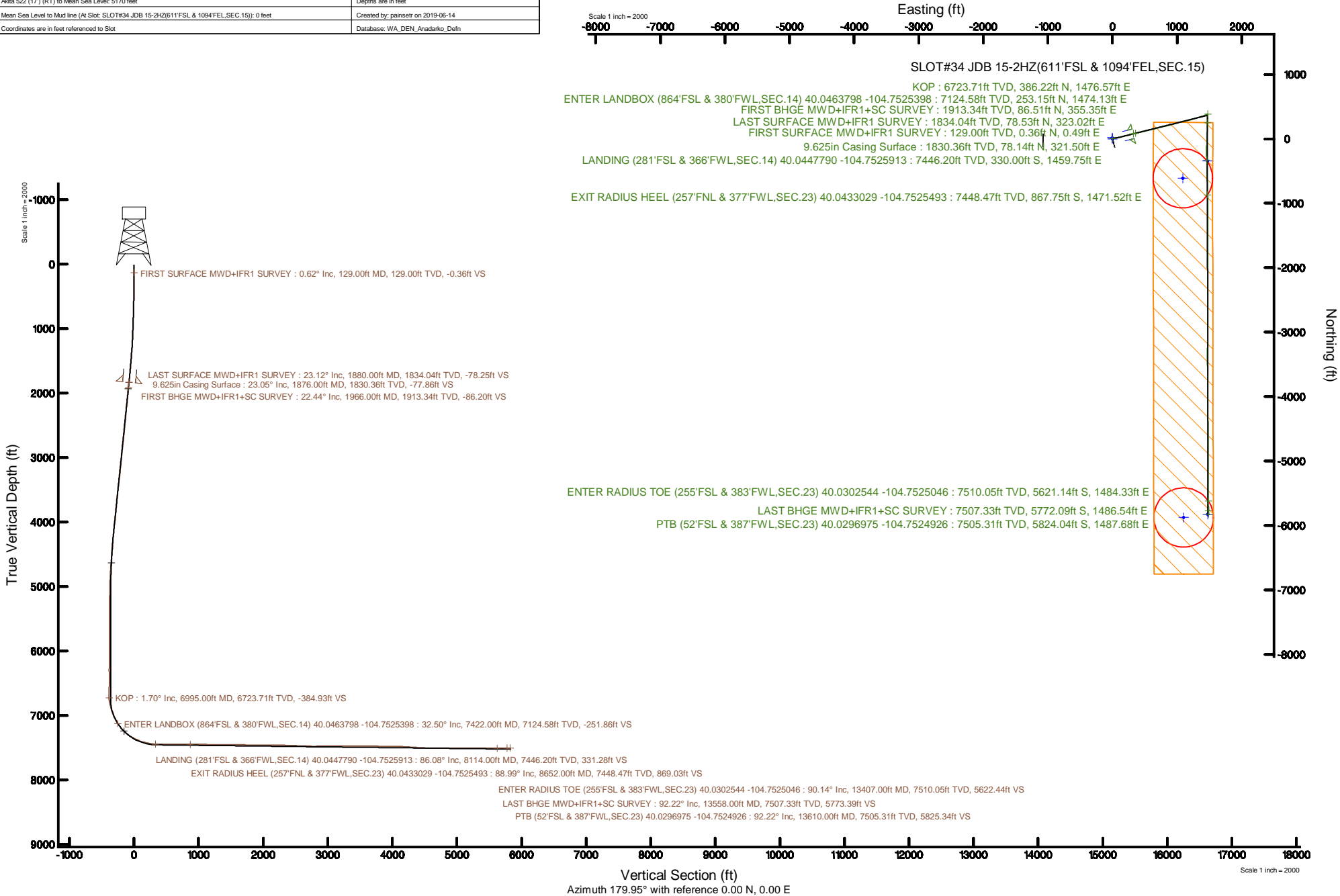


KERR-MCGEE OIL & GAS ONSHORE LP (WA)

Location: COLORADO Slot: SLOT#34 JDB 15-2HZ(611'FSL & 1094'FEL,SEC.15)
Field: WELD COUNTY (UTM/TRUE NORTH) Well: JDB 15-2HZ
Facility: SEC.15-T1N-R66W Wellbore: JDB 15-2HZ PWB

Plot reference wellpath is JDB 15-2HZ PWP Rev-A.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: 5170 feet	Depths are in feet
Mean Sea Level to Mud line (At Slot: SLOT#34 JDB 15-2HZ(611'FSL & 1094'FEL,SEC.15)): 0 feet	Created by: painsetr on 2019-06-14
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#34 JDB 15-2HZ(611'FSL & 1094'FEL,SEC.15)
Area	COLORADO	Well	JDB 15-2HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	JDB 15-2HZ 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	6/14/2019 at 10:49:04 AM
Convergence at slot	0.16° East	Database/Source file	WA_DEN_Anadarko_Defn/JDB_15-2HZ_AWP.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-658.00	2755.91	1708198.42	14543461.47	40°02'44.466"N	104°45'28.098"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	5170.00ft
Horizontal Reference Pt	Slot	Akita 522 (17') (RT) to Mean Sea Level	5170.00ft
Vertical Reference Pt	Akita 522 (17') (RT)	Akita 522 (17') (RT) to Mud Line at Slot (SLOT#34 JDB 15-2HZ (611'FSL & 1094'FEL,SEC.15))	5170.00ft
MD Reference Pt	Akita 522 (17') (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	179.95°

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#34 JDB 15-2HZ(611'FSL & 1094'FEL,SEC.15)
Area	COLORADO	Well	JDB 15-2HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	JDB 15-2HZ AWP
Facility	SEC.15-T1N-R66W		

WELLPATH DATA (160 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	54.050	0.00	0.00	0.00	0.00	1708198.42	14543461.47	40°02'44.466"N	104°45'28.098"W	0.00	
17.00	0.000	54.050	17.00	0.00	0.00	0.00	1708198.42	14543461.47	40°02'44.466"N	104°45'28.098"W	0.00	
129.00	0.620	54.050	129.00	-0.36	0.36	0.49	1708198.91	14543461.83	40°02'44.470"N	104°45'28.092"W	0.55	FIRST SURFACE MWD+IFR1 SURVEY
225.00	0.700	51.070	224.99	-1.03	1.03	1.37	1708199.78	14543462.50	40°02'44.476"N	104°45'28.080"W	0.09	
320.00	1.630	76.200	319.97	-1.71	1.72	3.13	1708201.54	14543463.19	40°02'44.483"N	104°45'28.058"W	1.09	
416.00	1.540	74.010	415.93	-2.39	2.40	5.70	1708204.11	14543463.88	40°02'44.490"N	104°45'28.025"W	0.11	
511.00	2.680	69.610	510.87	-3.51	3.52	9.01	1708207.41	14543465.01	40°02'44.501"N	104°45'27.982"W	1.21	
606.00	5.010	77.260	605.65	-5.20	5.21	15.13	1708213.53	14543466.72	40°02'44.518"N	104°45'27.903"W	2.51	
701.00	5.320	75.410	700.26	-7.22	7.24	23.44	1708221.83	14543468.77	40°02'44.538"N	104°45'27.797"W	0.37	
796.00	7.510	75.850	794.66	-9.83	9.86	33.73	1708232.10	14543471.42	40°02'44.563"N	104°45'27.664"W	2.31	
891.00	9.180	78.840	888.65	-12.81	12.85	47.18	1708245.55	14543474.44	40°02'44.593"N	104°45'27.491"W	1.82	
986.00	11.950	79.280	982.03	-16.09	16.14	64.28	1708262.63	14543477.78	40°02'44.626"N	104°45'27.271"W	2.92	
1081.00	12.920	79.020	1074.80	-19.92	20.00	84.37	1708282.70	14543481.69	40°02'44.664"N	104°45'27.013"W	1.02	
1176.00	15.160	80.330	1166.96	-24.01	24.11	107.05	1708305.36	14543485.86	40°02'44.704"N	104°45'26.722"W	2.38	
1271.00	15.600	75.760	1258.56	-29.22	29.34	131.68	1708329.96	14543491.15	40°02'44.756"N	104°45'26.405"W	1.36	
1366.00	15.860	74.270	1350.00	-35.86	36.00	156.55	1708354.81	14543497.88	40°02'44.822"N	104°45'26.085"W	0.51	
1461.00	16.790	75.590	1441.17	-42.77	42.93	182.34	1708380.57	14543504.88	40°02'44.890"N	104°45'25.753"W	1.05	
1556.00	18.940	75.850	1531.59	-49.93	50.12	210.58	1708408.78	14543512.14	40°02'44.961"N	104°45'25.390"W	2.26	
1651.00	20.040	76.120	1621.14	-57.58	57.79	241.33	1708439.50	14543519.89	40°02'45.037"N	104°45'24.995"W	1.16	
1746.00	21.490	75.150	1709.97	-65.92	66.15	273.96	1708472.08	14543528.34	40°02'45.120"N	104°45'24.575"W	1.57	
1841.00	22.410	76.380	1798.08	-74.61	74.88	308.38	1708506.47	14543537.16	40°02'45.206"N	104°45'24.133"W	1.08	
1880.00	23.120	75.640	1834.04	-78.25	78.53	323.02	1708521.09	14543540.84	40°02'45.242"N	104°45'23.945"W	1.96	LAST SURFACE MWD+IFR1 SURVEY
1966.00	22.440	76.640	1913.34	-86.20	86.51	355.35	1708553.39	14543548.91	40°02'45.321"N	104°45'23.529"W	0.91	FIRST BHGE MWD+IFR1+SC SURVEY
2053.00	22.060	76.410	1993.86	-93.85	94.18	387.38	1708585.39	14543556.67	40°02'45.397"N	104°45'23.117"W	0.45	
2141.00	24.420	77.190	2074.71	-101.73	102.10	421.19	1708619.16	14543564.67	40°02'45.475"N	104°45'22.682"W	2.70	
2228.00	23.940	77.010	2154.08	-109.66	110.06	455.92	1708653.86	14543572.72	40°02'45.554"N	104°45'22.236"W	0.56	
2315.00	23.310	76.560	2233.79	-117.60	118.03	489.86	1708687.77	14543580.78	40°02'45.632"N	104°45'21.799"W	0.75	
2402.00	22.360	76.720	2313.97	-125.37	125.83	522.71	1708720.58	14543588.67	40°02'45.709"N	104°45'21.377"W	1.09	
2490.00	23.470	77.100	2395.02	-133.10	133.59	556.09	1708753.92	14543596.51	40°02'45.786"N	104°45'20.948"W	1.27	
2578.00	22.190	76.650	2476.13	-140.82	141.33	589.34	1708787.14	14543604.35	40°02'45.863"N	104°45'20.520"W	1.47	
2665.00	24.000	76.480	2556.15	-148.72	149.27	622.53	1708820.29	14543612.37	40°02'45.941"N	104°45'20.093"W	2.08	
2753.00	22.610	75.990	2636.97	-156.97	157.54	656.34	1708854.07	14543620.73	40°02'46.023"N	104°45'19.659"W	1.59	
2840.00	23.040	74.940	2717.16	-165.42	166.02	689.01	1708886.70	14543629.29	40°02'46.107"N	104°45'19.238"W	0.68	
2928.00	24.870	76.360	2797.57	-174.22	174.86	723.63	1708921.28	14543638.22	40°02'46.194"N	104°45'18.793"W	2.18	
3015.00	23.350	75.690	2876.98	-182.77	183.43	758.11	1708955.73	14543646.89	40°02'46.279"N	104°45'18.350"W	1.78	
3103.00	23.100	77.710	2957.85	-190.73	191.42	791.88	1708989.46	14543654.96	40°02'46.358"N	104°45'17.916"W	0.95	
3190.00	23.290	77.770	3037.82	-197.97	198.69	825.36	1709022.91	14543662.33	40°02'46.429"N	104°45'17.485"W	0.22	
3277.00	24.020	76.140	3117.51	-205.83	206.58	859.36	1709056.88	14543670.30	40°02'46.507"N	104°45'17.048"W	1.13	
3365.00	22.130	75.600	3198.47	-214.21	214.99	892.81	1709090.29	14543678.80	40°02'46.590"N	104°45'16.618"W	2.16	
3452.00	22.790	75.300	3278.87	-222.54	223.34	924.98	1709122.42	14543687.24	40°02'46.673"N	104°45'16.204"W	0.77	
3539.00	23.470	72.820	3358.87	-231.90	232.74	957.83	1709155.23	14543696.72	40°02'46.766"N	104°45'15.782"W	1.37	
3627.00	21.790	71.740	3440.10	-242.17	243.03	990.09	1709187.45	14543707.09	40°02'46.868"N	104°45'15.367"W	1.97	
3715.00	21.730	71.990	3521.83	-252.29	253.19	1021.09	1709218.41	14543717.33	40°02'46.968"N	104°45'14.968"W	0.13	
3802.00	23.190	76.390	3602.23	-261.28	262.20	1053.06	1709250.34	14543726.42	40°02'47.057"N	104°45'14.557"W	2.56	
3890.00	23.270	79.470	3683.10	-268.50	269.45	1086.99	1709284.24	14543733.77	40°02'47.129"N	104°45'14.121"W	1.38	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#34 JDB 15-2HZ(611'FSL & 1094'FEL,SEC.15)
Area	COLORADO	Well	JDB 15-2HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	JDB 15-2HZ AWB
Facility	SEC.15-T1N-R66W		

WELLPATH DATA (160 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
3977.00	23.840	79.130	3762.85	-274.93	275.91	1121.15	1709318.37	14543740.31	40°02'47.192"N	104°45'13.682"W	0.67	
4064.00	22.120	77.670	3842.94	-281.71	282.72	1154.42	1709351.61	14543747.22	40°02'47.260"N	104°45'13.254"W	2.08	
4152.00	22.260	75.930	3924.43	-289.28	290.31	1186.78	1709383.93	14543754.89	40°02'47.335"N	104°45'12.838"W	0.76	
4239.00	23.810	73.620	4004.49	-298.21	299.27	1219.61	1709416.73	14543763.94	40°02'47.423"N	104°45'12.416"W	2.06	
4327.00	22.150	73.360	4085.50	-307.94	309.03	1252.55	1709449.63	14543773.78	40°02'47.520"N	104°45'11.992"W	1.89	
4414.00	20.200	73.890	4166.62	-316.78	317.90	1282.70	1709479.74	14543782.73	40°02'47.607"N	104°45'11.605"W	2.25	
4502.00	18.350	72.670	4249.69	-325.10	326.24	1310.52	1709507.53	14543791.14	40°02'47.690"N	104°45'11.247"W	2.15	
4589.00	17.010	73.230	4332.58	-332.82	333.99	1335.78	1709532.76	14543798.96	40°02'47.766"N	104°45'10.922"W	1.55	
4677.00	16.110	74.040	4416.93	-339.87	341.06	1359.84	1709556.79	14543806.09	40°02'47.836"N	104°45'10.613"W	1.06	
4764.00	14.410	77.200	4500.86	-345.57	346.78	1382.01	1709578.93	14543811.87	40°02'47.893"N	104°45'10.328"W	2.17	
4852.00	13.860	71.400	4586.20	-351.34	352.57	1402.68	1709599.57	14543817.71	40°02'47.950"N	104°45'10.062"W	1.73	
4939.00	11.210	65.970	4671.12	-358.10	359.34	1420.28	1709617.15	14543824.52	40°02'48.017"N	104°45'09.835"W	3.33	
5027.00	9.150	67.340	4757.73	-364.26	365.52	1434.55	1709631.40	14543830.74	40°02'48.078"N	104°45'09.652"W	2.36	
5139.00	5.910	69.880	4868.75	-369.67	370.93	1448.19	1709645.02	14543836.19	40°02'48.131"N	104°45'09.477"W	2.91	
5226.00	5.470	71.490	4955.32	-372.52	373.79	1456.32	1709653.14	14543839.07	40°02'48.159"N	104°45'09.372"W	0.54	
5313.00	4.170	71.820	5042.01	-374.82	376.09	1463.26	1709660.07	14543841.39	40°02'48.182"N	104°45'09.283"W	1.49	
5401.00	2.520	58.040	5129.86	-376.83	378.11	1467.94	1709664.75	14543843.42	40°02'48.202"N	104°45'09.223"W	2.07	
5488.00	1.250	358.750	5216.82	-378.79	380.08	1469.55	1709666.34	14543845.39	40°02'48.222"N	104°45'09.202"W	2.49	
5576.00	1.710	18.540	5304.79	-381.00	382.28	1469.94	1709666.73	14543847.59	40°02'48.243"N	104°45'09.197"W	0.77	
5663.00	0.900	241.500	5391.78	-381.90	383.19	1469.75	1709666.54	14543848.50	40°02'48.252"N	104°45'09.199"W	2.81	
5838.00	0.540	9.070	5566.77	-382.06	383.34	1468.68	1709665.46	14543848.65	40°02'48.254"N	104°45'09.213"W	0.74	
5926.00	0.950	358.990	5654.76	-383.20	384.48	1468.73	1709665.51	14543849.79	40°02'48.265"N	104°45'09.212"W	0.49	
6013.00	0.690	139.830	5741.76	-383.52	384.80	1469.05	1709665.84	14543850.11	40°02'48.268"N	104°45'09.208"W	1.78	
6101.00	0.310	85.090	5829.75	-383.14	384.42	1469.63	1709666.42	14543849.73	40°02'48.264"N	104°45'09.201"W	0.65	
6188.00	0.310	74.360	5916.75	-383.22	384.50	1470.09	1709666.88	14543849.81	40°02'48.265"N	104°45'09.195"W	0.07	
6276.00	0.510	74.020	6004.75	-383.39	384.67	1470.70	1709667.48	14543849.99	40°02'48.267"N	104°45'09.187"W	0.23	
6364.00	0.140	139.670	6092.75	-383.42	384.70	1471.15	1709667.93	14543850.01	40°02'48.267"N	104°45'09.181"W	0.53	
6451.00	0.120	26.020	6179.75	-383.42	384.70	1471.25	1709668.04	14543850.02	40°02'48.267"N	104°45'09.180"W	0.25	
6538.00	0.490	49.150	6266.75	-383.74	385.03	1471.58	1709668.36	14543850.34	40°02'48.270"N	104°45'09.176"W	0.44	
6626.00	0.710	128.550	6354.74	-383.65	384.93	1472.29	1709669.07	14543850.25	40°02'48.270"N	104°45'09.167"W	0.89	
6714.00	0.650	82.480	6442.74	-383.37	384.66	1473.21	1709669.99	14543849.98	40°02'48.267"N	104°45'09.155"W	0.61	
6801.00	0.730	62.740	6529.73	-383.69	384.98	1474.19	1709670.97	14543850.30	40°02'48.270"N	104°45'09.142"W	0.29	
6889.00	0.860	61.010	6617.72	-384.27	385.55	1475.27	1709672.05	14543850.88	40°02'48.276"N	104°45'09.128"W	0.15	
6976.00	0.950	46.160	6704.71	-385.08	386.37	1476.36	1709673.13	14543851.70	40°02'48.284"N	104°45'09.114"W	0.29	
6995.00†	1.696	158.361	6723.71	-384.93	386.22	1476.57	1709673.35	14543851.55	40°02'48.282"N	104°45'09.112"W	11.77	KOP
7064.00	9.700	177.620	6792.32	-378.16	379.45	1477.19	1709673.99	14543844.78	40°02'48.215"N	104°45'09.104"W	11.77	
7152.00	14.680	179.050	6878.31	-359.59	360.88	1477.69	1709674.53	14543826.22	40°02'48.032"N	104°45'09.097"W	5.67	
7240.00	20.080	182.140	6962.26	-333.33	334.62	1477.31	1709674.22	14543799.97	40°02'47.772"N	104°45'09.102"W	6.22	
7327.00	26.860	181.180	7042.01	-298.71	300.00	1476.34	1709673.35	14543765.36	40°02'47.430"N	104°45'09.115"W	7.81	
7414.00	31.880	183.800	7117.81	-256.11	257.40	1474.42	1709671.54	14543722.77	40°02'47.009"N	104°45'09.139"W	5.95	
7422.00†	32.503	183.804	7124.58	-251.86	253.15	1474.13	1709671.27	14543718.52	40°02'46.967"N	104°45'09.143"W	7.78	ENTER LANDBOX (864'FSL & 380'FWL,SEC.14) 40.0463798 -104.7525398
7502.00	38.730	183.840	7189.58	-205.40	206.68	1471.03	1709668.29	14543672.07	40°02'46.508"N	104°45'09.183"W	7.78	
7589.00	47.000	182.840	7253.30	-146.37	147.65	1467.62	1709665.05	14543613.05	40°02'45.925"N	104°45'09.227"W	9.54	
7676.00	55.160	183.010	7307.91	-78.83	80.11	1464.17	1709661.78	14543545.53	40°02'45.257"N	104°45'09.271"W	9.38	
7764.00	62.420	181.670	7353.48	-3.68	4.96	1461.13	1709658.95	14543470.40	40°02'44.515"N	104°45'09.311"W	8.35	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#34 JDB 15-2HZ(611'FSL & 1094'FEL,SEC.15)
Area	COLORADO	Well	JDB 15-2HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	JDB 15-2HZ AWB
Facility	SEC.15-T1N-R66W		

WELLPATH DATA (160 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
7851.00	68.860	181.100	7389.34	75.50	-74.23	1459.22	1709657.26	14543391.24	40°02'43.732"N	104°45'09.335"W	7.43	
7939.00	74.890	180.650	7416.71	159.09	-157.81	1457.95	1709656.22	14543307.68	40°02'42.906"N	104°45'09.351"W	6.87	
8026.00	80.050	179.500	7435.58	243.98	-242.71	1457.85	1709656.34	14543222.82	40°02'42.067"N	104°45'09.353"W	6.07	
8114.00	86.080	178.020	7446.20	331.28	-330.00	1459.75	1709658.48	14543135.56	40°02'41.204"N	104°45'09.329"W	7.05	LANDING (281'FSL & 366'FWL,SEC.14) 40.0447790 -104.7525913
8201.00	90.160	179.750	7449.05	418.20	-416.92	1461.44	1709660.40	14543048.69	40°02'40.345"N	104°45'09.307"W	5.09	
8289.00	91.420	178.840	7447.84	506.18	-504.90	1462.52	1709661.72	14542960.74	40°02'39.476"N	104°45'09.293"W	1.77	
8376.00	90.080	179.120	7446.70	593.16	-591.88	1464.07	1709663.51	14542873.81	40°02'38.616"N	104°45'09.273"W	1.57	
8464.00	90.640	178.580	7446.15	681.14	-679.86	1465.83	1709665.51	14542785.87	40°02'37.747"N	104°45'09.251"W	0.88	
8551.00	88.870	178.440	7446.52	768.11	-766.83	1468.10	1709668.01	14542698.94	40°02'36.888"N	104°45'09.221"W	2.04	
8639.00	88.900	177.730	7448.23	856.04	-854.76	1471.04	1709671.19	14542611.05	40°02'36.019"N	104°45'09.184"W	0.81	
8652.00†	88.992	177.990	7448.47	869.03	-867.75	1471.52	1709671.71	14542598.07	40°02'35.890"N	104°45'09.178"W	2.12	EXIT RADIUS HEEL (257'FNL & 377'FWL,SEC.23) 40.0433029 -104.7525493
8727.00	89.520	179.490	7449.44	944.01	-942.72	1473.17	1709673.56	14542523.13	40°02'35.149"N	104°45'09.156"W	2.12	
8814.00	90.240	179.340	7449.63	1031.00	-1029.72	1474.06	1709674.69	14542436.17	40°02'34.290"N	104°45'09.145"W	0.85	
8902.00	88.560	179.580	7450.55	1118.99	-1117.70	1474.89	1709675.75	14542348.22	40°02'33.420"N	104°45'09.134"W	1.93	
8989.00	88.880	179.610	7452.49	1205.97	-1204.68	1475.50	1709676.61	14542261.28	40°02'32.561"N	104°45'09.127"W	0.37	
9077.00	89.100	179.940	7454.04	1293.95	-1292.66	1475.85	1709677.19	14542173.33	40°02'31.691"N	104°45'09.122"W	0.45	
9164.00	89.840	179.660	7454.85	1380.95	-1379.66	1476.15	1709677.73	14542086.37	40°02'30.831"N	104°45'09.118"W	0.91	
9252.00	90.950	179.500	7454.24	1468.94	-1467.65	1476.80	1709678.61	14541998.42	40°02'29.962"N	104°45'09.110"W	1.27	
9339.00	89.680	180.840	7453.76	1555.94	-1554.65	1476.54	1709678.59	14541911.46	40°02'29.102"N	104°45'09.114"W	2.12	
9426.00	88.300	179.780	7455.30	1642.92	-1641.63	1476.07	1709678.36	14541824.51	40°02'28.243"N	104°45'09.120"W	2.00	
9514.00	88.740	180.420	7457.57	1730.89	-1729.60	1475.92	1709678.44	14541736.57	40°02'27.373"N	104°45'09.122"W	0.88	
9601.00	89.350	181.110	7459.02	1817.87	-1816.58	1474.75	1709677.52	14541649.63	40°02'26.514"N	104°45'09.137"W	1.06	
9689.00	89.250	180.380	7460.09	1905.85	-1904.56	1473.61	1709676.62	14541561.67	40°02'25.644"N	104°45'09.151"W	0.84	
9776.00	90.590	180.050	7460.22	1992.85	-1991.56	1473.28	1709676.53	14541474.71	40°02'24.784"N	104°45'09.156"W	1.59	
9863.00	89.750	180.660	7459.96	2079.84	-2078.56	1472.74	1709676.22	14541387.75	40°02'23.925"N	104°45'09.163"W	1.19	
9951.00	88.910	179.440	7460.99	2167.83	-2166.55	1472.67	1709676.39	14541299.79	40°02'23.055"N	104°45'09.164"W	1.68	
10038.00	89.880	179.450	7461.90	2254.83	-2253.54	1473.51	1709677.46	14541212.84	40°02'22.196"N	104°45'09.153"W	1.12	
10126.00	87.390	179.640	7464.00	2342.79	-2341.51	1474.21	1709678.40	14541124.91	40°02'21.326"N	104°45'09.144"W	2.84	
10213.00	87.880	179.940	7467.59	2429.72	-2428.43	1474.53	1709678.96	14541038.02	40°02'20.467"N	104°45'09.140"W	0.66	
10301.00	88.010	179.580	7470.75	2517.66	-2516.37	1474.90	1709679.56	14540950.11	40°02'19.598"N	104°45'09.135"W	0.43	
10388.00	87.910	179.670	7473.84	2604.60	-2603.32	1475.46	1709680.37	14540863.21	40°02'18.739"N	104°45'09.128"W	0.15	
10476.00	88.620	179.470	7476.51	2692.56	-2691.27	1476.12	1709681.27	14540775.29	40°02'17.870"N	104°45'09.120"W	0.84	
10563.00	90.020	179.680	7477.54	2779.55	-2778.26	1476.77	1709682.15	14540688.33	40°02'17.010"N	104°45'09.111"W	1.63	
10651.00	91.410	179.640	7476.44	2867.54	-2866.25	1477.29	1709682.91	14540600.38	40°02'16.141"N	104°45'09.105"W	1.58	
10738.00	91.500	180.040	7474.23	2954.51	-2953.22	1477.53	1709683.39	14540513.45	40°02'15.281"N	104°45'09.102"W	0.47	
10825.00	89.720	180.640	7473.31	3041.50	-3040.21	1477.02	1709683.11	14540426.49	40°02'14.421"N	104°45'09.108"W	2.16	
10913.00	90.410	181.740	7473.21	3129.48	-3128.19	1475.19	1709681.52	14540338.54	40°02'13.552"N	104°45'09.132"W	1.48	
11000.00	89.920	181.620	7472.96	3216.44	-3215.15	1472.64	1709679.21	14540251.61	40°02'12.693"N	104°45'09.165"W	0.58	
11088.00	89.420	180.600	7473.46	3304.42	-3303.13	1470.94	1709677.74	14540163.66	40°02'11.823"N	104°45'09.187"W	1.29	
11175.00	88.670	179.570	7474.91	3391.40	-3390.12	1470.81	1709677.85	14540076.70	40°02'10.964"N	104°45'09.189"W	1.46	
11262.00	90.250	179.450	7475.73	3478.39	-3477.11	1471.55	1709678.83	14539989.75	40°02'10.104"N	104°45'09.179"W	1.82	
11349.00	89.590	179.930	7475.85	3565.39	-3564.11	1472.02	1709679.54	14539902.79	40°02'09.244"N	104°45'09.173"W	0.94	
11436.00	89.990	179.800	7476.17	3652.39	-3651.11	1472.23	1709679.98	14539815.83	40°02'08.384"N	104°45'09.171"W	0.48	
11524.00	89.240	178.870	7476.76	3740.38	-3739.10	1473.25	1709681.24	14539727.87	40°02'07.515"N	104°45'09.158"W	1.36	
11611.00	89.450	178.620	7477.76	3827.36	-3826.07	1475.15	1709683.38	14539640.94	40°02'06.655"N	104°45'09.133"W	0.38	

Actual Wellpath Report

JDB 15-2HZ AWP

Page 5 of 7

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#34 JDB 15-2HZ(611'FSL & 1094'FEL,SEC.15)
Area	COLORADO	Well	JDB 15-2HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	JDB 15-2HZ AWB
Facility	SEC.15-T1N-R66W		

WELLPATH DATA (160 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]
11699.00	88.790	179.580	7479.11	3915.34	-3914.05	1476.54	1709685.00	14539553.00	40°02'05.786"N	104°45'09.115"W	1.32
11787.00	89.780	179.630	7480.21	4003.33	-4002.04	1477.14	1709685.85	14539465.05	40°02'04.916"N	104°45'09.108"W	1.13
11874.00	89.040	180.260	7481.10	4090.32	-4089.03	1477.23	1709686.17	14539378.09	40°02'04.057"N	104°45'09.107"W	1.12
11962.00	86.510	180.630	7484.52	4178.24	-4176.96	1476.54	1709685.72	14539290.20	40°02'03.188"N	104°45'09.115"W	2.91
12049.00	86.120	179.580	7490.11	4265.06	-4263.77	1476.38	1709685.80	14539203.42	40°02'02.330"N	104°45'09.118"W	1.29
12137.00	86.510	178.570	7495.77	4352.87	-4351.58	1477.80	1709687.46	14539115.65	40°02'01.462"N	104°45'09.099"W	1.23
12224.00	86.810	177.780	7500.84	4439.68	-4438.39	1480.57	1709690.46	14539028.88	40°02'00.604"N	104°45'09.064"W	0.97
12311.00	87.880	179.570	7504.87	4526.56	-4525.27	1482.58	1709692.70	14538942.05	40°01'59.746"N	104°45'09.038"W	2.40
12399.00	89.420	180.130	7506.94	4614.53	-4613.24	1482.81	1709693.17	14538854.11	40°01'58.876"N	104°45'09.035"W	1.86
12486.00	90.210	179.930	7507.22	4701.53	-4700.24	1482.76	1709693.36	14538767.14	40°01'58.017"N	104°45'09.036"W	0.94
12573.00	91.650	180.140	7505.81	4788.52	-4787.22	1482.71	1709693.55	14538680.19	40°01'57.157"N	104°45'09.037"W	1.67
12661.00	89.390	180.350	7505.01	4876.50	-4875.21	1482.33	1709693.41	14538592.24	40°01'56.287"N	104°45'09.042"W	2.58
12748.00	89.870	179.480	7505.57	4963.50	-4962.21	1482.46	1709693.78	14538505.28	40°01'55.428"N	104°45'09.040"W	1.14
12836.00	90.900	178.970	7504.98	5051.49	-5050.20	1483.65	1709695.20	14538417.33	40°01'54.558"N	104°45'09.025"W	1.31
12923.00	89.190	180.040	7504.91	5138.48	-5137.19	1484.40	1709696.19	14538330.37	40°01'53.699"N	104°45'09.015"W	2.32
13011.00	88.920	180.820	7506.37	5226.47	-5225.18	1483.74	1709695.77	14538242.42	40°01'52.829"N	104°45'09.024"W	0.94
13098.00	89.300	180.030	7507.72	5313.45	-5312.16	1483.10	1709695.36	14538155.47	40°01'51.969"N	104°45'09.032"W	1.01
13186.00	89.790	179.390	7508.42	5401.45	-5400.16	1483.54	1709696.05	14538067.51	40°01'51.100"N	104°45'09.026"W	0.92
13273.00	89.190	180.380	7509.19	5488.44	-5487.15	1483.72	1709696.46	14537980.55	40°01'50.240"N	104°45'09.024"W	1.33
13361.00	89.750	179.430	7510.00	5576.44	-5575.15	1483.86	1709696.84	14537892.59	40°01'49.371"N	104°45'09.022"W	1.25
13407.00†	90.136	179.404	7510.05	5622.44	-5621.14	1484.33	1709697.44	14537846.61	40°01'48.916"N	104°45'09.016"W	0.84
13448.00	90.480	179.380	7509.83	5663.43	-5662.14	1484.77	1709697.98	14537805.63	40°01'48.511"N	104°45'09.011"W	0.84
13536.00	91.780	178.900	7508.09	5751.41	-5750.11	1486.09	1709699.54	14537717.70	40°01'47.641"N	104°45'08.994"W	1.57
13558.00	92.220	178.740	7507.33	5773.39	-5772.09	1486.54	1709700.05	14537695.73	40°01'47.424"N	104°45'08.988"W	2.13
13610.00	92.220	178.740	7505.31	5825.34	-5824.04	1487.68	1709701.34	14537643.80	40°01'46.911"N	104°45'08.974"W	0.00
ENTER RADIUS TOE (255'FSL & 383'FWL,SEC.23) 40.0302544 -104.7525046											
LAST BHGE MWD+IFR1+SC SURVEY											
PTB (52'FSL & 387'FWL,SEC.23) 40.0296975 -104.7524926											

HOLE & CASING SECTIONS - Ref Wellbore: JDB 15-2HZ AWB Ref Wellpath: JDB 15-2HZ 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	1876.00	1859.00	17.00	1830.36	0.00	0.00	78.14	321.50

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#34 JDB 15-2HZ(611'FSL & 1094'FEL,SEC.15)
Area	COLORADO	Well	JDB 15-2HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	JDB 15-2HZ AWB
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.14-T1N-R66W	0.00	14.57	-3.36	1708195.02	14543476.03	40°02'44.610"N	104°45'28.141"W	polygon
SEC.23-T1N-R66W	0.00	14.57	-3.36	1708195.02	14543476.03	40°02'44.610"N	104°45'28.141"W	polygon
JDB 15-2HZ HEEL REV-1(270'FSL & 379'FWL,SEC.14)	7456.00	-342.75	1470.46	1709669.22	14543122.85	40°02'41.078"N	104°45'09.191"W	point
JDB 15-2HZ BHL REV-1(50'FSL & 374'FWL,SEC.23)	7522.00	-5825.67	1475.26	1709688.92	14537642.14	40°01'46.895"N	104°45'09.133"W	point
JDB 15-2HZ LANDBOX	7522.00	0.00	0.00	1708198.42	14543461.47	40°02'44.466"N	104°45'28.098"W	polygon
JDB 15-2HZ RADIUS 1	7522.00	-5874.91	1100.85	1709314.80	14537591.90	40°01'46.408"N	104°45'13.946"W	polygon
JDB 15-2HZ RADIUS 2	7522.00	-612.67	1088.85	1709288.50	14542852.00	40°02'38.411"N	104°45'14.098"W	polygon

WELLPATH COMPOSITION - Ref Wellbore: JDB 15-2HZ AWB Ref Wellpath: JDB 15-2HZ AWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	1880.00	Custom APC_ISCWSA REV 2 MWD+IFR1 (approximation)	Custom APC ISCWSA Rev-2 MWD+IFR1 <129 - 1880>	JDB 15-2HZ AWB
1880.00	13558.00	Custom APC_ISCWSA REV 2 MWD+IFR1+SC (approximation)	BHGE Custom APC ISCWSA Rev-2 MWD+IFR1+SC <1966 - 13558>	JDB 15-2HZ AWB
13558.00	13610.00	Blind Drilling (std)	Projection to bit	JDB 15-2HZ AWB

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#34 JDB 15-2HZ(611'FSL & 1094'FEL,SEC.15)
Area	COLORADO	Well	JDB 15-2HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	JDB 15-2HZ AWB
Facility	SEC.15-T1N-R66W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
129.00	0.620	54.050	129.00	FIRST SURFACE MWD+IFR1 SURVEY
1880.00	23.120	75.640	1834.04	LAST SURFACE MWD+IFR1 SURVEY
1966.00	22.440	76.640	1913.34	FIRST BHGE MWD+IFR1+SC SURVEY
6995.00	1.696	158.361	6723.71	KOP
7422.00	32.503	183.804	7124.58	ENTER LANDBOX (864'FSL & 380'FWL,SEC.14) 40.0463798 -104.7525398
8114.00	86.080	178.020	7446.20	LANDING (281'FSL & 366'FWL,SEC.14) 40.0447790 -104.7525913
8652.00	88.992	177.990	7448.47	EXIT RADIUS HEEL (257'FNL & 377'FWL,SEC.23) 40.0433029 -104.7525493
13407.00	90.136	179.404	7510.05	ENTER RADIUS TOE (255'FSL & 383'FWL,SEC.23) 40.0302544 -104.7525046
13558.00	92.220	178.740	7507.33	LAST BHGE MWD+IFR1+SC SURVEY
13610.00	92.220	178.740	7505.31	PTB (52'FSL & 387'FWL,SEC.23) 40.0296975 -104.7524926