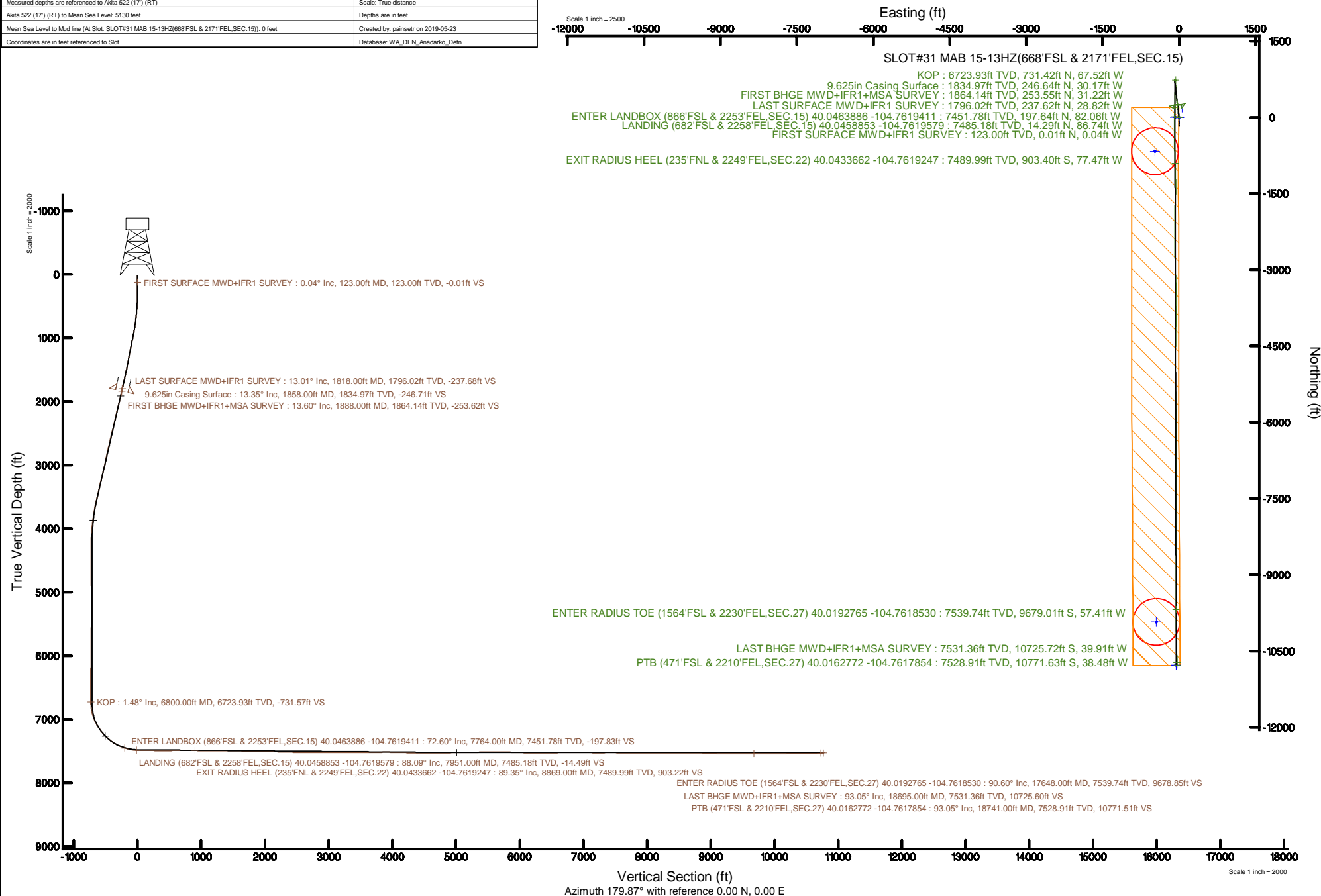


Location:	COLORADO	Slot:	SLOT#31 MAB 15-13HZ(668'FSL & 2171'FEL,SEC.15)
Field:	WELD COUNTY (UTM/TRUE NORTH)	Well:	MAB 15-13HZ
Facility:	SEC.15-T1N-R66W	Wellbore:	MAB 15-13HZ PWB

Plot reference wellpath is MAB 15-13HZ PWP Rev-B.0	Grid System: NAD83 / UTM Zone 13 North, US feet
True vertical depths are referenced to Akita 522 (17) (RT)	North Reference: True north
Measured depths are referenced to Akita 522 (17) (RT)	Scale: True distance
Akita 522 (17) (RT) to Mean Sea Level: 5130 feet	Depths are in feet
Mean Sea Level to Mud line (At Slot: SLOT#31 MAB 15-13HZ668FSL & 2171FEL.SEC.15): 0 feet	Created by: painsetr on 2019-05-23
Coordinates are in feet referenced to Slot	Database: WA_DEN_Anadarko_Defn



REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#31 MAB 15-13HZ(668'FSL & 2171'FEL,SEC.15)
Area	COLORADO	Well	MAB 15-13HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	MAB 15-13HZ AWB
Facility	SEC.15-T1N-R66W		

REPORT SETUP INFORMATION			
Projection System	NAD83 / UTM Zone 13 North, US feet	Software System	WellArchitect® 5.1
North Reference	True	User	Painsetr
Scale	0.999605	Report Generated	5/23/2019 at 12:59:54 PM
Convergence at slot	0.15° East	Database/Source file	WA_DEN_Anadarko_Defn/MAB_15-13HZ_AWP.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-599.40	1679.93	1707122.73	14543517.23	40°02'45.046"N	104°45'41.933"W
Facility Reference Pt			1705441.90	14544112.02	40°02'50.970"N	104°46'03.534"W
Field Reference Pt			1698235.31	14552047.82	40°04'09.600"N	104°47'36.000"W

WELLPATH DATUM			
Calculation method	Minimum curvature	Akita 522 (17') (RT) to Facility Vertical Datum	5130.00ft
Horizontal Reference Pt	Slot	Akita 522 (17') (RT) to Mean Sea Level	5130.00ft
Vertical Reference Pt	Akita 522 (17') (RT)	Akita 522 (17') (RT) to Mud Line at Slot (SLOT#31 MAB 15-13HZ (668'FSL & 2171'FEL,SEC.15))	5130.00ft
MD Reference Pt	Akita 522 (17') (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	179.87°

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#31 MAB 15-13HZ(668'FSL & 2171'FEL,SEC.15)
Area	COLORADO	Well	MAB 15-13HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	MAB 15-13HZ AWB
Facility	SEC.15-T1N-R66W		

WELLPATH DATA (218 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	278.010	0.00	0.00	0.00	0.00	1707122.73	14543517.23	40°02'45.046"N	104°45'41.933"W	0.00	
17.00	0.000	278.010	17.00	0.00	0.00	0.00	1707122.73	14543517.23	40°02'45.046"N	104°45'41.933"W	0.00	
123.00	0.040	278.010	123.00	-0.01	0.01	-0.04	1707122.69	14543517.24	40°02'45.046"N	104°45'41.933"W	0.04	FIRST SURFACE MWD+IFR1 SURVEY
217.00	0.220	184.930	217.00	0.17	-0.17	-0.08	1707122.64	14543517.06	40°02'45.044"N	104°45'41.934"W	0.24	
313.00	1.010	346.830	313.00	-0.47	0.47	-0.29	1707122.43	14543517.70	40°02'45.051"N	104°45'41.937"W	1.27	
407.00	2.150	342.610	406.96	-2.96	2.96	-1.01	1707121.71	14543520.19	40°02'45.075"N	104°45'41.946"W	1.22	
502.00	3.470	351.400	501.84	-7.51	7.50	-1.97	1707120.73	14543524.73	40°02'45.120"N	104°45'41.958"W	1.46	
597.00	5.230	352.190	596.57	-14.64	14.64	-2.99	1707119.70	14543531.86	40°02'45.191"N	104°45'41.971"W	1.85	
693.00	6.940	352.940	692.02	-24.74	24.73	-4.30	1707118.36	14543541.94	40°02'45.290"N	104°45'41.988"W	1.78	
787.00	7.780	349.820	785.25	-36.64	36.63	-6.12	1707116.51	14543553.83	40°02'45.408"N	104°45'42.012"W	0.99	
882.00	10.110	351.050	879.08	-51.21	51.19	-8.55	1707114.04	14543568.38	40°02'45.552"N	104°45'42.043"W	2.46	
978.00	11.380	353.070	973.40	-68.94	68.92	-11.01	1707111.54	14543586.10	40°02'45.727"N	104°45'42.075"W	1.38	
1073.00	11.470	357.110	1066.52	-87.69	87.66	-12.61	1707109.88	14543604.82	40°02'45.912"N	104°45'42.095"W	0.85	
1168.00	11.600	358.080	1159.60	-106.67	106.64	-13.41	1707109.03	14543623.79	40°02'46.100"N	104°45'42.105"W	0.25	
1263.00	11.210	355.000	1252.72	-125.41	125.38	-14.54	1707107.86	14543642.53	40°02'46.285"N	104°45'42.120"W	0.76	
1359.00	10.550	352.720	1347.00	-143.43	143.40	-16.46	1707105.89	14543660.53	40°02'46.463"N	104°45'42.145"W	0.82	
1454.00	11.650	352.720	1440.22	-161.58	161.54	-18.78	1707103.52	14543678.66	40°02'46.642"N	104°45'42.174"W	1.16	
1548.00	11.600	351.840	1532.29	-180.36	180.31	-21.32	1707100.93	14543697.41	40°02'46.828"N	104°45'42.207"W	0.20	
1643.00	12.040	353.420	1625.28	-199.66	199.60	-23.82	1707098.39	14543716.70	40°02'47.019"N	104°45'42.239"W	0.57	
1738.00	12.830	352.450	1718.05	-219.96	219.90	-26.34	1707095.81	14543736.98	40°02'47.219"N	104°45'42.272"W	0.86	
1818.00	13.010	351.570	1796.02	-237.68	237.62	-28.82	1707093.28	14543754.68	40°02'47.394"N	104°45'42.304"W	0.33	LAST SURFACE MWD+IFR1 SURVEY
1888.00	13.600	351.360	1864.14	-253.62	253.55	-31.22	1707090.84	14543770.60	40°02'47.552"N	104°45'42.334"W	0.85	FIRST BHGE MWD+IFR1+MSA SURVEY
1975.00	13.480	349.770	1948.73	-273.72	273.64	-34.55	1707087.45	14543790.67	40°02'47.750"N	104°45'42.377"W	0.45	
2062.00	12.990	347.900	2033.42	-293.27	293.18	-38.40	1707083.55	14543810.19	40°02'47.943"N	104°45'42.427"W	0.75	
2149.00	14.160	351.730	2117.99	-313.37	313.27	-41.98	1707079.92	14543830.27	40°02'48.142"N	104°45'42.473"W	1.70	
2237.00	13.680	349.490	2203.40	-334.26	334.16	-45.43	1707076.42	14543851.13	40°02'48.348"N	104°45'42.517"W	0.82	
2324.00	13.040	356.650	2288.05	-354.18	354.07	-47.88	1707073.92	14543871.03	40°02'48.545"N	104°45'42.549"W	2.04	
2412.00	12.430	355.120	2373.89	-373.53	373.42	-49.27	1707072.48	14543890.37	40°02'48.736"N	104°45'42.566"W	0.79	
2499.00	13.430	0.520	2458.68	-392.97	392.85	-49.97	1707071.72	14543909.79	40°02'48.928"N	104°45'42.576"W	1.80	
2587.00	12.970	358.280	2544.36	-413.06	412.94	-50.18	1707071.47	14543929.88	40°02'49.127"N	104°45'42.578"W	0.78	
2675.00	14.130	353.560	2629.91	-433.60	433.49	-51.68	1707069.91	14543950.41	40°02'49.330"N	104°45'42.597"W	1.82	
2762.00	13.490	351.540	2714.40	-454.20	454.08	-54.36	1707067.17	14543970.98	40°02'49.533"N	104°45'42.632"W	0.92	
2850.00	12.250	350.810	2800.18	-473.58	473.45	-57.36	1707064.12	14543990.34	40°02'49.725"N	104°45'42.671"W	1.42	
2938.00	11.200	353.880	2886.35	-491.30	491.16	-59.76	1707061.67	14544008.04	40°02'49.900"N	104°45'42.701"W	1.39	
3026.00	12.070	357.480	2972.54	-508.99	508.85	-61.08	1707060.31	14544025.72	40°02'50.075"N	104°45'42.718"W	1.29	
3113.00	12.750	358.200	3057.51	-527.67	527.53	-61.78	1707059.56	14544044.39	40°02'50.259"N	104°45'42.727"W	0.80	
3201.00	14.090	358.690	3143.10	-548.09	547.95	-62.33	1707058.95	14544064.80	40°02'50.461"N	104°45'42.734"W	1.53	
3287.00	13.330	357.230	3226.65	-568.46	568.32	-63.05	1707058.18	14544085.16	40°02'50.662"N	104°45'42.744"W	0.97	
3375.00	13.850	354.540	3312.19	-589.08	588.94	-64.54	1707056.63	14544105.76	40°02'50.866"N	104°45'42.763"W	0.93	
3462.00	12.470	352.930	3396.90	-608.78	608.62	-66.69	1707054.43	14544125.44	40°02'51.061"N	104°45'42.791"W	1.64	
3550.00	12.830	353.200	3482.76	-627.91	627.75	-69.02	1707052.06	14544144.55	40°02'51.250"N	104°45'42.820"W	0.41	
3638.00	12.730	358.320	3568.59	-647.31	647.15	-70.46	1707050.57	14544163.94	40°02'51.441"N	104°45'42.839"W	1.29	
3725.00	11.350	356.870	3653.67	-665.44	665.28	-71.20	1707049.77	14544182.06	40°02'51.620"N	104°45'42.849"W	1.62	
3812.00	9.880	354.220	3739.18	-681.42	681.25	-72.42	1707048.51	14544198.02	40°02'51.778"N	104°45'42.864"W	1.78	
3900.00	8.560	350.440	3826.04	-695.39	695.22	-74.27	1707046.62	14544211.98	40°02'51.916"N	104°45'42.888"W	1.65	

Actual Wellpath Report

MAB 15-13HZ AWP

Page 3 of 8

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#31 MAB 15-13HZ(668'FSL & 2171'FEL,SEC.15)
Area	COLORADO	Well	MAB 15-13HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	MAB 15-13HZ AWB
Facility	SEC.15-T1N-R66W		

WELLPATH DATA (218 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
3987.00	6.540	349.270	3912.28	-706.65	706.48	-76.27	1707044.60	14544223.23	40°02'52.028"N	104°45'42.914"W	2.33	
4075.00	4.650	337.080	3999.86	-714.87	714.69	-78.59	1707042.25	14544231.43	40°02'52.109"N	104°45'42.944"W	2.53	
4162.00	4.200	329.390	4086.60	-720.86	720.68	-81.59	1707039.24	14544237.41	40°02'52.168"N	104°45'42.982"W	0.85	
4250.00	2.520	311.190	4174.45	-724.92	724.73	-84.69	1707036.13	14544241.44	40°02'52.208"N	104°45'43.022"W	2.24	
4337.00	0.900	287.150	4261.41	-726.39	726.19	-86.78	1707034.04	14544242.90	40°02'52.222"N	104°45'43.049"W	2.00	
4424.00	0.880	283.140	4348.40	-726.74	726.54	-88.08	1707032.74	14544243.25	40°02'52.226"N	104°45'43.066"W	0.08	
4512.00	0.680	271.590	4436.39	-726.91	726.71	-89.26	1707031.56	14544243.41	40°02'52.228"N	104°45'43.081"W	0.29	
4600.00	0.640	270.750	4524.39	-726.94	726.73	-90.27	1707030.54	14544243.43	40°02'52.228"N	104°45'43.094"W	0.05	
4688.00	0.750	258.230	4612.38	-726.83	726.62	-91.33	1707029.49	14544243.32	40°02'52.227"N	104°45'43.107"W	0.21	
4776.00	0.940	249.000	4700.37	-726.45	726.24	-92.57	1707028.25	14544242.94	40°02'52.223"N	104°45'43.123"W	0.26	
4863.00	0.890	160.450	4787.36	-725.56	725.35	-93.01	1707027.81	14544242.05	40°02'52.214"N	104°45'43.129"W	1.47	
4976.00	1.470	174.360	4900.34	-723.29	723.08	-92.57	1707028.26	14544239.78	40°02'52.192"N	104°45'43.123"W	0.57	
5063.00	1.130	176.090	4987.32	-721.37	721.11	-92.40	1707028.43	14544237.81	40°02'52.172"N	104°45'43.121"W	0.39	
5151.00	1.630	108.050	5075.30	-720.07	719.86	-91.15	1707029.68	14544236.56	40°02'52.160"N	104°45'43.105"W	1.82	
5238.00	1.570	99.610	5162.26	-719.48	719.28	-88.80	1707032.03	14544235.99	40°02'52.154"N	104°45'43.075"W	0.28	
5326.00	1.440	78.350	5250.23	-719.50	719.30	-86.53	1707034.30	14544236.02	40°02'52.154"N	104°45'43.046"W	0.65	
5414.00	1.490	54.600	5338.21	-720.38	720.19	-84.52	1707036.32	14544236.91	40°02'52.163"N	104°45'43.020"W	0.69	
5501.00	1.620	61.560	5425.17	-721.62	721.43	-82.51	1707038.32	14544238.15	40°02'52.175"N	104°45'42.994"W	0.26	
5589.00	1.660	65.190	5513.14	-722.74	722.55	-80.26	1707040.56	14544239.28	40°02'52.186"N	104°45'42.965"W	0.13	
5677.00	1.560	54.170	5601.10	-723.97	723.79	-78.13	1707042.69	14544240.53	40°02'52.199"N	104°45'42.938"W	0.37	
5764.00	1.470	55.260	5688.07	-725.29	725.12	-76.26	1707044.56	14544241.86	40°02'52.212"N	104°45'42.914"W	0.11	
5852.00	1.400	60.560	5776.04	-726.46	726.29	-74.39	1707046.42	14544243.04	40°02'52.223"N	104°45'42.890"W	0.17	
5939.00	1.450	60.170	5863.02	-727.53	727.36	-72.51	1707048.30	14544244.11	40°02'52.234"N	104°45'42.865"W	0.06	
6027.00	0.510	324.210	5951.01	-728.40	728.23	-71.78	1707049.03	14544244.98	40°02'52.243"N	104°45'42.856"W	1.80	
6114.00	0.310	345.310	6038.01	-728.94	728.77	-72.06	1707048.74	14544245.52	40°02'52.248"N	104°45'42.860"W	0.28	
6201.00	0.430	20.050	6125.00	-729.47	729.31	-72.01	1707048.79	14544246.06	40°02'52.253"N	104°45'42.859"W	0.29	
6288.00	0.610	27.980	6212.00	-730.19	730.02	-71.68	1707049.12	14544246.77	40°02'52.260"N	104°45'42.855"W	0.22	
6376.00	0.810	47.900	6299.99	-731.02	730.86	-71.00	1707049.80	14544247.61	40°02'52.268"N	104°45'42.846"W	0.36	
6463.00	1.190	46.920	6386.98	-732.04	731.88	-69.88	1707050.91	14544248.64	40°02'52.279"N	104°45'42.832"W	0.44	
6551.00	1.560	52.770	6474.95	-733.39	733.23	-68.26	1707052.53	14544249.99	40°02'52.292"N	104°45'42.811"W	0.45	
6639.00	0.650	200.690	6562.95	-733.64	733.49	-67.48	1707053.31	14544250.25	40°02'52.295"N	104°45'42.801"W	2.43	
6726.00	0.500	160.550	6649.94	-732.83	732.67	-67.53	1707053.26	14544249.43	40°02'52.286"N	104°45'42.801"W	0.48	
6800.00†	1.476	185.872	6723.93	-731.57	731.42	-67.52	1707053.27	14544248.18	40°02'52.274"N	104°45'42.801"W	1.41	KOP
6814.00	1.670	187.260	6737.92	-731.19	731.04	-67.57	1707053.23	14544247.80	40°02'52.270"N	104°45'42.802"W	1.41	
6901.00	7.840	190.080	6824.58	-724.09	723.93	-68.77	1707052.05	14544240.69	40°02'52.200"N	104°45'42.817"W	7.09	
6989.00	13.730	189.890	6910.99	-707.88	707.72	-71.61	1707049.25	14544224.48	40°02'52.040"N	104°45'42.854"W	6.69	
7076.00	23.180	183.260	6993.43	-680.56	680.39	-74.37	1707046.57	14544197.15	40°02'51.770"N	104°45'42.889"W	11.11	
7164.00	27.600	177.680	7072.92	-642.87	642.70	-74.53	1707046.51	14544159.48	40°02'51.397"N	104°45'42.891"W	5.71	
7251.00	34.310	177.640	7147.49	-598.18	598.02	-72.70	1707048.46	14544114.82	40°02'50.956"N	104°45'42.868"W	7.71	
7339.00	40.540	182.260	7217.35	-544.76	544.60	-72.80	1707048.49	14544061.42	40°02'50.428"N	104°45'42.869"W	7.76	
7426.00	46.380	186.080	7280.49	-485.15	484.97	-77.26	1707044.20	14544001.80	40°02'49.839"N	104°45'42.926"W	7.36	
7514.00	52.120	182.160	7337.92	-418.71	418.52	-81.95	1707039.69	14543935.37	40°02'49.182"N	104°45'42.987"W	7.34	
7601.00	59.080	179.290	7387.05	-346.99	346.80	-82.78	1707039.05	14543863.67	40°02'48.473"N	104°45'42.997"W	8.45	
7688.00	67.700	179.020	7425.98	-269.28	269.09	-81.63	1707040.41	14543786.00	40°02'47.705"N	104°45'42.983"W	9.91	
7764.00†	72.603	181.631	7451.78	-197.83	197.64	-82.06	1707040.17	14543714.58	40°02'46.999"N	104°45'42.988"W	7.21	ENTER LANDBOX (866'FSL & 2253'FEL,SEC.15) 40.0463886 -104.7619411

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#31 MAB 15-13HZ(668'FSL & 2171'FEL,SEC.15)
Area	COLORADO	Well	MAB 15-13HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	MAB 15-13HZ AWB
Facility	SEC.15-T1N-R66W		

WELLPATH DATA (218 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
7776.00	73.380	182.030	7455.29	-186.36	186.17	-82.43	1707039.83	14543703.11	40°02'46.886"N	104°45'42.993"W	7.21	
7863.00	79.500	181.230	7475.68	-101.87	101.67	-84.82	1707037.66	14543618.64	40°02'46.051"N	104°45'43.024"W	7.09	
7951.00	88.090	181.290	7485.18	-14.49	14.29	-86.74	1707035.98	14543531.29	40°02'45.187"N	104°45'43.048"W	9.76	LANDING (682'FSL & 2258'FEL,SEC.15) 40.0458853 -104.7619579
8038.00	89.510	181.240	7487.00	72.46	-72.67	-88.66	1707034.29	14543444.36	40°02'44.328"N	104°45'43.073"W	1.63	
8126.00	88.860	180.030	7488.26	160.44	-160.65	-89.64	1707033.55	14543356.41	40°02'43.458"N	104°45'43.086"W	1.56	
8213.00	88.550	178.550	7490.22	247.42	-247.62	-88.56	1707034.86	14543269.48	40°02'42.599"N	104°45'43.072"W	1.74	
8300.00	89.720	179.180	7491.54	334.39	-334.59	-86.84	1707036.82	14543182.55	40°02'41.739"N	104°45'43.050"W	1.53	
8388.00	90.030	180.010	7491.73	422.39	-422.59	-86.22	1707037.67	14543094.59	40°02'40.870"N	104°45'43.042"W	1.01	
8475.00	90.710	180.420	7491.17	509.38	-509.58	-86.54	1707037.58	14543007.62	40°02'40.010"N	104°45'43.046"W	0.91	
8563.00	91.540	179.420	7489.44	597.36	-597.57	-86.42	1707037.94	14542919.68	40°02'39.141"N	104°45'43.044"W	1.48	
8650.00	90.120	178.510	7488.18	684.34	-684.54	-84.85	1707039.74	14542832.74	40°02'38.281"N	104°45'43.024"W	1.94	
8737.00	88.890	177.800	7488.93	771.30	-771.49	-82.05	1707042.77	14542745.84	40°02'37.422"N	104°45'42.988"W	1.63	
8824.00	90.030	178.000	7489.75	858.24	-858.42	-78.86	1707046.19	14542658.94	40°02'36.563"N	104°45'42.947"W	1.33	
8869.00†	89.355	178.450	7489.99	903.22	-903.40	-77.47	1707047.71	14542613.99	40°02'36.118"N	104°45'42.929"W	1.80	EXIT RADIUS HEEL (235'FNL & 2249'FEL,SEC.22) 40.0433662 -104.7619247
8912.00	88.710	178.880	7490.72	946.21	-946.38	-76.47	1707048.82	14542571.02	40°02'35.694"N	104°45'42.916"W	1.80	
8999.00	88.890	178.260	7492.54	1033.16	-1033.34	-74.29	1707051.23	14542484.11	40°02'34.834"N	104°45'42.888"W	0.74	
9087.00	89.320	178.100	7493.91	1121.11	-1121.28	-71.50	1707054.25	14542396.21	40°02'33.965"N	104°45'42.852"W	0.52	
9174.00	89.600	178.870	7494.73	1208.08	-1208.25	-69.20	1707056.79	14542309.29	40°02'33.106"N	104°45'42.823"W	0.94	
9262.00	89.450	177.500	7495.46	1296.04	-1296.20	-66.41	1707059.81	14542221.38	40°02'32.237"N	104°45'42.787"W	1.57	
9436.00	90.680	182.700	7495.27	1469.98	-1470.13	-66.72	1707059.97	14542047.51	40°02'30.518"N	104°45'42.791"W	3.07	
9524.00	89.510	182.930	7495.12	1557.86	-1558.03	-71.04	1707055.88	14541959.64	40°02'29.649"N	104°45'42.846"W	1.35	
9611.00	87.540	181.950	7497.36	1644.74	-1644.91	-74.74	1707052.42	14541872.78	40°02'28.791"N	104°45'42.894"W	2.53	
9699.00	87.440	181.430	7501.21	1732.61	-1732.79	-77.33	1707050.06	14541784.93	40°02'27.922"N	104°45'42.927"W	0.60	
9786.00	87.320	180.870	7505.19	1819.49	-1819.68	-79.08	1707048.55	14541698.07	40°02'27.063"N	104°45'42.950"W	0.66	
9874.00	89.260	180.540	7507.82	1907.44	-1907.63	-80.16	1707047.70	14541610.15	40°02'26.194"N	104°45'42.964"W	2.24	
9961.00	89.230	179.920	7508.96	1994.43	-1994.62	-80.51	1707047.58	14541523.20	40°02'25.335"N	104°45'42.968"W	0.71	
10049.00	89.940	180.240	7509.60	2082.43	-2082.62	-80.63	1707047.70	14541435.23	40°02'24.465"N	104°45'42.970"W	0.88	
10136.00	89.260	179.960	7510.21	2169.43	-2169.62	-80.78	1707047.78	14541348.27	40°02'23.605"N	104°45'42.972"W	0.85	
10223.00	89.230	179.870	7511.35	2256.42	-2256.61	-80.66	1707048.14	14541261.31	40°02'22.746"N	104°45'42.970"W	0.11	
10311.00	88.310	180.360	7513.24	2344.40	-2344.59	-80.83	1707048.20	14541173.37	40°02'21.876"N	104°45'42.972"W	1.18	
10398.00	87.230	180.340	7516.63	2431.32	-2431.52	-81.36	1707047.90	14541086.47	40°02'21.017"N	104°45'42.979"W	1.24	
10486.00	88.740	179.660	7519.72	2519.27	-2519.46	-81.36	1707048.14	14540998.56	40°02'20.148"N	104°45'42.979"W	1.88	
10573.00	90.060	179.010	7520.63	2606.26	-2606.45	-80.35	1707049.38	14540911.62	40°02'19.288"N	104°45'42.966"W	1.69	
10661.00	89.750	178.940	7520.78	2694.25	-2694.43	-78.78	1707051.19	14540823.67	40°02'18.419"N	104°45'42.946"W	0.36	
10748.00	89.350	178.740	7521.46	2781.23	-2781.41	-77.02	1707053.18	14540736.73	40°02'17.559"N	104°45'42.923"W	0.51	
10835.00	89.450	178.160	7522.37	2868.20	-2868.38	-74.66	1707055.77	14540649.81	40°02'16.700"N	104°45'42.893"W	0.68	
10923.00	89.230	179.390	7523.39	2956.17	-2956.35	-72.78	1707057.88	14540561.88	40°02'15.831"N	104°45'42.869"W	1.42	
11011.00	90.800	178.220	7523.36	3044.15	-3044.33	-70.95	1707059.95	14540473.94	40°02'14.961"N	104°45'42.845"W	2.22	
11098.00	89.600	177.290	7523.06	3131.09	-3131.26	-67.54	1707063.59	14540387.05	40°02'14.102"N	104°45'42.801"W	1.75	
11186.00	89.720	176.450	7523.58	3218.97	-3219.12	-62.74	1707068.63	14540299.23	40°02'13.234"N	104°45'42.740"W	0.96	
11274.00	90.370	176.970	7523.51	3306.83	-3306.98	-57.69	1707073.91	14540211.43	40°02'12.366"N	104°45'42.675"W	0.95	
11361.00	91.140	178.810	7522.37	3393.77	-3393.90	-54.48	1707077.35	14540124.54	40°02'11.507"N	104°45'42.633"W	2.29	
11449.00	91.540	177.610	7520.31	3481.71	-3481.84	-51.73	1707080.33	14540036.65	40°02'10.638"N	104°45'42.598"W	1.44	
11536.00	90.550	179.520	7518.72	3568.67	-3568.79	-49.56	1707082.74	14539949.74	40°02'09.778"N	104°45'42.570"W	2.47	
11623.00	89.510	181.680	7518.68	3655.65	-3655.78	-50.47	1707082.06	14539862.79	40°02'08.919"N	104°45'42.582"W	2.76	

Actual Wellpath Report

MAB 15-13HZ AWP

Page 5 of 8

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#31 MAB 15-13HZ(668'FSL & 2171'FEL,SEC.15)
Area	COLORADO	Well	MAB 15-13HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	MAB 15-13HZ AWB
Facility	SEC.15-T1N-R66W		

WELLPATH DATA (218 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
11711.00	90.310	181.540	7518.81	3743.61	-3743.74	-52.94	1707079.82	14539774.85	40°02'08.049"N	104°45'42.614"W	0.92	
11798.00	91.390	181.180	7517.52	3830.57	-3830.71	-55.00	1707077.99	14539687.91	40°02'07.190"N	104°45'42.640"W	1.31	
11886.00	89.410	181.060	7516.91	3918.54	-3918.68	-56.72	1707076.51	14539599.97	40°02'06.321"N	104°45'42.662"W	2.25	
11974.00	89.020	181.170	7518.12	4006.51	-4006.66	-58.44	1707075.03	14539512.02	40°02'05.451"N	104°45'42.684"W	0.46	
12061.00	88.370	180.920	7520.10	4093.47	-4093.62	-60.02	1707073.68	14539425.09	40°02'04.592"N	104°45'42.705"W	0.80	
12149.00	88.120	180.910	7522.79	4181.42	-4181.57	-61.43	1707072.51	14539337.18	40°02'03.723"N	104°45'42.723"W	0.28	
12236.00	87.100	180.640	7526.42	4268.33	-4268.48	-62.60	1707071.57	14539250.29	40°02'02.864"N	104°45'42.738"W	1.21	
12324.00	89.110	181.690	7529.33	4356.25	-4356.41	-64.39	1707070.02	14539162.40	40°02'01.995"N	104°45'42.761"W	2.58	
12411.00	90.000	181.380	7530.01	4443.21	-4443.38	-66.72	1707067.92	14539075.46	40°02'01.135"N	104°45'42.791"W	1.08	
12499.00	90.960	181.600	7529.27	4531.17	-4531.34	-69.01	1707065.87	14538987.52	40°02'00.266"N	104°45'42.820"W	1.12	
12587.00	90.090	181.880	7528.46	4619.12	-4619.30	-71.68	1707063.43	14538899.60	40°01'59.397"N	104°45'42.855"W	1.04	
12674.00	90.180	181.370	7528.26	4706.08	-4706.26	-74.15	1707061.20	14538812.66	40°01'58.538"N	104°45'42.886"W	0.60	
12762.00	91.320	180.710	7527.10	4794.05	-4794.24	-75.75	1707059.84	14538724.71	40°01'57.668"N	104°45'42.907"W	1.50	
12849.00	91.760	179.880	7524.77	4881.02	-4881.20	-76.19	1707059.62	14538637.78	40°01'56.809"N	104°45'42.913"W	1.08	
12937.00	90.280	180.580	7523.20	4969.00	-4969.19	-76.55	1707059.50	14538549.83	40°01'55.939"N	104°45'42.917"W	1.86	
13024.00	90.340	179.500	7522.73	5055.99	-5056.18	-76.61	1707059.68	14538462.87	40°01'55.079"N	104°45'42.918"W	1.24	
13112.00	90.620	178.810	7521.99	5143.98	-5144.17	-75.31	1707061.21	14538374.92	40°01'54.210"N	104°45'42.901"W	0.85	
13200.00	91.630	178.130	7520.26	5231.94	-5232.12	-72.96	1707063.79	14538287.01	40°01'53.341"N	104°45'42.871"W	1.38	
13287.00	91.350	178.850	7518.00	5318.88	-5319.06	-70.67	1707066.32	14538200.11	40°01'52.482"N	104°45'42.841"W	0.89	
13374.00	90.030	178.770	7516.95	5405.86	-5406.03	-68.86	1707068.35	14538113.18	40°01'51.622"N	104°45'42.818"W	1.52	
13462.00	90.310	178.800	7516.69	5493.84	-5494.01	-67.00	1707070.45	14538025.24	40°01'50.753"N	104°45'42.794"W	0.32	
13549.00	90.620	177.580	7515.99	5580.80	-5580.97	-64.25	1707073.43	14537938.33	40°01'49.893"N	104°45'42.759"W	1.45	
13637.00	89.380	179.110	7515.99	5668.77	-5668.92	-61.71	1707076.21	14537850.42	40°01'49.024"N	104°45'42.726"W	2.24	
13724.00	90.120	178.820	7516.37	5755.75	-5755.91	-60.14	1707078.01	14537763.47	40°01'48.165"N	104°45'42.706"W	0.91	
13812.00	88.890	178.010	7517.13	5843.72	-5843.87	-57.70	1707080.68	14537675.55	40°01'47.295"N	104°45'42.675"W	1.67	
13899.00	87.720	178.190	7519.70	5930.64	-5930.78	-54.82	1707083.80	14537588.68	40°01'46.436"N	104°45'42.638"W	1.36	
13986.00	88.000	179.400	7522.95	6017.56	-6017.70	-52.99	1707085.86	14537501.80	40°01'45.578"N	104°45'42.614"W	1.43	
14074.00	88.740	180.720	7525.45	6105.52	-6105.66	-53.08	1707086.00	14537413.88	40°01'44.708"N	104°45'42.615"W	1.72	
14161.00	89.010	180.990	7527.16	6192.49	-6192.64	-54.38	1707084.93	14537326.93	40°01'43.849"N	104°45'42.632"W	0.44	
14249.00	89.540	180.660	7528.27	6280.47	-6280.62	-55.65	1707083.90	14537238.98	40°01'42.979"N	104°45'42.648"W	0.71	
14336.00	90.220	180.900	7528.46	6367.46	-6367.61	-56.83	1707082.95	14537152.02	40°01'42.120"N	104°45'42.664"W	0.83	
14424.00	90.980	180.640	7527.54	6455.45	-6455.60	-58.02	1707082.01	14537064.07	40°01'41.250"N	104°45'42.679"W	0.91	
14511.00	91.880	180.020	7525.36	6542.41	-6542.57	-58.52	1707081.74	14536977.13	40°01'40.391"N	104°45'42.685"W	1.26	
14599.00	90.770	180.710	7523.33	6630.39	-6630.54	-59.08	1707081.41	14536889.19	40°01'39.521"N	104°45'42.692"W	1.49	
14686.00	89.660	178.760	7523.00	6717.38	-6717.53	-58.67	1707082.05	14536802.24	40°01'38.662"N	104°45'42.687"W	2.58	
14774.00	90.180	178.510	7523.13	6805.36	-6805.51	-56.58	1707084.38	14536714.30	40°01'37.792"N	104°45'42.660"W	0.66	
14862.00	89.380	179.450	7523.46	6893.35	-6893.49	-55.01	1707086.18	14536626.36	40°01'36.923"N	104°45'42.640"W	1.40	
14949.00	90.490	179.980	7523.56	6980.34	-6980.49	-54.58	1707086.84	14536539.40	40°01'36.063"N	104°45'42.635"W	1.41	
15036.00	89.570	180.660	7523.52	7067.34	-7067.49	-55.06	1707086.59	14536452.43	40°01'35.203"N	104°45'42.641"W	1.31	
15124.00	89.660	180.130	7524.11	7155.33	-7155.48	-55.67	1707086.22	14536364.47	40°01'34.334"N	104°45'42.649"W	0.61	
15212.00	89.780	179.520	7524.54	7243.33	-7243.48	-55.40	1707086.72	14536276.51	40°01'33.464"N	104°45'42.645"W	0.71	
15299.00	90.860	179.190	7524.05	7330.33	-7330.47	-54.42	1707087.94	14536189.55	40°01'32.604"N	104°45'42.633"W	1.30	
15386.00	90.310	180.210	7523.16	7417.32	-7417.46	-53.97	1707088.62	14536102.60	40°01'31.745"N	104°45'42.627"W	1.33	
15474.00	88.830	180.540	7523.82	7505.31	-7505.46	-54.54	1707088.28	14536014.64	40°01'30.875"N	104°45'42.634"W	1.72	
15562.00	89.850	179.970	7524.84	7593.30	-7593.45	-54.94	1707088.13	14535926.68	40°01'30.006"N	104°45'42.639"W	1.33	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#31 MAB 15-13HZ(668'FSL & 2171'FEL,SEC.15)
Area	COLORADO	Well	MAB 15-13HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	MAB 15-13HZ AWB
Facility	SEC.15-T1N-R66W		

WELLPATH DATA (218 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
15649.00	90.400	178.300	7524.65	7680.29	-7680.43	-53.62	1707089.67	14535839.73	40°01'29.146"N	104°45'42.622"W	2.02	
15737.00	89.290	179.400	7524.89	7768.27	-7768.41	-51.86	1707091.67	14535751.79	40°01'28.276"N	104°45'42.600"W	1.78	
15824.00	90.090	180.280	7525.36	7855.27	-7855.41	-51.61	1707092.15	14535664.83	40°01'27.417"N	104°45'42.596"W	1.37	
15911.00	89.010	179.780	7526.04	7942.27	-7942.41	-51.66	1707092.34	14535577.87	40°01'26.557"N	104°45'42.597"W	1.37	
15998.00	90.710	180.910	7526.25	8029.26	-8029.40	-52.18	1707092.05	14535490.91	40°01'25.697"N	104°45'42.604"W	2.35	
16086.00	88.280	180.900	7527.03	8117.23	-8117.38	-53.57	1707090.89	14535402.96	40°01'24.828"N	104°45'42.622"W	2.76	
16173.00	88.890	180.860	7529.18	8204.19	-8204.34	-54.91	1707089.79	14535316.03	40°01'23.969"N	104°45'42.639"W	0.70	
16261.00	89.880	180.540	7530.12	8292.18	-8292.33	-55.98	1707088.95	14535228.08	40°01'23.099"N	104°45'42.653"W	1.18	
16349.00	90.740	179.830	7529.64	8380.17	-8380.33	-56.27	1707088.90	14535140.11	40°01'22.229"N	104°45'42.656"W	1.27	
16436.00	90.150	179.520	7528.97	8467.17	-8467.32	-55.77	1707089.63	14535053.16	40°01'21.370"N	104°45'42.650"W	0.77	
16524.00	90.000	178.400	7528.85	8555.16	-8555.31	-54.18	1707091.46	14534965.21	40°01'20.500"N	104°45'42.629"W	1.28	
16611.00	89.170	179.760	7529.48	8642.14	-8642.29	-52.78	1707093.09	14534878.27	40°01'19.641"N	104°45'42.611"W	1.83	
16698.00	89.660	181.200	7530.37	8729.13	-8729.28	-53.51	1707092.59	14534791.31	40°01'18.781"N	104°45'42.621"W	1.75	
16785.00	90.370	181.290	7530.35	8816.11	-8816.26	-55.40	1707090.94	14534704.36	40°01'17.921"N	104°45'42.645"W	0.82	
16873.00	88.150	181.320	7531.49	8904.07	-8904.22	-57.40	1707089.17	14534616.42	40°01'17.052"N	104°45'42.671"W	2.52	
16960.00	88.060	180.690	7534.36	8991.00	-8991.16	-58.93	1707087.88	14534529.52	40°01'16.193"N	104°45'42.690"W	0.73	
17048.00	88.310	180.610	7537.15	9078.95	-9079.11	-59.93	1707087.12	14534441.60	40°01'15.324"N	104°45'42.703"W	0.30	
17136.00	88.950	179.990	7539.25	9166.92	-9167.08	-60.39	1707086.89	14534353.66	40°01'14.454"N	104°45'42.709"W	1.01	
17223.00	88.890	179.260	7540.89	9253.90	-9254.07	-59.82	1707087.69	14534266.71	40°01'13.595"N	104°45'42.702"W	0.84	
17311.00	88.980	179.640	7542.53	9341.89	-9342.05	-58.97	1707088.77	14534178.77	40°01'12.725"N	104°45'42.691"W	0.44	
17398.00	91.510	179.730	7542.16	9428.88	-9429.04	-58.49	1707089.48	14534091.82	40°01'11.866"N	104°45'42.685"W	2.91	
17486.00	90.430	180.190	7540.67	9516.86	-9517.02	-58.43	1707089.78	14534003.87	40°01'10.996"N	104°45'42.684"W	1.33	
17573.00	90.150	179.740	7540.23	9603.86	-9604.02	-58.38	1707090.06	14533916.90	40°01'10.137"N	104°45'42.683"W	0.61	
17648.00†	90.602	178.785	7539.74	9678.85	-9679.01	-57.41	1707091.23	14533841.94	40°01'09.395"N	104°45'42.671"W	1.41	ENTER RADIUS TOE (1564'FSL & 2230'FEL,SEC.27) 40.0192765 -104.761853
17661.00	90.680	178.620	7539.59	9691.85	-9692.01	-57.12	1707091.56	14533828.95	40°01'09.267"N	104°45'42.667"W	1.41	
17748.00	89.820	179.860	7539.21	9778.84	-9779.00	-55.97	1707092.95	14533742.00	40°01'08.407"N	104°45'42.652"W	1.73	
17836.00	90.460	179.180	7539.00	9866.84	-9866.99	-55.23	1707093.92	14533654.05	40°01'07.538"N	104°45'42.643"W	1.06	
17923.00	89.510	179.310	7539.02	9953.83	-9953.98	-54.08	1707095.30	14533567.09	40°01'06.678"N	104°45'42.628"W	1.10	
18010.00	90.150	179.440	7539.28	10040.83	-10040.98	-53.13	1707096.48	14533480.14	40°01'05.818"N	104°45'42.616"W	0.75	
18098.00	90.650	179.060	7538.66	10128.82	-10128.97	-51.98	1707097.86	14533392.18	40°01'04.949"N	104°45'42.601"W	0.71	
18185.00	91.970	179.050	7536.67	10215.79	-10215.93	-50.55	1707099.53	14533305.26	40°01'04.089"N	104°45'42.583"W	1.52	
18273.00	89.660	179.260	7535.42	10303.77	-10303.91	-49.25	1707101.06	14533217.32	40°01'03.220"N	104°45'42.566"W	2.64	
18360.00	89.750	179.070	7535.87	10390.76	-10390.90	-47.98	1707102.56	14533130.37	40°01'02.360"N	104°45'42.550"W	0.24	
18447.00	89.660	178.620	7536.32	10477.74	-10477.88	-46.23	1707104.55	14533043.43	40°01'01.501"N	104°45'42.527"W	0.53	
18535.00	90.710	178.630	7536.03	10565.72	-10565.85	-44.12	1707106.90	14532955.50	40°01'00.631"N	104°45'42.500"W	1.19	
18622.00	91.570	178.550	7534.30	10652.68	-10652.81	-41.98	1707109.27	14532868.58	40°00'59.772"N	104°45'42.472"W	0.99	
18695.00	93.050	178.210	7531.36	10725.60	-10725.72	-39.91	1707111.52	14532795.71	40°00'59.052"N	104°45'42.446"W	2.08	LAST BHGE MWD+IFR1+MSA SURVEY
18741.00	93.050	178.210	7528.91	10771.51	-10771.63	-38.48	1707113.08	14532749.82	40°00'58.598"N	104°45'42.427"W	0.00	PTB (471'FSL & 2210'FEL,SEC.27) 40.0162772 -104.7617854

HOLE & CASING SECTIONS - Ref Wellbore: MAB 15-13HZ AWB Ref Wellpath: MAB 15-13HZ AWP									
String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
9.625in Casing Surface	17.00	1858.00	1841.00	17.00	1834.97	0.00	0.00	246.64	-30.17

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#31 MAB 15-13HZ(668'FSL & 2171'FEL,SEC.15)
Area	COLORADO	Well	MAB 15-13HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	MAB 15-13HZ AWP
Facility	SEC.15-T1N-R66W		

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.22-T1N-R66W	34.00	599.62	-1679.82	1705441.98	14544112.12	40°02'50.971"N	104°46'03.533"W	polygon
SEC.27-T1N-R66W	34.00	599.62	-1679.82	1705441.98	14544112.12	40°02'50.971"N	104°46'03.533"W	polygon
MAB 15-13HZ HEEL REV-2(670'FSL & 2251'FEL,SEC.15)	7478.00	2.13	-80.34	1707042.41	14543519.14	40°02'45.067"N	104°45'42.966"W	point
MAB 15-13HZ HEEL REV-1(670'FSL & 2251'FEL,SEC.15)	7501.00	2.13	-80.34	1707042.41	14543519.14	40°02'45.067"N	104°45'42.966"W	point
MAB 15-13HZ BHL REV-2(471'FSL & 2227'FEL,SEC.27)	7523.00	-10772.42	-55.48	1707096.09	14532748.98	40°00'58.590"N	104°45'42.646"W	point
MAB 15-15HZ SU 3 LANDBOX	7529.00	0.00	0.00	1707122.73	14543517.23	40°02'45.046"N	104°45'41.933"W	polygon
MAB 15-15HZ SU 3 RADIUS 1	7529.00	-667.04	-472.00	1706652.70	14542849.20	40°02'38.454"N	104°45'48.002"W	polygon
MAB 15-15HZ SU 3 RADIUS 2	7529.00	-9926.32	-445.46	1706704.00	14533593.70	40°01'06.951"N	104°45'47.658"W	polygon
MAB 15-13HZ BHL REV-1(471'FSL & 2227'FEL,SEC.27)	7552.00	-10772.42	-55.48	1707096.09	14532748.98	40°00'58.590"N	104°45'42.646"W	point

WELLPATH COMPOSITION - Ref Wellbore: MAB 15-13HZ AWP Ref Wellpath: MAB 15-13HZ AWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	1818.00	Custom APC_ISCWSA REV 2 MWD+IFR1 (approximation)	Custom APC ISCWSA Rev-2 MWD+IFR1 <123 - 1818>	MAB 15-13HZ AWP
1818.00	18695.00	Custom APC_ISCWSA REV 2 MWD+IFR1+MSA (approximation)	BHGE Custom APC ISCWSA Rev-2 MWD+IFR1+MSA <1888 - 18695>	MAB 15-13HZ AWP
18695.00	18741.00	Blind Drilling (std)	Projection to bit	MAB 15-13HZ AWP

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#31 MAB 15-13HZ(668'FSL & 2171'FEL,SEC.15)
Area	COLORADO	Well	MAB 15-13HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	MAB 15-13HZ AWB
Facility	SEC.15-T1N-R66W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
123.00	0.040	278.010	123.00	FIRST SURFACE MWD+IFR1 SURVEY
1818.00	13.010	351.570	1796.02	LAST SURFACE MWD+IFR1 SURVEY
1888.00	13.600	351.360	1864.14	FIRST BHGE MWD+IFR1+MSA SURVEY
6800.00	1.476	185.872	6723.93	KOP
7764.00	72.603	181.631	7451.78	ENTER LANDBOX (866'FSL & 2253'FEL,SEC.15) 40.0463886 -104.7619411
7951.00	88.090	181.290	7485.18	LANDING (682'FSL & 2258'FEL,SEC.15) 40.0458853 -104.7619579
8869.00	89.355	178.450	7489.99	EXIT RADIUS HEEL (235'FNL & 2249'FEL,SEC.22) 40.0433662 -104.7619247
17648.00	90.602	178.785	7539.74	ENTER RADIUS TOE (1564'FSL & 2230'FEL,SEC.27) 40.0192765 -104.7618530
18695.00	93.050	178.210	7531.36	LAST BHGE MWD+IFR1+MSA SURVEY
18741.00	93.050	178.210	7528.91	PTB (471'FSL & 2210'FEL,SEC.27) 40.0162772 -104.7617854