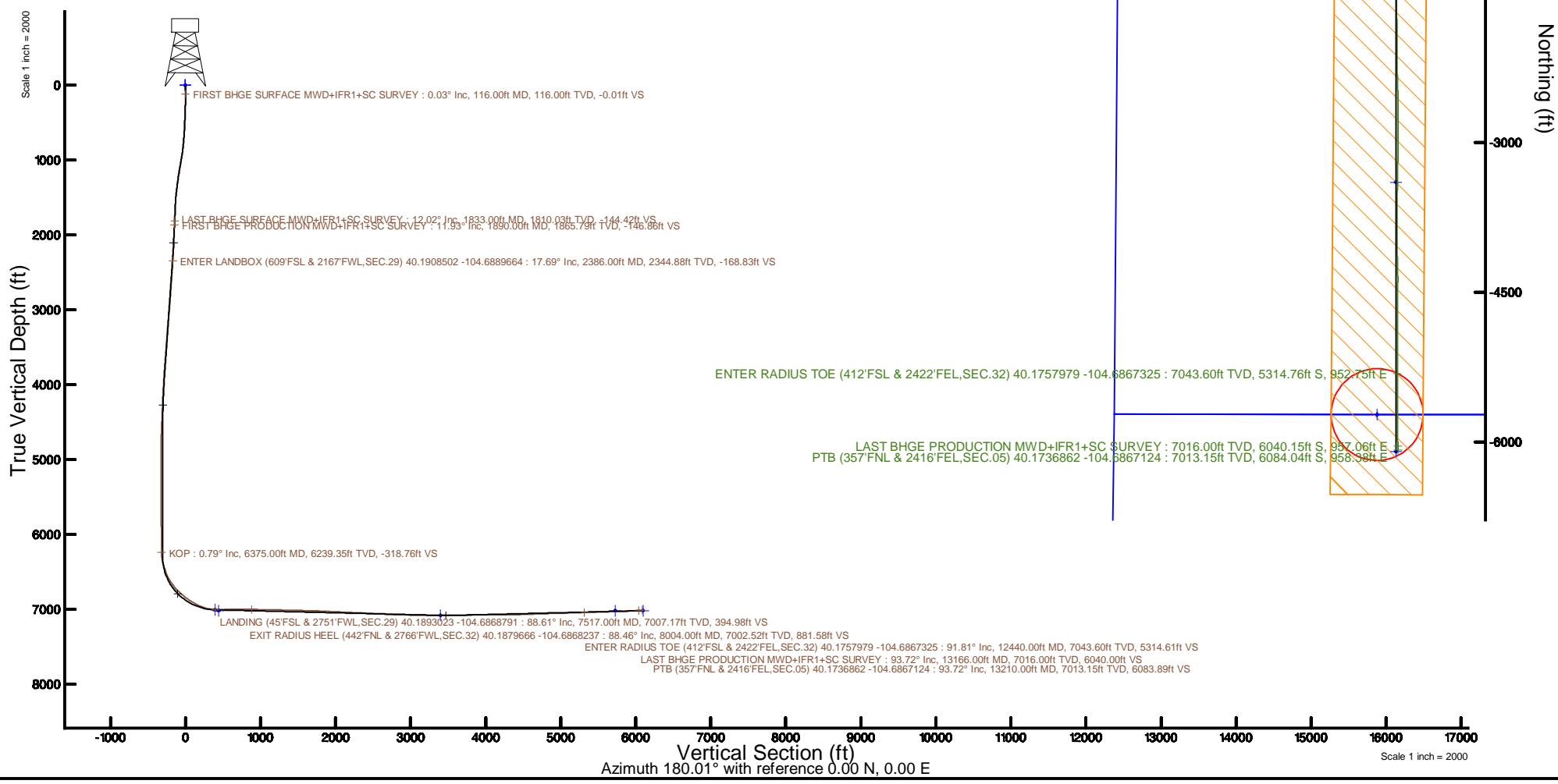
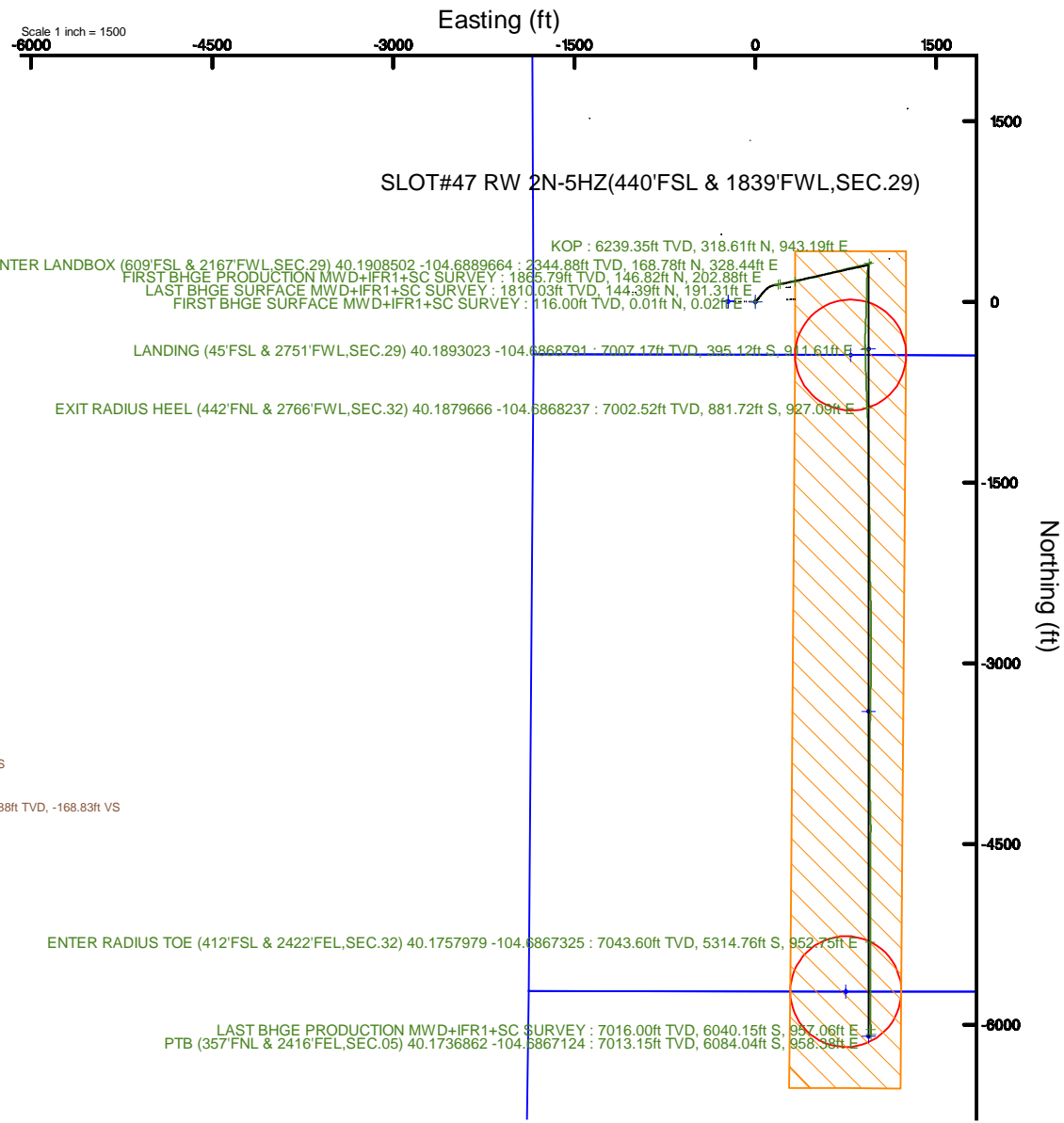


# KERR-MCGEE OIL & GAS ONSHORE LP (WA)

Location: COLORADO Slot: SLOT#47 RW 2N-5HZ(440'FSL & 1839'FWL,SEC.29)  
 Field: WELD COUNTY (UTM/TRUE NORTH) Well: RW 2N-5HZ  
 Facility: SEC.29-T3N-R65W Wellbore: RW 2N-5HZ PWB

Plot reference wellpath is RW 2N-5HZ PWP Rev-B.0	Grid System: NAD83 / UTM Zone 13 North, US feet
True vertical depths are referenced to Xtreme 22 (17) (RT)	* = Wellpath was transformed from a different geoidic datum
Measured depths are referenced to Xtreme 22 (17) (RT)	North Reference: True north
Xtreme 22 (17) (RT) to Mean Sea Level: 4903 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#47 RW 2N-5HZ(440'FSL & 1839'FWL,SEC.29)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: painsetr on 2017-09-13
	Database: WA_DEN_Anadarko_Defn



REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#47 RW 2N-5HZ(440'FSL & 1839'FWL,SEC.29)
Area	COLORADO	Well	RW 2N-5HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	RW 2N-5HZ AWB
Facility	SEC.29-T3N-R65W		

REPORT SETUP INFORMATION			
Projection System	NAD83 / UTM Zone 13 North, US feet	Software System	WellArchitect® 5.0
North Reference	True	User	Painsetr
Scale	0.999609	Report Generated	9/13/2017 at 10:25 AM
Convergence at slot	0.20° East	Database/Source file	WA_DEN_Anadarko_Defn/RW_2N-5HZ_AWP.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-79.82	1018.90	1726951.30	14596213.20	40°11'25.393"N	104°41'24.511"W
Facility Reference Pt			1725932.54	14596289.48	40°11'26.182"N	104°41'37.640"W
Field Reference Pt			1698235.31	14552047.82	40°04'09.600"N	104°47'36.000"W

WELLPATH DATUM			
Calculation method	Minimum curvature	Xtreme 22 (17') (RT) to Facility Vertical Datum	4903.00ft
Horizontal Reference Pt	Slot	Xtreme 22 (17') (RT) to Mean Sea Level	4903.00ft
Vertical Reference Pt	Xtreme 22 (17') (RT)	Xtreme 22 (17') (RT) to Mud Line at Slot (SLOT#47 RW 2N-5HZ (440'FSL & 1839'FWL,SEC.29))	4903.00ft
MD Reference Pt	Xtreme 22 (17') (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	180.01°

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#47 RW 2N-5HZ(440'FSL & 1839'FWL,SEC.29)
Area	COLORADO	Well	RW 2N-5HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	RW 2N-5HZ AWB
Facility	SEC.29-T3N-R65W		

WELLPATH DATA (158 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	71.080	0.00	0.00	0.00	0.00	1726951.30	14596213.20	40°11'25.393"N	104°41'24.511"W	0.00	
17.00	0.000	71.080	17.00	0.00	0.00	0.00	1726951.30	14596213.20	40°11'25.393"N	104°41'24.511"W	0.00	
116.00	0.030	71.080	116.00	-0.01	0.01	0.02	1726951.33	14596213.21	40°11'25.393"N	104°41'24.511"W	0.03	FIRST BHGE SURFACE MWD+IFR1+SC SURVEY
211.00	1.150	46.080	210.99	-0.68	0.68	0.73	1726952.03	14596213.88	40°11'25.400"N	104°41'24.502"W	1.18	
301.00	1.940	40.230	300.96	-2.47	2.47	2.37	1726953.66	14596215.67	40°11'25.417"N	104°41'24.480"W	0.89	
392.00	2.760	45.020	391.88	-5.19	5.19	4.91	1726956.19	14596218.41	40°11'25.444"N	104°41'24.448"W	0.93	
483.00	3.730	47.260	482.74	-8.75	8.75	8.64	1726959.90	14596221.98	40°11'25.479"N	104°41'24.400"W	1.07	
574.00	4.490	44.940	573.50	-13.28	13.28	13.33	1726964.58	14596226.52	40°11'25.524"N	104°41'24.339"W	0.85	
665.00	4.920	42.700	664.19	-18.67	18.67	18.49	1726969.72	14596231.93	40°11'25.577"N	104°41'24.273"W	0.51	
752.00	6.300	38.250	750.78	-25.16	25.16	23.98	1726975.18	14596238.43	40°11'25.642"N	104°41'24.202"W	1.66	
840.00	8.400	36.480	838.05	-34.13	34.12	30.79	1726981.96	14596247.41	40°11'25.730"N	104°41'24.114"W	2.40	
927.00	11.170	35.980	923.77	-46.06	46.05	39.52	1726990.64	14596259.37	40°11'25.848"N	104°41'24.002"W	3.19	
1015.00	13.500	40.640	1009.74	-60.75	60.75	51.22	1727002.29	14596274.10	40°11'25.993"N	104°41'23.851"W	2.88	
1102.00	10.940	37.970	1094.76	-74.97	74.96	62.91	1727013.93	14596288.35	40°11'26.134"N	104°41'23.700"W	3.01	
1189.00	12.230	43.190	1179.99	-88.20	88.19	74.30	1727025.26	14596301.61	40°11'26.264"N	104°41'23.554"W	1.91	
1277.00	11.750	46.340	1266.07	-101.19	101.17	87.16	1727038.07	14596314.64	40°11'26.393"N	104°41'23.388"W	0.92	
1364.00	11.500	51.610	1351.29	-112.69	112.67	100.37	1727051.24	14596326.18	40°11'26.506"N	104°41'23.218"W	1.25	
1452.00	11.730	59.750	1437.49	-122.65	122.63	114.97	1727065.80	14596336.18	40°11'26.605"N	104°41'23.030"W	1.88	
1539.00	12.250	68.020	1522.60	-130.56	130.54	131.17	1727081.96	14596344.14	40°11'26.683"N	104°41'22.821"W	2.06	
1627.00	12.340	77.960	1608.59	-136.02	135.99	149.03	1727099.79	14596349.66	40°11'26.737"N	104°41'22.591"W	2.40	
1714.00	12.060	79.080	1693.63	-139.68	139.66	167.04	1727117.79	14596353.38	40°11'26.773"N	104°41'22.359"W	0.42	
1802.00	11.930	79.000	1779.71	-143.16	143.13	185.00	1727135.73	14596356.92	40°11'26.807"N	104°41'22.127"W	0.15	
1833.00	12.020	78.540	1810.03	-144.42	144.39	191.31	1727142.03	14596358.19	40°11'26.820"N	104°41'22.046"W	0.42	LAST BHGE SURFACE MWD+IFR1+SC SURVEY
1890.00	11.930	77.660	1865.79	-146.86	146.82	202.88	1727153.59	14596360.67	40°11'26.844"N	104°41'21.897"W	0.36	FIRST BHGE PRODUCTION MWD+IFR1+SC SURVEY
1978.00	12.800	77.310	1951.75	-150.94	150.91	221.27	1727171.96	14596364.82	40°11'26.884"N	104°41'21.660"W	0.99	
2065.00	14.100	82.080	2036.36	-154.52	154.49	241.17	1727191.84	14596368.47	40°11'26.920"N	104°41'21.403"W	1.96	
2153.00	15.100	80.710	2121.52	-157.86	157.81	263.10	1727213.75	14596371.87	40°11'26.953"N	104°41'21.121"W	1.20	
2241.00	16.270	79.630	2206.24	-161.93	161.88	286.54	1727237.16	14596376.02	40°11'26.993"N	104°41'20.819"W	1.37	
2328.00	17.220	81.290	2289.55	-166.08	166.03	311.26	1727261.86	14596380.25	40°11'27.034"N	104°41'20.500"W	1.22	
2386.00†	17.687	80.509	2344.88	-168.83	168.78	328.44	1727279.02	14596383.06	40°11'27.061"N	104°41'20.279"W	0.90	ENTER LANDBOX (609'FSL & 2167'FWL,SEC.29) 40.1908502 -104.6889664
2416.00	17.930	80.120	2373.44	-170.38	170.32	337.48	1727288.05	14596384.63	40°11'27.076"N	104°41'20.162"W	0.90	
2503.00	18.370	75.990	2456.12	-176.00	175.94	363.98	1727314.52	14596390.34	40°11'27.132"N	104°41'19.821"W	1.56	
2591.00	17.060	75.240	2539.94	-182.65	182.59	389.91	1727340.42	14596397.07	40°11'27.197"N	104°41'19.487"W	1.51	
2678.00	17.190	77.440	2623.09	-188.70	188.63	414.80	1727365.28	14596403.21	40°11'27.257"N	104°41'19.166"W	0.76	
2766.00	17.910	78.490	2706.99	-194.23	194.16	440.76	1727391.20	14596408.82	40°11'27.312"N	104°41'18.832"W	0.89	
2853.00	19.730	78.880	2789.34	-199.74	199.66	468.28	1727418.69	14596414.42	40°11'27.366"N	104°41'18.477"W	2.10	
2941.00	19.060	76.930	2872.34	-205.86	205.78	496.85	1727447.23	14596420.63	40°11'27.426"N	104°41'18.109"W	1.06	
3028.00	18.380	76.400	2954.74	-212.30	212.22	524.02	1727474.37	14596427.16	40°11'27.490"N	104°41'17.759"W	0.81	
3115.00	17.660	73.050	3037.48	-219.38	219.29	549.97	1727500.29	14596434.32	40°11'27.560"N	104°41'17.424"W	1.45	
3228.00	17.380	73.550	3145.23	-229.16	229.07	582.56	1727532.82	14596444.21	40°11'27.657"N	104°41'17.004"W	0.28	
3316.00	17.530	75.240	3229.18	-236.26	236.16	607.98	1727558.21	14596451.39	40°11'27.727"N	104°41'16.677"W	0.60	
3403.00	18.400	78.210	3311.94	-242.41	242.31	634.09	1727584.29	14596457.62	40°11'27.787"N	104°41'16.340"W	1.45	
3491.00	18.060	76.620	3395.52	-248.41	248.30	660.95	1727611.13	14596463.71	40°11'27.847"N	104°41'15.994"W	0.68	
3579.00	18.270	76.290	3479.14	-254.84	254.73	687.63	1727637.76	14596470.22	40°11'27.910"N	104°41'15.651"W	0.27	
3666.00	19.120	75.210	3561.55	-261.71	261.60	714.65	1727664.75	14596477.19	40°11'27.978"N	104°41'15.302"W	1.05	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#47 RW 2N-5HZ(440'FSL & 1839'FWL,SEC.29)
Area	COLORADO	Well	RW 2N-5HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	RW 2N-5HZ AWB
Facility	SEC.29-T3N-R65W		

WELLPATH DATA (158 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
3755.00	16.780	72.550	3646.21	-269.29	269.17	741.00	1727691.07	14596484.85	40°11'28.053"N	104°41'14.963"W	2.79	
3842.00	16.720	75.780	3729.52	-276.13	276.01	765.12	1727715.15	14596491.77	40°11'28.120"N	104°41'14.652"W	1.07	
3930.00	17.370	79.830	3813.66	-281.57	281.44	790.32	1727740.32	14596497.29	40°11'28.174"N	104°41'14.327"W	1.54	
4018.00	16.340	78.620	3897.88	-286.33	286.20	815.38	1727765.36	14596502.13	40°11'28.221"N	104°41'14.004"W	1.24	
4104.00	14.970	77.170	3980.69	-291.19	291.06	838.07	1727788.02	14596507.06	40°11'28.269"N	104°41'13.712"W	1.66	
4191.00	14.450	76.210	4064.83	-296.27	296.14	859.57	1727809.50	14596512.22	40°11'28.319"N	104°41'13.435"W	0.66	
4279.00	13.310	77.290	4150.26	-301.12	300.99	880.12	1727830.02	14596517.14	40°11'28.367"N	104°41'13.170"W	1.33	
4366.00	12.070	78.470	4235.14	-305.15	305.01	898.80	1727848.68	14596521.22	40°11'28.407"N	104°41'12.929"W	1.46	
4454.00	9.900	79.270	4321.52	-308.40	308.26	915.25	1727865.11	14596524.52	40°11'28.439"N	104°41'12.717"W	2.47	
4541.00	8.860	76.760	4407.36	-311.33	311.18	929.12	1727878.96	14596527.50	40°11'28.468"N	104°41'12.539"W	1.28	
4629.00	7.150	73.540	4494.50	-314.43	314.29	940.97	1727890.80	14596530.64	40°11'28.499"N	104°41'12.386"W	2.01	
4716.00	5.650	66.750	4580.95	-317.66	317.51	950.10	1727899.91	14596533.90	40°11'28.530"N	104°41'12.268"W	1.93	
4804.00	3.950	48.780	4668.64	-321.37	321.22	956.36	1727908.16	14596537.63	40°11'28.567"N	104°41'12.188"W	2.56	
4891.00	1.150	9.600	4755.55	-324.21	324.06	958.76	1727908.55	14596540.47	40°11'28.595"N	104°41'12.157"W	3.61	
4979.00	0.960	9.560	4843.54	-325.80	325.65	959.03	1727908.81	14596542.07	40°11'28.611"N	104°41'12.153"W	0.22	
5067.00	0.690	328.970	4931.53	-326.98	326.83	958.88	1727908.66	14596543.25	40°11'28.623"N	104°41'12.155"W	0.71	
5154.00	0.660	294.050	5018.53	-327.64	327.49	958.15	1727907.93	14596543.90	40°11'28.629"N	104°41'12.165"W	0.47	
5241.00	0.610	276.920	5105.52	-327.90	327.75	957.23	1727907.01	14596544.16	40°11'28.632"N	104°41'12.176"W	0.22	
5329.00	0.580	254.650	5193.52	-327.84	327.69	956.34	1727906.11	14596544.09	40°11'28.631"N	104°41'12.188"W	0.26	
5416.00	0.510	233.980	5280.51	-327.49	327.34	955.60	1727905.38	14596543.74	40°11'28.628"N	104°41'12.197"W	0.24	
5504.00	0.620	239.750	5368.51	-327.02	326.87	954.87	1727904.65	14596543.27	40°11'28.623"N	104°41'12.207"W	0.14	
5591.00	0.460	208.350	5455.50	-326.48	326.33	954.30	1727904.08	14596542.73	40°11'28.618"N	104°41'12.214"W	0.38	
5679.00	0.440	238.010	5543.50	-325.99	325.84	953.85	1727903.63	14596542.23	40°11'28.613"N	104°41'12.220"W	0.26	
5766.00	0.470	210.540	5630.50	-325.50	325.35	953.38	1727903.17	14596541.75	40°11'28.608"N	104°41'12.226"W	0.25	
5853.00	1.320	252.250	5717.49	-324.89	324.74	952.24	1727902.03	14596541.13	40°11'28.602"N	104°41'12.241"W	1.17	
5941.00	1.670	214.320	5805.46	-323.52	323.37	950.56	1727900.35	14596539.76	40°11'28.588"N	104°41'12.262"W	1.17	
6029.00	1.750	215.840	5893.42	-321.37	321.22	949.05	1727898.85	14596537.61	40°11'28.567"N	104°41'12.282"W	0.10	
6116.00	1.200	259.000	5980.39	-320.12	319.97	947.37	1727897.18	14596536.35	40°11'28.555"N	104°41'12.303"W	1.38	
6204.00	1.200	254.770	6068.37	-319.70	319.55	945.58	1727895.39	14596535.93	40°11'28.551"N	104°41'12.327"W	0.10	
6291.00	0.840	260.990	6155.36	-319.36	319.22	944.07	1727893.88	14596535.58	40°11'28.547"N	104°41'12.346"W	0.43	
6375.00†	0.786	207.979	6239.35	-318.76	318.61	943.19	1727893.01	14596534.97	40°11'28.541"N	104°41'12.357"W	0.87	KOP
6379.00	0.800	205.690	6243.35	-318.71	318.56	943.17	1727892.98	14596534.92	40°11'28.541"N	104°41'12.358"W	0.87	
6466.00	9.140	193.540	6329.95	-311.43	311.28	941.28	1727891.12	14596527.64	40°11'28.469"N	104°41'12.382"W	9.61	
6554.00	16.040	191.190	6415.78	-292.69	292.54	937.28	1727887.19	14596508.89	40°11'28.284"N	104°41'12.433"W	7.86	
6641.00	20.680	190.520	6498.33	-265.78	265.63	932.14	1727882.15	14596481.97	40°11'28.018"N	104°41'12.500"W	5.34	
6729.00	28.470	184.220	6578.31	-229.52	229.37	927.76	1727877.89	14596445.72	40°11'27.659"N	104°41'12.556"W	9.33	
6816.00	33.780	182.360	6652.76	-184.64	184.49	925.23	1727875.52	14596400.85	40°11'27.216"N	104°41'12.589"W	6.20	
6903.00	41.690	181.430	6721.51	-131.46	131.32	923.51	1727873.99	14596347.69	40°11'26.691"N	104°41'12.611"W	9.12	
6991.00	47.620	180.540	6784.08	-69.65	69.51	922.47	1727873.16	14596285.90	40°11'26.080"N	104°41'12.624"W	6.78	
7079.00	52.360	181.890	6840.65	-2.29	2.14	921.02	1727871.94	14596218.55	40°11'25.414"N	104°41'12.643"W	5.51	
7166.00	56.710	182.090	6891.11	68.51	-68.66	918.55	1727869.73	14596147.78	40°11'24.714"N	104°41'12.675"W	5.00	
7253.00	62.020	181.530	6935.43	143.31	-143.45	916.20	1727867.64	14596073.00	40°11'23.975"N	104°41'12.705"W	6.13	
7341.00	69.870	182.940	6971.27	223.54	-223.68	913.04	1727864.76	14595992.80	40°11'23.182"N	104°41'12.746"W	9.04	
7429.00	77.120	180.290	6996.26	307.81	-307.96	910.70	1727862.71	14595908.54	40°11'22.350"N	104°41'12.776"W	8.73	
7517.00	88.610	178.540	7007.17	394.98	-395.12	911.61	1727863.92	14595821.42	40°11'21.488"N	104°41'12.765"W	13.20	LANDING (45'FSL & 2751'FWL, SEC.29) 40.1893023 -104.6868791

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#47 RW 2N-5HZ(440'FSL & 1839'FWL,SEC.29)
Area	COLORADO	Well	RW 2N-5HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	RW 2N-5HZ AWB
Facility	SEC.29-T3N-R65W		

WELLPATH DATA (158 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 (ft/100ft)	Comments
7605.00	92.340	178.560	7006.44	482.93	-483.07	913.83	1727866.45	14595733.51	40°11'20.619"N	104°41'12.736"W	4.24	
7692.00	92.030	178.620	7003.13	569.84	-569.98	915.97	1727868.90	14595646.64	40°11'19.760"N	104°41'12.709"W	0.36	
7779.00	90.710	177.990	7001.05	656.77	-656.92	918.54	1727871.77	14595559.75	40°11'18.901"N	104°41'12.675"W	1.68	
7867.00	90.250	178.280	7000.31	744.72	-744.87	921.41	1727874.94	14595471.84	40°11'18.032"N	104°41'12.639"W	0.62	
7954.00	88.550	177.360	7001.22	831.65	-831.80	924.72	1727878.55	14595384.96	40°11'17.173"N	104°41'12.596"W	2.22	
8004.00†	88.465	177.207	7002.52	881.58	-881.72	927.09	1727881.09	14595335.06	40°11'16.680"N	104°41'12.565"W	0.35	EXIT RADIUS HEEL (442'FNL & 2766'FWL,SEC.32) 40.1879666 -104.6868237
8042.00	88.400	177.090	7003.56	919.52	-919.66	928.98	1727883.11	14595297.15	40°11'16.305"N	104°41'12.541"W	0.35	
8129.00	89.380	177.110	7005.25	1006.39	-1006.53	933.38	1727887.82	14595210.33	40°11'15.446"N	104°41'12.484"W	1.13	
8217.00	89.200	177.960	7006.34	1094.30	-1094.44	937.16	1727891.91	14595122.46	40°11'14.578"N	104°41'12.436"W	0.99	
8304.00	88.770	180.560	7007.88	1181.27	-1181.42	938.28	1727893.33	14595035.53	40°11'13.718"N	104°41'12.421"W	3.03	
8392.00	87.470	180.100	7010.77	1269.22	-1269.36	937.78	1727893.13	14594947.61	40°11'12.849"N	104°41'12.428"W	1.57	
8479.00	87.810	179.350	7014.35	1356.14	-1356.29	938.20	1727893.85	14594860.73	40°11'11.990"N	104°41'12.423"W	0.95	
8567.00	89.350	179.030	7016.53	1444.10	-1444.25	939.44	1727895.40	14594772.80	40°11'11.121"N	104°41'12.407"W	1.79	
8654.00	89.420	178.100	7017.46	1531.07	-1531.22	941.62	1727897.88	14594685.88	40°11'10.261"N	104°41'12.379"W	1.07	
8742.00	88.920	178.670	7018.74	1619.02	-1619.17	944.10	1727900.67	14594597.97	40°11'09.392"N	104°41'12.347"W	0.86	
8829.00	88.090	179.350	7021.01	1705.98	-1706.13	945.60	1727902.48	14594511.05	40°11'08.533"N	104°41'12.327"W	1.23	
8917.00	86.920	179.680	7024.84	1793.89	-1794.04	946.34	1727903.53	14594423.18	40°11'07.664"N	104°41'12.318"W	1.38	
9004.00	87.140	179.740	7029.35	1880.77	-1880.92	946.78	1727904.27	14594336.33	40°11'06.806"N	104°41'12.312"W	0.26	
9092.00	87.100	180.090	7033.77	1968.66	-1968.81	946.91	1727904.71	14594248.48	40°11'05.937"N	104°41'12.310"W	0.40	
9179.00	87.380	179.920	7037.96	2055.56	-2055.71	946.91	1727905.00	14594161.61	40°11'05.078"N	104°41'12.311"W	0.38	
9267.00	87.660	179.280	7041.77	2143.48	-2143.62	947.52	1727905.92	14594073.74	40°11'04.210"N	104°41'12.303"W	0.79	
9354.00	87.970	179.020	7045.08	2230.40	-2230.55	948.81	1727907.51	14593986.85	40°11'03.351"N	104°41'12.286"W	0.46	
9442.00	87.230	178.060	7048.77	2318.29	-2318.44	951.05	1727910.06	14593899.00	40°11'02.482"N	104°41'12.257"W	1.38	
9529.00	87.260	178.290	7052.95	2405.15	-2405.30	953.82	1727913.13	14593812.19	40°11'01.624"N	104°41'12.222"W	0.27	
9617.00	87.170	178.620	7057.23	2493.01	-2493.16	956.19	1727915.80	14593724.37	40°11'00.755"N	104°41'12.191"W	0.39	
9704.00	87.170	177.890	7061.52	2579.87	-2580.02	958.83	1727918.75	14593637.56	40°10'59.897"N	104°41'12.157"W	0.84	
9792.00	86.360	179.950	7066.49	2667.70	-2667.86	960.49	1727920.72	14593549.76	40°10'59.029"N	104°41'12.136"W	2.51	
9879.00	87.320	180.030	7071.28	2754.57	-2754.72	960.51	1727921.03	14593462.93	40°10'58.171"N	104°41'12.136"W	1.11	
9967.00	88.430	181.550	7074.55	2842.50	-2842.65	959.29	1727920.13	14593375.03	40°10'57.302"N	104°41'12.151"W	2.14	
10055.00	88.640	180.550	7076.80	2930.45	-2930.60	957.68	1727918.82	14593287.11	40°10'56.433"N	104°41'12.172"W	1.16	
10142.00	89.010	179.640	7078.58	3017.43	-3017.58	957.54	1727918.98	14593200.16	40°10'55.573"N	104°41'12.174"W	1.13	
10229.00	88.920	180.770	7080.15	3104.42	-3104.57	957.23	1727918.97	14593113.21	40°10'54.713"N	104°41'12.178"W	1.30	
10317.00	89.720	180.470	7081.20	3192.41	-3192.56	956.27	1727918.33	14593025.25	40°10'53.844"N	104°41'12.191"W	0.97	
10404.00	89.290	181.440	7081.95	3279.39	-3279.54	954.82	1727917.18	14592938.30	40°10'52.984"N	104°41'12.209"W	1.22	
10492.00	89.880	181.150	7082.59	3367.36	-3367.51	952.83	1727915.50	14592850.35	40°10'52.115"N	104°41'12.235"W	0.75	
10579.00	90.830	180.510	7082.05	3454.35	-3454.50	951.57	1727914.55	14592763.40	40°10'51.255"N	104°41'12.251"W	1.32	
10667.00	90.620	180.970	7080.93	3542.34	-3542.49	950.44	1727913.72	14592675.44	40°10'50.386"N	104°41'12.266"W	0.57	
10755.00	89.970	180.760	7080.48	3630.33	-3630.48	949.11	1727912.70	14592587.49	40°10'49.516"N	104°41'12.283"W	0.78	
10842.00	90.680	180.070	7079.99	3717.32	-3717.47	948.48	1727912.37	14592500.52	40°10'48.657"N	104°41'12.291"W	1.14	
10930.00	91.480	180.020	7078.33	3805.31	-3805.45	948.41	1727912.61	14592412.57	40°10'47.787"N	104°41'12.292"W	0.91	
11017.00	91.510	179.450	7076.06	3892.27	-3892.42	948.81	1727913.31	14592325.64	40°10'46.928"N	104°41'12.287"W	0.66	
11104.00	90.740	179.550	7074.35	3979.25	-3979.40	949.57	1727914.38	14592238.70	40°10'46.068"N	104°41'12.277"W	0.89	
11192.00	89.660	179.550	7074.04	4067.25	-4067.40	950.26	1727915.37	14592150.74	40°10'45.199"N	104°41'12.268"W	1.23	
11279.00	89.260	178.950	7074.86	4154.24	-4154.39	951.40	1727916.82	14592063.79	40°10'44.339"N	104°41'12.254"W	0.83	
11367.00	90.030	178.010	7075.41	4242.20	-4242.35	953.74	1727919.46	14591975.87	40°10'43.470"N	104°41'12.224"W	1.38	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#47 RW 2N-5HZ(440'FSL & 1839'FWL,SEC.29)
Area	COLORADO	Well	RW 2N-5HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	RW 2N-5HZ AWB
Facility	SEC.29-T3N-R65W		

WELLPATH DATA (158 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
11454.00	90.710	178.890	7074.85	4329.17	-4329.32	956.09	1727922.11	14591888.95	40°10'42.610"N	104°41'12.193"W	1.28	
11542.00	92.000	181.260	7072.76	4417.13	-4417.28	955.97	1727922.30	14591801.02	40°10'41.741"N	104°41'12.195"W	3.07	
11629.00	92.580	180.620	7069.29	4504.05	-4504.20	954.55	1727921.18	14591714.13	40°10'40.882"N	104°41'12.213"W	0.99	
11717.00	91.540	180.620	7066.13	4591.99	-4592.14	953.60	1727920.54	14591626.22	40°10'40.013"N	104°41'12.226"W	1.18	
11804.00	91.790	180.170	7063.60	4678.95	-4679.10	953.00	1727920.24	14591539.29	40°10'39.154"N	104°41'12.233"W	0.59	
11892.00	92.210	178.760	7060.53	4766.89	-4767.04	953.82	1727921.37	14591451.39	40°10'38.285"N	104°41'12.223"W	1.67	
11980.00	91.630	180.730	7057.58	4854.84	-4854.99	954.21	1727922.07	14591363.48	40°10'37.416"N	104°41'12.218"W	2.33	
12067.00	92.070	180.380	7054.77	4941.79	-4941.94	953.37	1727921.53	14591276.56	40°10'36.557"N	104°41'12.229"W	0.65	
12155.00	91.290	180.480	7052.19	5029.74	-5029.89	952.71	1727921.17	14591188.64	40°10'35.687"N	104°41'12.237"W	0.89	
12242.00	91.790	180.430	7049.85	5116.71	-5116.86	952.02	1727920.79	14591101.71	40°10'34.828"N	104°41'12.246"W	0.58	
12330.00	91.970	179.360	7046.96	5204.66	-5204.81	952.18	1727921.26	14591013.79	40°10'33.959"N	104°41'12.244"W	1.23	
12417.00	91.570	179.940	7044.28	5291.62	-5291.77	952.71	1727922.09	14590926.87	40°10'33.100"N	104°41'12.237"W	0.81	
12440.00†	91.808	179.871	7043.60	5314.61	-5314.76	952.75	1727922.21	14590903.89	40°10'32.872"N	104°41'12.237"W	1.08	ENTER RADIUS TOE (412'FSL & 2422'FEL,SEC.32) 40.1757979 -104.6867325
12504.00	92.470	179.680	7041.21	5378.56	-5378.71	953.00	1727922.68	14590839.96	40°10'32.240"N	104°41'12.234"W	1.08	
12591.00	91.670	180.430	7038.07	5465.50	-5465.65	952.91	1727922.90	14590753.05	40°10'31.381"N	104°41'12.235"W	1.26	
12679.00	92.590	180.080	7034.80	5553.44	-5553.59	952.52	1727922.82	14590665.15	40°10'30.512"N	104°41'12.240"W	1.12	
12766.00	92.370	179.900	7031.03	5640.36	-5640.51	952.54	1727923.13	14590578.27	40°10'29.653"N	104°41'12.240"W	0.33	
12853.00	91.080	179.780	7028.41	5727.32	-5727.47	952.78	1727923.68	14590491.34	40°10'28.794"N	104°41'12.237"W	1.49	
12940.00	91.700	179.640	7026.30	5814.29	-5814.44	953.22	1727924.42	14590404.41	40°10'27.934"N	104°41'12.231"W	0.73	
13028.00	92.310	179.430	7023.22	5902.23	-5902.38	953.93	1727925.44	14590316.50	40°10'27.065"N	104°41'12.222"W	0.73	
13115.00	93.170	178.400	7019.07	5989.12	-5989.27	955.58	1727927.39	14590229.66	40°10'26.207"N	104°41'12.201"W	1.54	
13166.00	93.720	178.270	7016.00	6040.00	-6040.15	957.06	1727929.05	14590178.80	40°10'25.704"N	104°41'12.182"W	1.11	LAST BHGE PRODUCTION MWD+IFR1+SC SURVEY
13210.00	93.720	178.270	7013.15	6083.89	-6084.04	958.38	1727930.53	14590134.93	40°10'25.270"N	104°41'12.165"W	0.00	PTB (357'FNL & 2416'FEL,SEC.05) 40.1736862 -104.6867124

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#47 RW 2N-5HZ(440'FSL & 1839'FWL,SEC.29)
Area	COLORADO	Well	RW 2N-5HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	RW 2N-5HZ AWB
Facility	SEC.29-T3N-R65W		

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.05-T2N-R65W	1.00	2.23	-225.21	1726726.17	14596214.64	40°11'25.415"N	104°41'27.413"W	polygon
SEC.29-T3N-R65W	1.00	2.23	-225.21	1726726.17	14596214.64	40°11'25.415"N	104°41'27.413"W	polygon
SEC.32-T3N-R65W	1.00	2.23	-225.21	1726726.17	14596214.64	40°11'25.415"N	104°41'27.413"W	polygon
RW 2N-5HZ HEEL REV-1(50'FSL & 2477'FEL,SEC.29)	7008.00	-391.95	939.57	1727891.86	14595824.69	40°11'21.520"N	104°41'12.404"W	point
RW 2N-5HZ BHL REV-1(372'FNL & 2435'FEL,SEC.05)	7020.00	-6099.05	938.66	1727910.87	14590119.87	40°10'25.122"N	104°41'12.419"W	point
RW 2N-5HZ LANDBOX	7020.00	0.00	0.00	1726951.30	14596213.20	40°11'25.393"N	104°41'24.511"W	polygon
RW 2N-5HZ RADIUS 1	7020.00	-441.73	789.47	<b>1727742.00</b>	<b>14595774.40</b>	40°11'21.028"N	104°41'14.338"W	polygon
RW 2N-5HZ RADIUS 2	7020.00	-5726.70	749.62	<b>1727720.60</b>	<b>14590491.40</b>	40°10'28.802"N	104°41'14.854"W	polygon
RW 2N-5HZ INT. TARGET@3400'VS	7083.00	-3400.15	939.09	1727901.88	14592817.68	40°10'51.793"N	104°41'12.412"W	point

WELLPATH COMPOSITION - Ref Wellbore: RW 2N-5HZ AWB    Ref Wellpath: RW 2N-5HZ AWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	1833.00	Custom APC ISCWSA REV 2 MWD+IFR1+SC (approximation)	BHGE Custom APC ISCWSA Rev-2 MWD+IFR1+SC <116 - 1833>	RW 2N-5HZ AWB
1833.00	13166.00	Custom APC ISCWSA REV 2 MWD+IFR1+SC (approximation)	BHGE Custom APC ISCWSA Rev-2 MWD+IFR1+SC <1890 - 13166>	RW 2N-5HZ AWB
13166.00	13210.00	Blind Drilling (std)	Projection to bit	RW 2N-5HZ AWB

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#47 RW 2N-5HZ(440'FSL & 1839'FWL,SEC.29)
Area	COLORADO	Well	RW 2N-5HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	RW 2N-5HZ AWB
Facility	SEC.29-T3N-R65W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
116.00	0.030	71.080	116.00	FIRST BHGE SURFACE MWD+IFR1+SC SURVEY
1833.00	12.020	78.540	1810.03	LAST BHGE SURFACE MWD+IFR1+SC SURVEY
1890.00	11.930	77.660	1865.79	FIRST BHGE PRODUCTION MWD+IFR1+SC SURVEY
2386.00	17.687	80.509	2344.88	ENTER LANDBOX (609'FSL & 2167'FWL,SEC.29) 40.1908502 -104.6889664
6375.00	0.786	207.979	6239.35	KOP
7517.00	88.610	178.540	7007.17	LANDING (45'FSL & 2751'FWL,SEC.29) 40.1893023 -104.6868791
8004.00	88.465	177.207	7002.52	EXIT RADIUS HEEL (442'FNL & 2766'FWL,SEC.32) 40.1879666 -104.6868237
12440.00	91.808	179.871	7043.60	ENTER RADIUS TOE (412'FSL & 2422'FEL,SEC.32) 40.1757979 -104.6867325
13166.00	93.720	178.270	7016.00	LAST BHGE PRODUCTION MWD+IFR1+SC SURVEY
13210.00	93.720	178.270	7013.15	PTB (357'FNL & 2416'FEL,SEC.05) 40.1736862 -104.6867124