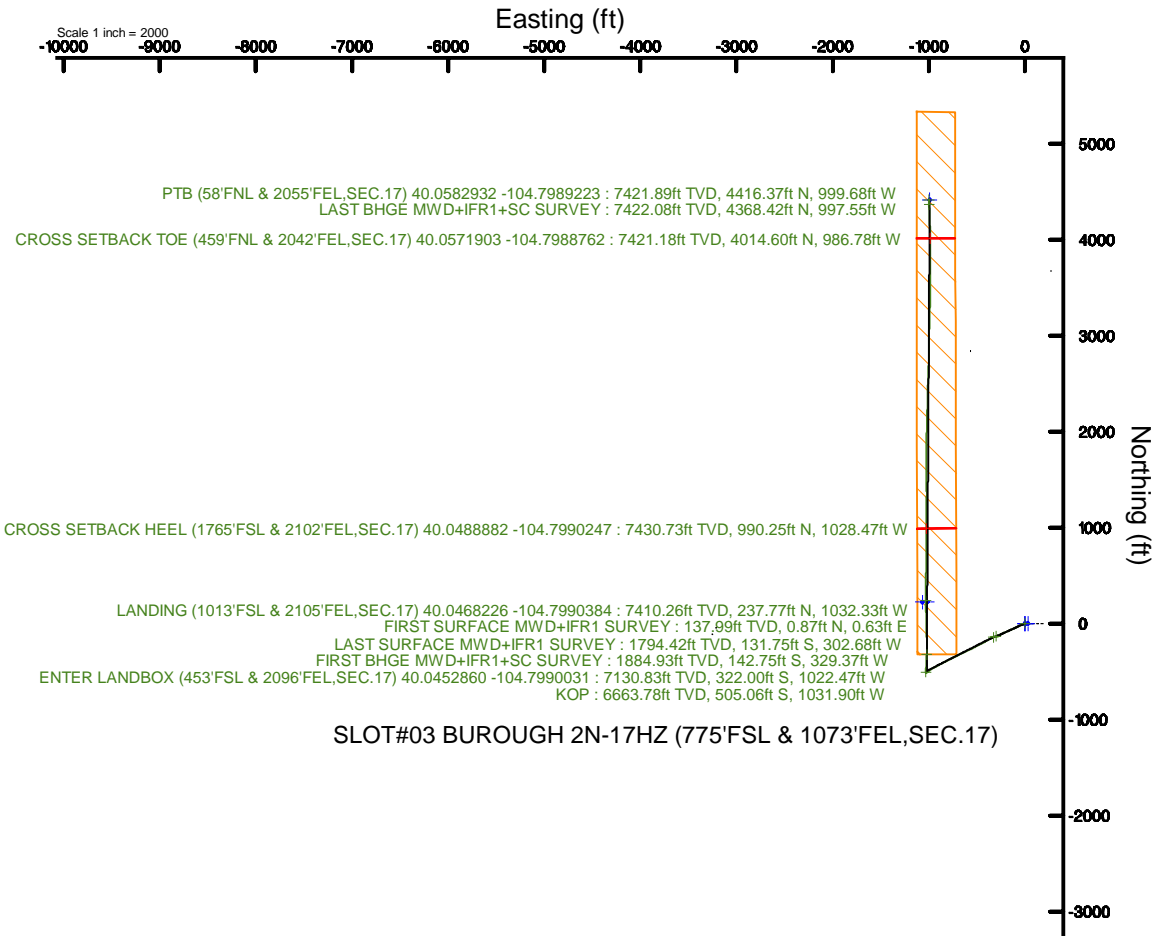
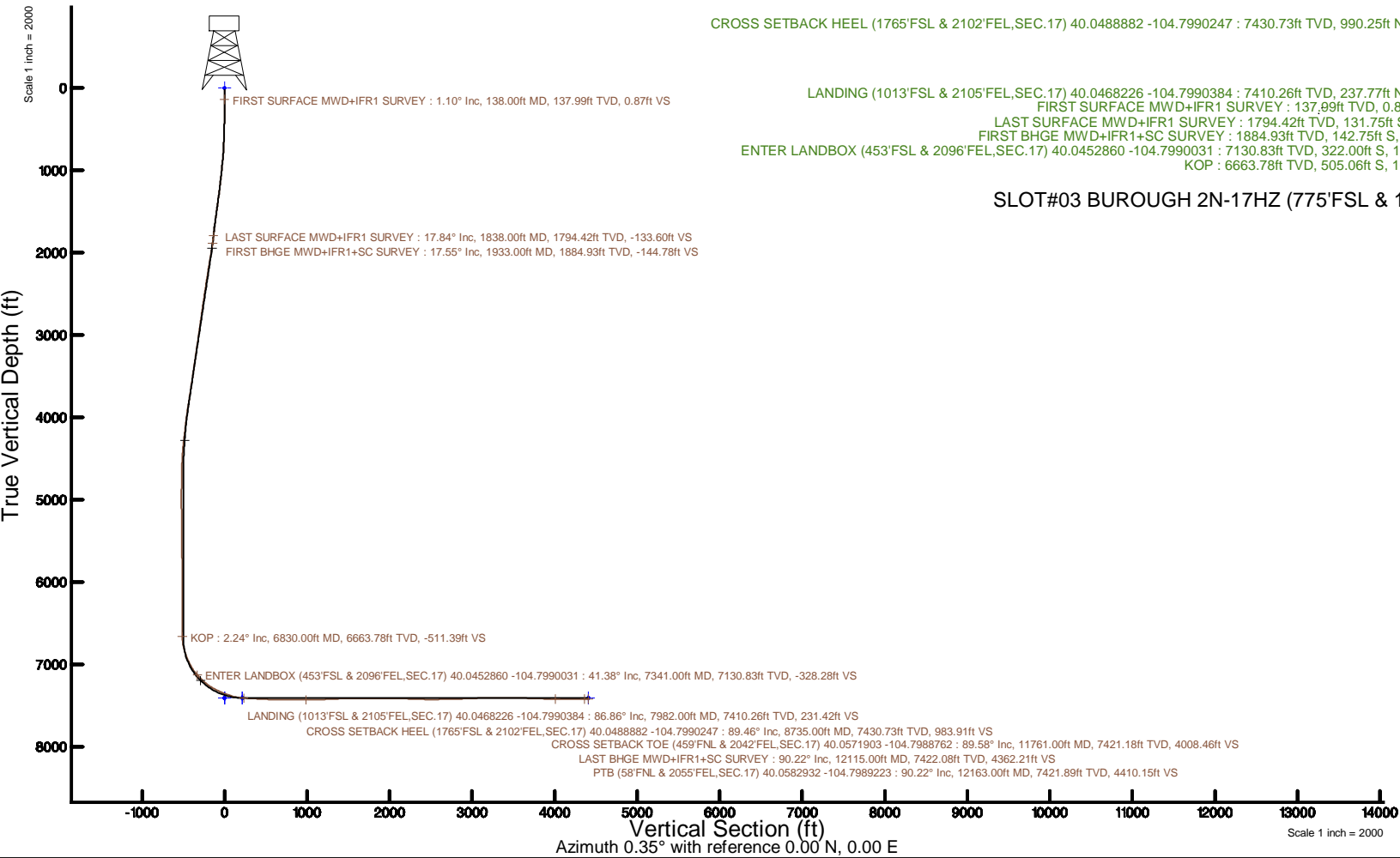


KERR-MCGEE OIL & GAS ONSHORE LP (WA)

Location: COLORADO	Slot: SLOT#03 BURGHOH 2N-17HZ (775'FSL & 1073'FEL,SEC.17)
Field: WELD COUNTY (UTM/TRUE NORTH)	Well: BURGHOH 2N-17HZ
Facility: SEC.17-T1N-R66W	Wellbore: BURGHOH 2N-17HZ PWB
Plot reference wellpath is BURGHOH 2N-17HZ PWB Rev-B.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: 5005 feet	
Scale: True distance	
Mean Sea Level to Mud line (At Slot: SLOT#03 BURGHOH 2N-17HZ (775'FSL & 1073'FEL,SEC.17)): 0 feet	
Depths are in feet	
Coordinates are in feet referenced to Slot	
Created by: pairsr on 2017-12-13	
Database: WA_DEN, Anadarko, Delfin	



SLOT#03 BURGHOH 2N-17HZ (775'FSL & 1073'FEL,SEC.17)

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#03 BUROUGH 2N-17HZ (775'FSL & 1073'FEL, SEC.17)
Area	COLORADO	Well	BUROUGH 2N-17HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	BUROUGH 2N-17HZ AWP
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	12/13/2017 at 9:32 AM
Convergence at slot	0.14° East	Database/Source file	WA_DEN_Anadarko_Defn/BUROUGH_2N-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	-8438.18	-564.93	1697690.19	14543611.72	40°02'46.212"N	104°47'43.264"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#03 BUROUGH 2N-17HZ (775'FSL & 1073'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	0.35°

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#03 BURROUGH 2N-17HZ (775'FSL & 1073'FEL, SEC.17)
Area	COLORADO	Well	BURROUGH 2N-17HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	BURROUGH 2N-17HZ AWB
Facility	SEC.17-T1N-R66W		

WELLPATH DATA (177 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	36.200	0.00	0.00	0.00	0.00	1697690.18	14543611.72	40°02'46.212"N	104°47'43.264"W	0.00	
26.00	0.000	36.200	26.00	0.00	0.00	0.00	1697690.18	14543611.72	40°02'46.212"N	104°47'43.264"W	0.00	
138.00	1.100	36.200	137.99	0.87	0.87	0.63	1697690.82	14543612.58	40°02'46.221"N	104°47'43.256"W	0.98	FIRST SURFACE MWD+IFR1 SURVEY
169.00	0.660	48.270	168.99	1.23	1.23	0.94	1697691.13	14543612.94	40°02'46.224"N	104°47'43.252"W	1.53	
202.00	0.220	142.630	201.99	1.31	1.30	1.12	1697691.31	14543613.02	40°02'46.225"N	104°47'43.250"W	2.16	
233.00	0.350	186.140	232.99	1.17	1.16	1.15	1697691.33	14543612.88	40°02'46.223"N	104°47'43.249"W	0.78	
265.00	0.350	219.100	264.99	0.99	0.99	1.08	1697691.26	14543612.71	40°02'46.222"N	104°47'43.250"W	0.62	
296.00	0.660	225.250	295.99	0.79	0.79	0.89	1697691.07	14543612.51	40°02'46.220"N	104°47'43.253"W	1.01	
327.00	1.490	239.310	326.98	0.46	0.46	0.42	1697690.60	14543612.17	40°02'46.217"N	104°47'43.259"W	2.79	
359.00	2.150	241.160	358.96	-0.05	-0.04	-0.47	1697689.72	14543611.67	40°02'46.212"N	104°47'43.270"W	2.07	
390.00	2.940	245.550	389.93	-0.66	-0.65	-1.70	1697688.49	14543611.06	40°02'46.206"N	104°47'43.286"W	2.62	
422.00	3.160	248.890	421.89	-1.33	-1.31	-3.27	1697686.92	14543610.40	40°02'46.199"N	104°47'43.306"W	0.88	
454.00	3.690	247.570	453.83	-2.05	-2.02	-5.04	1697685.15	14543609.68	40°02'46.192"N	104°47'43.329"W	1.67	
485.00	4.480	250.470	484.75	-2.85	-2.81	-7.11	1697683.09	14543608.89	40°02'46.184"N	104°47'43.355"W	2.63	
517.00	4.830	253.370	516.65	-3.67	-3.61	-9.57	1697680.62	14543608.08	40°02'46.176"N	104°47'43.387"W	1.32	
548.00	5.450	253.900	547.52	-4.47	-4.39	-12.24	1697677.96	14543607.30	40°02'46.169"N	104°47'43.421"W	2.01	
580.00	6.020	250.830	579.36	-5.46	-5.36	-15.28	1697674.92	14543606.32	40°02'46.159"N	104°47'43.461"W	2.02	
613.00	6.590	250.030	612.16	-6.69	-6.58	-18.70	1697671.51	14543605.10	40°02'46.147"N	104°47'43.504"W	1.75	
644.00	6.330	248.630	642.96	-7.94	-7.81	-21.96	1697668.25	14543603.86	40°02'46.135"N	104°47'43.546"W	0.98	
676.00	7.210	248.800	674.74	-9.34	-9.18	-25.48	1697664.74	14543602.48	40°02'46.121"N	104°47'43.592"W	2.75	
708.00	7.910	249.770	706.46	-10.85	-10.67	-29.42	1697660.81	14543600.99	40°02'46.107"N	104°47'43.642"W	2.22	
740.00	8.350	252.140	738.14	-12.35	-12.14	-33.69	1697656.53	14543599.50	40°02'46.092"N	104°47'43.697"W	1.73	
771.00	8.960	249.510	768.79	-13.91	-13.68	-38.10	1697652.13	14543597.96	40°02'46.077"N	104°47'43.754"W	2.35	
803.00	9.710	247.050	800.36	-15.86	-15.60	-42.92	1697647.32	14543596.02	40°02'46.058"N	104°47'43.816"W	2.65	
835.00	10.410	245.380	831.87	-18.15	-17.86	-48.03	1697642.22	14543593.75	40°02'46.036"N	104°47'43.882"W	2.37	
867.00	11.120	245.290	863.31	-20.68	-20.35	-53.46	1697636.79	14543591.25	40°02'46.011"N	104°47'43.951"W	2.22	
898.00	11.910	239.140	893.69	-23.60	-23.24	-58.92	1697631.34	14543588.35	40°02'45.982"N	104°47'44.022"W	4.71	
930.00	12.300	242.210	924.97	-26.92	-26.53	-64.77	1697625.50	14543585.05	40°02'45.950"N	104°47'44.097"W	2.35	
962.00	13.050	243.000	956.19	-30.19	-29.75	-71.01	1697619.27	14543581.81	40°02'45.918"N	104°47'44.177"W	2.41	
994.00	13.180	245.290	987.36	-33.40	-32.92	-77.54	1697612.75	14543578.63	40°02'45.887"N	104°47'44.261"W	1.67	
1025.00	14.020	243.970	1017.49	-36.56	-36.04	-84.13	1697606.18	14543575.49	40°02'45.856"N	104°47'44.346"W	2.89	
1057.00	14.020	246.340	1048.54	-39.86	-39.30	-91.16	1697599.15	14543572.22	40°02'45.824"N	104°47'44.436"W	1.79	
1089.00	14.280	246.610	1079.57	-43.03	-42.42	-98.33	1697591.99	14543569.08	40°02'45.793"N	104°47'44.528"W	0.84	
1120.00	15.510	247.400	1109.52	-46.18	-45.53	-105.67	1697584.66	14543565.96	40°02'45.762"N	104°47'44.623"W	4.02	
1184.00	15.730	245.820	1171.16	-53.12	-52.38	-121.48	1697568.87	14543559.08	40°02'45.694"N	104°47'44.826"W	0.75	
1216.00	16.080	245.460	1201.94	-56.79	-55.99	-129.47	1697560.89	14543555.45	40°02'45.659"N	104°47'44.929"W	1.14	
1247.00	16.440	245.820	1231.70	-60.42	-59.57	-137.38	1697553.00	14543551.85	40°02'45.623"N	104°47'45.030"W	1.21	
1279.00	17.050	245.990	1262.34	-64.23	-63.34	-145.79	1697544.59	14543548.07	40°02'45.586"N	104°47'45.139"W	1.91	
1311.00	17.890	246.080	1292.86	-68.19	-67.24	-154.57	1697535.83	14543544.15	40°02'45.548"N	104°47'45.252"W	2.63	
1343.00	18.060	243.970	1323.30	-72.41	-71.41	-163.52	1697526.89	14543539.96	40°02'45.506"N	104°47'45.367"W	2.10	
1374.00	17.890	244.230	1352.79	-76.64	-75.59	-172.13	1697518.30	14543535.76	40°02'45.465"N	104°47'45.477"W	0.61	
1406.00	17.750	245.820	1383.25	-80.83	-79.72	-181.00	1697509.44	14543531.61	40°02'45.424"N	104°47'45.591"W	1.58	
1438.00	17.400	246.870	1413.76	-84.76	-83.60	-189.85	1697500.60	14543527.71	40°02'45.386"N	104°47'45.705"W	1.48	
1469.00	17.230	246.430	1443.35	-88.47	-87.26	-198.33	1697492.14	14543524.04	40°02'45.350"N	104°47'45.814"W	0.69	
1501.00	16.920	245.030	1473.94	-92.39	-91.12	-206.89	1697483.59	14543520.16	40°02'45.312"N	104°47'45.924"W	1.61	

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#03 BURROUGH 2N-17HZ (775'FSL & 1073'FEL,SEC.17)
Area	COLORADO	Well	BURROUGH 2N-17HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	BURROUGH 2N-17HZ AWB
Facility	SEC.17-T1N-R66W		

WELLPATH DATA (177 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
1533.00	17.090	244.590	1504.55	-96.42	-95.10	-215.36	1697475.13	14543516.16	40°02'45.272"N	104°47'46.033"W	0.67	
1564.00	17.580	244.410	1534.14	-100.45	-99.08	-223.70	1697466.81	14543512.16	40°02'45.233"N	104°47'46.140"W	1.59	
1596.00	17.670	243.970	1564.64	-104.72	-103.30	-232.42	1697458.10	14543507.93	40°02'45.191"N	104°47'46.252"W	0.50	
1628.00	17.970	244.230	1595.10	-109.05	-107.57	-241.23	1697449.30	14543503.63	40°02'45.149"N	104°47'46.366"W	0.97	
1659.00	18.500	245.200	1624.54	-113.25	-111.72	-250.00	1697440.54	14543499.47	40°02'45.108"N	104°47'46.479"W	1.97	
1691.00	18.500	247.130	1654.89	-117.41	-115.82	-259.29	1697431.27	14543495.35	40°02'45.067"N	104°47'46.598"W	1.91	
1723.00	18.630	249.160	1685.22	-121.26	-119.61	-268.74	1697421.83	14543491.54	40°02'45.030"N	104°47'46.720"W	2.06	
1755.00	18.850	250.120	1715.53	-124.89	-123.19	-278.38	1697412.20	14543487.94	40°02'44.995"N	104°47'46.843"W	1.18	
1787.00	18.020	251.350	1745.89	-128.29	-126.53	-287.93	1697402.66	14543484.58	40°02'44.962"N	104°47'46.966"W	2.86	
1818.00	17.800	250.740	1775.38	-131.44	-129.62	-296.95	1697393.66	14543481.46	40°02'44.931"N	104°47'47.082"W	0.93	
1838.00	17.840	248.630	1794.42	-133.60	-131.75	-302.68	1697387.92	14543479.32	40°02'44.910"N	104°47'47.156"W	3.23	LAST SURFACE MWD+IFR1 SURVEY
1933.00	17.550	246.530	1884.93	-144.78	-142.75	-329.37	1697361.27	14543468.26	40°02'44.801"N	104°47'47.499"W	0.74	FIRST BHGE MWD+IFR1+SC SURVEY
2022.00	19.470	242.520	1969.33	-157.12	-154.95	-354.85	1697335.84	14543456.02	40°02'44.681"N	104°47'47.827"W	2.59	
2112.00	18.620	241.410	2054.40	-171.08	-168.74	-380.77	1697309.96	14543442.17	40°02'44.544"N	104°47'48.160"W	1.03	
2201.00	18.000	240.490	2138.89	-184.80	-182.32	-405.21	1697285.55	14543428.54	40°02'44.410"N	104°47'48.474"W	0.77	
2291.00	18.320	241.130	2224.41	-198.63	-195.99	-429.70	1697261.11	14543414.81	40°02'44.275"N	104°47'48.789"W	0.42	
2380.00	18.980	243.090	2308.74	-212.09	-209.30	-454.86	1697235.99	14543401.46	40°02'44.144"N	104°47'49.113"W	1.02	
2470.00	17.840	243.400	2394.13	-225.04	-222.10	-480.24	1697210.65	14543388.61	40°02'44.017"N	104°47'49.439"W	1.27	
2559.00	17.340	240.220	2478.97	-237.88	-234.79	-503.94	1697186.99	14543375.86	40°02'43.892"N	104°47'49.744"W	1.22	
2648.00	17.690	242.590	2563.84	-250.84	-247.60	-527.45	1697163.51	14543363.00	40°02'43.765"N	104°47'50.046"W	0.89	
2738.00	18.790	244.970	2649.32	-263.42	-260.03	-552.73	1697138.28	14543350.52	40°02'43.642"N	104°47'50.371"W	1.48	
2828.00	17.070	244.210	2734.95	-275.45	-271.91	-577.75	1697113.29	14543338.59	40°02'43.525"N	104°47'50.693"W	1.93	
2917.00	18.570	244.410	2819.68	-287.41	-283.71	-602.30	1697088.78	14543326.73	40°02'43.408"N	104°47'51.008"W	1.69	
3006.00	16.650	243.340	2904.50	-299.40	-295.56	-626.48	1697064.64	14543314.84	40°02'43.291"N	104°47'51.319"W	2.19	
3095.00	18.670	246.470	2989.30	-310.96	-306.97	-650.94	1697040.21	14543303.38	40°02'43.178"N	104°47'51.634"W	2.51	
3185.00	19.060	242.860	3074.47	-323.58	-319.42	-677.22	1697013.97	14543290.87	40°02'43.055"N	104°47'51.972"W	1.37	
3274.00	17.120	242.700	3159.07	-336.36	-332.06	-701.80	1696989.43	14543278.18	40°02'42.930"N	104°47'52.288"W	2.18	
3364.00	17.360	243.760	3245.03	-348.52	-344.07	-725.61	1696965.65	14543266.11	40°02'42.812"N	104°47'52.594"W	0.44	
3454.00	18.350	244.110	3330.69	-360.80	-356.19	-750.40	1696940.90	14543253.94	40°02'42.692"N	104°47'52.913"W	1.11	
3543.00	17.600	243.950	3415.35	-372.98	-368.22	-775.09	1696916.25	14543241.86	40°02'42.573"N	104°47'53.230"W	0.84	
3633.00	17.730	243.610	3501.10	-385.19	-380.29	-799.59	1696891.79	14543229.74	40°02'42.454"N	104°47'53.545"W	0.18	
3722.00	18.080	241.120	3585.79	-398.03	-392.98	-823.83	1696867.59	14543217.00	40°02'42.328"N	104°47'53.857"W	0.95	
3812.00	17.910	242.750	3671.39	-411.27	-406.06	-848.36	1696843.10	14543203.87	40°02'42.199"N	104°47'54.172"W	0.59	
3902.00	17.450	242.090	3757.14	-424.07	-418.72	-872.58	1696818.91	14543191.16	40°02'42.074"N	104°47'54.484"W	0.56	
3991.00	18.450	242.580	3841.81	-436.95	-431.45	-896.88	1696794.66	14543178.38	40°02'41.948"N	104°47'54.796"W	1.14	
4081.00	17.310	241.150	3927.46	-450.12	-444.47	-921.25	1696770.33	14543165.31	40°02'41.820"N	104°47'55.109"W	1.36	
4170.00	15.010	243.500	4012.94	-461.79	-456.00	-943.16	1696748.45	14543153.73	40°02'41.706"N	104°47'55.391"W	2.69	
4260.00	13.350	241.100	4100.19	-472.13	-466.22	-962.69	1696728.95	14543143.47	40°02'41.604"N	104°47'55.642"W	1.96	
4349.00	11.260	233.440	4187.15	-482.37	-476.37	-978.67	1696713.00	14543133.29	40°02'41.504"N	104°47'55.848"W	2.97	
4439.00	10.040	232.460	4275.60	-492.46	-486.38	-991.95	1696699.75	14543123.25	40°02'41.405"N	104°47'56.019"W	1.37	
4528.00	8.540	225.560	4363.43	-501.89	-495.73	-1002.82	1696688.91	14543113.88	40°02'41.313"N	104°47'56.158"W	2.10	
4618.00	6.770	238.940	4452.63	-509.36	-503.15	-1012.14	1696679.61	14543106.44	40°02'41.240"N	104°47'56.278"W	2.78	
4707.00	4.340	237.030	4541.21	-513.94	-507.69	-1019.46	1696672.30	14543101.89	40°02'41.195"N	104°47'56.372"W	2.74	
4797.00	2.710	218.610	4631.04	-517.49	-511.21	-1023.64	1696668.13	14543098.36	40°02'41.160"N	104°47'56.426"W	2.18	
4887.00	1.660	246.590	4720.97	-519.68	-513.39	-1026.16	1696665.61	14543096.18	40°02'41.138"N	104°47'56.458"W	1.63	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#03 BUROUGH 2N-17HZ (775'FSL & 1073'FEL,SEC.17)
Area	COLORADO	Well	BUROUGH 2N-17HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	BUROUGH 2N-17HZ AWB
Facility	SEC.17-T1N-R66W		

WELLPATH DATA (177 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
4976.00	1.040	245.080	4809.95	-520.55	-514.24	-1028.08	1696663.70	14543095.32	40°02'41.130"N	104°47'56.483"W	0.70	
5065.00	1.040	249.090	4898.93	-521.18	-514.87	-1029.57	1696662.21	14543094.69	40°02'41.124"N	104°47'56.502"W	0.08	
5155.00	1.180	251.220	4988.92	-521.78	-515.46	-1031.21	1696660.58	14543094.09	40°02'41.118"N	104°47'56.523"W	0.16	
5244.00	0.870	29.390	5077.91	-521.49	-515.17	-1031.74	1696660.04	14543094.39	40°02'41.121"N	104°47'56.530"W	2.16	
5364.00	1.160	359.730	5197.89	-519.48	-513.16	-1031.30	1696660.48	14543096.40	40°02'41.141"N	104°47'56.525"W	0.49	
5453.00	1.340	354.250	5286.87	-517.55	-511.22	-1031.41	1696660.36	14543098.33	40°02'41.160"N	104°47'56.526"W	0.24	
5542.00	1.240	357.460	5375.85	-515.55	-509.22	-1031.56	1696660.21	14543100.33	40°02'41.180"N	104°47'56.528"W	0.14	
5632.00	0.630	100.450	5465.84	-514.66	-508.34	-1031.11	1696660.65	14543101.21	40°02'41.188"N	104°47'56.522"W	1.68	
5721.00	0.480	103.370	5554.84	-514.83	-508.51	-1030.27	1696661.50	14543101.04	40°02'41.187"N	104°47'56.511"W	0.17	
5811.00	0.410	47.660	5644.83	-514.70	-508.39	-1029.67	1696662.10	14543101.17	40°02'41.188"N	104°47'56.503"W	0.47	
5900.00	0.600	352.410	5733.83	-514.02	-507.71	-1029.49	1696662.27	14543101.85	40°02'41.194"N	104°47'56.501"W	0.56	
5990.00	0.620	317.910	5823.83	-513.20	-506.88	-1029.88	1696661.88	14543102.67	40°02'41.203"N	104°47'56.506"W	0.40	
6079.00	1.000	327.630	5912.82	-512.19	-505.87	-1030.62	1696661.14	14543103.68	40°02'41.213"N	104°47'56.516"W	0.45	
6169.00	1.140	321.680	6002.80	-510.83	-504.50	-1031.59	1696660.16	14543105.05	40°02'41.226"N	104°47'56.528"W	0.20	
6259.00	0.340	186.710	6092.80	-510.40	-504.06	-1032.18	1696659.58	14543105.48	40°02'41.231"N	104°47'56.536"W	1.56	
6348.00	0.400	140.840	6181.79	-510.90	-504.57	-1032.02	1696659.74	14543104.98	40°02'41.226"N	104°47'56.534"W	0.33	
6438.00	0.160	186.260	6271.79	-511.27	-504.94	-1031.83	1696659.93	14543104.61	40°02'41.222"N	104°47'56.531"W	0.34	
6527.00	0.220	187.750	6360.79	-511.56	-505.23	-1031.87	1696659.89	14543104.32	40°02'41.219"N	104°47'56.532"W	0.07	
6617.00	0.260	223.060	6450.79	-511.88	-505.55	-1032.03	1696659.73	14543104.00	40°02'41.216"N	104°47'56.534"W	0.17	
6706.00	0.000	8.100	6539.79	-512.03	-505.70	-1032.17	1696659.59	14543103.85	40°02'41.214"N	104°47'56.536"W	0.29	
6796.00	0.160	96.700	6629.79	-512.04	-505.71	-1032.04	1696659.72	14543103.84	40°02'41.214"N	104°47'56.534"W	0.18	
6830.00†	2.244	8.649	6663.78	-511.39	-505.06	-1031.90	1696659.86	14543104.49	40°02'41.221"N	104°47'56.532"W	6.60	KOP
6885.00	5.870	6.120	6718.64	-507.52	-501.20	-1031.43	1696660.32	14543108.35	40°02'41.259"N	104°47'56.526"W	6.60	
6975.00	14.660	3.640	6807.11	-491.54	-485.22	-1030.22	1696661.49	14543124.32	40°02'41.417"N	104°47'56.511"W	9.78	
7065.00	19.890	0.120	6893.02	-464.84	-458.53	-1029.46	1696662.19	14543151.01	40°02'41.680"N	104°47'56.501"W	5.92	
7154.00	25.520	2.630	6975.09	-430.52	-424.21	-1028.55	1696663.02	14543185.31	40°02'42.020"N	104°47'56.489"W	6.42	
7244.00	32.790	4.540	7053.64	-386.78	-380.49	-1025.73	1696665.74	14543229.02	40°02'42.452"N	104°47'56.453"W	8.14	
7333.00	40.900	2.240	7124.81	-333.54	-327.26	-1022.68	1696668.67	14543282.24	40°02'42.978"N	104°47'56.414"W	9.24	
7341.00†	41.378	2.169	7130.83	-328.28	-322.00	-1022.47	1696668.86	14543287.49	40°02'43.030"N	104°47'56.411"W	6.00	ENTER LANDBOX (453'FSL & 2096'FEL,SEC.17) 40.0452860 -104.7990031
7423.00	46.280	1.510	7189.97	-271.53	-265.26	-1020.67	1696670.54	14543344.22	40°02'43.590"N	104°47'56.388"W	6.00	
7512.00	53.360	358.430	7247.36	-203.59	-197.32	-1020.80	1696670.25	14543412.13	40°02'44.262"N	104°47'56.390"W	8.38	
7601.00	61.490	357.580	7295.24	-128.72	-122.43	-1023.43	1696667.45	14543486.98	40°02'45.002"N	104°47'56.424"W	9.17	
7691.00	66.670	359.340	7334.57	-47.85	-41.55	-1025.58	1696665.11	14543567.83	40°02'45.801"N	104°47'56.451"W	6.02	
7780.00	70.560	358.400	7367.02	34.98	41.29	-1027.22	1696663.28	14543650.63	40°02'46.620"N	104°47'56.472"W	4.48	
7869.00	75.270	358.470	7393.16	119.98	126.31	-1029.54	1696660.76	14543735.61	40°02'47.460"N	104°47'56.502"W	5.29	
7959.00	84.930	358.530	7408.61	208.49	214.83	-1031.86	1696658.24	14543824.09	40°02'48.335"N	104°47'56.532"W	10.73	
7982.00	86.860	359.120	7410.26	231.42	237.77	-1032.33	1696657.72	14543847.02	40°02'48.561"N	104°47'56.538"W	8.77	LANDING (1013'FSL & 2105'FEL,SEC.17) 40.0468226 -104.7990384
8048.00	87.100	0.160	7413.74	297.32	303.67	-1032.74	1696657.16	14543912.90	40°02'49.213"N	104°47'56.544"W	1.62	
8138.00	87.200	0.940	7418.21	387.21	393.56	-1031.88	1696657.81	14544002.75	40°02'50.101"N	104°47'56.532"W	0.87	
8228.00	86.920	1.000	7422.83	477.09	483.43	-1030.36	1696659.13	14544092.58	40°02'50.989"N	104°47'56.513"W	0.32	
8317.00	88.950	1.090	7426.03	566.02	572.35	-1028.74	1696660.54	14544181.47	40°02'51.868"N	104°47'56.492"W	2.28	
8406.00	88.800	0.790	7427.78	655.00	661.32	-1027.28	1696661.80	14544270.41	40°02'52.747"N	104°47'56.473"W	0.38	
8496.00	88.490	0.830	7429.91	744.97	751.29	-1026.01	1696662.86	14544360.34	40°02'53.636"N	104°47'56.457"W	0.35	
8586.00	90.490	359.290	7430.71	834.96	841.27	-1025.91	1696662.75	14544450.30	40°02'54.525"N	104°47'56.456"W	2.80	
8675.00	89.910	358.820	7430.40	923.93	930.26	-1027.38	1696661.08	14544539.24	40°02'55.405"N	104°47'56.475"W	0.84	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#03 BUROUGH 2N-17HZ (775'FSL & 1073'FEL, SEC.17)
Area	COLORADO	Well	BUROUGH 2N-17HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	BUROUGH 2N-17HZ AWB
Facility	SEC.17-T1N-R66W		

WELLPATH DATA (177 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
8735.00†	89.4573	359.093	7430.73	983.91	990.25	-1028.47	1696659.85	14544599.21	40°02'55.998"N	104°47'56.489"W	0.88	CROSS SETBACK HEEL (1765'FSL & 2102'FEL, SEC.17) 40.0488882 -104.7990247
8765.00	89.2303	359.230	7431.08	1013.90	1020.25	-1028.91	1696659.34	14544629.19	40°02'56.294"N	104°47'56.495"W	0.88	
8854.00	91.880	1.440	7430.21	1102.89	1109.23	-1028.39	1696659.66	14544718.13	40°02'57.173"N	104°47'56.488"W	3.88	
8943.00	92.400	1.490	7426.89	1191.81	1198.13	-1026.12	1696661.73	14544807.01	40°02'58.052"N	104°47'56.459"W	0.59	
9033.00	92.990	1.690	7422.66	1281.69	1288.00	-1023.62	1696664.01	14544896.85	40°02'58.940"N	104°47'56.427"W	0.69	
9122.00	91.6703	359.350	7419.04	1370.61	1376.91	-1022.82	1696664.61	14544985.73	40°02'59.819"N	104°47'56.416"W	3.02	
9211.00	92.1303	359.550	7416.09	1459.54	1465.86	-1023.67	1696663.56	14545074.64	40°03'00.698"N	104°47'56.427"W	0.56	
9301.00	90.0603	359.450	7414.37	1549.51	1555.84	-1024.46	1696662.57	14545164.57	40°03'01.587"N	104°47'56.438"W	2.30	
9390.00	90.1803	359.250	7414.18	1638.50	1644.83	-1025.47	1696661.35	14545253.53	40°03'02.466"N	104°47'56.451"W	0.26	
9480.00	91.0503	359.490	7413.22	1728.48	1734.82	-1026.46	1696660.16	14545343.48	40°03'03.356"N	104°47'56.463"W	1.00	
9569.00	90.060	1.090	7412.35	1817.47	1823.81	-1026.00	1696660.40	14545432.44	40°03'04.235"N	104°47'56.458"W	2.11	
9658.00	90.190	0.840	7412.16	1906.47	1912.80	-1024.51	1696661.70	14545521.39	40°03'05.115"N	104°47'56.438"W	0.32	
9748.00	89.290	2.000	7412.57	1996.45	2002.77	-1022.28	1696663.72	14545611.33	40°03'06.004"N	104°47'56.410"W	1.63	
9837.00	88.610	1.540	7414.20	2085.40	2091.71	-1019.53	1696666.26	14545700.24	40°03'06.883"N	104°47'56.374"W	0.92	
9927.00	88.120	1.260	7416.77	2175.35	2181.64	-1017.33	1696668.25	14545790.15	40°03'07.771"N	104°47'56.346"W	0.63	
10016.00	87.320	1.310	7420.31	2264.27	2270.55	-1015.34	1696670.04	14545879.02	40°03'08.650"N	104°47'56.321"W	0.90	
10106.00	88.920	1.660	7423.26	2354.20	2360.47	-1013.00	1696672.16	14545968.91	40°03'09.539"N	104°47'56.291"W	1.82	
10196.00	88.030	1.450	7425.66	2444.15	2450.40	-1010.56	1696674.40	14546058.81	40°03'10.427"N	104°47'56.259"W	1.02	
10285.00	91.020	2.390	7426.39	2533.10	2539.34	-1007.58	1696677.17	14546147.72	40°03'11.306"N	104°47'56.221"W	3.52	
10375.00	91.050	1.370	7424.77	2623.05	2629.27	-1004.63	1696679.92	14546237.63	40°03'12.195"N	104°47'56.183"W	1.13	
10464.00	91.140	1.650	7423.07	2712.02	2718.23	-1002.28	1696682.06	14546326.55	40°03'13.074"N	104°47'56.153"W	0.33	
10554.00	91.720	1.020	7420.82	2801.98	2808.17	-1000.19	1696683.95	14546416.47	40°03'13.963"N	104°47'56.126"W	0.95	
10643.00	91.880	0.770	7418.03	2890.93	2897.12	-998.80	1696685.13	14546505.38	40°03'14.842"N	104°47'56.108"W	0.33	
10733.00	92.530	0.790	7414.56	2980.86	2987.04	-997.57	1696686.15	14546595.27	40°03'15.730"N	104°47'56.093"W	0.72	
10823.00	91.230	1.500	7411.61	3070.80	3076.97	-995.78	1696687.74	14546685.17	40°03'16.619"N	104°47'56.070"W	1.65	
10912.00	90.920	1.860	7409.94	3159.76	3165.92	-993.17	1696690.14	14546774.08	40°03'17.498"N	104°47'56.036"W	0.53	
11002.00	90.890	1.680	7408.52	3249.72	3255.87	-990.39	1696692.71	14546864.00	40°03'18.387"N	104°47'56.000"W	0.20	
11091.00	90.090	0.930	7407.76	3338.70	3344.84	-988.36	1696694.54	14546952.94	40°03'19.266"N	104°47'55.974"W	1.23	
11181.00	90.120	0.130	7407.59	3428.70	3434.83	-987.53	1696695.16	14547042.90	40°03'20.156"N	104°47'55.964"W	0.89	
11270.00	88.580	0.930	7408.60	3517.69	3523.82	-986.71	1696695.78	14547131.86	40°03'21.035"N	104°47'55.953"W	1.95	
11360.00	89.020	0.960	7410.49	3607.67	3613.79	-985.22	1696697.06	14547221.79	40°03'21.924"N	104°47'55.934"W	0.49	
11449.00	88.270	0.210	7412.59	3696.64	3702.76	-984.31	1696697.76	14547310.73	40°03'22.803"N	104°47'55.922"W	1.19	
11538.00	88.150	0.170	7415.37	3785.60	3791.71	-984.02	1696697.85	14547399.65	40°03'23.682"N	104°47'55.919"W	0.14	
11628.00	87.6303	359.000	7418.69	3875.53	3881.65	-984.67	1696696.99	14547489.55	40°03'24.571"N	104°47'55.927"W	1.42	
11717.00	89.5703	359.180	7420.86	3964.47	3970.61	-986.08	1696695.38	14547578.46	40°03'25.450"N	104°47'55.945"W	2.19	
11761.00†	89.5853	359.004	7421.18	4008.46	4014.60	-986.78	1696694.58	14547622.44	40°03'25.885"N	104°47'55.954"W	0.40	CROSS SETBACK TOE (459'FNL & 2042'FEL, SEC.17) 40.0571903 -104.7988762
11807.00	89.6003	358.820	7421.51	4054.45	4060.59	-987.65	1696693.60	14547668.41	40°03'26.340"N	104°47'55.966"W	0.40	
11896.00	89.6903	358.440	7422.06	4143.40	4149.56	-989.78	1696691.27	14547757.34	40°03'27.219"N	104°47'55.993"W	0.44	
11986.00	89.9703	358.030	7422.33	4233.34	4239.52	-992.55	1696688.29	14547847.26	40°03'28.108"N	104°47'56.029"W	0.55	
12076.00	90.1803	357.700	7422.21	4323.26	4329.46	-995.91	1696684.73	14547937.15	40°03'28.997"N	104°47'56.072"W	0.43	
12115.00	90.2203	357.460	7422.08	4362.21	4368.42	-997.55	1696683.00	14547976.09	40°03'29.382"N	104°47'56.093"W	0.62	LAST BHGE MWD+IFR1+SC SURVEY
12163.00	90.2203	357.460	7421.89	4410.15	4416.37	-999.68	1696680.76	14548024.02	40°03'29.855"N	104°47'56.120"W	0.00	PTB (58'FNL & 2055'FEL, SEC.17) 40.0582932 -104.7989223

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#03 BUROUGH 2N-17HZ (775'FSL & 1073'FEL,SEC.17)
Area	COLORADO	Well	BUROUGH 2N-17HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	BUROUGH 2N-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	30.02	1697720.19	14543612.19	40°02'46.216"N	104°47'42.878"W	polygon
BUROUGH 2N-17HZ BHL REV-1(57'FNL & 2046'FEL,SEC.17)	7408.00	4417.40	-991.47	1696688.97	14548025.07	40°03'29.866"N	104°47'56.015"W	point
BUROUGH 2N-17HZ HEEL REV-1(1005'FSL & 2139'FEL,SEC.17)	7408.00	223.33	-1067.22	1696622.88	14543832.51	40°02'48.419"N	104°47'56.987"W	point
BUROUGH 2N-17HZ HEEL REV-2(1005'FSL & 2089'FEL,SEC.17)	7408.00	223.33	-1017.22	1696672.86	14543832.62	40°02'48.419"N	104°47'56.344"W	point
BUROUGH 2N-17HZ LANDBOX	7408.00	0.00	0.00	1697690.18	14543611.72	40°02'46.212"N	104°47'43.264"W	polygon
BUROUGH 2N-17HZ SETBACK 1	7408.00	0.00	0.00	1697690.18	14543611.72	40°02'46.212"N	104°47'43.264"W	polygon
BUROUGH 2N-17HZ SETBACK 2	7408.00	0.00	0.00	1697690.18	14543611.72	40°02'46.212"N	104°47'43.264"W	polygon

WELLPATH COMPOSITION - Ref Wellbore: BUROUGH 2N-17HZ AWB					Ref Wellpath: BUROUGH 2N-17HZ AWP			
Start MD [ft]	End MD [ft]	Positional Uncertainty Model			Log Name/Comment			Wellbore
26.00	1838.00	Custom APC ISCWSA REV 2 MWD+IFR1 (approximation)			Custom APC ISCWSA Rev-2 MWD+IFR1 <138 - 1838>			BUROUGH 2N-17HZ AWB
1838.00	12115.00	Custom APC ISCWSA REV 2 MWD+IFR1+SC (approximation)			BHGE Custom APC ISCWSA Rev-2 MWD+IFR1+SC <1933 - 12115>			BUROUGH 2N-17HZ AWB
12115.00	12163.00	Blind Drilling (std)			Projection to bit			BUROUGH 2N-17HZ AWB

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#03 BUROUGH 2N-17HZ (775'FSL & 1073'FEL,SEC.17)
Area	COLORADO	Well	BUROUGH 2N-17HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	BUROUGH 2N-17HZ AWB
Facility	SEC.17-T1N-R66W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
138.00	1.100	36.200	137.99	FIRST SURFACE MWD+IFR1 SURVEY
1838.00	17.840	248.630	1794.42	LAST SURFACE MWD+IFR1 SURVEY
1933.00	17.550	246.530	1884.93	FIRST BHGE MWD+IFR1+SC SURVEY
6830.00	2.244	8.649	6663.78	KOP
7341.00	41.378	2.169	7130.83	ENTER LANDBOX (453'FSL & 2096'FEL,SEC.17) 40.0452860 -104.7990031
7982.00	86.860	359.120	7410.26	LANDING (1013'FSL & 2105'FEL,SEC.17) 40.0468226 -104.7990384
8735.00	89.457	359.093	7430.73	CROSS SETBACK HEEL (1765'FSL & 2102'FEL,SEC.17) 40.0488882 -104.7990247
11761.00	89.585	359.004	7421.18	CROSS SETBACK TOE (459'FNL & 2042'FEL,SEC.17) 40.0571903 -104.7988762
12115.00	90.220	357.460	7422.08	LAST BHGE MWD+IFR1+SC SURVEY
12163.00	90.220	357.460	7421.89	PTB (58'FNL & 2055'FEL,SEC.17) 40.0582932 -104.7989223