

# KERR-MCGEE OIL & GAS ONSHORE LP (WA)

Location: COLORADO Slot: SLOT#42 JDB 15-10HZ(494'FSL & 1065'FEL,SEC.15)  
Field: WELD COUNTY (UTM/TRUE NORTH) Well: JDB 15-10HZ  
Facility: SEC.15-T1N-R66W Wellbore: JDB 15-10HZ PWB

Plot reference wellpath is JDB 15-10HZ 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: 5170 feet	Depths are in feet
Mean Sea Level to Mud line (At Slot: SLOT#42 JDB 15-10HZ(494'FSL & 1065'FEL,SEC.15)): 0 feet	Created by: painsetr on 2019-07-22
Coordinates are in feet referenced to Slot	Database: WA, DEN, Anadarko, Deln



## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#42 JDB 15-10HZ(494'FSL & 1065'FEL,SEC.15)
Area	COLORADO	Well	JDB 15-10HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	JDB 15-10HZ 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	7/22/2019 at 10:49:11 AM
Convergence at slot	0.16° East	Database/Source file	WA_DEN_Anadarko_Defn/JDB_15-10HZ_AWP.xml

## WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-774.57	2784.48	1708227.28	14543345.02	40°02'43.314"N	104°45'27.731"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#42 JDB 15-10HZ (494'FSL & 1065'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	1.01°

# Actual Wellpath Report

JDB 15-10HZ AWP

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Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#42 JDB 15-10HZ(494'FSL & 1065'FEL,SEC.15)
Area	COLORADO	Well	JDB 15-10HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	JDB 15-10HZ AWB
Facility	SEC.15-T1N-R66W		

WELLPATH DATA (158 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	127.000	0.00	0.00	0.00	0.00	1708227.28	14543345.02	40°02'43.314"N	104°45'27.731"W	0.00	
17.00	0.000	127.000	17.00	0.00	0.00	0.00	1708227.28	14543345.02	40°02'43.314"N	104°45'27.731"W	0.00	
129.00	0.440	127.000	129.00	-0.25	-0.26	0.34	1708227.63	14543344.76	40°02'43.311"N	104°45'27.726"W	0.39	FIRST SURFACE MWD+IFR1 SURVEY
224.00	0.480	130.520	224.00	-0.72	-0.74	0.94	1708228.22	14543344.29	40°02'43.307"N	104°45'27.719"W	0.05	
320.00	1.320	114.880	319.98	-1.42	-1.46	2.25	1708229.53	14543343.56	40°02'43.300"N	104°45'27.702"W	0.90	
415.00	2.550	114.880	414.93	-2.72	-2.81	5.16	1708232.44	14543342.22	40°02'43.286"N	104°45'27.665"W	1.29	
511.00	4.700	117.340	510.73	-5.33	-5.52	10.59	1708237.88	14543339.53	40°02'43.259"N	104°45'27.595"W	2.24	
606.00	6.420	112.590	605.28	-9.01	-9.35	18.95	1708246.25	14543335.73	40°02'43.222"N	104°45'27.487"W	1.87	
701.00	6.770	115.930	699.65	-13.32	-13.83	28.89	1708256.20	14543331.27	40°02'43.177"N	104°45'27.359"W	0.55	
795.00	8.570	112.330	792.81	-18.21	-18.92	40.35	1708267.67	14543326.22	40°02'43.127"N	104°45'27.212"W	1.98	
890.00	10.240	111.360	886.53	-23.72	-24.68	54.76	1708282.09	14543320.49	40°02'43.070"N	104°45'27.027"W	1.77	
986.00	11.690	111.620	980.77	-30.11	-31.38	71.75	1708299.09	14543313.85	40°02'43.004"N	104°45'26.808"W	1.51	
1081.00	12.040	113.120	1073.74	-37.23	-38.81	89.81	1708317.16	14543306.47	40°02'42.930"N	104°45'26.576"W	0.49	
1176.00	14.630	114.520	1166.17	-45.74	-47.68	109.84	1708337.21	14543297.65	40°02'42.843"N	104°45'26.318"W	2.75	
1270.00	16.480	112.410	1256.73	-55.34	-57.69	132.97	1708360.36	14543287.71	40°02'42.744"N	104°45'26.021"W	2.06	
1366.00	15.560	112.410	1349.00	-65.01	-67.79	157.47	1708384.87	14543277.68	40°02'42.644"N	104°45'25.706"W	0.96	
1461.00	17.310	113.730	1440.11	-75.12	-78.34	182.19	1708409.61	14543267.21	40°02'42.540"N	104°45'25.388"W	1.88	
1556.00	19.160	114.790	1530.34	-86.87	-90.57	209.28	1708436.72	14543255.06	40°02'42.419"N	104°45'25.040"W	1.98	
1650.00	20.040	113.910	1618.89	-99.35	-103.56	238.01	1708465.48	14543242.15	40°02'42.291"N	104°45'24.670"W	0.99	
1745.00	21.010	112.150	1707.86	-111.83	-116.58	268.66	1708496.15	14543229.22	40°02'42.162"N	104°45'24.276"W	1.21	
1840.00	21.010	112.150	1796.54	-124.12	-129.42	300.21	1708527.72	14543216.47	40°02'42.035"N	104°45'23.871"W	0.00	
1863.00	21.010	111.620	1818.02	-127.05	-132.50	307.86	1708535.38	14543213.41	40°02'42.005"N	104°45'23.772"W	0.83	LAST SURFACE MWD+IFR1 SURVEY
1966.00	21.320	111.440	1914.07	-140.09	-146.14	342.46	1708570.00	14543199.87	40°02'41.870"N	104°45'23.327"W	0.31	FIRST BHGE MWD+IFR1+SC SURVEY
2053.00	21.310	110.830	1995.12	-150.97	-157.55	371.95	1708599.51	14543188.55	40°02'41.757"N	104°45'22.948"W	0.26	
2140.00	20.900	109.820	2076.28	-161.34	-168.43	401.33	1708628.90	14543177.75	40°02'41.650"N	104°45'22.571"W	0.63	
2227.00	23.100	110.490	2156.94	-172.03	-179.67	431.92	1708659.51	14543166.60	40°02'41.538"N	104°45'22.177"W	2.55	
2315.00	22.370	108.890	2238.10	-182.93	-191.13	463.93	1708691.55	14543155.23	40°02'41.425"N	104°45'21.766"W	1.09	
2402.00	21.630	108.930	2318.77	-192.95	-201.69	494.76	1708722.39	14543144.75	40°02'41.321"N	104°45'21.369"W	0.85	
2490.00	20.800	108.250	2400.80	-202.57	-211.85	524.94	1708752.59	14543134.69	40°02'41.220"N	104°45'20.981"W	0.98	
2577.00	20.820	116.670	2482.15	-213.85	-223.63	553.44	1708781.10	14543122.99	40°02'41.104"N	104°45'20.615"W	3.44	
2665.00	19.360	114.950	2564.79	-226.54	-236.80	580.64	1708808.33	14543109.89	40°02'40.974"N	104°45'20.265"W	1.79	
2752.00	20.790	116.050	2646.50	-238.93	-249.66	607.59	1708835.30	14543097.11	40°02'40.847"N	104°45'19.918"W	1.70	
2840.00	22.800	110.830	2728.22	-251.32	-262.59	637.56	1708865.30	14543084.27	40°02'40.719"N	104°45'19.533"W	3.17	
2927.00	21.490	110.550	2808.80	-262.37	-274.18	668.24	1708896.00	14543072.77	40°02'40.604"N	104°45'19.139"W	1.51	
3015.00	19.930	110.300	2891.11	-272.71	-285.04	697.40	1708925.18	14543061.99	40°02'40.497"N	104°45'18.764"W	1.78	
3102.00	20.890	112.440	2972.65	-283.28	-296.11	725.64	1708953.44	14543051.01	40°02'40.388"N	104°45'18.400"W	1.40	
3190.00	21.680	111.060	3054.64	-294.59	-307.94	755.31	1708983.13	14543039.26	40°02'40.271"N	104°45'18.019"W	1.06	
3277.00	19.210	111.050	3136.16	-305.00	-318.85	783.67	1709011.51	14543028.43	40°02'40.163"N	104°45'17.654"W	2.84	
3364.00	19.910	112.620	3218.14	-315.36	-329.69	810.71	1709038.56	14543017.67	40°02'40.056"N	104°45'17.307"W	1.01	
3452.00	21.590	115.070	3300.43	-327.49	-342.32	839.20	1709067.08	14543005.12	40°02'39.931"N	104°45'16.940"W	2.15	
3539.00	19.740	114.980	3381.83	-339.98	-355.30	867.02	1709094.92	14542992.22	40°02'39.803"N	104°45'16.583"W	2.13	
3626.00	21.020	113.870	3463.38	-352.01	-367.82	894.61	1709122.53	14542979.78	40°02'39.679"N	104°45'16.228"W	1.54	
3714.00	20.870	112.010	3545.56	-363.76	-380.08	923.58	1709151.52	14542967.60	40°02'39.558"N	104°45'15.856"W	0.77	
3802.00	22.250	109.370	3627.41	-374.63	-391.49	953.83	1709181.79	14542956.29	40°02'39.445"N	104°45'15.467"W	1.92	
3889.00	20.250	107.870	3708.49	-384.18	-401.57	983.70	1709211.68	14542946.29	40°02'39.345"N	104°45'15.082"W	2.38	

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Area	COLORADO	Well	JDB 15-10HZ
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Facility	SEC.15-T1N-R66W		

## WELLPATH DATA (158 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
3976.00	21.120	108.430	3789.88	-393.24	-411.15	1012.90	1709240.89	14542936.79	40°02'39.251"N	104°45'14.707"W	1.03	
4064.00	21.350	109.980	3871.91	-403.20	-421.63	1043.00	1709271.01	14542926.39	40°02'39.147"N	104°45'14.320"W	0.69	
4151.00	21.030	117.860	3953.04	-415.40	-434.34	1071.69	1709299.72	14542913.77	40°02'39.022"N	104°45'13.951"W	3.29	
4238.00	20.860	123.580	4034.30	-430.79	-450.20	1098.40	1709326.46	14542897.98	40°02'38.865"N	104°45'13.608"W	2.36	
4326.00	20.440	127.310	4116.65	-448.32	-468.18	1123.67	1709351.78	14542880.08	40°02'38.687"N	104°45'13.283"W	1.57	
4414.00	19.720	131.770	4199.30	-467.12	-487.39	1146.97	1709375.12	14542860.95	40°02'38.497"N	104°45'12.983"W	1.92	
4501.00	20.170	135.750	4281.09	-487.26	-507.91	1168.38	1709396.58	14542840.49	40°02'38.294"N	104°45'12.708"W	1.64	
4589.00	20.370	139.700	4363.64	-509.44	-530.46	1188.88	1709417.12	14542818.01	40°02'38.072"N	104°45'12.444"W	1.57	
4676.00	20.590	144.970	4445.15	-533.19	-554.54	1207.45	1709435.76	14542793.99	40°02'37.834"N	104°45'12.206"W	2.13	
4764.00	21.290	149.920	4527.35	-559.39	-581.04	1224.34	1709452.71	14542767.55	40°02'37.572"N	104°45'11.988"W	2.16	
4851.00	22.590	153.410	4608.05	-587.72	-609.65	1239.74	1709468.18	14542738.99	40°02'37.289"N	104°45'11.790"W	2.12	
4939.00	20.680	149.030	4689.85	-615.89	-638.09	1255.30	1709483.82	14542710.60	40°02'37.008"N	104°45'11.590"W	2.84	
5050.00	21.460	156.630	4793.45	-651.01	-673.54	1273.45	1709502.05	14542675.21	40°02'36.658"N	104°45'11.357"W	2.56	
5137.00	19.010	155.960	4875.07	-678.35	-701.10	1285.53	1709514.21	14542647.70	40°02'36.385"N	104°45'11.202"W	2.83	
5224.00	17.500	155.470	4957.69	-702.99	-725.94	1296.74	1709525.47	14542622.90	40°02'36.140"N	104°45'11.058"W	1.74	
5312.00	15.340	153.590	5042.10	-725.26	-748.40	1307.41	1709536.20	14542600.47	40°02'35.918"N	104°45'10.920"W	2.53	
5399.00	14.500	152.950	5126.16	-745.09	-768.41	1317.48	1709546.32	14542580.50	40°02'35.720"N	104°45'10.791"W	0.98	
5487.00	12.210	150.750	5211.78	-762.85	-786.34	1327.04	1709555.93	14542562.60	40°02'35.543"N	104°45'10.668"W	2.67	
5574.00	9.580	148.680	5297.20	-776.92	-800.56	1335.30	1709564.22	14542548.42	40°02'35.402"N	104°45'10.562"W	3.06	
5662.00	10.740	154.100	5383.82	-790.42	-814.19	1342.69	1709571.65	14542534.81	40°02'35.268"N	104°45'10.467"W	1.71	
5749.00	8.740	148.180	5469.57	-803.20	-827.10	1349.72	1709578.71	14542521.92	40°02'35.140"N	104°45'10.377"W	2.57	
5837.00	7.390	144.720	5556.69	-813.38	-837.40	1356.51	1709585.52	14542511.64	40°02'35.038"N	104°45'10.289"W	1.63	
5924.00	7.020	166.430	5643.02	-823.04	-847.14	1360.99	1709590.03	14542501.92	40°02'34.942"N	104°45'10.232"W	3.14	
6011.00	3.750	165.820	5729.63	-830.93	-855.07	1362.93	1709591.99	14542494.00	40°02'34.864"N	104°45'10.207"W	3.76	
6099.00	1.500	199.040	5817.53	-834.81	-858.95	1363.26	1709592.33	14542490.13	40°02'34.825"N	104°45'10.202"W	2.99	
6187.00	0.790	343.300	5905.53	-835.32	-859.45	1362.71	1709591.79	14542489.62	40°02'34.820"N	104°45'10.209"W	2.49	
6274.00	0.840	24.560	5992.52	-834.17	-858.30	1362.81	1709591.88	14542490.77	40°02'34.832"N	104°45'10.208"W	0.66	
6362.00	0.960	37.570	6080.51	-832.98	-857.13	1363.52	1709592.59	14542491.94	40°02'34.843"N	104°45'10.199"W	0.27	
6449.00	1.810	17.300	6167.48	-831.08	-855.24	1364.38	1709593.44	14542493.83	40°02'34.862"N	104°45'10.188"W	1.11	
6537.00	0.260	182.990	6255.47	-829.95	-854.11	1364.78	1709593.84	14542494.96	40°02'34.873"N	104°45'10.183"W	2.34	
6624.00	0.950	0.240	6342.47	-829.42	-853.59	1364.77	1709593.83	14542495.49	40°02'34.878"N	104°45'10.183"W	1.39	
6712.00	0.740	4.800	6430.46	-828.13	-852.29	1364.82	1709593.88	14542496.78	40°02'34.891"N	104°45'10.182"W	0.25	
6799.00	0.900	340.570	6517.45	-826.92	-851.09	1364.64	1709593.69	14542497.99	40°02'34.903"N	104°45'10.185"W	0.43	
6887.00	1.160	6.630	6605.43	-825.39	-849.55	1364.52	1709593.56	14542499.52	40°02'34.918"N	104°45'10.186"W	0.60	
6975.00	1.630	359.690	6693.41	-823.25	-847.41	1364.61	1709593.65	14542501.66	40°02'34.939"N	104°45'10.185"W	0.57	
6982.00†	2.461	353.515	6700.40	-823.00	-847.17	1364.59	1709593.63	14542501.91	40°02'34.942"N	104°45'10.185"W	12.26	KOP
7062.00	12.230	344.060	6779.65	-813.17	-837.29	1362.07	1709591.08	14542511.77	40°02'35.039"N	104°45'10.218"W	12.26	
7150.00	16.650	344.480	6864.85	-792.16	-816.17	1356.13	1709585.09	14542532.87	40°02'35.248"N	104°45'10.294"W	5.02	
7238.00	23.200	345.820	6947.54	-763.31	-787.18	1348.50	1709577.38	14542561.82	40°02'35.535"N	104°45'10.392"W	7.46	
7325.00	29.400	354.530	7025.52	-725.51	-749.26	1342.26	1709571.04	14542599.71	40°02'35.909"N	104°45'10.472"W	8.38	
7413.00	34.440	3.510	7100.23	-679.13	-702.86	1341.72	1709570.38	14542646.09	40°02'36.368"N	104°45'10.479"W	7.86	
7500.00	39.550	3.260	7169.70	-626.84	-650.62	1344.81	1709573.32	14542698.32	40°02'36.884"N	104°45'10.440"W	5.88	
7587.00	45.580	357.400	7233.77	-568.08	-591.85	1344.97	1709573.33	14542757.06	40°02'37.465"N	104°45'10.437"W	8.29	
7675.00	53.770	356.700	7290.67	-501.21	-524.91	1341.50	1709569.67	14542823.97	40°02'38.126"N	104°45'10.482"W	9.33	
7762.00	62.210	0.280	7336.75	-427.59	-451.25	1339.66	1709567.64	14542897.60	40°02'38.854"N	104°45'10.506"W	10.31	

REFERENCE WELLPATH IDENTIFICATION				
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)			Slot
Area	COLORADO			Well
Field	WELD COUNTY (UTM/TRUE NORTH)			Wellbore
Facility	SEC.15-T1N-R66W			JDB 15-10HZ AWP

WELLPATH DATA (158 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
7850.00	68.140	2.120	7373.69	-347.76	-371.44	1341.37	1709569.12	14542977.38	40°02'39.643"N	104°45'10.484"W	7.00	
7937.00	74.510	2.790	7401.53	-265.41	-289.14	1344.90	1709572.43	14543059.66	40°02'40.456"N	104°45'10.438"W	7.36	
8025.00	81.330	3.520	7419.94	-179.47	-203.27	1349.64	1709576.94	14543145.51	40°02'41.305"N	104°45'10.377"W	7.79	
8090.00†	85.372	1.833	7427.46	-114.95	-138.79	1352.65	1709579.77	14543209.96	40°02'41.942"N	104°45'10.338"W	6.73	EXIT RADIUS HEEL (354'FSL & 286'FWL,SEC.14) 40.0449802 -104.7528751
8138.00	88.360	0.600	7430.08	-67.03	-90.88	1353.67	1709580.66	14543257.86	40°02'42.416"N	104°45'10.325"W	6.73	LANDING (402'FSL & 288'FWL,SEC.14) 40.0451118 -104.7528714
8199.00	88.710	0.030	7431.64	-6.05	-29.90	1354.01	1709580.83	14543318.81	40°02'43.018"N	104°45'10.321"W	1.10	
8287.00	88.820	0.110	7433.54	81.92	58.08	1354.11	1709580.69	14543406.76	40°02'43.888"N	104°45'10.319"W	0.15	
8374.00	89.010	359.740	7435.19	168.88	145.06	1354.00	1709580.34	14543493.71	40°02'44.747"N	104°45'10.321"W	0.48	
8462.00	92.310	1.250	7434.17	256.86	233.04	1354.76	1709580.86	14543581.65	40°02'45.617"N	104°45'10.311"W	4.12	
8550.00	91.410	4.100	7431.32	344.77	320.89	1358.86	1709584.73	14543669.47	40°02'46.485"N	104°45'10.258"W	3.39	
8637.00	89.840	5.660	7430.37	431.56	407.56	1366.26	1709591.89	14543756.13	40°02'47.341"N	104°45'10.163"W	2.54	
8725.00	88.390	5.520	7431.73	519.26	495.13	1374.84	1709600.22	14543843.69	40°02'48.207"N	104°45'10.053"W	1.66	
8813.00	89.160	4.670	7433.61	607.02	582.76	1382.65	1709607.79	14543931.31	40°02'49.073"N	104°45'09.952"W	1.30	
8900.00	90.930	4.630	7433.54	693.84	669.47	1389.70	1709614.60	14544018.00	40°02'49.929"N	104°45'09.861"W	2.04	
8988.00	88.580	3.840	7433.92	781.69	757.22	1396.20	1709620.86	14544105.74	40°02'50.797"N	104°45'09.778"W	2.82	
9075.00	89.360	4.030	7435.48	868.56	844.00	1402.17	1709626.59	14544192.50	40°02'51.654"N	104°45'09.701"W	0.92	
9162.00	88.560	0.860	7437.06	955.51	930.90	1405.88	1709630.07	14544279.37	40°02'52.513"N	104°45'09.653"W	3.76	
9250.00	88.900	0.430	7439.01	1043.49	1018.87	1406.87	1709630.82	14544367.31	40°02'53.382"N	104°45'09.640"W	0.62	
9337.00	89.730	0.740	7440.05	1130.48	1105.86	1407.76	1709631.47	14544454.26	40°02'54.242"N	104°45'09.629"W	1.02	
9425.00	90.330	0.120	7440.00	1218.47	1193.86	1408.42	1709631.89	14544542.23	40°02'55.112"N	104°45'09.620"W	0.98	
9512.00	90.450	0.680	7439.41	1305.46	1280.85	1409.03	1709632.26	14544629.19	40°02'55.971"N	104°45'09.612"W	0.66	
9599.00	91.560	0.840	7437.89	1392.45	1367.83	1410.18	1709633.18	14544716.14	40°02'56.831"N	104°45'09.598"W	1.29	
9687.00	90.050	0.250	7436.65	1480.43	1455.81	1411.02	1709633.77	14544804.09	40°02'57.700"N	104°45'09.587"W	1.84	
9774.00	89.820	359.250	7436.75	1567.41	1542.81	1410.64	1709633.16	14544891.05	40°02'58.560"N	104°45'09.592"W	1.18	
9861.00	90.130	358.560	7436.79	1654.35	1629.79	1408.97	1709631.26	14544977.99	40°02'59.420"N	104°45'09.613"W	0.87	
9949.00	90.550	358.350	7436.26	1742.26	1717.76	1406.60	1709628.65	14545065.92	40°03'00.289"N	104°45'09.643"W	0.53	
10036.00	91.700	358.350	7434.56	1829.15	1804.71	1404.10	1709625.91	14545152.82	40°03'01.148"N	104°45'09.675"W	1.32	
10124.00	91.500	1.710	7432.10	1917.09	1892.66	1404.14	1709625.71	14545240.74	40°03'02.017"N	104°45'09.675"W	3.82	
10211.00	89.900	1.410	7431.04	2004.08	1979.62	1406.51	1709627.84	14545327.67	40°03'02.877"N	104°45'09.644"W	1.87	
10299.00	90.250	1.390	7430.92	2092.08	2067.59	1408.66	1709629.75	14545415.61	40°03'03.746"N	104°45'09.617"W	0.40	
10387.00	90.930	2.330	7430.01	2180.06	2155.54	1411.52	1709632.37	14545503.53	40°03'04.615"N	104°45'09.580"W	1.32	
10474.00	87.810	1.760	7430.97	2267.03	2242.47	1414.62	1709635.24	14545590.44	40°03'05.474"N	104°45'09.540"W	3.65	
10561.00	88.340	1.950	7433.89	2353.97	2329.37	1417.44	1709637.81	14545677.31	40°03'06.333"N	104°45'09.503"W	0.65	
10649.00	89.480	1.640	7435.57	2441.94	2417.31	1420.19	1709640.33	14545765.23	40°03'07.202"N	104°45'09.468"W	1.34	
10736.00	89.700	0.520	7436.19	2528.94	2504.29	1421.83	1709641.73	14545852.18	40°03'08.062"N	104°45'09.447"W	1.31	
10823.00	89.990	0.080	7436.43	2615.93	2591.29	1422.29	1709641.95	14545939.14	40°03'08.921"N	104°45'09.441"W	0.61	
10911.00	91.470	0.420	7435.30	2703.92	2679.28	1422.67	1709642.10	14546027.10	40°03'09.791"N	104°45'09.436"W	1.73	
10999.00	91.010	1.620	7433.40	2791.89	2767.24	1424.24	1709643.42	14546115.03	40°03'10.660"N	104°45'09.416"W	1.46	
11086.00	89.380	1.840	7433.10	2878.88	2854.20	1426.86	1709645.81	14546201.96	40°03'11.519"N	104°45'09.382"W	1.89	
11173.00	90.410	1.740	7433.26	2965.87	2941.16	1429.58	1709648.29	14546288.89	40°03'12.379"N	104°45'09.347"W	1.19	
11260.00	89.840	4.230	7433.07	3052.81	3028.03	1434.11	1709652.58	14546375.74	40°03'13.237"N	104°45'09.289"W	2.94	
11347.00	90.320	4.700	7432.95	3139.66	3114.77	1440.88	1709659.12	14546462.46	40°03'14.094"N	104°45'09.201"W	0.77	
11435.00	87.640	3.390	7434.52	3227.51	3202.52	1447.09	1709665.08	14546550.20	40°03'14.962"N	104°45'09.122"W	3.39	
11522.00	87.280	3.070	7438.37	3314.36	3289.30	1451.99	1709669.74	14546636.95	40°03'15.819"N	104°45'09.058"W	0.55	
11610.00	87.540	1.250	7442.35	3402.25	3377.14	1455.30	1709672.81	14546724.77	40°03'16.687"N	104°45'09.016"W	2.09	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#42 JDB 15-10HZ(494'FSL & 1065'FEL,SEC.15)
Area	COLORADO	Well	JDB 15-10HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	JDB 15-10HZ AWP
Facility	SEC.15-T1N-R66W		

WELLPATH DATA (158 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
11697.00	89.960	359.540	7444.25	3489.21	3464.11	1455.90	1709673.18	14546811.70	40°03'17.547"N	104°45'09.008"W	3.41	
11785.00	90.610	358.820	7443.81	3577.16	3552.10	1454.64	1709671.68	14546899.65	40°03'18.416"N	104°45'09.024"W	1.10	
11872.00	92.070	358.420	7441.78	3664.06	3639.05	1452.55	1709669.35	14546986.56	40°03'19.276"N	104°45'09.051"W	1.74	
11960.00	92.060	359.130	7438.61	3751.94	3726.97	1450.67	1709667.23	14547074.44	40°03'20.144"N	104°45'09.075"W	0.81	
12048.00	90.210	0.840	7436.86	3839.90	3814.95	1450.64	1709666.97	14547162.38	40°03'21.014"N	104°45'09.075"W	2.86	
12135.00	90.890	0.380	7436.03	3926.89	3901.94	1451.57	1709667.66	14547249.34	40°03'21.873"N	104°45'09.063"W	0.94	
12223.00	88.350	0.270	7436.61	4014.88	3989.93	1452.07	1709667.92	14547337.30	40°03'22.743"N	104°45'09.057"W	2.89	
12310.00	88.560	359.970	7438.96	4101.83	4076.89	1452.25	1709667.86	14547424.23	40°03'23.602"N	104°45'09.054"W	0.42	
12397.00	88.570	359.230	7441.14	4188.78	4163.86	1451.64	1709667.02	14547511.16	40°03'24.462"N	104°45'09.062"W	0.85	
12484.00	89.680	359.020	7442.46	4275.72	4250.84	1450.31	1709665.45	14547598.10	40°03'25.321"N	104°45'09.079"W	1.30	
12572.00	90.560	358.380	7442.28	4363.65	4338.82	1448.32	1709663.22	14547686.04	40°03'26.191"N	104°45'09.105"W	1.24	
12659.00	91.300	358.450	7440.87	4450.55	4425.77	1445.91	1709660.58	14547772.95	40°03'27.050"N	104°45'09.136"W	0.85	
12747.00	91.580	357.170	7438.66	4538.38	4513.68	1442.55	1709656.98	14547860.81	40°03'27.919"N	104°45'09.179"W	1.49	
12749.00†	91.594	357.242	7438.60	4540.38	4515.68	1442.45	1709656.87	14547862.81	40°03'27.939"N	104°45'09.180"W	3.65	ENTER RADIUS TOE (297'FNL & 347'FWL,SEC.14) 40.0577570 -104.7525534
12834.00	92.190	0.290	7435.79	4625.25	4600.60	1440.62	1709654.81	14547947.69	40°03'28.778"N	104°45'09.204"W	3.65	
12922.00	90.880	2.780	7433.44	4713.21	4688.53	1442.98	1709656.93	14548035.59	40°03'29.647"N	104°45'09.173"W	3.20	
13009.00	91.490	1.870	7431.64	4800.17	4775.44	1446.51	1709660.22	14548122.48	40°03'30.506"N	104°45'09.128"W	1.26	
13097.00	90.240	3.230	7430.31	4888.12	4863.33	1450.42	1709663.90	14548210.35	40°03'31.374"N	104°45'09.077"W	2.10	
13184.00	90.810	2.840	7429.51	4975.06	4950.21	1455.03	1709668.26	14548297.20	40°03'32.233"N	104°45'09.018"W	0.79	
13272.00	91.180	2.720	7427.98	5063.01	5038.09	1459.30	1709672.29	14548385.06	40°03'33.101"N	104°45'08.963"W	0.44	
13359.00	91.760	2.490	7425.75	5149.94	5124.97	1463.25	1709676.01	14548471.92	40°03'33.960"N	104°45'08.912"W	0.72	
13400.00	92.070	1.700	7424.38	5190.91	5165.92	1464.75	1709677.39	14548512.86	40°03'34.364"N	104°45'08.893"W	2.07	LAST BHGE MWD+IFR1+SC SURVEY
13443.00	92.070	1.700	7422.83	5233.88	5208.87	1466.02	1709678.55	14548555.80	40°03'34.789"N	104°45'08.876"W	0.00	PTB (398'FSL & 372'FWL,SEC.11) 40.0596636 -104.7524657

HOLE & CASING SECTIONS - Ref Wellbore: JDB 15-10HZ AWP Ref Wellpath: JDB 15-10HZ 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	1901.00	1884.00	17.00	1853.48	0.00	0.00	-137.52	320.56

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#42 JDB 15-10HZ(494'FSL & 1065'FEL,SEC.15)
Area	COLORADO	Well	JDB 15-10HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	JDB 15-10HZ 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	131.14	-31.92	1708195.02	14543476.03	40°02'44.610"N	104°45'28.141"W	polygon
JDB 15-10HZ BHL REV-1(400'FSL & 369'FWL,SEC.11)	7446.00	5210.85	1462.58	1709675.10	14548557.76	40°03'34.808"N	104°45'08.921"W	point
JDB 15-10HZ HEEL REV-1(370'FSL & 305'FWL,SEC.14)	7453.00	-126.01	1368.54	1709595.62	14543222.79	40°02'42.068"N	104°45'10.134"W	point
JDB 15-10HZ LANDBOX	7453.00	0.00	0.00	1708227.28	14543345.02	40°02'43.314"N	104°45'27.731"W	polygon
JDB 15-10HZ RADIUS 1	7453.00	-496.10	1060.29	1709288.50	14542852.00	40°02'38.411"N	104°45'14.098"W	polygon
JDB 15-10HZ RADIUS 2	7453.00	4813.04	1091.95	1709305.70	14548159.10	40°03'30.877"N	104°45'13.688"W	polygon

WELLPATH COMPOSITION - Ref Wellbore: JDB 15-10HZ AWB Ref Wellpath: JDB 15-10HZ AWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	1863.00	Custom APC_ISCWSA REV 2 MWD+IFR1 (approximation)	Custom APC ISCWSA Rev-2 MWD+IFR1 <129 - 1863>	JDB 15-10HZ AWB
1863.00	13400.00	Custom APC_ISCWSA REV 2 MWD+IFR1+SC (approximation)	BHGE Custom APC ISCWSA Rev-2 MWD+IFR1+SC <1966 - 13400>	JDB 15-10HZ AWB
13400.00	13443.00	Blind Drilling (std)	Projection to bit	JDB 15-10HZ AWB

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#42 JDB 15-10HZ(494'FSL & 1065'FEL,SEC.15)
Area	COLORADO	Well	JDB 15-10HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	JDB 15-10HZ AWB
Facility	SEC.15-T1N-R66W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
129.00	0.440	127.000	129.00	FIRST SURFACE MWD+IFR1 SURVEY
1863.00	21.010	111.620	1818.02	LAST SURFACE MWD+IFR1 SURVEY
1966.00	21.320	111.440	1914.07	FIRST BHGE MWD+IFR1+SC SURVEY
6982.00	2.461	353.515	6700.40	KOP
8090.00	85.372	1.833	7427.46	EXIT RADIUS HEEL (354'FSL & 286'FWL,SEC.14) 40.0449802 -104.7528751
8138.00	88.360	0.600	7430.08	LANDING (402'FSL & 288'FWL,SEC.14) 40.0451118 -104.7528714
12749.00	91.594	357.242	7438.60	ENTER RADIUS TOE (297'FNL & 347'FWL,SEC.14) 40.0577570 -104.7525534
13400.00	92.070	1.700	7424.38	LAST BHGE MWD+IFR1+SC SURVEY
13443.00	92.070	1.700	7422.83	PTB (398'FSL & 372'FWL,SEC.11) 40.0596636 -104.7524657