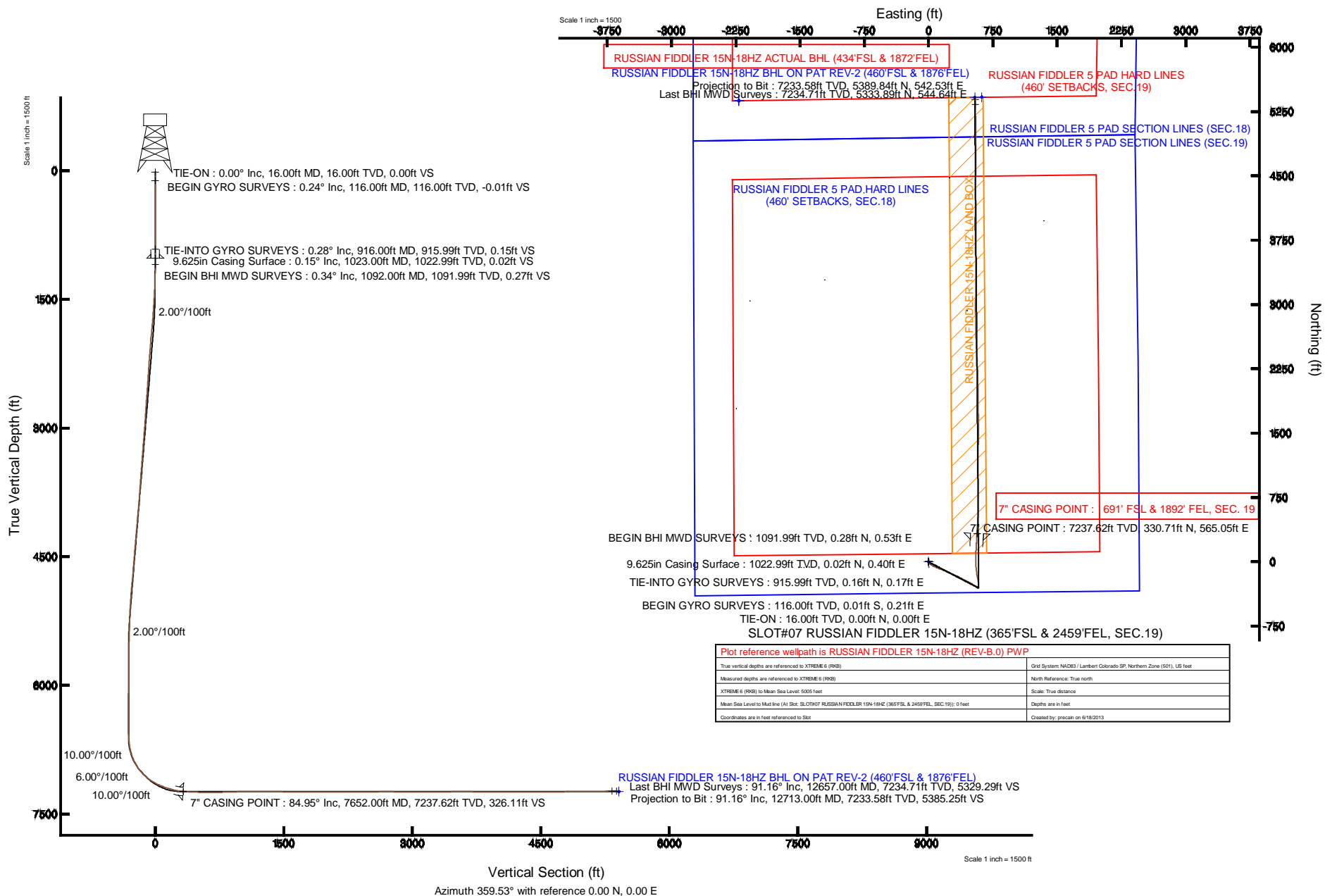




KERR-MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#07 RUSSIAN FIDDLER 15N-18HZ (365'FSL & 2459'FEL, SEC.19)
Field: WELD COUNTY (KERR MCGEE) Well: RUSSIAN FIDDLER 15N-18HZ
Facility: SEC.19-T2N-R65W Wellbore: RUSSIAN FIDDLER 15N-18HZ PWB





Actual Wellpath Report

RUSSIAN FIDDLER 15N-18HZ AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#07 RUSSIAN FIDDLER 15N-18HZ (365'FSL & 2459'FEL, SEC.19)
Area	COLORADO	Well	RUSSIAN FIDDLER 15N-18HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	RUSSIAN FIDDLER 15N-18HZ AWB
Facility	SEC.19-T2N-R65W		

REPORT SETUP INFORMATION			
Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 4.0.0
North Reference	True	User	Precain
Scale	0.99996	Report Generated	6/18/2013 at 1:32:21 PM
Convergence at slot	n/a	Database/Source file	WellArchitectDB/RUSSIAN_FIDDLER_15N-18HZ_AWB.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-4944.52	229.89	3222028.60	1286705.86	40°07'03.619"N	104°42'21.942"W
Facility Reference Pt			3221754.51	1291647.91	40°07'52.481"N	104°42'24.901"W
Field Reference Pt			3197771.84	1268891.29	40°04'09.600"N	104°47'36.000"W

WELLPATH DATUM			
Calculation method	Minimum curvature	XTREME 6 (RKB) to Facility Vertical Datum	5005.00ft
Horizontal Reference Pt	Slot	XTREME 6 (RKB) to Mean Sea Level	5005.00ft
Vertical Reference Pt	XTREME 6 (RKB)	XTREME 6 (RKB) to Mud Line at Slot (SLOT#07 RUSSIAN FIDDLER 15N-18HZ (365'FSL & 2459'FEL, SEC.19))	5005.00ft
MD Reference Pt	XTREME 6 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	359.53°



Actual Wellpath Report

RUSSIAN FIDDLER 15N-18HZ AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#07 RUSSIAN FIDDLER 15N-18HZ (365'FSL & 2459'FEL, SEC.19)
Area	COLORADO	Well	RUSSIAN FIDDLER 15N-18HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	RUSSIAN FIDDLER 15N-18HZ AWB
Facility	SEC.19-T2N-R65W		

WELLPATH DATA (162 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
0.00†	0.000	93.050	0.00	0.00	0.00	0.00	40°07'03.619"N	104°42'21.942"W	0.00	
16.00	0.000	93.050	16.00	0.00	0.00	0.00	40°07'03.619"N	104°42'21.942"W	0.00	TIE-ON
116.00	0.240	93.050	116.00	-0.01	-0.01	0.21	40°07'03.619"N	104°42'21.939"W	0.24	BEGIN GYRO SURVEYS
216.00	0.250	22.620	216.00	0.18	0.18	0.50	40°07'03.621"N	104°42'21.936"W	0.28	
316.00	0.230	325.730	316.00	0.54	0.55	0.47	40°07'03.625"N	104°42'21.936"W	0.23	
416.00	0.230	341.740	416.00	0.90	0.90	0.30	40°07'03.628"N	104°42'21.938"W	0.06	
516.00	0.200	174.890	516.00	0.92	0.92	0.25	40°07'03.628"N	104°42'21.939"W	0.43	
616.00	0.230	253.140	616.00	0.69	0.69	0.07	40°07'03.626"N	104°42'21.941"W	0.27	
716.00	0.150	262.470	716.00	0.61	0.61	-0.25	40°07'03.625"N	104°42'21.945"W	0.09	
816.00	0.280	117.330	816.00	0.48	0.48	-0.16	40°07'03.624"N	104°42'21.944"W	0.41	
916.00	0.280	151.700	915.99	0.15	0.16	0.17	40°07'03.621"N	104°42'21.940"W	0.17	TIE-INTO GYRO SURVEYS
1092.00	0.340	17.150	1091.99	0.27	0.28	0.53	40°07'03.622"N	104°42'21.935"W	0.33	BEGIN BHI MWD SURVEYS
1154.00	0.790	163.790	1153.99	0.04	0.04	0.70	40°07'03.620"N	104°42'21.933"W	1.76	
1245.00	2.220	134.870	1244.96	-1.82	-1.80	2.13	40°07'03.601"N	104°42'21.915"W	1.73	
1337.00	2.430	144.050	1336.88	-4.68	-4.64	4.54	40°07'03.573"N	104°42'21.884"W	0.46	
1427.00	3.320	148.710	1426.77	-8.47	-8.41	7.01	40°07'03.536"N	104°42'21.852"W	1.02	
1520.00	4.280	150.610	1519.56	-13.82	-13.74	10.11	40°07'03.483"N	104°42'21.812"W	1.04	
1612.00	5.150	135.900	1611.26	-19.81	-19.69	14.67	40°07'03.425"N	104°42'21.753"W	1.61	
1703.00	7.060	125.460	1701.74	-26.05	-25.87	22.07	40°07'03.364"N	104°42'21.658"W	2.42	
1797.00	8.330	128.090	1794.89	-33.68	-33.42	32.13	40°07'03.289"N	104°42'21.528"W	1.40	
1889.00	9.220	125.080	1885.81	-42.12	-41.77	43.41	40°07'03.206"N	104°42'21.383"W	1.09	
1974.00	10.050	120.380	1969.61	-49.89	-49.44	55.38	40°07'03.131"N	104°42'21.229"W	1.34	
2059.00	10.570	113.550	2053.24	-56.86	-56.30	68.93	40°07'03.063"N	104°42'21.055"W	1.56	
2144.00	10.640	113.430	2136.79	-63.21	-62.54	83.27	40°07'03.001"N	104°42'20.870"W	0.09	
2229.00	10.380	112.210	2220.37	-69.34	-68.55	97.56	40°07'02.942"N	104°42'20.686"W	0.40	
2314.00	10.250	110.680	2303.99	-75.02	-74.12	111.73	40°07'02.887"N	104°42'20.504"W	0.36	
2399.00	10.240	109.960	2387.64	-80.39	-79.37	125.90	40°07'02.835"N	104°42'20.321"W	0.15	
2484.00	9.960	110.380	2471.32	-85.64	-84.51	139.90	40°07'02.784"N	104°42'20.141"W	0.34	
2569.00	10.300	115.340	2555.00	-91.57	-90.32	153.65	40°07'02.727"N	104°42'19.964"W	1.10	
2654.00	10.240	114.060	2638.64	-98.01	-96.65	167.42	40°07'02.664"N	104°42'19.787"W	0.28	
2740.00	10.150	112.620	2723.28	-104.15	-102.68	181.40	40°07'02.604"N	104°42'19.607"W	0.31	
2825.00	9.590	111.960	2807.02	-109.79	-108.21	194.88	40°07'02.550"N	104°42'19.434"W	0.67	
2910.00	10.180	113.160	2890.76	-115.50	-113.81	208.35	40°07'02.494"N	104°42'19.260"W	0.74	
2995.00	10.490	114.620	2974.38	-121.79	-119.99	222.29	40°07'02.433"N	104°42'19.081"W	0.48	
3079.00	10.240	113.840	3057.01	-128.11	-126.19	236.07	40°07'02.372"N	104°42'18.903"W	0.34	
3165.00	9.910	113.850	3141.68	-134.30	-132.28	249.83	40°07'02.312"N	104°42'18.726"W	0.38	
3250.00	10.230	115.410	3225.37	-140.61	-138.47	263.34	40°07'02.251"N	104°42'18.552"W	0.49	
3335.00	9.790	113.520	3309.08	-146.84	-144.60	276.78	40°07'02.190"N	104°42'18.379"W	0.65	
3420.00	10.700	117.850	3392.72	-153.52	-151.17	290.39	40°07'02.125"N	104°42'18.204"W	1.40	
3505.00	10.280	116.000	3476.30	-160.65	-158.18	304.18	40°07'02.056"N	104°42'18.027"W	0.63	
3589.00	9.610	113.350	3559.04	-166.82	-164.24	317.35	40°07'01.996"N	104°42'17.857"W	0.97	
3675.00	8.810	111.080	3643.93	-172.13	-169.46	330.09	40°07'01.945"N	104°42'17.693"W	1.02	
3760.00	9.070	114.990	3727.90	-177.40	-174.63	342.24	40°07'01.893"N	104°42'17.537"W	0.78	
3845.00	9.730	118.230	3811.76	-183.73	-180.86	354.64	40°07'01.832"N	104°42'17.377"W	0.99	
3930.00	10.150	116.680	3895.48	-190.60	-187.62	367.66	40°07'01.765"N	104°42'17.210"W	0.59	



Actual Wellpath Report

RUSSIAN FIDDLER 15N-18HZ AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#07 RUSSIAN FIDDLER 15N-18HZ (365'FSL & 2459'FEL, SEC.19)
Area	COLORADO	Well	RUSSIAN FIDDLER 15N-18HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	RUSSIAN FIDDLER 15N-18HZ AWB
Facility	SEC.19-T2N-R65W		

WELLPATH DATA (162 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4015.00	10.510	117.430	3979.10	-197.64	-194.55	381.23	40°07'01.697"N	104°42'17.035"W	0.45	
4100.00	11.130	120.250	4062.59	-205.46	-202.25	395.20	40°07'01.620"N	104°42'16.855"W	0.96	
4186.00	10.580	119.070	4147.05	-213.59	-210.27	409.27	40°07'01.541"N	104°42'16.674"W	0.69	
4270.00	10.620	116.320	4229.62	-220.88	-217.45	422.95	40°07'01.470"N	104°42'16.498"W	0.60	
4354.00	10.570	116.700	4312.19	-227.89	-224.34	436.77	40°07'01.402"N	104°42'16.320"W	0.10	
4439.00	10.220	116.650	4395.79	-234.89	-231.23	450.47	40°07'01.334"N	104°42'16.144"W	0.41	
4523.00	9.920	115.140	4478.50	-241.41	-237.65	463.68	40°07'01.271"N	104°42'15.974"W	0.48	
4608.00	9.820	119.310	4562.24	-248.17	-244.30	476.63	40°07'01.205"N	104°42'15.807"W	0.85	
4693.00	9.570	116.250	4646.03	-254.95	-250.98	489.29	40°07'01.139"N	104°42'15.644"W	0.67	
4778.00	9.610	123.990	4729.84	-262.14	-258.07	501.51	40°07'01.069"N	104°42'15.487"W	1.52	
4863.00	9.620	123.200	4813.65	-270.09	-265.93	513.34	40°07'00.991"N	104°42'15.335"W	0.16	
4948.00	8.760	122.390	4897.56	-277.54	-273.28	524.75	40°07'00.919"N	104°42'15.188"W	1.02	
5033.00	7.480	121.030	4981.71	-283.94	-279.60	534.95	40°07'00.856"N	104°42'15.056"W	1.52	
5118.00	6.820	115.640	5066.04	-289.05	-284.64	544.24	40°07'00.806"N	104°42'14.937"W	1.11	
5203.00	5.570	114.600	5150.55	-293.02	-288.54	552.54	40°07'00.768"N	104°42'14.830"W	1.48	
5289.00	4.780	122.650	5236.20	-296.75	-292.21	559.36	40°07'00.731"N	104°42'14.742"W	1.25	
5374.00	4.290	120.900	5320.93	-300.34	-295.75	565.07	40°07'00.696"N	104°42'14.669"W	0.60	
5459.00	3.670	123.040	5405.72	-303.50	-298.87	570.07	40°07'00.666"N	104°42'14.604"W	0.75	
5544.00	2.240	121.430	5490.61	-305.87	-301.22	573.77	40°07'00.642"N	104°42'14.557"W	1.69	
5629.00	1.300	123.490	5575.57	-307.29	-302.62	575.99	40°07'00.629"N	104°42'14.528"W	1.11	
5714.00	1.100	122.150	5660.55	-308.27	-303.58	577.49	40°07'00.619"N	104°42'14.509"W	0.24	
5799.00	0.990	125.780	5745.54	-309.14	-304.45	578.78	40°07'00.611"N	104°42'14.492"W	0.15	
5884.00	0.630	136.640	5830.53	-309.92	-305.22	579.69	40°07'00.603"N	104°42'14.480"W	0.46	
5969.00	0.430	118.490	5915.52	-310.42	-305.71	580.29	40°07'00.598"N	104°42'14.473"W	0.30	
6054.00	0.270	163.800	6000.52	-310.76	-306.05	580.63	40°07'00.595"N	104°42'14.468"W	0.36	
6138.00	0.400	177.650	6084.52	-311.25	-306.53	580.70	40°07'00.590"N	104°42'14.467"W	0.18	
6223.00	0.390	205.710	6169.52	-311.80	-307.09	580.58	40°07'00.584"N	104°42'14.469"W	0.23	
6308.00	0.150	279.650	6254.52	-312.04	-307.33	580.35	40°07'00.582"N	104°42'14.472"W	0.44	
6393.00	0.080	331.210	6339.52	-311.97	-307.26	580.21	40°07'00.583"N	104°42'14.474"W	0.14	
6478.00	0.200	317.920	6424.52	-311.81	-307.10	580.08	40°07'00.584"N	104°42'14.475"W	0.15	
6563.00	0.310	318.020	6509.52	-311.53	-306.82	579.83	40°07'00.587"N	104°42'14.479"W	0.13	
6605.00	0.330	277.760	6551.52	-311.42	-306.72	579.63	40°07'00.588"N	104°42'14.481"W	0.53	
6648.00	2.680	349.110	6594.50	-310.42	-305.72	579.32	40°07'00.598"N	104°42'14.485"W	6.03	
6690.00	5.090	359.090	6636.40	-307.59	-302.89	579.11	40°07'00.626"N	104°42'14.488"W	5.94	
6733.00	7.510	4.690	6679.14	-302.88	-298.18	579.31	40°07'00.672"N	104°42'14.485"W	5.80	
6776.00	10.800	8.220	6721.58	-296.10	-291.39	580.11	40°07'00.740"N	104°42'14.475"W	7.76	
6819.00	13.760	5.190	6763.60	-287.02	-282.31	581.15	40°07'00.829"N	104°42'14.462"W	7.04	
6861.00	17.380	1.690	6804.05	-275.78	-271.06	581.79	40°07'00.941"N	104°42'14.453"W	8.90	
6904.00	20.740	357.060	6844.69	-261.75	-257.03	581.59	40°07'01.079"N	104°42'14.456"W	8.56	
6947.00	25.670	353.070	6884.20	-244.88	-240.17	580.07	40°07'01.246"N	104°42'14.476"W	12.03	
6989.00	29.000	349.360	6921.51	-225.81	-221.13	577.09	40°07'01.434"N	104°42'14.514"W	8.90	
7032.00	33.320	348.750	6958.30	-203.94	-199.29	572.86	40°07'01.650"N	104°42'14.568"W	10.07	
7074.00	38.800	349.800	6992.24	-179.62	-175.00	568.28	40°07'01.890"N	104°42'14.627"W	13.13	
7117.00	44.240	351.430	7024.42	-151.47	-146.89	563.65	40°07'02.168"N	104°42'14.687"W	12.90	
7159.00	48.020	352.920	7053.52	-121.45	-116.90	559.54	40°07'02.464"N	104°42'14.740"W	9.36	



Actual Wellpath Report

RUSSIAN FIDDLER 15N-18HZ AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#07 RUSSIAN FIDDLER 15N-18HZ (365'FSL & 2459'FEL, SEC.19)
Area	COLORADO	Well	RUSSIAN FIDDLER 15N-18HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	RUSSIAN FIDDLER 15N-18HZ AWB
Facility	SEC.19-T2N-R65W		

WELLPATH DATA (162 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
7202.00	52.840	353.960	7080.91	-88.50	-83.98	555.77	40°07'02.789"N	104°42'14.788"W	11.36	
7245.00	55.550	354.270	7106.06	-53.78	-49.29	552.19	40°07'03.132"N	104°42'14.834"W	6.33	
7287.00	58.950	357.160	7128.78	-18.55	-14.08	549.57	40°07'03.480"N	104°42'14.868"W	9.95	
7327.00	62.520	359.320	7148.33	16.33	20.79	548.51	40°07'03.825"N	104°42'14.882"W	10.09	
7370.00	66.360	2.620	7166.89	55.09	59.56	549.19	40°07'04.208"N	104°42'14.873"W	11.30	
7413.00	69.130	3.180	7183.17	94.82	99.30	551.20	40°07'04.600"N	104°42'14.847"W	6.55	
7455.00	71.380	3.710	7197.36	134.25	138.76	553.58	40°07'04.990"N	104°42'14.816"W	5.49	
7498.00	73.980	3.620	7210.16	175.19	179.72	556.20	40°07'05.395"N	104°42'14.783"W	6.05	
7540.00	76.940	3.260	7220.70	215.75	220.30	558.64	40°07'05.796"N	104°42'14.751"W	7.10	
7583.00	80.080	3.460	7229.27	257.79	262.36	561.11	40°07'06.212"N	104°42'14.719"W	7.32	
7629.00	84.380	3.230	7235.48	303.25	307.85	563.77	40°07'06.661"N	104°42'14.685"W	9.36	
7652.00†	84.949	3.165	7237.62	326.11	330.71	565.05	40°07'06.887"N	104°42'14.669"W	2.49	7" CASING POINT
7760.00	87.620	2.860	7244.62	433.67	438.33	570.71	40°07'07.951"N	104°42'14.596"W	2.49	
7852.00	88.600	2.130	7247.66	525.50	530.19	574.71	40°07'08.859"N	104°42'14.544"W	1.33	
7935.00	89.660	1.040	7248.92	608.43	613.15	577.01	40°07'09.678"N	104°42'14.515"W	1.83	
8020.00	90.710	0.250	7248.64	693.41	698.14	577.96	40°07'10.518"N	104°42'14.502"W	1.55	
8105.00	91.480	0.110	7247.02	778.39	783.12	578.23	40°07'11.358"N	104°42'14.499"W	0.92	
8188.00	92.070	0.100	7244.45	861.35	866.08	578.38	40°07'12.178"N	104°42'14.497"W	0.71	
8273.00	91.450	359.870	7241.84	946.31	951.04	578.36	40°07'13.017"N	104°42'14.497"W	0.78	
8358.00	91.200	0.250	7239.87	1031.28	1036.02	578.45	40°07'13.857"N	104°42'14.496"W	0.54	
8443.00	89.630	358.830	7239.25	1116.27	1121.01	577.77	40°07'14.697"N	104°42'14.505"W	2.49	
8528.00	90.860	0.460	7238.89	1201.27	1206.00	577.24	40°07'15.537"N	104°42'14.512"W	2.40	
8613.00	89.810	0.640	7238.39	1286.25	1290.99	578.06	40°07'16.377"N	104°42'14.501"W	1.25	
8698.00	89.110	1.490	7239.20	1371.22	1375.98	579.64	40°07'17.217"N	104°42'14.481"W	1.30	
8783.00	88.210	0.220	7241.18	1456.17	1460.94	580.90	40°07'18.056"N	104°42'14.464"W	1.83	
8868.00	89.970	0.310	7242.53	1541.15	1545.92	581.30	40°07'18.896"N	104°42'14.459"W	2.07	
8953.00	88.490	359.310	7243.68	1626.13	1630.91	581.02	40°07'19.736"N	104°42'14.463"W	2.10	
9037.00	89.940	358.830	7244.83	1710.12	1714.89	579.65	40°07'20.566"N	104°42'14.480"W	1.82	
9122.00	89.750	358.970	7245.06	1795.12	1799.88	578.02	40°07'21.406"N	104°42'14.501"W	0.28	
9207.00	90.990	359.430	7244.51	1880.11	1884.86	576.83	40°07'22.246"N	104°42'14.517"W	1.56	
9293.00	90.680	358.930	7243.25	1966.10	1970.85	575.60	40°07'23.095"N	104°42'14.532"W	0.68	
9378.00	90.530	359.490	7242.36	2051.09	2055.83	574.43	40°07'23.935"N	104°42'14.547"W	0.68	
9463.00	89.010	358.570	7242.70	2136.09	2140.82	572.99	40°07'24.775"N	104°42'14.566"W	2.09	
9548.00	89.470	357.250	7243.83	2221.04	2225.75	569.89	40°07'25.614"N	104°42'14.606"W	1.64	
9633.00	90.090	358.100	7244.15	2305.99	2310.68	566.44	40°07'26.454"N	104°42'14.650"W	1.24	
9718.00	90.520	357.610	7243.70	2390.96	2395.62	563.26	40°07'27.293"N	104°42'14.691"W	0.77	
9803.00	90.150	356.510	7243.20	2475.87	2480.50	558.90	40°07'28.132"N	104°42'14.747"W	1.37	
9889.00	90.920	357.770	7242.40	2561.79	2566.39	554.61	40°07'28.980"N	104°42'14.802"W	1.72	
9974.00	90.580	358.830	7241.29	2646.76	2651.34	552.09	40°07'29.820"N	104°42'14.835"W	1.31	
10059.00	89.560	359.570	7241.18	2731.76	2736.33	550.91	40°07'30.660"N	104°42'14.850"W	1.48	
10144.00	89.590	358.600	7241.81	2816.76	2821.32	549.55	40°07'31.500"N	104°42'14.868"W	1.14	
10229.00	89.290	358.960	7242.64	2901.74	2906.30	547.74	40°07'32.339"N	104°42'14.891"W	0.55	
10314.00	88.450	0.470	7244.32	2986.72	2991.27	547.32	40°07'33.179"N	104°42'14.896"W	2.03	
10397.00	90.180	1.010	7245.31	3069.70	3074.26	548.39	40°07'33.999"N	104°42'14.882"W	2.18	
10482.00	91.170	1.570	7244.31	3154.65	3159.23	550.30	40°07'34.839"N	104°42'14.858"W	1.34	



Actual Wellpath Report

RUSSIAN FIDDLER 15N-18HZ AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#07 RUSSIAN FIDDLER 15N-18HZ (365'FSL & 2459'FEL, SEC.19)
Area	COLORADO	Well	RUSSIAN FIDDLER 15N-18HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	RUSSIAN FIDDLER 15N-18HZ AWP
Facility	SEC.19-T2N-R65W		

WELLPATH DATA (162 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
10568.00	90.700	0.390	7242.91	3240.61	3245.20	551.77	40°07'35.689"N	104°42'14.839"W	1.48	
10653.00	90.360	359.200	7242.12	3325.60	3330.20	551.47	40°07'36.529"N	104°42'14.843"W	1.46	
10738.00	90.150	358.870	7241.74	3410.60	3415.18	550.04	40°07'37.368"N	104°42'14.861"W	0.46	
10823.00	90.460	359.760	7241.29	3495.60	3500.18	549.02	40°07'38.208"N	104°42'14.874"W	1.11	
10908.00	89.880	358.780	7241.04	3580.59	3585.17	547.94	40°07'39.048"N	104°42'14.888"W	1.34	
10994.00	89.720	358.700	7241.34	3666.58	3671.15	546.05	40°07'39.898"N	104°42'14.912"W	0.21	
11079.00	88.710	359.350	7242.50	3751.57	3756.12	544.60	40°07'40.738"N	104°42'14.931"W	1.41	
11164.00	89.410	358.760	7243.90	3836.56	3841.10	543.20	40°07'41.577"N	104°42'14.949"W	1.08	
11249.00	89.350	359.880	7244.82	3921.55	3926.09	542.19	40°07'42.417"N	104°42'14.962"W	1.32	
11334.00	90.460	0.760	7244.96	4006.54	4011.08	542.66	40°07'43.257"N	104°42'14.956"W	1.67	
11420.00	89.570	0.180	7244.94	4092.53	4097.08	543.37	40°07'44.107"N	104°42'14.947"W	1.24	
11505.00	90.190	0.620	7245.11	4177.52	4182.08	543.96	40°07'44.947"N	104°42'14.939"W	0.89	
11588.00	90.250	1.110	7244.79	4260.49	4265.07	545.22	40°07'45.767"N	104°42'14.923"W	0.59	
11673.00	90.090	0.310	7244.54	4345.47	4350.06	546.27	40°07'46.607"N	104°42'14.909"W	0.96	
11759.00	90.090	1.080	7244.41	4431.45	4436.05	547.31	40°07'47.457"N	104°42'14.896"W	0.90	
11844.00	90.250	0.930	7244.16	4516.43	4521.04	548.80	40°07'48.297"N	104°42'14.877"W	0.26	
11929.00	90.460	0.660	7243.63	4601.40	4606.03	549.98	40°07'49.136"N	104°42'14.861"W	0.40	
12014.00	90.580	0.420	7242.86	4686.39	4691.02	550.78	40°07'49.976"N	104°42'14.851"W	0.32	
12099.00	90.830	359.870	7241.81	4771.38	4776.01	551.00	40°07'50.816"N	104°42'14.848"W	0.71	
12184.00	91.110	0.070	7240.37	4856.36	4861.00	550.95	40°07'51.656"N	104°42'14.849"W	0.40	
12269.00	89.780	359.660	7239.71	4941.35	4946.00	550.75	40°07'52.496"N	104°42'14.851"W	1.64	
12355.00	90.770	359.830	7239.30	5027.35	5031.99	550.37	40°07'53.346"N	104°42'14.856"W	1.17	
12440.00	90.520	358.920	7238.34	5112.35	5116.98	549.44	40°07'54.186"N	104°42'14.868"W	1.11	
12525.00	90.890	359.030	7237.30	5197.33	5201.96	547.92	40°07'55.026"N	104°42'14.888"W	0.45	
12610.00	91.260	358.540	7235.70	5282.31	5286.93	546.12	40°07'55.865"N	104°42'14.911"W	0.72	
12657.00	91.160	357.840	7234.71	5329.29	5333.89	544.64	40°07'56.329"N	104°42'14.930"W	1.50	Last BHI MWD Surveys
12713.00	91.160	357.840	7233.58	5385.25	5389.84	542.53	40°07'56.882"N	104°42'14.957"W	0.00	Projection to Bit

HOLE & CASING SECTIONS - Ref Wellbore: RUSSIAN FIDDLER 15N-18HZ AWP Ref Wellpath: RUSSIAN FIDDLER 15N-18HZ 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]
13.5in Open Hole	16.00	1023.00	1007.00	16.00	1022.99	0.00	0.00	0.02	0.40
9.625in Casing Surface	16.00	1023.00	1007.00	16.00	1022.99	0.00	0.00	0.02	0.40
8.75in Open Hole	1023.00	7678.00	6655.00	1022.99	7239.77	0.02	0.40	356.59	566.46
7in Casing Intermediate	16.00	7652.00	7636.00	16.00	7237.62	0.00	0.00	330.71	565.05
6.125in Open Hole	7652.00	12713.00	5061.00	7237.62	7233.58	330.71	565.05	5389.84	542.53



Actual Wellpath Report

RUSSIAN FIDDLER 15N-18HZ AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#07 RUSSIAN FIDDLER 15N-18HZ (365'FSL & 2459'FEL, SEC.19)
Area	COLORADO	Well	RUSSIAN FIDDLER 15N-18HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	RUSSIAN FIDDLER 15N-18HZ AWB
Facility	SEC.19-T2N-R65W		

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
RUSSIAN FIDDLER 5 PAD HARD LINES (460' SETBACKS, SEC.18)		-8.00	5375.65	-2214.29	3219766.37	1292061.24	40°07'56.741"N	104°42'50.450"W	polygon
RUSSIAN FIDDLER 5 PAD HARD LINES (460' SETBACKS, SEC.19)		-8.00	5375.65	-2214.29	3219766.37	1292061.24	40°07'56.741"N	104°42'50.450"W	polygon
RUSSIAN FIDDLER 5 PAD SECTION LINES (SEC.18)		-8.00	5375.63	-2214.29	3219766.37	1292061.22	40°07'56.741"N	104°42'50.450"W	polygon
RUSSIAN FIDDLER 5 PAD SECTION LINES (SEC.19)		-8.00	5375.65	-2214.29	3219766.37	1292061.24	40°07'56.741"N	104°42'50.450"W	polygon
RUSSIAN FIDDLER 15N-18HZ BHL ON PAT REV-1 (460'FSL & 1794'FEL)		7175.00	5416.75	619.90	3222599.96	1292127.70	40°07'57.148"N	104°42'13.961"W	point
POTTS X18-15 150' RADIUS		7240.00	5492.64	387.74	3222367.13	1292201.51	40°07'57.898"N	104°42'16.950"W	circle
RUSSIAN FIDDLER 15N-18HZ BHL ON PAT REV-2 (460'FSL & 1876'FEL)		7240.00	5415.23	538.27	3222518.35	1292125.45	40°07'57.133"N	104°42'15.012"W	point
DECHANT 32-19 150' RADIUS		7290.51	2877.87	349.30	3222352.10	1289586.62	40°07'32.059"N	104°42'17.445"W	circle
RUSSIAN FIDDLER 15N-18HZ LAND BOX		7402.00	0.00	0.00	3222028.60	1286705.86	40°07'03.619"N	104°42'21.942"W	polygon

WELLPATH COMPOSITION - Ref Wellbore: RUSSIAN FIDDLER 15N-18HZ AWB Ref Wellpath: RUSSIAN FIDDLER 15N-18HZ AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
16.00	916.00	Generic gyro - continuous (Standard)	MS ENERGY GYRO SURVEYS <116-916>	RUSSIAN FIDDLER 15N-18HZ AWB
916.00	7629.00	NaviTrak (MagCorr)	BHI MWD SURVEYS 8 3/4" HOLE <1092-7629>	RUSSIAN FIDDLER 15N-18HZ AWB
7629.00	12657.00	OnTrak (MagCorr)	BHI MWD SURVEYS 6 1/8" HOLE <7760-12610>	RUSSIAN FIDDLER 15N-18HZ AWB
12657.00	12713.00	Blind Drilling (std)	Projection to bit	RUSSIAN FIDDLER 15N-18HZ AWB



Actual Wellpath Report

RUSSIAN FIDDLER 15N-18HZ AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#07 RUSSIAN FIDDLER 15N-18HZ (365'FSL & 2459'FEL, SEC.19)
Area	COLORADO	Well	RUSSIAN FIDDLER 15N-18HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	RUSSIAN FIDDLER 15N-18HZ AWP
Facility	SEC.19-T2N-R65W		

WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
16.00	0.000	93.050	16.00	TIE-ON
116.00	0.240	93.050	116.00	BEGIN GYRO SURVEYS
916.00	0.280	151.700	915.99	TIE-INTO GYRO SURVEYS
1092.00	0.340	17.150	1091.99	BEGIN BHI MWD SURVEYS
7652.00	84.949	3.165	7237.62	7" CASING POINT
12657.00	91.160	357.840	7234.71	Last BHI MWD Surveys
12713.00	91.160	357.840	7233.58	Projection to Bit