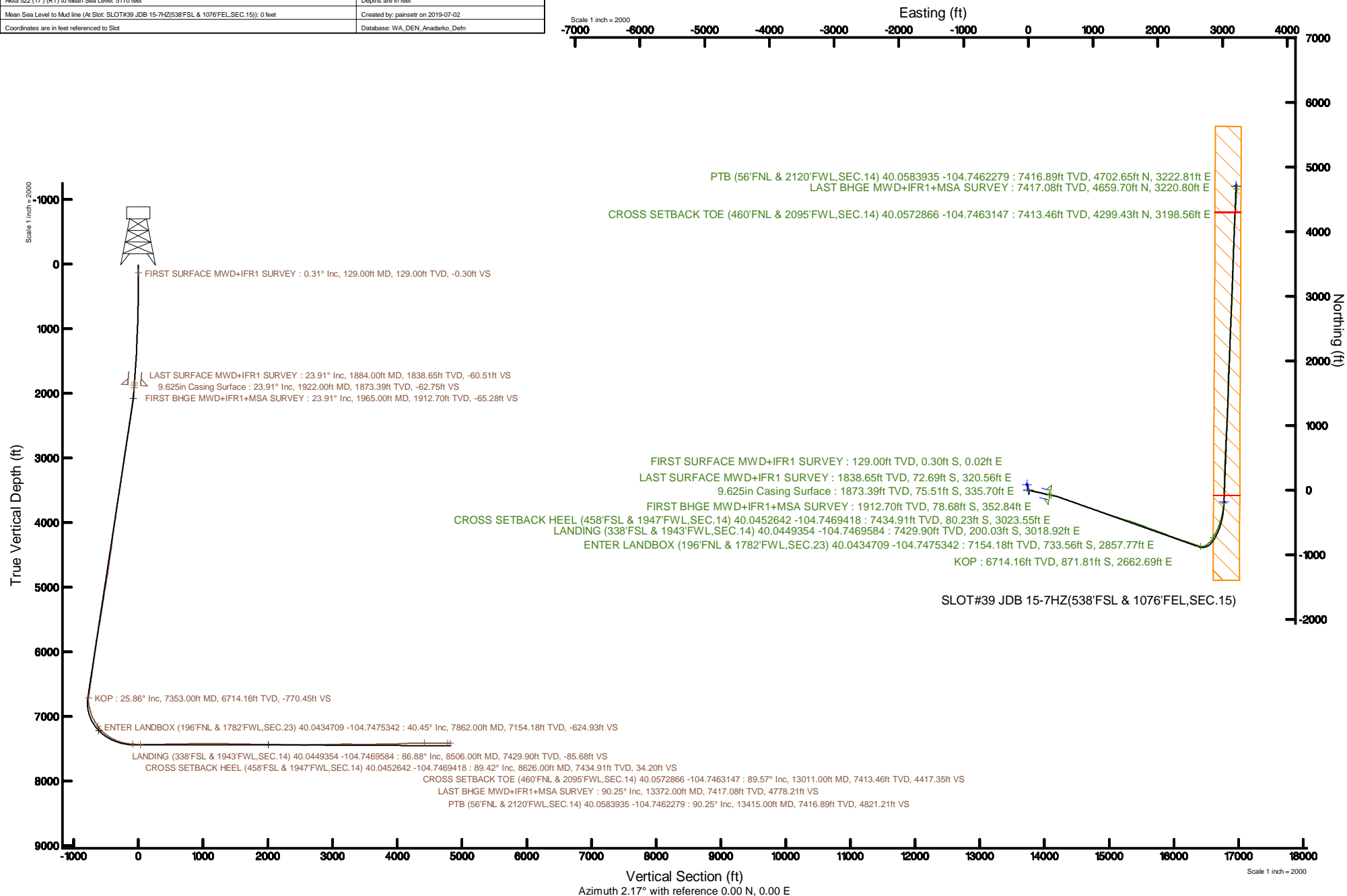


Location:	COLORADO	Slot:	SLOT#39 JDB 15-7HZ(538'FSL & 1076'FEL,SEC.15)
Field:	WELD COUNTY (UTM/TRUE NORTH)	Well:	JDB 15-7HZ
Facility:	SEC.15-T1N-R66W	Wellbore:	JDB 15-7HZ PWB



Plot reference wellpath is JDB 15-7H2 P/WP 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 (A Slot: SLOTH39 JDB 15-7H2(538FSL & 1076FEL,SEC.15)): 0 feet	Created by: painsetr on 2019-07-02
Coordinates are in feet referenced to Slot	Database: WA_DEN_Anadarko_Defn



# Actual Wellpath Report

JDB 15-7HZ AWP

Page 1 of 7

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#39 JDB 15-7HZ(538'FSL & 1076'FEL,SEC.15)
Area	COLORADO	Well	JDB 15-7HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	JDB 15-7HZ 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	7/2/2019 at 10:21:55 AM
Convergence at slot	0.16° East	Database/Source file	WA_DEN_Anadarko_Defn/JDB_15-7HZ_AWP.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-730.85	2773.83	1708216.53	14543388.69	40°02'43.746"N	104°45'27.868"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#39 JDB 15-7HZ (538'FSL & 1076'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	2.17°

# Actual Wellpath Report

JDB 15-7HZ AWP

Page 2 of 7

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#39 JDB 15-7HZ(538'FSL & 1076'FEL,SEC.15)
Area	COLORADO	Well	JDB 15-7HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	JDB 15-7HZ AWB
Facility	SEC.15-T1N-R66W		

WELLPATH DATA (159 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	175.780	0.00	0.00	0.00	0.00	1708216.53	14543388.69	40°02'43.746"N	104°45'27.868"W	0.00	
17.00	0.000	175.780	17.00	0.00	0.00	0.00	1708216.53	14543388.69	40°02'43.746"N	104°45'27.868"W	0.00	
129.00	0.310	175.780	129.00	-0.30	-0.30	0.02	1708216.55	14543388.39	40°02'43.743"N	104°45'27.867"W	0.28	FIRST SURFACE MWD+IFR1 SURVEY
224.00	0.400	205.230	224.00	-0.86	-0.86	-0.10	1708216.43	14543387.83	40°02'43.738"N	104°45'27.869"W	0.21	
320.00	0.440	116.460	320.00	-1.32	-1.33	0.09	1708216.62	14543387.36	40°02'43.733"N	104°45'27.866"W	0.61	
415.00	1.760	96.770	414.98	-1.59	-1.66	1.86	1708218.39	14543387.03	40°02'43.730"N	104°45'27.844"W	1.43	
511.00	3.690	104.860	510.86	-2.39	-2.63	6.31	1708222.84	14543386.08	40°02'43.720"N	104°45'27.786"W	2.04	
606.00	5.760	101.160	605.54	-3.80	-4.33	13.95	1708230.48	14543384.40	40°02'43.703"N	104°45'27.688"W	2.20	
701.00	6.720	99.230	699.97	-5.23	-6.15	24.11	1708240.64	14543382.61	40°02'43.685"N	104°45'27.558"W	1.03	
795.00	7.030	100.200	793.30	-6.71	-8.05	35.20	1708251.73	14543380.74	40°02'43.666"N	104°45'27.415"W	0.35	
890.00	8.530	103.270	887.42	-8.88	-10.70	47.78	1708264.32	14543378.13	40°02'43.640"N	104°45'27.253"W	1.64	
986.00	10.900	106.700	982.04	-12.53	-14.94	63.40	1708279.95	14543373.93	40°02'43.598"N	104°45'27.052"W	2.54	
1081.00	13.140	105.120	1074.95	-17.20	-20.34	82.43	1708298.98	14543368.58	40°02'43.545"N	104°45'26.808"W	2.38	
1176.00	14.900	101.960	1167.12	-21.70	-25.69	104.81	1708321.36	14543363.30	40°02'43.492"N	104°45'26.520"W	2.02	
1270.00	14.460	101.340	1258.05	-25.63	-30.50	128.14	1708344.70	14543358.55	40°02'43.445"N	104°45'26.220"W	0.50	
1366.00	14.150	99.320	1351.07	-29.00	-34.75	151.47	1708368.03	14543354.36	40°02'43.403"N	104°45'25.920"W	0.61	
1461.00	17.270	103.100	1442.51	-33.12	-39.83	176.67	1708393.24	14543349.35	40°02'43.352"N	104°45'25.596"W	3.45	
1556.00	18.330	104.770	1532.97	-39.05	-46.84	204.85	1708421.42	14543342.43	40°02'43.283"N	104°45'25.234"W	1.24	
1650.00	20.520	105.120	1621.61	-45.97	-54.90	235.05	1708451.63	14543334.45	40°02'43.203"N	104°45'24.845"W	2.33	
1745.00	21.530	101.520	1710.29	-52.54	-62.73	268.21	1708484.80	14543326.71	40°02'43.126"N	104°45'24.419"W	1.73	
1840.00	22.810	100.370	1798.26	-58.00	-69.53	303.41	1708520.00	14543320.02	40°02'43.059"N	104°45'23.966"W	1.42	
1884.00	23.910	100.550	1838.65	-60.51	-72.69	320.56	1708537.16	14543316.90	40°02'43.028"N	104°45'23.746"W	2.51	LAST SURFACE MWD+IFR1 SURVEY
1965.00	23.910	100.470	1912.70	-65.28	-78.68	352.84	1708569.44	14543311.00	40°02'42.968"N	104°45'23.331"W	0.04	FIRST BHGE MWD+IFR1+MSA SURVEY
2052.00	26.280	102.960	1991.49	-71.43	-86.21	388.95	1708605.56	14543303.58	40°02'42.894"N	104°45'22.866"W	2.98	
2139.00	26.580	106.380	2069.40	-79.82	-96.01	426.40	1708643.02	14543293.87	40°02'42.797"N	104°45'22.385"W	1.78	
2226.00	27.300	108.470	2146.96	-90.19	-107.82	464.00	1708680.63	14543282.17	40°02'42.680"N	104°45'21.901"W	1.37	
2313.00	28.420	107.750	2223.87	-101.36	-120.46	502.64	1708719.29	14543269.65	40°02'42.556"N	104°45'21.405"W	1.34	
2401.00	28.350	109.730	2301.30	-113.29	-133.90	542.25	1708758.93	14543256.32	40°02'42.423"N	104°45'20.895"W	1.07	
2488.00	27.660	109.620	2378.11	-125.58	-147.65	580.72	1708797.41	14543242.68	40°02'42.287"N	104°45'20.401"W	0.80	
2576.00	26.550	109.090	2456.44	-137.43	-160.94	618.54	1708835.26	14543229.49	40°02'42.155"N	104°45'19.914"W	1.29	
2664.00	26.620	109.080	2535.14	-148.89	-173.82	655.76	1708872.50	14543216.72	40°02'42.028"N	104°45'19.436"W	0.08	
2751.00	26.100	107.760	2613.09	-159.70	-186.03	692.41	1708909.16	14543204.62	40°02'41.908"N	104°45'18.965"W	0.90	
2839.00	25.840	110.900	2692.21	-171.06	-198.77	728.76	1708945.54	14543191.98	40°02'41.782"N	104°45'18.497"W	1.59	
2926.00	26.800	109.750	2770.19	-183.08	-212.17	764.93	1708981.73	14543178.69	40°02'41.649"N	104°45'18.032"W	1.25	
3014.00	27.380	110.920	2848.54	-195.57	-226.09	802.51	1709019.33	14543164.87	40°02'41.512"N	104°45'17.549"W	0.89	
3101.00	26.630	109.990	2926.05	-207.97	-239.90	839.52	1709056.36	14543151.16	40°02'41.375"N	104°45'17.073"W	0.99	
3189.00	26.090	107.890	3004.90	-219.25	-252.59	876.47	1709093.33	14543138.58	40°02'41.250"N	104°45'16.598"W	1.22	
3276.00	25.840	108.890	3083.12	-229.89	-264.61	912.61	1709129.49	14543126.67	40°02'41.131"N	104°45'16.133"W	0.58	
3363.00	26.340	109.230	3161.26	-241.01	-277.10	948.77	1709165.67	14543114.28	40°02'41.007"N	104°45'15.668"W	0.60	
3450.00	26.490	109.230	3239.17	-252.37	-289.85	985.32	1709202.24	14543101.64	40°02'40.881"N	104°45'15.198"W	0.17	
3538.00	28.280	108.970	3317.31	-264.15	-303.09	1023.57	1709240.51	14543088.50	40°02'40.751"N	104°45'14.707"W	2.04	
3625.00	28.580	108.750	3393.82	-276.05	-316.48	1062.76	1709279.72	14543075.23	40°02'40.618"N	104°45'14.203"W	0.37	
3713.00	28.100	109.410	3471.27	-288.20	-330.13	1102.24	1709319.22	14543061.69	40°02'40.483"N	104°45'13.695"W	0.65	
3801.00	27.630	109.860	3549.06	-300.54	-343.95	1140.98	1709357.99	14543047.98	40°02'40.347"N	104°45'13.197"W	0.59	
3888.00	27.300	110.230	3626.26	-312.86	-357.70	1178.67	1709395.70	14543034.33	40°02'40.211"N	104°45'12.712"W	0.43	

## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#39 JDB 15-7HZ(538'FSL & 1076'FEL,SEC.15)
Area	COLORADO	Well	JDB 15-7HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	JDB 15-7HZ AWB
Facility	SEC.15-T1N-R66W		

## WELLPATH DATA (159 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
3975.00	26.730	111.310	3703.77	-325.46	-371.71	1215.62	1709432.67	14543020.43	40°02'40.072"N	104°45'12.237"W	0.86	
4063.00	27.160	105.560	3782.23	-336.60	-384.30	1253.42	1709470.49	14543007.96	40°02'39.948"N	104°45'11.751"W	3.00	
4150.00	27.140	107.890	3859.64	-346.58	-395.72	1291.43	1709508.52	14542996.64	40°02'39.835"N	104°45'11.262"W	1.22	
4237.00	27.260	107.290	3937.02	-357.16	-407.74	1329.34	1709546.44	14542984.73	40°02'39.716"N	104°45'10.775"W	0.34	
4325.00	27.840	109.130	4015.04	-368.41	-420.46	1367.99	1709585.12	14542972.12	40°02'39.591"N	104°45'10.278"W	1.17	
4413.00	27.480	109.200	4092.99	-380.35	-433.87	1406.58	1709623.73	14542958.82	40°02'39.458"N	104°45'09.782"W	0.41	
4500.00	27.480	107.840	4170.17	-391.65	-446.62	1444.65	1709661.81	14542946.17	40°02'39.332"N	104°45'09.292"W	0.72	
4588.00	27.140	105.860	4248.37	-401.89	-458.33	1483.28	1709700.46	14542934.58	40°02'39.216"N	104°45'08.796"W	1.10	
4675.00	27.300	103.630	4325.73	-410.55	-468.45	1521.76	1709738.95	14542924.56	40°02'39.116"N	104°45'08.301"W	1.19	
4763.00	27.960	106.500	4403.70	-419.67	-479.07	1561.15	1709778.36	14542914.06	40°02'39.011"N	104°45'07.794"W	1.69	
4850.00	28.250	109.900	4480.45	-430.99	-491.87	1600.07	1709817.30	14542901.37	40°02'38.885"N	104°45'07.294"W	1.87	
4938.00	27.460	110.060	4558.25	-443.56	-505.92	1638.71	1709855.96	14542887.43	40°02'38.746"N	104°45'06.797"W	0.90	
5050.00	24.360	107.930	4658.98	-457.77	-521.89	1684.96	1709902.23	14542871.59	40°02'38.588"N	104°45'06.203"W	2.89	
5137.00	24.910	110.080	4738.06	-468.28	-533.70	1719.24	1709936.53	14542859.87	40°02'38.471"N	104°45'05.762"W	1.21	
5224.00	25.710	111.610	4816.71	-480.20	-546.94	1753.99	1709971.31	14542846.73	40°02'38.340"N	104°45'05.315"W	1.19	
5312.00	26.660	111.010	4895.68	-492.93	-561.05	1790.17	1710007.51	14542832.73	40°02'38.201"N	104°45'04.850"W	1.12	
5400.00	26.150	114.660	4974.51	-506.73	-576.22	1826.23	1710043.59	14542817.66	40°02'38.051"N	104°45'04.386"W	1.93	
5487.00	27.510	108.540	5052.15	-519.73	-590.61	1862.71	1710080.10	14542803.38	40°02'37.909"N	104°45'03.917"W	3.54	
5574.00	27.610	108.440	5129.28	-531.04	-603.38	1900.88	1710118.29	14542790.72	40°02'37.783"N	104°45'03.426"W	0.13	
5662.00	27.050	110.730	5207.46	-543.12	-616.91	1938.94	1710156.37	14542777.29	40°02'37.649"N	104°45'02.937"W	1.35	
5749.00	27.350	109.020	5284.84	-555.21	-630.43	1976.34	1710193.79	14542763.89	40°02'37.515"N	104°45'02.456"W	0.96	
5837.00	27.600	109.580	5362.92	-567.17	-643.85	2014.66	1710232.13	14542750.58	40°02'37.383"N	104°45'01.963"W	0.41	
5924.00	26.740	109.470	5440.31	-579.03	-657.13	2052.10	1710269.59	14542737.41	40°02'37.251"N	104°45'01.482"W	0.99	
6011.00	27.320	111.430	5517.81	-591.43	-670.95	2089.14	1710306.65	14542723.69	40°02'37.115"N	104°45'01.006"W	1.22	
6099.00	27.830	111.650	5595.82	-604.95	-685.90	2127.03	1710344.57	14542708.85	40°02'36.967"N	104°45'00.519"W	0.59	
6187.00	28.100	111.660	5673.54	-618.71	-701.13	2165.38	1710382.95	14542693.73	40°02'36.816"N	104°45'00.026"W	0.31	
6275.00	26.190	110.720	5751.84	-631.81	-715.65	2202.81	1710420.40	14542679.31	40°02'36.673"N	104°44'59.544"W	2.22	
6362.00	26.440	108.960	5829.83	-643.51	-728.74	2239.09	1710456.70	14542666.33	40°02'36.543"N	104°44'59.078"W	0.94	
6450.00	26.880	110.310	5908.47	-655.37	-742.01	2276.27	1710493.91	14542653.17	40°02'36.412"N	104°44'58.600"W	0.85	
6537.00	26.480	109.940	5986.21	-667.41	-755.45	2312.95	1710530.61	14542639.83	40°02'36.279"N	104°44'58.128"W	0.50	
6624.00	26.760	109.050	6063.99	-679.02	-768.46	2349.70	1710567.37	14542626.93	40°02'36.151"N	104°44'57.656"W	0.56	
6712.00	26.510	107.760	6142.65	-690.05	-780.91	2387.13	1710604.82	14542614.58	40°02'36.028"N	104°44'57.174"W	0.72	
6799.00	26.390	107.940	6220.54	-700.52	-792.79	2424.01	1710641.73	14542602.81	40°02'35.910"N	104°44'56.700"W	0.17	
6887.00	26.120	109.590	6299.47	-711.64	-805.31	2460.87	1710678.60	14542590.39	40°02'35.787"N	104°44'56.226"W	0.88	
6975.00	27.420	108.830	6378.03	-723.25	-818.35	2498.30	1710716.05	14542577.46	40°02'35.658"N	104°44'55.745"W	1.53	
7062.00	27.130	107.680	6455.36	-734.30	-830.84	2536.16	1710753.93	14542565.08	40°02'35.534"N	104°44'55.258"W	0.69	
7150.00	27.870	108.960	6533.42	-745.61	-843.61	2574.73	1710792.52	14542552.41	40°02'35.408"N	104°44'54.762"W	1.08	
7238.00	27.460	107.510	6611.36	-756.92	-856.40	2613.53	1710831.34	14542539.74	40°02'35.281"N	104°44'54.264"W	0.90	
7326.00	26.180	108.760	6689.89	-767.83	-868.75	2651.26	1710869.09	14542527.50	40°02'35.159"N	104°44'53.778"W	1.59	
7353.00†	25.863	101.157	6714.16	-770.45	-871.81	2662.69	1710880.52	14542524.47	40°02'35.129"N	104°44'53.632"W	12.40	KOP
7413.00	26.590	84.350	6768.06	-770.67	-873.02	2688.92	1710906.75	14542523.33	40°02'35.117"N	104°44'53.294"W	12.40	
7500.00	26.940	66.750	6845.86	-759.55	-863.31	2726.47	1710944.25	14542533.14	40°02'35.213"N	104°44'52.811"W	9.09	
7588.00	26.730	54.680	6924.44	-738.93	-843.98	2760.96	1710978.67	14542552.55	40°02'35.404"N	104°44'52.368"W	6.19	
7675.00	29.540	47.270	7001.18	-711.87	-818.10	2792.69	1711010.33	14542578.51	40°02'35.660"N	104°44'51.960"W	5.15	
7763.00	34.860	37.720	7075.67	-676.05	-783.44	2824.06	1711041.58	14542613.24	40°02'36.002"N	104°44'51.557"W	8.35	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#39 JDB 15-7HZ(538'FSL & 1076'FEL,SEC.15)
Area	COLORADO	Well	JDB 15-7HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	JDB 15-7HZ AWB
Facility	SEC.15-T1N-R66W		

WELLPATH DATA (159 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	39.500	31.550	7144.99	-631.67	-740.16	2853.77	1711071.17	14542656.59	40°02'36.430"N	104°44'51.174"W	6.84	
7862.00†	40.446	30.908	7154.18	-624.93	-733.56	2857.77	1711075.15	14542663.19	40°02'36.495"N	104°44'51.123"W	8.60	ENTER LANDBOX (196'FNL & 1782'FWL,SEC.23) 40.0434709 -104.7475342
7937.00	46.430	27.390	7208.63	-578.97	-688.52	2882.79	1711100.04	14542708.28	40°02'36.940"N	104°44'50.801"W	8.60	
8025.00	52.490	24.240	7265.81	-517.72	-628.32	2911.82	1711128.89	14542768.54	40°02'37.535"N	104°44'50.428"W	7.40	
8112.00	58.390	21.560	7315.14	-450.73	-562.34	2939.63	1711156.51	14542834.57	40°02'38.187"N	104°44'50.070"W	7.24	
8200.00	65.390	17.730	7356.59	-376.73	-489.27	2965.62	1711182.29	14542907.68	40°02'38.909"N	104°44'49.736"W	8.83	
8287.00	71.800	14.500	7388.33	-298.17	-411.50	2988.04	1711204.49	14542985.48	40°02'39.678"N	104°44'49.448"W	8.14	
8375.00	76.440	10.560	7412.42	-214.94	-328.90	3006.36	1711222.58	14543068.09	40°02'40.494"N	104°44'49.212"W	6.81	
8462.00	84.700	3.550	7426.67	-129.55	-243.85	3016.82	1711232.80	14543153.14	40°02'41.334"N	104°44'49.077"W	12.38	
8506.00	86.880	1.930	7429.90	-85.68	-200.03	3018.92	1711234.78	14543196.95	40°02'41.767"N	104°44'49.050"W	6.17	LANDING (338'FSL & 1943'FWL,SEC.14) 40.0449354 -104.7469584
8550.00	86.730	2.550	7432.36	-41.75	-156.13	3020.63	1711236.38	14543240.84	40°02'42.201"N	104°44'49.028"W	1.45	
8626.00†	89.421	1.851	7434.91	34.20	-80.23	3023.55	1711239.08	14543316.71	40°02'42.951"N	104°44'48.990"W	3.66	CROSS SETBACK HEEL (458'FSL & 1947'FWL,SEC.14) 40.0452642 -104.7469418
8637.00	89.810	1.750	7434.98	45.20	-69.24	3023.90	1711239.40	14543327.70	40°02'43.060"N	104°44'48.986"W	3.66	
8725.00	90.050	1.100	7435.09	133.20	18.73	3026.08	1711241.35	14543415.64	40°02'43.929"N	104°44'48.958"W	0.79	
8813.00	90.620	0.740	7434.58	221.17	106.72	3027.50	1711242.52	14543503.60	40°02'44.799"N	104°44'48.939"W	0.77	
8900.00	90.990	2.320	7433.35	308.16	193.68	3029.82	1711244.61	14543590.53	40°02'45.658"N	104°44'48.909"W	1.87	
8988.00	91.760	1.840	7431.24	396.13	281.59	3033.01	1711247.56	14543678.42	40°02'46.527"N	104°44'48.868"W	1.03	
9075.00	91.090	2.350	7429.08	483.10	368.51	3036.19	1711250.50	14543765.30	40°02'47.386"N	104°44'48.827"W	0.97	
9163.00	91.790	2.240	7426.87	571.07	456.41	3039.72	1711253.78	14543853.18	40°02'48.254"N	104°44'48.782"W	0.81	
9250.00	90.150	2.360	7425.39	658.06	543.32	3043.21	1711257.04	14543940.07	40°02'49.113"N	104°44'48.737"W	1.89	
9337.00	90.850	2.950	7424.64	745.05	630.22	3047.24	1711260.83	14544026.95	40°02'49.972"N	104°44'48.685"W	1.05	
9425.00	92.260	1.590	7422.23	833.01	718.12	3050.72	1711264.07	14544114.82	40°02'50.841"N	104°44'48.640"W	2.23	
9512.00	90.810	3.050	7419.92	919.98	805.01	3054.24	1711267.36	14544201.68	40°02'51.699"N	104°44'48.594"W	2.36	
9600.00	91.210	4.850	7418.37	1007.92	892.79	3060.30	1711273.18	14544289.44	40°02'52.567"N	104°44'48.516"W	2.10	
9687.00	88.550	3.600	7418.55	1094.85	979.54	3066.71	1711279.35	14544376.18	40°02'53.424"N	104°44'48.434"W	3.38	
9774.00	89.870	3.470	7419.75	1181.82	1066.36	3072.07	1711284.47	14544462.98	40°02'54.282"N	104°44'48.365"W	1.52	
9862.00	89.610	3.470	7420.15	1269.79	1154.20	3077.40	1711289.56	14544550.80	40°02'55.150"N	104°44'48.296"W	0.30	
9949.00	87.340	2.240	7422.46	1356.75	1241.05	3081.73	1711293.65	14544637.63	40°02'56.009"N	104°44'48.240"W	2.97	
10037.00	88.420	1.980	7425.72	1444.69	1328.93	3084.97	1711296.65	14544725.48	40°02'56.877"N	104°44'48.198"W	1.26	
10124.00	89.270	1.890	7427.47	1531.67	1415.87	3087.91	1711299.35	14544812.38	40°02'57.736"N	104°44'48.161"W	0.98	
10212.00	89.990	1.440	7428.04	1619.66	1503.83	3090.46	1711301.66	14544900.32	40°02'58.605"N	104°44'48.127"W	0.96	
10299.00	87.640	359.700	7429.84	1706.60	1590.79	3091.33	1711302.29	14544987.25	40°02'59.465"N	104°44'48.116"W	3.36	
10387.00	88.380	358.890	7432.89	1794.43	1678.73	3090.25	1711300.97	14545075.15	40°03'00.334"N	104°44'48.130"W	1.25	
10474.00	89.310	1.910	7434.65	1881.36	1765.70	3090.85	1711301.34	14545162.09	40°03'01.193"N	104°44'48.122"W	3.63	
10562.00	89.820	4.110	7435.32	1969.35	1853.57	3095.48	1711305.72	14545249.94	40°03'02.062"N	104°44'48.062"W	2.57	
10649.00	89.480	3.980	7435.85	2056.30	1940.35	3101.61	1711311.62	14545336.70	40°03'02.919"N	104°44'47.983"W	0.42	
10736.00	89.720	3.200	7436.46	2143.27	2027.18	3107.06	1711316.83	14545423.51	40°03'03.777"N	104°44'47.913"W	0.94	
10824.00	88.810	1.910	7437.58	2231.26	2115.08	3110.98	1711320.51	14545511.38	40°03'04.646"N	104°44'47.863"W	1.79	
10911.00	88.550	2.120	7439.59	2318.23	2202.01	3114.04	1711323.33	14545598.28	40°03'05.505"N	104°44'47.823"W	0.38	
10999.00	88.730	1.510	7441.68	2406.21	2289.94	3116.83	1711325.88	14545686.18	40°03'06.374"N	104°44'47.787"W	0.72	
11086.00	88.510	1.120	7443.77	2493.17	2376.89	3118.82	1711327.64	14545773.11	40°03'07.233"N	104°44'47.761"W	0.51	
11174.00	90.520	2.980	7444.52	2581.16	2464.82	3121.97	1711330.54	14545861.01	40°03'08.102"N	104°44'47.721"W	3.11	
11260.00	90.960	3.100	7443.41	2667.14	2550.69	3126.53	1711334.87	14545946.86	40°03'08.951"N	104°44'47.662"W	0.53	
11348.00	91.500	2.990	7441.52	2755.11	2638.55	3131.20	1711339.30	14546034.69	40°03'09.819"N	104°44'47.602"W	0.63	
11435.00	92.100	2.880	7438.78	2842.06	2725.39	3135.66	1711343.52	14546121.51	40°03'10.677"N	104°44'47.544"W	0.70	

## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#39 JDB 15-7HZ(538'FSL & 1076'FEL,SEC.15)
Area	COLORADO	Well	JDB 15-7HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	JDB 15-7HZ AWB
Facility	SEC.15-T1N-R66W		

## WELLPATH DATA (159 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
11523.00	91.750	3.650	7435.83	2929.99	2813.20	3140.67	1711348.29	14546209.30	40°03'11.545"N	104°44'47.480"W	0.96	
11610.00	92.490	2.780	7432.61	3016.92	2900.00	3145.54	1711352.92	14546296.08	40°03'12.402"N	104°44'47.417"W	1.31	
11698.00	90.050	2.230	7430.66	3104.89	2987.89	3149.39	1711356.53	14546383.94	40°03'13.271"N	104°44'47.367"W	2.84	
11785.00	90.520	1.910	7430.23	3191.89	3074.83	3152.53	1711359.43	14546470.86	40°03'14.130"N	104°44'47.327"W	0.65	
11873.00	89.160	1.920	7430.47	3279.88	3162.78	3155.47	1711362.13	14546558.78	40°03'14.999"N	104°44'47.289"W	1.55	
11960.00	89.580	2.270	7431.43	3366.88	3249.71	3158.65	1711365.08	14546645.69	40°03'15.858"N	104°44'47.248"W	0.83	
12048.00	90.120	1.840	7431.66	3454.88	3337.65	3161.81	1711367.99	14546733.60	40°03'16.727"N	104°44'47.207"W	0.78	
12135.00	90.040	0.600	7431.54	3541.86	3424.63	3163.66	1711369.61	14546820.55	40°03'17.587"N	104°44'47.183"W	1.43	
12223.00	90.580	1.450	7431.06	3629.84	3512.62	3165.23	1711370.94	14546908.51	40°03'18.457"N	104°44'47.163"W	1.14	
12310.00	91.250	0.860	7429.67	3716.82	3599.59	3166.99	1711372.46	14546995.45	40°03'19.316"N	104°44'47.140"W	1.03	
12398.00	92.100	1.270	7427.10	3804.76	3687.53	3168.62	1711373.85	14547083.36	40°03'20.185"N	104°44'47.119"W	1.07	
12485.00	90.010	3.000	7425.50	3891.74	3774.45	3171.86	1711376.85	14547170.25	40°03'21.044"N	104°44'47.077"W	3.12	
12572.00	90.930	2.240	7424.79	3978.73	3861.35	3175.84	1711380.59	14547257.13	40°03'21.903"N	104°44'47.026"W	1.37	
12659.00	92.300	2.400	7422.33	4065.69	3948.25	3179.36	1711383.88	14547344.00	40°03'22.761"N	104°44'46.980"W	1.59	
12747.00	94.010	2.470	7417.49	4153.56	4036.03	3183.09	1711387.37	14547431.76	40°03'23.629"N	104°44'46.932"W	1.94	
12834.00	91.930	3.790	7412.98	4240.42	4122.78	3187.84	1711391.87	14547518.48	40°03'24.486"N	104°44'46.871"W	2.83	
12922.00	88.950	3.440	7412.31	4328.38	4210.59	3193.38	1711397.18	14547606.28	40°03'25.354"N	104°44'46.800"W	3.41	
13009.00	89.550	3.240	7413.45	4415.35	4297.43	3198.45	1711402.01	14547693.10	40°03'26.212"N	104°44'46.734"W	0.73	
13011.00†	89.569	3.249	7413.46	4417.35	4299.43	3198.56	1711402.12	14547695.10	40°03'26.232"N	104°44'46.733"W	1.06	CROSS SETBACK TOE (460'FNL & 2095'FWL,SEC.14) 40.0572866 -104.7463147
13097.00	90.390	3.640	7413.49	4503.33	4385.27	3203.73	1711407.05	14547780.92	40°03'27.080"N	104°44'46.666"W	1.06	
13185.00	88.190	3.830	7414.58	4591.29	4473.08	3209.46	1711412.54	14547868.70	40°03'27.948"N	104°44'46.592"W	2.51	
13272.00	89.180	3.740	7416.58	4678.23	4559.86	3215.20	1711418.04	14547955.47	40°03'28.806"N	104°44'46.518"W	1.14	
13372.00	90.250	2.680	7417.08	4778.21	4659.70	3220.80	1711423.37	14548055.28	40°03'29.792"N	104°44'46.446"W	1.51	LAST BHGE MWD+IFR1+MSA SURVEY
13415.00	90.250	2.680	7416.89	4821.21	4702.65	3222.81	1711425.26	14548098.22	40°03'30.217"N	104°44'46.420"W	0.00	PTB (56'FNL & 2120'FWL,SEC.14) 40.0583935 -104.7462279

## HOLE & CASING SECTIONS - Ref Wellbore: JDB 15-7HZ AWB Ref Wellpath: JDB 15-7HZ 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	1922.00	1905.00	17.00	1873.39	0.00	0.00	-75.51	335.70

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#39 JDB 15-7HZ(538'FSL & 1076'FEL,SEC.15)
Area	COLORADO	Well	JDB 15-7HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	JDB 15-7HZ 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	87.43	-21.28	1708195.02	14543476.03	40°02'44.610"N	104°45'28.141"W	polygon
JDB 15-7HZ HEEL REV-1(355'FSL & 1950'FWL,SEC.14)	7440.00	-185.60	3024.34	1711240.16	14543211.38	40°02'41.910"N	104°44'48.980"W	point
JDB 15-7HZ BHL REV-1(50'FNL & 2107'FWL,SEC.14)	7455.00	4708.66	3209.62	1711412.05	14548104.19	40°03'30.276"N	104°44'46.590"W	point
JDB 15-7HZ LANDBOX	7455.00	0.00	0.00	1708216.53	14543388.69	40°02'43.746"N	104°45'27.868"W	polygon
JDB 15-7HZ SETBACK 1	7455.00	0.00	0.00	1708216.53	14543388.69	40°02'43.746"N	104°45'27.868"W	polygon
JDB 15-7HZ SETBACK 2	7455.00	0.00	0.00	1708216.53	14543388.69	40°02'43.746"N	104°45'27.868"W	polygon

WELLPATH COMPOSITION - Ref Wellbore: JDB 15-7HZ AWB Ref Wellpath: JDB 15-7HZ AWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	1884.00	Custom APC_ISCWSA REV 2 MWD+IFR1 (approximation)	Custom APC ISCWSA Rev-2 MWD+IFR1 <129 - 1884>	JDB 15-7HZ AWB
1884.00	13372.00	Custom APC_ISCWSA REV 2 MWD+IFR1+MSA (approximation)	BHGE Custom APC ISCWSA Rev-2 MWD+IFR1+MSA <1965 - 13372>	JDB 15-7HZ AWB
13372.00	13415.00	Blind Drilling (std)	Projection to bit	JDB 15-7HZ AWB

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#39 JDB 15-7HZ(538'FSL & 1076'FEL,SEC.15)
Area	COLORADO	Well	JDB 15-7HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	JDB 15-7HZ AWB
Facility	SEC.15-T1N-R66W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
129.00	0.310	175.780	129.00	FIRST SURFACE MWD+IFR1 SURVEY
1884.00	23.910	100.550	1838.65	LAST SURFACE MWD+IFR1 SURVEY
1965.00	23.910	100.470	1912.70	FIRST BHGE MWD+IFR1+MSA SURVEY
7353.00	25.863	101.157	6714.16	KOP
7862.00	40.446	30.908	7154.18	ENTER LANDBOX (196'FNL & 1782'FWL,SEC.23) 40.0434709 -104.7475342
8506.00	86.880	1.930	7429.90	LANDING (338'FSL & 1943'FWL,SEC.14) 40.0449354 -104.7469584
8626.00	89.421	1.851	7434.91	CROSS SETBACK HEEL (458'FSL & 1947'FWL,SEC.14) 40.0452642 -104.7469418
13011.00	89.569	3.249	7413.46	CROSS SETBACK TOE (460'FNL & 2095'FWL,SEC.14) 40.0572866 -104.7463147
13372.00	90.250	2.680	7417.08	LAST BHGE MWD+IFR1+MSA SURVEY
13415.00	90.250	2.680	7416.89	PTB (56'FNL & 2120'FWL,SEC.14) 40.0583935 -104.7462279