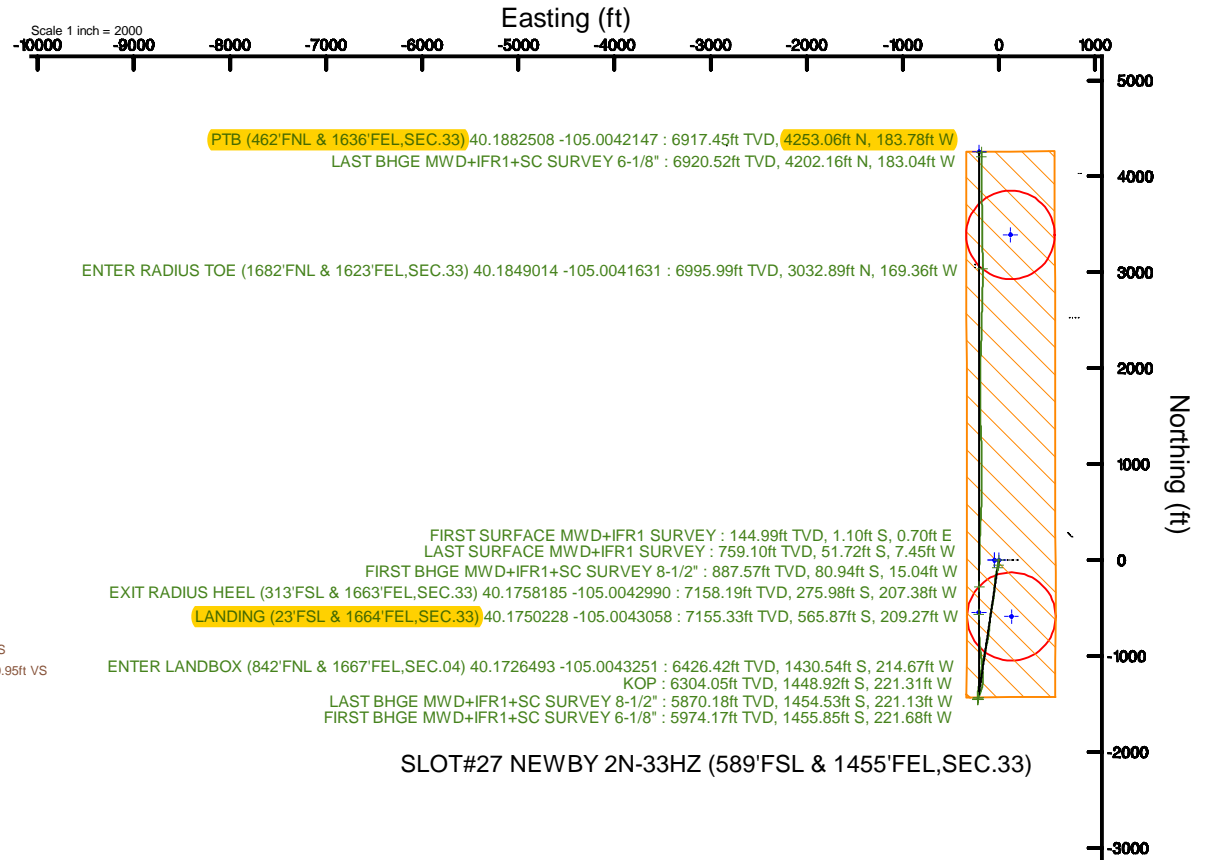
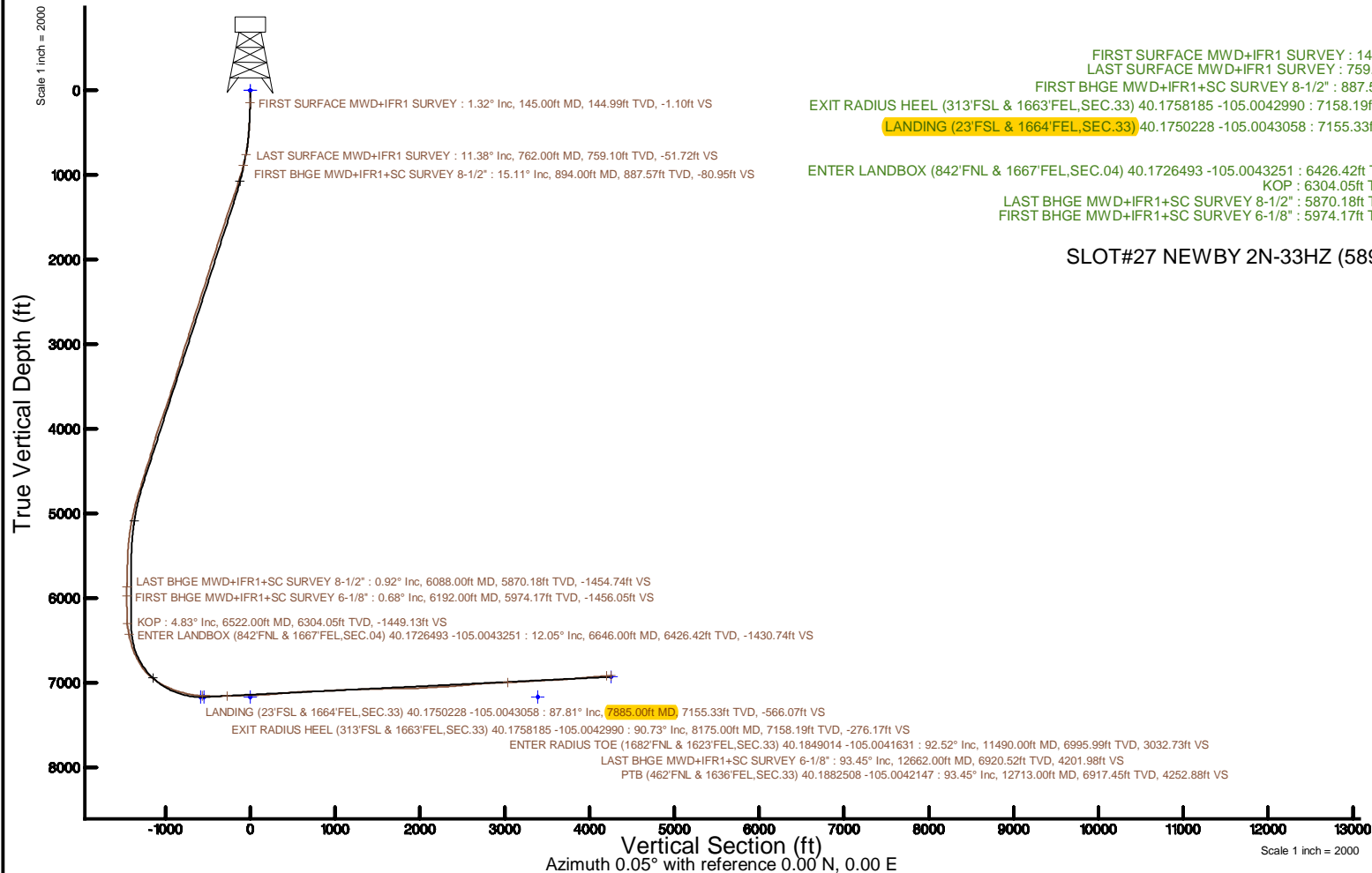


KERR-MCGEE OIL & GAS ONSHORE LP (WA)

Location: COLORADO Slot: SLOT#27 NEWBY 2N-33HZ (589'FSL & 1455'FEL,SEC.33)
Field: WELD COUNTY (UTM/TRUE NORTH) Well: NEWBY 2N-33HZ
Facility: SEC.33-T3N-R68W Wellbore: NEWBY 2N-33HZ PWB

Plot reference wellpath is NEWBY 2N-33HZ PWB Rev-B.0	Grid System: NAD83 / UTM Zone 13 North, US feet
True vertical depths are referenced to NABORS X22 (32') (RT)	* = Wellpath was transformed from a different geodetic datum
Measured depths are referenced to NABORS X22 (32') (RT)	North Reference: True north
NABORS X22 (32') (RT) to Mean Sea Level: 4927 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#27 NEWBY 2N-33HZ (589'FSL & 1455'FEL,SEC.33)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: painsetr on 2017-12-21
	Database: WA_DEN_Anadarko_Defn



SLOT#27 NEWBY 2N-33HZ (589'FSL & 1455'FEL,SEC.33)

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#27 NEWBY 2N-33HZ (589'FSL & 1455'FEL,SEC.33)
Area	COLORADO	Well	NEWBY 2N-33HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	NEWBY 2N-33HZ AWB
Facility	SEC.33-T3N-R68W		

REPORT SETUP INFORMATION			
Projection System	NAD83 / UTM Zone 13 North, US feet	Software System	WellArchitect® 5.0
North Reference	True	User	Painsetr
Scale	0.999600	Report Generated	12/21/2017 at 9:57 AM
Convergence at slot	0.00°	Database/Source file	WA_DEN_Anadarko_Defn/NEWBY_2N-33HZ_AWP.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-675.24	2549.35	1639423.11	14591032.98	40°10'35.674"N	105°00'12.805"W
Facility Reference Pt			1636874.88	14591708.30	40°10'42.348"N	105°00'45.648"W
Field Reference Pt			1698235.31	14552047.82	40°04'09.600"N	104°47'36.000"W

WELLPATH DATUM			
Calculation method	Minimum curvature	NABORS X22 (32') (RT) to Facility Vertical Datum	4927.00ft
Horizontal Reference Pt	Slot	NABORS X22 (32') (RT) to Mean Sea Level	4927.00ft
Vertical Reference Pt	NABORS X22 (32') (RT)	NABORS X22 (32') (RT) to Mud Line at Slot (SLOT#27 NEWBY 2N-33HZ (589'FSL & 1455'FEL,SEC.33))	4927.00ft
MD Reference Pt	NABORS X22 (32') (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	0.05°

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#27 NEWBY 2N-33HZ (589'FSL & 1455'FEL, SEC.33)
Area	COLORADO	Well	NEWBY 2N-33HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	NEWBY 2N-33HZ AWP
Facility	SEC.33-T3N-R68W		

WELLPATH DATA (154 stations) † = interpolated/extrapolated station												
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
0.00†	0.000	147.590	0.00	0.00	0.00	0.00	1639423.11	14591032.97	40°10'35.674"N	105°00'12.805"W	0.00	
32.00	0.000	147.590	32.00	0.00	0.00	0.00	1639423.11	14591032.97	40°10'35.674"N	105°00'12.805"W	0.00	
145.00	1.320	147.590	144.99	-1.10	-1.10	0.70	1639423.81	14591031.88	40°10'35.663"N	105°00'12.796"W	1.17	FIRST SURFACE MWD+IFR1 SURVEY
177.00	1.410	167.630	176.98	-1.79	-1.79	0.98	1639424.09	14591031.18	40°10'35.656"N	105°00'12.792"W	1.51	
209.00	1.760	195.050	208.97	-2.65	-2.65	0.94	1639424.05	14591030.32	40°10'35.648"N	105°00'12.793"W	2.58	
240.00	2.290	189.420	239.95	-3.72	-3.72	0.71	1639423.82	14591029.25	40°10'35.637"N	105°00'12.796"W	1.82	
271.00	2.420	191.090	270.92	-4.98	-4.98	0.48	1639423.60	14591028.00	40°10'35.625"N	105°00'12.799"W	0.47	
303.00	2.680	191.180	302.89	-6.37	-6.37	0.21	1639423.32	14591026.60	40°10'35.611"N	105°00'12.802"W	0.81	
334.00	2.900	198.480	333.86	-7.83	-7.83	-0.18	1639422.93	14591025.15	40°10'35.597"N	105°00'12.807"W	1.35	
366.00	3.250	192.670	365.81	-9.48	-9.48	-0.64	1639422.48	14591023.50	40°10'35.580"N	105°00'12.813"W	1.46	
397.00	3.340	199.970	396.76	-11.19	-11.19	-1.14	1639421.97	14591021.79	40°10'35.563"N	105°00'12.820"W	1.38	
429.00	3.740	199.620	428.70	-13.05	-13.05	-1.81	1639421.31	14591019.93	40°10'35.545"N	105°00'12.828"W	1.25	
461.00	3.960	195.840	460.62	-15.10	-15.09	-2.46	1639420.65	14591017.89	40°10'35.525"N	105°00'12.837"W	1.05	
492.00	4.700	191.970	491.54	-17.37	-17.37	-3.01	1639420.10	14591015.62	40°10'35.502"N	105°00'12.844"W	2.57	
524.00	4.970	189.950	523.42	-20.02	-20.01	-3.52	1639419.59	14591012.97	40°10'35.476"N	105°00'12.850"W	1.00	
555.00	5.230	187.840	554.30	-22.74	-22.74	-3.95	1639419.16	14591010.25	40°10'35.449"N	105°00'12.856"W	1.03	
587.00	5.630	189.330	586.16	-25.73	-25.73	-4.40	1639418.71	14591007.26	40°10'35.420"N	105°00'12.862"W	1.33	
619.00	6.460	187.930	617.98	-29.07	-29.06	-4.91	1639418.21	14591003.93	40°10'35.387"N	105°00'12.868"W	2.63	
651.00	7.730	185.730	649.73	-32.99	-32.99	-5.37	1639417.74	14591000.00	40°10'35.348"N	105°00'12.874"W	4.06	
683.00	9.270	183.450	681.38	-37.71	-37.70	-5.74	1639417.37	14590995.29	40°10'35.301"N	105°00'12.879"W	4.93	
714.00	10.020	185.730	711.94	-42.88	-42.88	-6.16	1639416.95	14590990.12	40°10'35.250"N	105°00'12.884"W	2.71	
746.00	10.990	188.900	743.40	-48.67	-48.66	-6.91	1639416.20	14590984.34	40°10'35.193"N	105°00'12.894"W	3.53	
762.00	11.380	191.000	759.10	-51.72	-51.72	-7.45	1639415.67	14590981.28	40°10'35.163"N	105°00'12.901"W	3.52	LAST SURFACE MWD+IFR1 SURVEY
894.00	15.110	197.280	887.57	-80.95	-80.94	-15.04	1639408.07	14590952.07	40°10'34.874"N	105°00'12.999"W	3.02	FIRST BHGE MWD+IFR1+SC SURVEY 8-1/2"
987.00	16.880	195.820	976.97	-105.53	-105.51	-22.33	1639400.79	14590927.51	40°10'34.631"N	105°00'13.093"W	1.95	
1081.00	18.690	190.280	1066.48	-133.49	-133.46	-28.74	1639394.38	14590899.57	40°10'34.355"N	105°00'13.175"W	2.63	
1174.00	18.940	191.350	1154.51	-162.95	-162.92	-34.36	1639388.75	14590870.12	40°10'34.064"N	105°00'13.248"W	0.46	
1267.00	18.620	187.280	1242.56	-192.48	-192.45	-39.22	1639383.90	14590840.61	40°10'33.772"N	105°00'13.310"W	1.45	
1361.00	18.400	184.490	1331.70	-222.16	-222.12	-42.28	1639380.84	14590810.94	40°10'33.479"N	105°00'13.350"W	0.97	
1454.00	18.670	183.350	1419.88	-251.66	-251.62	-44.30	1639378.82	14590781.46	40°10'33.188"N	105°00'13.376"W	0.49	
1548.00	19.060	181.810	1508.83	-282.02	-281.98	-45.66	1639377.46	14590751.11	40°10'32.888"N	105°00'13.393"W	0.67	
1642.00	18.100	186.920	1597.94	-311.86	-311.81	-47.91	1639375.21	14590721.29	40°10'32.593"N	105°00'13.422"W	2.01	
1736.00	18.040	186.500	1687.30	-340.82	-340.77	-51.31	1639371.80	14590692.34	40°10'32.306"N	105°00'13.466"W	0.15	
1830.00	18.530	187.250	1776.55	-370.10	-370.05	-54.85	1639368.27	14590663.08	40°10'32.017"N	105°00'13.512"W	0.58	
1924.00	18.750	186.900	1865.62	-399.92	-399.87	-58.55	1639364.57	14590633.27	40°10'31.723"N	105°00'13.559"W	0.26	
2018.00	18.010	191.700	1954.83	-429.16	-429.10	-63.31	1639359.81	14590604.05	40°10'31.434"N	105°00'13.621"W	1.79	
2112.00	17.760	191.420	2044.29	-457.44	-457.38	-69.09	1639354.03	14590575.78	40°10'31.154"N	105°00'13.695"W	0.28	
2206.00	17.550	189.560	2133.86	-485.48	-485.41	-74.29	1639348.84	14590547.77	40°10'30.877"N	105°00'13.762"W	0.64	
2300.00	17.240	190.230	2223.56	-513.16	-513.09	-79.11	1639344.01	14590520.09	40°10'30.604"N	105°00'13.824"W	0.39	
2394.00	17.730	188.640	2313.22	-541.03	-540.95	-83.74	1639339.39	14590492.25	40°10'30.328"N	105°00'13.884"W	0.73	
2488.00	18.170	188.050	2402.64	-569.69	-569.61	-87.94	1639335.18	14590463.60	40°10'30.045"N	105°00'13.938"W	0.51	
2582.00	18.330	185.870	2491.92	-598.91	-598.83	-91.50	1639331.62	14590434.39	40°10'29.756"N	105°00'13.984"W	0.75	
2676.00	17.760	187.090	2581.29	-627.85	-627.76	-94.79	1639328.34	14590405.47	40°10'29.470"N	105°00'14.026"W	0.73	
2770.00	17.400	186.290	2670.90	-656.05	-655.96	-98.10	1639325.03	14590377.29	40°10'29.192"N	105°00'14.069"W	0.46	
2864.00	17.090	184.110	2760.68	-683.80	-683.70	-100.63	1639322.50	14590349.55	40°10'28.918"N	105°00'14.101"W	0.76	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#27 NEWBY 2N-33HZ (589'FSL & 1455'FEL, SEC.33)
Area	COLORADO	Well	NEWBY 2N-33HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	NEWBY 2N-33HZ AWP
Facility	SEC.33-T3N-R68W		

WELLPATH DATA (154 stations) † = interpolated/extrapolated station												
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS °/100ft	Comments
2958.00	18.060	181.880	2850.29	-712.14	-712.04	-102.09	1639321.03	14590321.22	40°10'28.638"N	105°00'14.120"W	1.26	
3052.00	18.140	187.240	2939.65	-741.22	-741.12	-104.42	1639318.71	14590292.15	40°10'28.350"N	105°00'14.150"W	1.77	
3146.00	17.520	187.560	3029.13	-769.77	-769.67	-108.12	1639315.00	14590263.62	40°10'28.068"N	105°00'14.198"W	0.67	
3240.00	17.250	189.800	3118.84	-797.53	-797.43	-112.36	1639310.77	14590235.87	40°10'27.794"N	105°00'14.252"W	0.77	
3334.00	16.260	190.960	3208.85	-824.19	-824.08	-117.23	1639305.90	14590209.23	40°10'27.530"N	105°00'14.315"W	1.11	
3428.00	17.260	191.170	3298.85	-850.80	-850.68	-122.43	1639300.69	14590182.64	40°10'27.268"N	105°00'14.382"W	1.07	
3522.00	17.300	195.210	3388.61	-877.97	-877.85	-128.80	1639294.33	14590155.48	40°10'26.999"N	105°00'14.464"W	1.28	
3616.00	18.660	191.500	3478.02	-906.20	-906.08	-135.47	1639287.66	14590127.27	40°10'26.720"N	105°00'14.550"W	1.89	
3710.00	17.800	190.210	3567.30	-935.09	-934.95	-141.01	1639282.12	14590098.40	40°10'26.435"N	105°00'14.622"W	1.01	
3804.00	19.220	192.800	3656.44	-964.32	-964.18	-146.99	1639276.14	14590069.18	40°10'26.146"N	105°00'14.699"W	1.75	
3899.00	19.700	191.370	3746.01	-995.27	-995.13	-153.61	1639269.53	14590038.25	40°10'25.840"N	105°00'14.784"W	0.71	
3993.00	20.580	191.030	3834.27	-1027.03	-1026.88	-159.89	1639263.24	14590006.51	40°10'25.526"N	105°00'14.865"W	0.94	
4087.00	19.650	191.940	3922.53	-1058.72	-1058.56	-166.32	1639256.81	14589974.85	40°10'25.213"N	105°00'14.948"W	1.04	
4181.00	17.910	191.990	4011.52	-1088.32	-1088.16	-172.60	1639250.54	14589945.26	40°10'24.921"N	105°00'15.028"W	1.85	
4275.00	16.340	191.550	4101.35	-1115.43	-1115.26	-178.25	1639244.89	14589918.17	40°10'24.653"N	105°00'15.101"W	1.68	
4369.00	16.170	189.260	4191.60	-1141.30	-1141.13	-183.00	1639240.14	14589892.31	40°10'24.397"N	105°00'15.162"W	0.71	
4463.00	16.600	193.970	4281.78	-1167.26	-1167.08	-188.35	1639234.79	14589866.37	40°10'24.141"N	105°00'15.231"W	1.49	
4557.00	17.980	190.840	4371.53	-1194.55	-1194.36	-194.32	1639228.82	14589839.10	40°10'23.871"N	105°00'15.308"W	1.77	
4651.00	17.640	188.010	4461.03	-1222.90	-1222.72	-199.03	1639224.11	14589810.76	40°10'23.591"N	105°00'15.369"W	0.99	
4745.00	17.300	187.790	4550.70	-1250.86	-1250.67	-202.91	1639220.23	14589782.82	40°10'23.315"N	105°00'15.419"W	0.37	
4839.00	17.150	187.090	4640.48	-1278.46	-1278.27	-206.52	1639216.63	14589755.23	40°10'23.042"N	105°00'15.465"W	0.27	
4933.00	17.290	188.050	4730.27	-1306.05	-1305.85	-210.18	1639212.96	14589727.66	40°10'22.770"N	105°00'15.513"W	0.34	
5027.00	16.340	189.150	4820.25	-1332.94	-1332.74	-214.24	1639208.90	14589700.78	40°10'22.504"N	105°00'15.565"W	1.07	
5121.00	14.530	184.870	4910.86	-1357.75	-1357.55	-217.35	1639205.80	14589675.98	40°10'22.259"N	105°00'15.605"W	2.27	
5215.00	12.340	183.570	5002.28	-1379.53	-1379.32	-218.97	1639204.17	14589654.22	40°10'22.043"N	105°00'15.626"W	2.35	
5309.00	10.690	184.220	5094.38	-1398.25	-1398.04	-220.24	1639202.90	14589635.50	40°10'21.858"N	105°00'15.642"W	1.76	
5403.00	9.140	181.900	5186.98	-1414.41	-1414.20	-221.13	1639202.01	14589619.35	40°10'21.699"N	105°00'15.654"W	1.70	
5497.00	6.740	181.720	5280.07	-1427.39	-1427.18	-221.54	1639201.60	14589606.38	40°10'21.571"N	105°00'15.659"W	2.55	
5591.00	4.970	179.620	5373.57	-1436.97	-1436.76	-221.68	1639201.46	14589596.80	40°10'21.476"N	105°00'15.661"W	1.90	
5685.00	2.630	169.970	5467.36	-1443.17	-1442.96	-221.28	1639201.86	14589590.60	40°10'21.415"N	105°00'15.656"W	2.57	
5779.00	1.780	175.370	5561.29	-1446.75	-1446.54	-220.78	1639202.36	14589587.03	40°10'21.379"N	105°00'15.649"W	0.93	
5873.00	1.680	178.930	5655.25	-1449.58	-1449.37	-220.64	1639202.50	14589584.19	40°10'21.351"N	105°00'15.647"W	0.16	
5967.00	1.520	186.180	5749.21	-1452.20	-1451.99	-220.75	1639202.39	14589581.58	40°10'21.325"N	105°00'15.649"W	0.27	
6088.00	0.920	192.460	5870.18	-1454.74	-1454.53	-221.13	1639202.01	14589579.03	40°10'21.300"N	105°00'15.654"W	0.51	LAST BHGE MWD+IFR1+SC SURVEY 8-1/2"
6192.00	0.680	216.310	5974.17	-1456.05	-1455.85	-221.68	1639201.46	14589577.72	40°10'21.287"N	105°00'15.661"W	0.39	FIRST BHGE MWD+IFR1+SC SURVEY 6-1/8"
6287.00	1.500	20.280	6069.17	-1455.34	-1455.13	-221.58	1639201.56	14589578.43	40°10'21.294"N	105°00'15.659"W	2.28	
6381.00	1.140	359.470	6163.14	-1453.25	-1453.04	-221.16	1639201.98	14589580.52	40°10'21.315"N	105°00'15.654"W	0.63	
6475.00	1.160	332.930	6257.12	-1451.47	-1451.26	-221.60	1639201.54	14589582.30	40°10'21.333"N	105°00'15.660"W	0.56	
6522.00†	4.834	14.942	6304.05	-1449.13	-1448.92	-221.31	1639201.83	14589584.64	40°10'21.356"N	105°00'15.656"W	8.61	KOP
6569.00	8.840	20.000	6350.71	-1443.82	-1443.62	-219.56	1639203.58	14589589.95	40°10'21.408"N	105°00'15.633"W	8.61	
6646.00†	12.051	20.884	6426.42	-1430.74	-1430.54	-214.67	1639208.47	14589603.02	40°10'21.537"N	105°00'15.570"W	4.18	ENTER LANDBOX (842'FNL & 1667'FEL, SEC.04) 40.1726493 -105.0043251
6663.00	12.760	21.020	6443.03	-1427.33	-1427.13	-213.37	1639209.77	14589606.43	40°10'21.571"N	105°00'15.554"W	4.18	
6757.00	16.370	22.500	6533.99	-1405.39	-1405.20	-204.57	1639218.57	14589628.35	40°10'21.788"N	105°00'15.440"W	3.86	
6851.00	21.900	21.820	6622.76	-1376.84	-1376.66	-192.98	1639230.16	14589656.87	40°10'22.070"N	105°00'15.291"W	5.89	
6945.00	29.090	14.430	6707.58	-1338.37	-1338.20	-180.75	1639242.38	14589695.32	40°10'22.450"N	105°00'15.133"W	8.35	

REFERENCE WELLPATH IDENTIFICATION				
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)		Slot	SLOT#27 NEWBY 2N-33HZ (589'FSL & 1455'FEL,SEC.33)
Area	COLORADO		Well	NEWBY 2N-33HZ
Field	WELD COUNTY (UTM/TRUE NORTH)		Wellbore	NEWBY 2N-33HZ AWP
Facility	SEC.33-T3N-R68W			

WELLPATH DATA (154 stations) † = interpolated/extrapolated station												
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
7039.00	29.890	10.620	6789.40	-1293.20	-1293.04	-170.74	1639252.39	14589740.46	40°10'22.896"N	105°00'15.004"W	2.17	
7133.00	40.510	0.600	6866.17	-1239.45	-1239.29	-166.08	1639257.05	14589794.19	40°10'23.427"N	105°00'14.945"W	12.83	
7227.00	50.840	354.280	6931.80	-1172.45	-1172.29	-169.41	1639253.73	14589861.16	40°10'24.089"N	105°00'14.987"W	11.99	
7321.00	57.040	354.070	6987.10	-1096.89	-1096.73	-177.12	1639246.02	14589936.69	40°10'24.836"N	105°00'15.087"W	6.60	
7415.00	63.610	354.670	7033.61	-1015.67	-1015.49	-185.11	1639238.03	14590017.90	40°10'25.639"N	105°00'15.190"W	7.01	
7509.00	68.120	353.500	7072.04	-930.38	-930.19	-193.97	1639229.19	14590103.16	40°10'26.482"N	105°00'15.304"W	4.93	
7603.00	72.510	355.810	7103.70	-842.29	-842.10	-202.18	1639220.97	14590191.22	40°10'27.352"N	105°00'15.410"W	5.21	
7697.00	76.510	358.220	7128.80	-751.86	-751.66	-206.88	1639216.28	14590281.62	40°10'28.246"N	105°00'15.470"W	4.92	
7791.00	81.590	359.330	7146.65	-659.62	-659.42	-208.85	1639214.32	14590373.82	40°10'29.158"N	105°00'15.495"W	5.53	
7885.00	87.810	0.150	7155.33	-566.07	-565.87	-209.27	1639213.91	14590467.34	40°10'30.082"N	105°00'15.501"W	6.67	LANDING (23'FSL & 1664'FEL,SEC.33) 40.1750228 -105.0043058
7979.00	87.850	0.590	7158.89	-472.14	-471.94	-208.66	1639214.52	14590561.23	40°10'31.010"N	105°00'15.493"W	0.47	
8073.00	91.170	0.450	7159.69	-378.16	-377.96	-207.81	1639215.37	14590655.17	40°10'31.939"N	105°00'15.482"W	3.54	
8167.00	90.550	0.060	7158.28	-284.17	-283.98	-207.39	1639215.79	14590749.12	40°10'32.868"N	105°00'15.477"W	0.78	
8175.00†	90.734	0.144	7158.19	-276.17	-275.98	-207.38	1639215.81	14590757.12	40°10'32.947"N	105°00'15.477"W	2.53	EXIT RADIUS HEEL (313'FSL & 1663'FEL,SEC.33) 40.1758185 -105.0042990
8261.00	92.710	1.050	7155.61	-190.22	-190.03	-206.48	1639216.71	14590843.03	40°10'33.796"N	105°00'15.465"W	2.53	
8355.00	92.000	0.680	7151.75	-96.31	-96.12	-205.06	1639218.13	14590936.90	40°10'34.724"N	105°00'15.447"W	0.85	
8449.00	91.230	359.990	7149.10	-2.35	-2.16	-204.51	1639218.68	14591030.83	40°10'35.653"N	105°00'15.440"W	1.10	
8543.00	93.020	2.140	7145.61	91.56	91.75	-202.77	1639220.43	14591124.70	40°10'36.581"N	105°00'15.417"W	2.97	
8637.00	92.310	1.440	7141.24	185.42	185.60	-199.84	1639223.36	14591218.51	40°10'37.508"N	105°00'15.379"W	1.06	
8731.00	95.620	2.560	7134.74	279.12	279.31	-196.57	1639226.64	14591312.18	40°10'38.434"N	105°00'15.337"W	3.72	
8825.00	95.680	2.410	7125.49	372.58	372.76	-192.51	1639230.69	14591405.60	40°10'39.358"N	105°00'15.285"W	0.17	
8919.00	93.910	2.560	7117.63	466.16	466.34	-188.45	1639234.76	14591499.14	40°10'40.282"N	105°00'15.233"W	1.89	
9013.00	93.540	2.150	7111.52	559.89	560.06	-184.59	1639238.61	14591592.82	40°10'41.209"N	105°00'15.183"W	0.59	
9107.00	93.150	1.510	7106.04	653.68	653.86	-181.60	1639241.61	14591686.57	40°10'42.135"N	105°00'15.145"W	0.80	
9201.00	92.060	0.450	7101.77	747.57	747.74	-179.99	1639243.22	14591780.42	40°10'43.063"N	105°00'15.124"W	1.62	
9295.00	90.800	359.550	7099.42	841.54	841.71	-179.99	1639243.23	14591874.35	40°10'43.992"N	105°00'15.124"W	1.65	
9389.00	93.760	0.150	7095.68	935.45	935.62	-180.24	1639242.98	14591968.23	40°10'44.920"N	105°00'15.127"W	3.21	
9483.00	93.180	359.330	7089.99	1029.28	1029.45	-180.66	1639242.56	14592062.02	40°10'45.847"N	105°00'15.133"W	1.07	
9577.00	92.680	359.000	7085.19	1123.14	1123.32	-182.03	1639241.20	14592155.85	40°10'46.775"N	105°00'15.150"W	0.64	
9672.00	92.030	358.560	7081.28	1218.04	1218.21	-184.05	1639239.18	14592250.71	40°10'47.712"N	105°00'15.176"W	0.83	
9766.00	91.200	357.700	7078.63	1311.95	1312.12	-187.12	1639236.12	14592344.58	40°10'48.640"N	105°00'15.216"W	1.27	
9860.00	90.890	357.080	7076.92	1405.83	1406.01	-191.40	1639231.85	14592438.43	40°10'49.568"N	105°00'15.271"W	0.74	
9954.00	92.530	0.140	7074.11	1499.74	1499.93	-193.68	1639229.57	14592532.31	40°10'50.496"N	105°00'15.300"W	3.69	
10048.00	90.430	359.390	7071.69	1593.71	1593.89	-194.07	1639229.19	14592626.23	40°10'51.425"N	105°00'15.305"W	2.37	
10142.00	90.430	359.800	7070.98	1687.70	1687.88	-194.73	1639228.53	14592720.19	40°10'52.354"N	105°00'15.314"W	0.44	
10236.00	89.660	359.160	7070.91	1781.69	1781.88	-195.58	1639227.68	14592814.14	40°10'53.283"N	105°00'15.325"W	1.07	
10330.00	91.880	0.020	7069.64	1875.67	1875.86	-196.26	1639227.01	14592908.09	40°10'54.211"N	105°00'15.334"W	2.53	
10424.00	92.530	1.420	7066.03	1969.60	1969.78	-195.08	1639228.19	14593001.97	40°10'55.139"N	105°00'15.318"W	1.64	
10518.00	94.010	1.430	7060.66	2063.41	2063.60	-192.74	1639230.53	14593095.75	40°10'56.066"N	105°00'15.288"W	1.57	
10612.00	93.330	1.500	7054.65	2157.19	2157.37	-190.34	1639232.93	14593189.49	40°10'56.993"N	105°00'15.257"W	0.73	
10706.00	92.740	2.950	7049.67	2250.99	2251.17	-186.70	1639236.58	14593283.24	40°10'57.920"N	105°00'15.210"W	1.66	
10800.00	92.770	2.040	7045.15	2344.79	2344.97	-182.61	1639240.67	14593377.01	40°10'58.847"N	105°00'15.158"W	0.97	
10894.00	95.430	1.190	7038.43	2438.51	2438.68	-179.97	1639243.31	14593470.68	40°10'59.773"N	105°00'15.124"W	2.97	
10989.00	95.330	0.400	7029.52	2533.08	2533.25	-178.66	1639244.63	14593565.22	40°11'00.708"N	105°00'15.107"W	0.83	
11083.00	95.590	1.510	7020.58	2626.64	2626.81	-177.10	1639246.19	14593658.74	40°11'01.632"N	105°00'15.087"W	1.21	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#27 NEWBY 2N-33HZ (589'FSL & 1455'FEL,SEC.33)
Area	COLORADO	Well	NEWBY 2N-33HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	NEWBY 2N-33HZ AWP
Facility	SEC.33-T3N-R68W		

WELLPATH DATA (154 stations) † = interpolated/extrapolated station											
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS ["/100ft]
11177.00	94.560	1.580	7012.27	2720.24	2720.41	-174.57	1639248.72	14593752.30	40°11'02.557"N	105°00'15.054"W	1.10
11271.00	93.540	1.450	7005.63	2813.98	2814.14	-172.09	1639251.20	14593845.99	40°11'03.483"N	105°00'15.022"W	1.09
11365.00	91.720	1.100	7001.31	2907.85	2908.01	-170.00	1639253.29	14593939.83	40°11'04.411"N	105°00'14.995"W	1.97
11458.00	92.960	359.880	6997.52	3000.77	3000.93	-169.21	1639254.09	14594032.70	40°11'05.329"N	105°00'14.985"W	1.87
11490.00†	92.518	359.587	6995.99	3032.73	3032.89	-169.36	1639253.94	14594064.65	40°11'05.645"N	105°00'14.987"W	1.66
11552.00	91.660	359.020	6993.73	3094.68	3094.84	-170.11	1639253.19	14594126.58	40°11'06.257"N	105°00'14.997"W	1.66
11646.00	94.100	359.580	6989.00	3188.55	3188.71	-171.26	1639252.05	14594220.41	40°11'07.185"N	105°00'15.012"W	2.66
11741.00	93.760	359.500	6982.49	3283.32	3283.48	-172.02	1639251.29	14594315.15	40°11'08.121"N	105°00'15.021"W	0.37
11835.00	93.140	359.550	6976.84	3377.15	3377.31	-172.80	1639250.52	14594408.93	40°11'09.049"N	105°00'15.031"W	0.66
11929.00	92.590	359.050	6972.14	3471.02	3471.19	-173.94	1639249.38	14594502.77	40°11'09.976"N	105°00'15.046"W	0.79
12023.00	91.940	358.590	6968.42	3564.92	3565.09	-175.88	1639247.45	14594596.64	40°11'10.904"N	105°00'15.071"W	0.85
12117.00	93.300	359.400	6964.13	3658.81	3658.98	-177.53	1639245.80	14594690.49	40°11'11.832"N	105°00'15.092"W	1.68
12211.00	94.030	359.560	6958.12	3752.61	3752.78	-178.38	1639244.96	14594784.25	40°11'12.759"N	105°00'15.103"W	0.79
12305.00	95.050	359.490	6950.68	3846.31	3846.48	-179.15	1639244.18	14594877.92	40°11'13.685"N	105°00'15.113"W	1.09
12399.00	95.680	359.600	6941.89	3939.89	3940.06	-179.90	1639243.44	14594971.46	40°11'14.610"N	105°00'15.123"W	0.68
12493.00	95.060	359.410	6933.09	4033.48	4033.65	-180.71	1639242.64	14595065.01	40°11'15.535"N	105°00'15.133"W	0.69
12587.00	94.190	359.110	6925.51	4127.16	4127.33	-181.92	1639241.43	14595158.66	40°11'16.460"N	105°00'15.149"W	0.98
12662.00	93.450	359.170	6920.52	4201.98	4202.16	-183.04	1639240.31	14595233.45	40°11'17.200"N	105°00'15.163"W	0.99
12713.00	93.450	359.170	6917.45	4252.88	4253.06	-183.78	1639239.58	14595284.33	40°11'17.703"N	105°00'15.173"W	0.00

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.04-T2N-R68W	2.00	-0.40	-45.02	1639378.11	14591032.57	40°10'35.670"N	105°00'13.385"W	polygon
SEC.33-T3N-R68W	2.00	-0.40	-45.02	1639378.11	14591032.57	40°10'35.670"N	105°00'13.385"W	polygon
NEWBY 2N-33HZ BHL REV-1(461'FNL & 1657'FEL,SEC.33)	6931.00	4253.87	-205.09	1639218.27	14595285.15	40°11'17.711"N	105°00'15.448"W	point
NEWBY 2N-33HZ HEEL REV-1(48'FSL & 1665'FEL,SEC.33)	7169.00	-542.84	-209.60	1639213.57	14590490.36	40°10'30.310"N	105°00'15.505"W	point
NEWBY 2N-33HZ LANDBOX	7169.00	0.00	0.00	1639423.11	14591032.97	40°10'35.674"N	105°00'12.805"W	polygon
NEWBY 2N-33HZ RADIUS 1	7169.00	3390.49	119.80	1639543.00	14594422.10	40°11'09.179"N	105°00'11.261"W	polygon
NEWBY 2N-33HZ RADIUS 2	7169.00	-588.01	128.66	1639551.70	14590445.20	40°10'29.863"N	105°00'11.147"W	polygon

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#27 NEWBY 2N-33HZ (589'FSL & 1455'FEL, SEC.33)
Area	COLORADO	Well	NEWBY 2N-33HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	NEWBY 2N-33HZ AWB
Facility	SEC.33-T3N-R68W		

WELLPATH COMPOSITION - Ref Wellbore: NEWBY 2N-33HZ AWB Ref Wellpath: NEWBY 2N-33HZ AWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
32.00	762.00	Custom APC ISCWSA REV 2 MWD+IFR1 (approximation)	Custom APC ISCWSA Rev-2 MWD+IFR1 <145 - 762>	NEWBY 2N-33HZ AWB
762.00	6088.00	Custom APC ISCWSA REV 2 MWD+IFR1+SC (approximation)	BHGE Custom APC ISCWSA Rev-2 MWD+IFR1+SC 8-1/2" <894 - 6088>	NEWBY 2N-33HZ AWB
6088.00	12662.00	Custom APC ISCWSA REV 2 MWD+IFR1+SC (approximation)	BHGE Custom APC ISCWSA Rev-2 MWD+IFR1+SC 6-1/8" <6192 - 12662>	NEWBY 2N-33HZ AWB
12662.00	12713.00	Blind Drilling (std)	Projection to bit	NEWBY 2N-33HZ AWB

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#27 NEWBY 2N-33HZ (589'FSL & 1455'FEL,SEC.33)
Area	COLORADO	Well	NEWBY 2N-33HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	NEWBY 2N-33HZ AWB
Facility	SEC.33-T3N-R68W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
145.00	1.320	147.590	144.99	FIRST SURFACE MWD+IFR1 SURVEY
762.00	11.380	191.000	759.10	LAST SURFACE MWD+IFR1 SURVEY
894.00	15.110	197.280	887.57	FIRST BHGE MWD+IFR1+SC SURVEY 8-1/2"
6088.00	0.920	192.460	5870.18	LAST BHGE MWD+IFR1+SC SURVEY 8-1/2"
6192.00	0.680	216.310	5974.17	FIRST BHGE MWD+IFR1+SC SURVEY 6-1/8"
6522.00	4.834	14.942	6304.05	KOP
6646.00	12.051	20.884	6426.42	ENTER LANDBOX (842'FNL & 1667'FEL,SEC.04) 40.1726493 -105.0043251
7885.00	87.810	0.150	7155.33	LANDING (23'FSL & 1664'FEL,SEC.33) 40.1750228 -105.0043058
8175.00	90.734	0.144	7158.19	EXIT RADIUS HEEL (313'FSL & 1663'FEL,SEC.33) 40.1758185 -105.0042990
11490.00	92.518	359.587	6995.99	ENTER RADIUS TOE (1682'FNL & 1623'FEL,SEC.33) 40.1849014 -105.0041631
12662.00	93.450	359.170	6920.52	LAST BHGE MWD+IFR1+SC SURVEY 6-1/8"
12713.00	93.450	359.170	6917.45	PTB (462'FNL & 1636'FEL,SEC.33) 40.1882508 -105.0042147