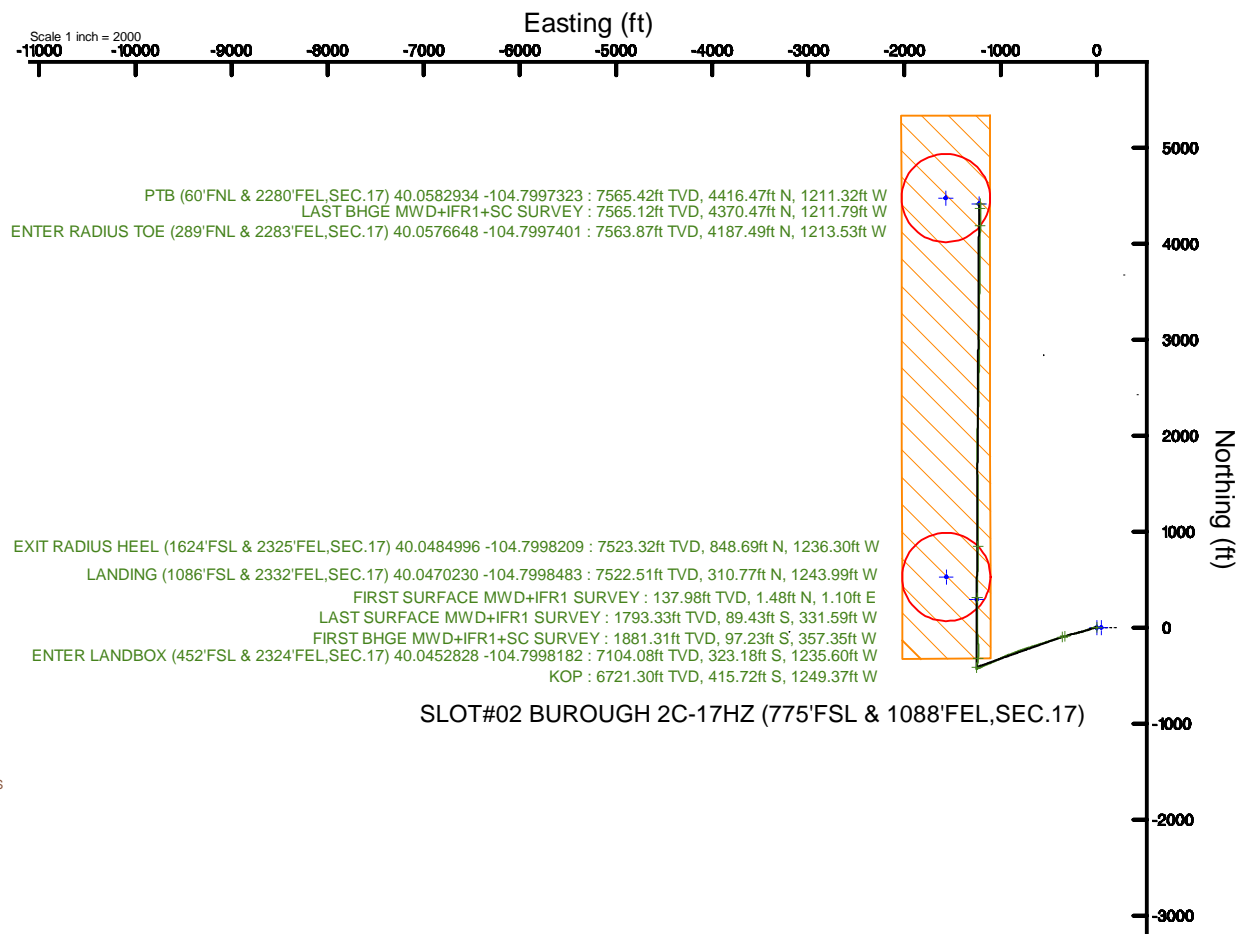
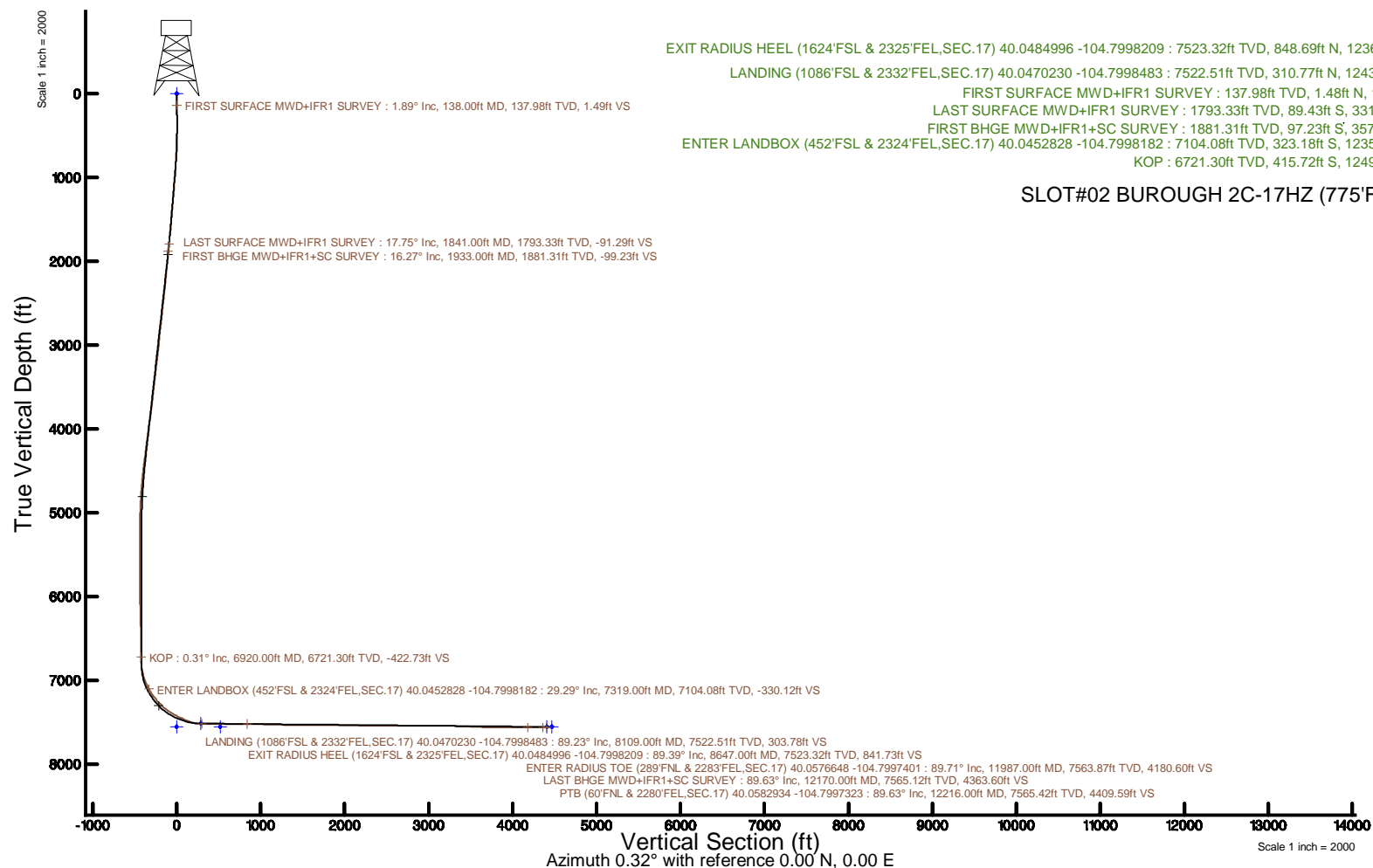


KERR-MCGEE OIL & GAS ONSHORE LP (WA)

Location:	COLORADO	Slot:	SLOT#02 BURGESS 2C-17HZ (775'FSL & 1088'FEL,SEC.17)
Field:	WELD COUNTY (UTM/TRUE NORTH)	Well:	BURGESS 2C-17HZ
Facility:	SEC.17-T1N-R66W	Wellbore:	BURGESS 2C-17HZ PWB

Picor reference wellpath is BURGHOUGH 2C-17HZ PWYP Rev-A.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 geosidetic datum
Measured depths are referenced to PD 564 (26) (RT)	North Reference: True north
PD 564 (26) (RT) to Mean Sea Level: 5005 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOTH02 BURGHOUGH 2C-17HZ (775FSL & 1088FEL,SEC.17): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: painseir on 2017-12-19
	Datbase is: WFA_DEFN_Anapadish_Defn



REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#02 BUROUGH 2C-17HZ (775'FSL & 1088'FEL,SEC.17)
Area	COLORADO	Well	BUROUGH 2C-17HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	BUROUGH 2C-17HZ AWB
Facility	SEC.17-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	12/19/2017 at 8:27 AM
Convergence at slot	0.14° East	Database/Source file	WA_DEN_Anadarko_Defn/BUROUGH_2C-17HZ_AWP.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-8438.17	-580.02	1697675.10	14543611.68	40°02'46.212"N	104°47'43.458"W
Facility Reference Pt			1698235.31	14552047.82	40°04'09.600"N	104°47'36.000"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 Facility Vertical Datum	5005.00ft
Horizontal Reference Pt	Slot	PD 564 (26') (RT) to Mean Sea Level	5005.00ft
Vertical Reference Pt	PD 564 (26') (RT)	PD 564 (26') (RT) to Mud Line at Slot (SLOT#02 BUROUGH 2C-17HZ (775'FSL & 1088'FEL,SEC.17))	5005.00ft
MD Reference Pt	PD 564 (26') (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	0.32°

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#02 BUROUGH 2C-17HZ (775'FSL & 1088'FEL,SEC.17)
Area	COLORADO	Well	BUROUGH 2C-17HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	BUROUGH 2C-17HZ AWB
Facility	SEC.17-T1N-R66W		

WELLPATH DATA (178 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	36.490	0.00	0.00	0.00	0.00	1697675.10	14543611.68	40°02'46.212"N	104°47'43.458"W	0.00	
26.00	0.000	36.490	26.00	0.00	0.00	0.00	1697675.10	14543611.68	40°02'46.212"N	104°47'43.458"W	0.00	
138.00	1.890	36.490	137.98	1.49	1.48	1.10	1697676.20	14543613.17	40°02'46.227"N	104°47'43.444"W	1.69	FIRST SURFACE MWD+IFR1 SURVEY
170.00	1.930	28.840	169.96	2.39	2.38	1.67	1697676.77	14543614.06	40°02'46.236"N	104°47'43.436"W	0.81	
201.00	1.490	11.880	200.95	3.24	3.23	2.01	1697677.10	14543614.92	40°02'46.244"N	104°47'43.432"W	2.15	
233.00	1.270	0.450	232.94	4.01	3.99	2.10	1697677.19	14543615.68	40°02'46.251"N	104°47'43.431"W	1.10	
264.00	1.270	328.460	263.93	4.64	4.63	1.92	1697677.01	14543616.31	40°02'46.258"N	104°47'43.433"W	2.26	
296.00	1.580	299.460	295.92	5.16	5.15	1.35	1697676.44	14543616.83	40°02'46.263"N	104°47'43.441"W	2.42	
327.00	1.930	287.920	326.91	5.52	5.52	0.48	1697675.57	14543617.20	40°02'46.267"N	104°47'43.452"W	1.60	
359.00	2.070	271.830	358.89	5.70	5.71	-0.61	1697674.48	14543617.38	40°02'46.268"N	104°47'43.466"W	1.80	
390.00	2.640	263.830	389.86	5.64	5.65	-1.88	1697673.21	14543617.32	40°02'46.268"N	104°47'43.482"W	2.12	
422.00	3.030	256.890	421.82	5.36	5.38	-3.44	1697671.66	14543617.05	40°02'46.265"N	104°47'43.502"W	1.62	
453.00	3.740	255.400	452.77	4.91	4.93	-5.21	1697669.88	14543616.60	40°02'46.261"N	104°47'43.525"W	2.31	
485.00	4.170	253.810	484.69	4.31	4.35	-7.34	1697667.76	14543616.01	40°02'46.255"N	104°47'43.552"W	1.39	
516.00	4.610	255.040	515.60	3.66	3.71	-9.63	1697665.47	14543615.37	40°02'46.249"N	104°47'43.582"W	1.45	
548.00	5.230	255.920	547.48	2.96	3.02	-12.28	1697662.82	14543614.68	40°02'46.242"N	104°47'43.616"W	1.95	
580.00	5.630	253.810	579.34	2.15	2.23	-15.21	1697659.90	14543613.88	40°02'46.234"N	104°47'43.654"W	1.40	
612.00	5.930	252.850	611.18	1.20	1.31	-18.29	1697656.82	14543612.95	40°02'46.225"N	104°47'43.693"W	0.98	
644.00	7.290	252.140	642.96	0.07	0.20	-21.80	1697653.31	14543611.83	40°02'46.214"N	104°47'43.738"W	4.26	
675.00	7.380	251.970	673.71	-1.17	-1.02	-25.57	1697649.55	14543610.60	40°02'46.202"N	104°47'43.787"W	0.30	
707.00	8.040	252.760	705.42	-2.49	-2.32	-29.66	1697645.46	14543609.29	40°02'46.189"N	104°47'43.839"W	2.09	
739.00	8.750	251.970	737.08	-3.93	-3.74	-34.11	1697641.01	14543607.87	40°02'46.175"N	104°47'43.897"W	2.25	
771.00	9.840	251.530	768.66	-5.58	-5.36	-39.02	1697636.11	14543606.23	40°02'46.159"N	104°47'43.960"W	3.41	
802.00	10.940	251.620	799.15	-7.37	-7.13	-44.32	1697630.81	14543604.46	40°02'46.142"N	104°47'44.028"W	3.55	
834.00	11.870	250.560	830.52	-9.46	-9.18	-50.31	1697624.83	14543602.39	40°02'46.121"N	104°47'44.105"W	2.98	
866.00	12.520	251.090	861.79	-11.72	-11.40	-56.69	1697618.46	14543600.16	40°02'46.099"N	104°47'44.187"W	2.06	
898.00	13.270	250.740	892.99	-14.09	-13.73	-63.44	1697611.72	14543597.81	40°02'46.076"N	104°47'44.274"W	2.36	
929.00	13.750	250.650	923.13	-16.52	-16.13	-70.28	1697604.89	14543595.40	40°02'46.053"N	104°47'44.362"W	1.55	
961.00	14.150	251.970	954.18	-19.03	-18.60	-77.59	1697597.59	14543592.91	40°02'46.028"N	104°47'44.456"W	1.60	
993.00	14.280	251.180	985.21	-21.56	-21.08	-85.04	1697590.15	14543590.41	40°02'46.004"N	104°47'44.551"W	0.73	
1025.00	14.850	251.700	1016.18	-24.16	-23.64	-92.67	1697582.53	14543587.83	40°02'45.978"N	104°47'44.650"W	1.83	
1056.00	14.990	251.880	1046.13	-26.70	-26.14	-100.25	1697574.95	14543585.32	40°02'45.954"N	104°47'44.747"W	0.48	
1088.00	15.250	254.690	1077.02	-29.14	-28.53	-108.24	1697566.97	14543582.91	40°02'45.930"N	104°47'44.850"W	2.43	
1120.00	15.210	253.550	1107.90	-31.49	-30.83	-116.33	1697558.89	14543580.59	40°02'45.907"N	104°47'44.954"W	0.94	
1151.00	15.730	253.460	1137.78	-33.88	-33.18	-124.26	1697550.97	14543578.23	40°02'45.884"N	104°47'45.056"W	1.68	
1183.00	16.610	254.250	1168.51	-36.40	-35.66	-132.82	1697542.42	14543575.73	40°02'45.860"N	104°47'45.166"W	2.83	
1215.00	17.050	253.730	1199.14	-39.01	-38.21	-141.72	1697533.52	14543573.16	40°02'45.834"N	104°47'45.280"W	1.45	
1247.00	16.920	254.430	1229.74	-41.63	-40.78	-150.71	1697524.55	14543570.57	40°02'45.809"N	104°47'45.396"W	0.76	
1279.00	17.580	254.610	1260.30	-44.21	-43.31	-159.86	1697515.41	14543568.02	40°02'45.784"N	104°47'45.513"W	2.07	
1311.00	17.840	255.040	1290.79	-46.81	-45.86	-169.25	1697506.02	14543565.45	40°02'45.759"N	104°47'45.634"W	0.91	
1342.00	17.670	255.570	1320.31	-49.26	-48.26	-178.40	1697496.89	14543563.03	40°02'45.735"N	104°47'45.752"W	0.76	
1374.00	17.490	254.250	1350.82	-51.83	-50.77	-187.73	1697487.57	14543560.50	40°02'45.710"N	104°47'45.872"W	1.37	
1406.00	17.450	255.220	1381.34	-54.41	-53.30	-197.00	1697478.31	14543557.95	40°02'45.685"N	104°47'45.991"W	0.92	
1437.00	16.920	254.690	1410.96	-56.84	-55.68	-205.84	1697469.47	14543555.55	40°02'45.662"N	104°47'46.105"W	1.78	
1469.00	17.090	254.430	1441.56	-59.38	-58.17	-214.86	1697460.46	14543553.04	40°02'45.637"N	104°47'46.221"W	0.58	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#02 BUROUGH 2C-17HZ (775'FSL & 1088'FEL,SEC.17)
Area	COLORADO	Well	BUROUGH 2C-17HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	BUROUGH 2C-17HZ AWP
Facility	SEC.17-T1N-R66W		

WELLPATH DATA (178 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
1501.00	17.360	254.960	1472.12	-61.93	-60.67	-224.00	1697451.33	14543550.52	40°02'45.612"N	104°47'46.338"W	0.98	
1532.00	18.240	255.660	1501.64	-64.38	-63.07	-233.17	1697442.17	14543548.10	40°02'45.589"N	104°47'46.456"W	2.92	
1564.00	18.940	257.330	1531.97	-66.82	-65.45	-243.09	1697432.26	14543545.70	40°02'45.565"N	104°47'46.584"W	2.75	
1595.00	18.940	256.710	1561.29	-69.13	-67.71	-252.89	1697422.47	14543543.41	40°02'45.543"N	104°47'46.710"W	0.65	
1627.00	19.250	255.570	1591.53	-71.70	-70.22	-263.05	1697412.32	14543540.88	40°02'45.518"N	104°47'46.840"W	1.52	
1659.00	19.510	254.780	1621.72	-74.47	-72.94	-273.32	1697402.06	14543538.14	40°02'45.491"N	104°47'46.972"W	1.15	
1691.00	19.470	254.610	1651.88	-77.35	-75.76	-283.62	1697391.77	14543535.30	40°02'45.463"N	104°47'47.105"W	0.22	
1723.00	19.600	255.480	1682.04	-80.17	-78.52	-293.95	1697381.45	14543532.52	40°02'45.436"N	104°47'47.238"W	1.00	
1754.00	20.040	253.730	1711.21	-83.02	-81.31	-304.09	1697371.32	14543529.71	40°02'45.408"N	104°47'47.368"W	2.38	
1786.00	20.040	253.550	1741.27	-86.17	-84.40	-314.61	1697360.81	14543526.59	40°02'45.378"N	104°47'47.503"W	0.19	
1818.00	18.500	253.290	1771.47	-89.23	-87.41	-324.73	1697350.70	14543523.56	40°02'45.348"N	104°47'47.633"W	4.82	
1841.00	17.750	253.900	1793.33	-91.29	-89.43	-331.59	1697343.85	14543521.52	40°02'45.328"N	104°47'47.722"W	3.36	LAST SURFACE MWD+IFR1 SURVEY
1933.00	16.270	252.360	1881.31	-99.23	-97.23	-357.35	1697318.12	14543513.67	40°02'45.251"N	104°47'48.053"W	1.68	FIRST BHGE MWD+IFR1+SC SURVEY
2023.00	17.910	252.200	1967.33	-107.43	-105.28	-382.54	1697292.96	14543505.57	40°02'45.172"N	104°47'48.377"W	1.82	
2113.00	17.040	251.240	2053.17	-116.04	-113.75	-408.21	1697267.32	14543497.04	40°02'45.088"N	104°47'48.707"W	1.02	
2202.00	18.090	254.280	2138.03	-124.12	-121.69	-433.86	1697241.70	14543489.04	40°02'45.009"N	104°47'49.037"W	1.57	
2292.00	17.340	253.740	2223.76	-131.81	-129.23	-460.18	1697215.40	14543481.45	40°02'44.935"N	104°47'49.375"W	0.85	
2381.00	18.350	251.610	2308.48	-140.09	-137.36	-486.21	1697189.40	14543473.26	40°02'44.855"N	104°47'49.710"W	1.35	
2470.00	17.160	250.840	2393.23	-148.97	-146.09	-511.91	1697163.74	14543464.47	40°02'44.768"N	104°47'50.040"W	1.36	
2560.00	18.220	248.760	2478.98	-158.57	-155.55	-537.56	1697138.11	14543454.96	40°02'44.675"N	104°47'50.370"W	1.37	
2649.00	19.820	255.830	2563.13	-167.46	-164.28	-565.17	1697110.54	14543446.17	40°02'44.588"N	104°47'50.725"W	3.15	
2739.00	21.680	252.780	2647.29	-176.29	-172.94	-595.84	1697079.90	14543437.44	40°02'44.503"N	104°47'51.119"W	2.39	
2828.00	20.300	251.750	2730.38	-186.16	-182.64	-626.21	1697049.57	14543427.67	40°02'44.407"N	104°47'51.510"W	1.60	
2918.00	18.590	251.410	2815.25	-195.78	-192.11	-654.63	1697021.17	14543418.15	40°02'44.313"N	104°47'51.875"W	1.90	
3007.00	16.880	251.520	2900.01	-204.55	-200.72	-680.34	1696995.50	14543409.47	40°02'44.228"N	104°47'52.206"W	1.92	
3096.00	18.330	255.510	2984.85	-212.29	-208.32	-706.14	1696969.72	14543401.82	40°02'44.153"N	104°47'52.538"W	2.12	
3186.00	19.910	251.710	3069.88	-220.80	-216.67	-734.40	1696941.50	14543393.41	40°02'44.071"N	104°47'52.901"W	2.23	
3275.00	18.390	252.380	3153.95	-229.96	-225.68	-762.17	1696913.76	14543384.34	40°02'43.982"N	104°47'53.258"W	1.73	
3365.00	19.560	249.540	3239.06	-239.68	-235.24	-789.82	1696886.14	14543374.72	40°02'43.887"N	104°47'53.614"W	1.66	
3454.00	17.680	248.800	3323.40	-249.92	-245.34	-816.38	1696859.62	14543364.56	40°02'43.787"N	104°47'53.955"W	2.13	
3544.00	18.200	250.060	3409.03	-259.81	-255.08	-842.33	1696833.69	14543354.77	40°02'43.691"N	104°47'54.289"W	0.72	
3634.00	18.640	246.210	3494.42	-270.55	-265.67	-868.71	1696807.35	14543344.12	40°02'43.586"N	104°47'54.628"W	1.44	
3723.00	16.530	251.310	3579.26	-280.49	-275.47	-893.72	1696782.37	14543334.27	40°02'43.490"N	104°47'54.950"W	2.93	
3813.00	16.780	249.410	3665.48	-289.29	-284.14	-918.01	1696758.11	14543325.55	40°02'43.404"N	104°47'55.262"W	0.67	
3902.00	17.470	247.410	3750.54	-299.08	-293.79	-942.37	1696733.79	14543315.85	40°02'43.309"N	104°47'55.575"W	1.02	
3992.00	17.870	245.080	3836.29	-310.23	-304.80	-967.37	1696708.82	14543304.78	40°02'43.200"N	104°47'55.897"W	0.90	
4082.00	18.330	242.880	3921.84	-322.64	-317.07	-992.49	1696683.74	14543292.46	40°02'43.078"N	104°47'56.220"W	0.92	
4171.00	17.630	245.000	4006.49	-334.85	-329.14	-1017.16	1696659.11	14543280.33	40°02'42.959"N	104°47'56.537"W	1.08	
4261.00	18.280	244.500	4092.11	-346.83	-340.98	-1042.25	1696634.05	14543268.44	40°02'42.842"N	104°47'56.859"W	0.74	
4350.00	17.900	248.670	4176.71	-357.96	-351.96	-1067.59	1696608.75	14543257.41	40°02'42.734"N	104°47'57.185"W	1.52	
4440.00	18.130	246.780	4262.30	-368.65	-362.52	-1093.34	1696583.03	14543246.80	40°02'42.629"N	104°47'57.516"W	0.70	
4529.00	18.740	245.860	4346.74	-380.11	-373.82	-1119.11	1696557.30	14543235.44	40°02'42.518"N	104°47'57.848"W	0.76	
4619.00	17.150	246.270	4432.35	-391.50	-385.08	-1144.46	1696531.99	14543224.13	40°02'42.406"N	104°47'58.174"W	1.77	
4708.00	14.830	247.220	4517.91	-401.32	-394.77	-1166.97	1696509.50	14543214.39	40°02'42.311"N	104°47'58.463"W	2.62	
4798.00	12.770	246.730	4605.30	-409.82	-403.16	-1186.73	1696489.77	14543205.96	40°02'42.228"N	104°47'58.717"W	2.29	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#02 BUROUGH 2C-17HZ (775'FSL & 1088'FEL,SEC.17)
Area	COLORADO	Well	BUROUGH 2C-17HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	BUROUGH 2C-17HZ AWB
Facility	SEC.17-T1N-R66W		

WELLPATH DATA (178 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
4887.00	12.160	246.100	4692.20	-417.60	-410.84	-1204.34	1696472.19	14543198.24	40°02'42.152"N	104°47'58.944"W	0.70	
4977.00	9.570	249.500	4780.58	-424.15	-417.30	-1220.02	1696456.54	14543191.74	40°02'42.088"N	104°47'59.145"W	2.96	
5066.00	7.790	247.910	4868.56	-429.08	-422.16	-1232.54	1696444.03	14543186.86	40°02'42.040"N	104°47'59.306"W	2.02	
5156.00	6.000	247.870	4957.91	-433.20	-426.23	-1242.55	1696434.04	14543182.77	40°02'42.000"N	104°47'59.435"W	1.99	
5245.00	3.410	241.870	5046.60	-436.24	-429.23	-1249.19	1696427.40	14543179.75	40°02'41.970"N	104°47'59.520"W	2.96	
5334.00	1.360	226.310	5135.52	-438.24	-431.21	-1252.29	1696424.31	14543177.77	40°02'41.950"N	104°47'59.560"W	2.39	
5424.00	0.600	241.280	5225.51	-439.21	-432.17	-1253.47	1696423.13	14543176.80	40°02'41.941"N	104°47'59.575"W	0.88	
5513.00	0.290	158.170	5314.50	-439.64	-432.60	-1253.80	1696422.80	14543176.37	40°02'41.937"N	104°47'59.579"W	0.71	
5603.00	1.090	93.800	5404.50	-439.91	-432.87	-1252.86	1696423.74	14543176.10	40°02'41.934"N	104°47'59.567"W	1.11	
5692.00	0.800	85.310	5493.48	-439.90	-432.88	-1251.40	1696425.20	14543176.10	40°02'41.934"N	104°47'59.549"W	0.36	
5781.00	0.570	86.540	5582.48	-439.82	-432.80	-1250.33	1696426.26	14543176.18	40°02'41.935"N	104°47'59.535"W	0.26	
5871.00	0.370	34.610	5672.48	-439.55	-432.53	-1249.72	1696426.88	14543176.45	40°02'41.937"N	104°47'59.527"W	0.50	
5960.00	0.480	348.520	5761.47	-438.95	-431.93	-1249.63	1696426.96	14543177.05	40°02'41.943"N	104°47'59.526"W	0.39	
6050.00	0.810	338.980	5851.47	-437.99	-430.97	-1249.94	1696426.66	14543178.01	40°02'41.953"N	104°47'59.530"W	0.38	
6140.00	0.660	339.990	5941.46	-436.91	-429.89	-1250.34	1696426.25	14543179.09	40°02'41.963"N	104°47'59.535"W	0.17	
6229.00	0.850	346.210	6030.45	-435.79	-428.76	-1250.67	1696425.91	14543180.22	40°02'41.975"N	104°47'59.539"W	0.23	
6319.00	1.390	351.530	6120.44	-434.06	-427.04	-1250.99	1696425.59	14543181.94	40°02'41.992"N	104°47'59.543"W	0.61	
6409.00	1.400	8.900	6210.41	-431.89	-424.87	-1250.99	1696425.60	14543184.11	40°02'42.013"N	104°47'59.543"W	0.47	
6498.00	1.760	24.030	6299.38	-429.57	-422.55	-1250.26	1696426.31	14543186.43	40°02'42.036"N	104°47'59.534"W	0.62	
6587.00	1.460	11.240	6388.34	-427.20	-420.19	-1249.48	1696427.09	14543188.79	40°02'42.059"N	104°47'59.524"W	0.52	
6677.00	1.040	5.700	6478.32	-425.26	-418.25	-1249.18	1696427.39	14543190.73	40°02'42.078"N	104°47'59.520"W	0.49	
6767.00	0.620	2.270	6568.31	-423.96	-416.95	-1249.08	1696427.48	14543192.03	40°02'42.091"N	104°47'59.519"W	0.47	
6856.00	0.480	337.770	6657.30	-423.14	-416.13	-1249.20	1696427.36	14543192.85	40°02'42.099"N	104°47'59.520"W	0.30	
6920.00†	0.309	336.451	6721.30	-422.73	-415.72	-1249.37	1696427.19	14543193.26	40°02'42.103"N	104°47'59.523"W	0.27	KOP
6946.00	0.240	335.380	6747.30	-422.62	-415.60	-1249.42	1696427.14	14543193.37	40°02'42.105"N	104°47'59.523"W	0.27	
7035.00	6.180	23.380	6836.13	-418.04	-411.03	-1247.60	1696428.95	14543197.95	40°02'42.150"N	104°47'59.500"W	6.77	
7125.00	15.580	8.190	6924.42	-401.57	-394.58	-1243.94	1696432.56	14543214.40	40°02'42.312"N	104°47'59.453"W	10.83	
7214.00	20.450	5.550	7009.04	-374.23	-367.26	-1240.73	1696435.71	14543241.72	40°02'42.582"N	104°47'59.412"W	5.55	
7304.00	28.350	7.330	7090.93	-337.30	-330.36	-1236.48	1696439.88	14543278.61	40°02'42.947"N	104°47'59.357"W	8.81	
7319.00†	29.293	6.711	7104.08	-330.12	-323.18	-1235.60	1696440.74	14543285.79	40°02'43.018"N	104°47'59.345"W	6.59	ENTER LANDBOX (452'FSL & 2324'FEL,SEC.17) 40.0452828 -104.7998182
7393.00	33.980	4.120	7167.06	-291.47	-284.56	-1231.99	1696444.26	14543324.41	40°02'43.400"N	104°47'59.299"W	6.59	
7483.00	40.390	358.670	7238.75	-237.16	-230.25	-1230.86	1696445.26	14543378.70	40°02'43.936"N	104°47'59.285"W	8.00	
7572.00	46.060	354.940	7303.58	-176.38	-169.44	-1234.36	1696441.63	14543439.47	40°02'44.537"N	104°47'59.330"W	6.99	
7661.00	55.040	356.600	7360.08	-107.94	-100.97	-1239.36	1696436.47	14543507.90	40°02'45.214"N	104°47'59.394"W	10.19	
7751.00	60.840	358.570	7407.84	-31.79	-24.80	-1242.53	1696433.13	14543584.03	40°02'45.967"N	104°47'59.435"W	6.71	
7840.00	65.410	358.930	7448.06	47.55	54.54	-1244.26	1696431.22	14543663.34	40°02'46.751"N	104°47'59.457"W	5.15	
7930.00	67.650	359.720	7483.90	130.09	137.09	-1245.23	1696430.06	14543745.85	40°02'47.566"N	104°47'59.470"W	2.62	
8019.00	76.440	0.970	7511.31	214.67	221.66	-1244.69	1696430.40	14543830.40	40°02'48.402"N	104°47'59.463"W	9.97	
8109.00	89.230	359.950	7522.51	303.78	310.77	-1243.99	1696430.90	14543919.47	40°02'49.283"N	104°47'59.454"W	14.26	LANDING (1086'FSL & 2332'FEL,SEC.17) 40.0470230 -104.7998483
8243.00	90.830	0.800	7522.44	437.77	444.76	-1243.11	1696431.47	14544053.41	40°02'50.607"N	104°47'59.443"W	1.35	
8288.00	90.740	0.830	7521.83	482.76	489.75	-1242.47	1696432.00	14544098.39	40°02'51.052"N	104°47'59.434"W	0.21	
8377.00	89.480	1.260	7521.65	571.76	578.74	-1240.85	1696433.42	14544187.34	40°02'51.931"N	104°47'59.414"W	1.50	
8467.00	89.540	0.790	7522.42	661.75	668.72	-1239.24	1696434.82	14544277.29	40°02'52.820"N	104°47'59.393"W	0.53	
8556.00	89.970	1.250	7522.81	750.74	757.70	-1237.66	1696436.20	14544366.24	40°02'53.700"N	104°47'59.373"W	0.71	
8646.00	89.390	0.470	7523.31	840.73	847.69	-1236.30	1696437.35	14544456.19	40°02'54.589"N	104°47'59.355"W	1.08	

REFERENCE WELLPATH IDENTIFICATION				
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)		Slot	SLOT#02 BUROUGH 2C-17HZ (775'FSL & 1088'FEL,SEC.17)
Area	COLORADO		Well	BUROUGH 2C-17HZ
Field	WELD COUNTY (UTM/TRUE NORTH)		Wellbore	BUROUGH 2C-17HZ AWB
Facility	SEC.17-T1N-R66W			

WELLPATH DATA (178 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
8647.00†	89.392	0.473	7523.32	841.73	848.69	-1236.30	1696437.35	14544457.19	40°02'54.599"N	104°47'59.355"W	0.37	EXIT RADIUS HEEL (1624'FSL & 2325'FEL,SEC.17) 40.0484996 -104.7998209
8735.00	89.570	0.750	7524.12	929.73	936.68	-1235.36	1696438.09	14544545.15	40°02'55.468"N	104°47'59.343"W	0.37	
8825.00	88.310	359.910	7525.78	1019.71	1026.66	-1234.84	1696438.40	14544635.10	40°02'56.357"N	104°47'59.337"W	1.68	
8914.00	88.250	359.760	7528.45	1108.66	1115.62	-1235.09	1696437.94	14544724.02	40°02'57.237"N	104°47'59.340"W	0.18	
9004.00	88.490	0.100	7531.01	1198.63	1205.59	-1235.20	1696437.63	14544813.95	40°02'58.126"N	104°47'59.341"W	0.46	
9093.00	88.400	359.460	7533.43	1287.59	1294.55	-1235.55	1696437.08	14544902.88	40°02'59.005"N	104°47'59.346"W	0.73	
9182.00	88.150	359.470	7536.11	1376.54	1383.51	-1236.38	1696436.04	14544991.79	40°02'59.884"N	104°47'59.357"W	0.28	
9271.00	90.220	358.770	7537.37	1465.50	1472.48	-1237.74	1696434.47	14545080.73	40°03'00.763"N	104°47'59.374"W	2.46	
9361.00	90.120	358.790	7537.10	1555.47	1562.46	-1239.66	1696432.35	14545170.67	40°03'01.652"N	104°47'59.399"W	0.11	
9450.00	90.060	358.340	7536.97	1644.43	1651.43	-1241.89	1696429.92	14545259.60	40°03'02.532"N	104°47'59.428"W	0.51	
9540.00	90.280	358.390	7536.70	1734.38	1741.40	-1244.46	1696427.15	14545349.52	40°03'03.421"N	104°47'59.461"W	0.25	
9629.00	90.180	0.460	7536.34	1823.36	1830.39	-1245.35	1696426.05	14545438.47	40°03'04.300"N	104°47'59.472"W	2.33	
9718.00	89.750	1.020	7536.40	1912.36	1919.38	-1244.20	1696426.99	14545527.43	40°03'05.179"N	104°47'59.458"W	0.79	
9808.00	89.320	1.150	7537.13	2002.35	2009.36	-1242.50	1696428.49	14545617.38	40°03'06.069"N	104°47'59.436"W	0.50	
9898.00	89.200	1.900	7538.29	2092.32	2099.32	-1240.10	1696430.68	14545707.31	40°03'06.958"N	104°47'59.405"W	0.84	
9987.00	88.580	1.470	7540.01	2181.27	2188.26	-1237.48	1696433.09	14545796.23	40°03'07.837"N	104°47'59.371"W	0.85	
10077.00	88.430	1.970	7542.36	2271.22	2278.19	-1234.78	1696435.58	14545886.12	40°03'08.725"N	104°47'59.337"W	0.58	
10166.00	89.480	0.640	7543.98	2360.19	2367.15	-1232.76	1696437.40	14545975.05	40°03'09.604"N	104°47'59.311"W	1.90	
10256.00	89.450	1.380	7544.82	2450.18	2457.13	-1231.17	1696438.78	14546065.00	40°03'10.494"N	104°47'59.290"W	0.82	
10346.00	89.510	0.860	7545.64	2540.16	2547.11	-1229.41	1696440.33	14546154.95	40°03'11.383"N	104°47'59.268"W	0.58	
10435.00	90.060	1.250	7545.97	2629.15	2636.10	-1227.77	1696441.77	14546243.90	40°03'12.262"N	104°47'59.247"W	0.76	
10525.00	90.490	0.590	7545.54	2719.15	2726.08	-1226.33	1696443.01	14546333.85	40°03'13.151"N	104°47'59.228"W	0.88	
10614.00	91.450	0.410	7544.04	2808.13	2815.06	-1225.55	1696443.58	14546422.80	40°03'14.031"N	104°47'59.218"W	1.10	
10704.00	90.150	359.360	7542.78	2898.12	2905.05	-1225.73	1696443.19	14546512.75	40°03'14.920"N	104°47'59.221"W	1.86	
10793.00	88.800	358.730	7543.59	2987.09	2994.03	-1227.22	1696441.50	14546601.70	40°03'15.799"N	104°47'59.240"W	1.67	
10883.00	92.060	0.800	7542.92	3077.07	3084.01	-1227.59	1696440.93	14546691.64	40°03'16.689"N	104°47'59.245"W	4.29	
10972.00	89.350	0.390	7541.82	3166.05	3172.99	-1226.66	1696441.65	14546780.59	40°03'17.568"N	104°47'59.233"W	3.08	
11062.00	88.340	1.670	7543.64	3256.02	3262.96	-1225.04	1696443.06	14546870.52	40°03'18.457"N	104°47'59.212"W	1.81	
11152.00	87.620	0.880	7546.81	3345.95	3352.88	-1223.04	1696444.85	14546960.41	40°03'19.346"N	104°47'59.186"W	1.19	
11241.00	87.540	1.110	7550.57	3434.87	3441.79	-1221.50	1696446.19	14547049.28	40°03'20.224"N	104°47'59.167"W	0.27	
11331.00	87.450	1.040	7554.50	3524.77	3531.68	-1219.81	1696447.67	14547139.15	40°03'21.113"N	104°47'59.145"W	0.13	
11420.00	86.950	0.700	7558.85	3613.66	3620.57	-1218.46	1696448.81	14547228.00	40°03'21.991"N	104°47'59.128"W	0.68	
11509.00	89.480	0.570	7561.62	3702.61	3709.51	-1217.48	1696449.60	14547316.91	40°03'22.870"N	104°47'59.115"W	2.85	
11598.00	89.720	0.560	7562.24	3791.61	3798.50	-1216.60	1696450.27	14547405.87	40°03'23.749"N	104°47'59.104"W	0.27	
11688.00	89.600	0.320	7562.78	3881.61	3888.50	-1215.91	1696450.75	14547495.83	40°03'24.639"N	104°47'59.095"W	0.30	
11778.00	89.820	0.290	7563.23	3971.60	3978.50	-1215.43	1696451.03	14547585.79	40°03'25.528"N	104°47'59.089"W	0.25	
11867.00	89.880	0.680	7563.47	4060.60	4067.49	-1214.67	1696451.57	14547674.75	40°03'26.408"N	104°47'59.079"W	0.44	
11957.00	89.780	0.450	7563.73	4150.60	4157.49	-1213.79	1696452.25	14547764.72	40°03'27.297"N	104°47'59.068"W	0.28	
11987.00†	89.709	0.548	7563.87	4180.60	4187.49	-1213.53	1696452.45	14547794.70	40°03'27.593"N	104°47'59.064"W	0.40	ENTER RADIUS TOE (289'FNL & 2283'FEL,SEC.17) 40.0576648 -104.7997401
12046.00	89.570	0.740	7564.24	4239.60	4246.48	-1212.86	1696452.97	14547853.68	40°03'28.176"N	104°47'59.056"W	0.40	
12136.00	89.600	0.290	7564.89	4329.60	4336.48	-1212.05	1696453.58	14547943.64	40°03'29.066"N	104°47'59.046"W	0.50	
12170.00	89.630	0.590	7565.12	4363.60	4370.47	-1211.79	1696453.76	14547977.62	40°03'29.402"N	104°47'59.042"W	0.89	LAST BHGE MWD+IFR1+SC SURVEY
12216.00	89.630	0.590	7565.42	4409.59	4416.47	-1211.32	1696454.13	14548023.60	40°03'29.856"N	104°47'59.036"W	0.00	PTB (60'FNL & 2280'FEL,SEC.17) 40.0582934 -104.7997323

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#02 BUROUGH 2C-17HZ (775'FSL & 1088'FEL,SEC.17)
Area	COLORADO	Well	BUROUGH 2C-17HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	BUROUGH 2C-17HZ AWB
Facility	SEC.17-T1N-R66W		

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.17-T1N-R66W	0.00	0.40	45.11	1697720.19	14543612.19	40°02'46.216"N	104°47'42.878"W	polygon
BUROUGH 2C-17HZ HEEL REV-1(1079'FSL & 2335'FEL,SEC.17)	7517.00	296.20	-1248.67	1696426.25	14543904.89	40°02'49.139"N	104°47'59.514"W	point
BUROUGH 2C-17HZ BHL REV-1(59'FNL & 2295'FEL,SEC.17)	7557.00	4416.68	-1225.51	1696439.94	14548023.78	40°03'29.858"N	104°47'59.219"W	point
BUROUGH 2C-17HZ LANDBOX	7557.00	0.00	0.00	1697675.10	14543611.68	40°02'46.212"N	104°47'43.458"W	polygon
BUROUGH 2C-17HZ RADIUS 1	7557.00	4476.62	-1571.75	1696093.70	14548082.90	40°03'30.451"N	104°48'03.672"W	polygon
BUROUGH 2C-17HZ RADIUS 2	7557.00	527.93	-1565.82	1696108.70	14544135.80	40°02'51.429"N	104°48'03.592"W	polygon

WELLPATH COMPOSITION - Ref Wellbore: BUROUGH 2C-17HZ AWB					Ref Wellpath: BUROUGH 2C-17HZ AWP	
Start MD [ft]	End MD [ft]	Positional Uncertainty Model		Log Name/Comment		Wellbore
26.00	1841.00	Custom APC ISCWSA REV 2 MWD+IFR1 (approximation)		Custom APC ISCWSA Rev-2 MWD+IFR1 <138 - 1841>		BUROUGH 2C-17HZ AWB
1841.00	12170.00	Custom APC ISCWSA REV 2 MWD+IFR1+SC (approximation)		BHGE Custom APC ISCWSA Rev-2 MWD+IFR1+SC <1933 - 12170>		BUROUGH 2C-17HZ AWB
12170.00	12216.00	Blind Drilling (std)		Projection to bit		BUROUGH 2C-17HZ AWB

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#02 BROUGH 2C-17HZ (775'FSL & 1088'FEL,SEC.17)
Area	COLORADO	Well	BROUGH 2C-17HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	BROUGH 2C-17HZ AWB
Facility	SEC.17-T1N-R66W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
138.00	1.890	36.490	137.98	FIRST SURFACE MWD+IFR1 SURVEY
1841.00	17.750	253.900	1793.33	LAST SURFACE MWD+IFR1 SURVEY
1933.00	16.270	252.360	1881.31	FIRST BHGE MWD+IFR1+SC SURVEY
6920.00	0.309	336.451	6721.30	KOP
7319.00	29.293	6.711	7104.08	ENTER LANDBOX (452'FSL & 2324'FEL,SEC.17) 40.0452828 -104.7998182
8109.00	89.230	359.950	7522.51	LANDING (1086'FSL & 2332'FEL,SEC.17) 40.0470230 -104.7998483
8647.00	89.392	0.473	7523.32	EXIT RADIUS HEEL (1624'FSL & 2325'FEL,SEC.17) 40.0484996 -104.7998209
11987.00	89.709	0.548	7563.87	ENTER RADIUS TOE (289'FNL & 2283'FEL,SEC.17) 40.0576648 -104.7997401
12170.00	89.630	0.590	7565.12	LAST BHGE MWD+IFR1+SC SURVEY
12216.00	89.630	0.590	7565.42	PTB (60'FNL & 2280'FEL,SEC.17) 40.0582934 -104.7997323