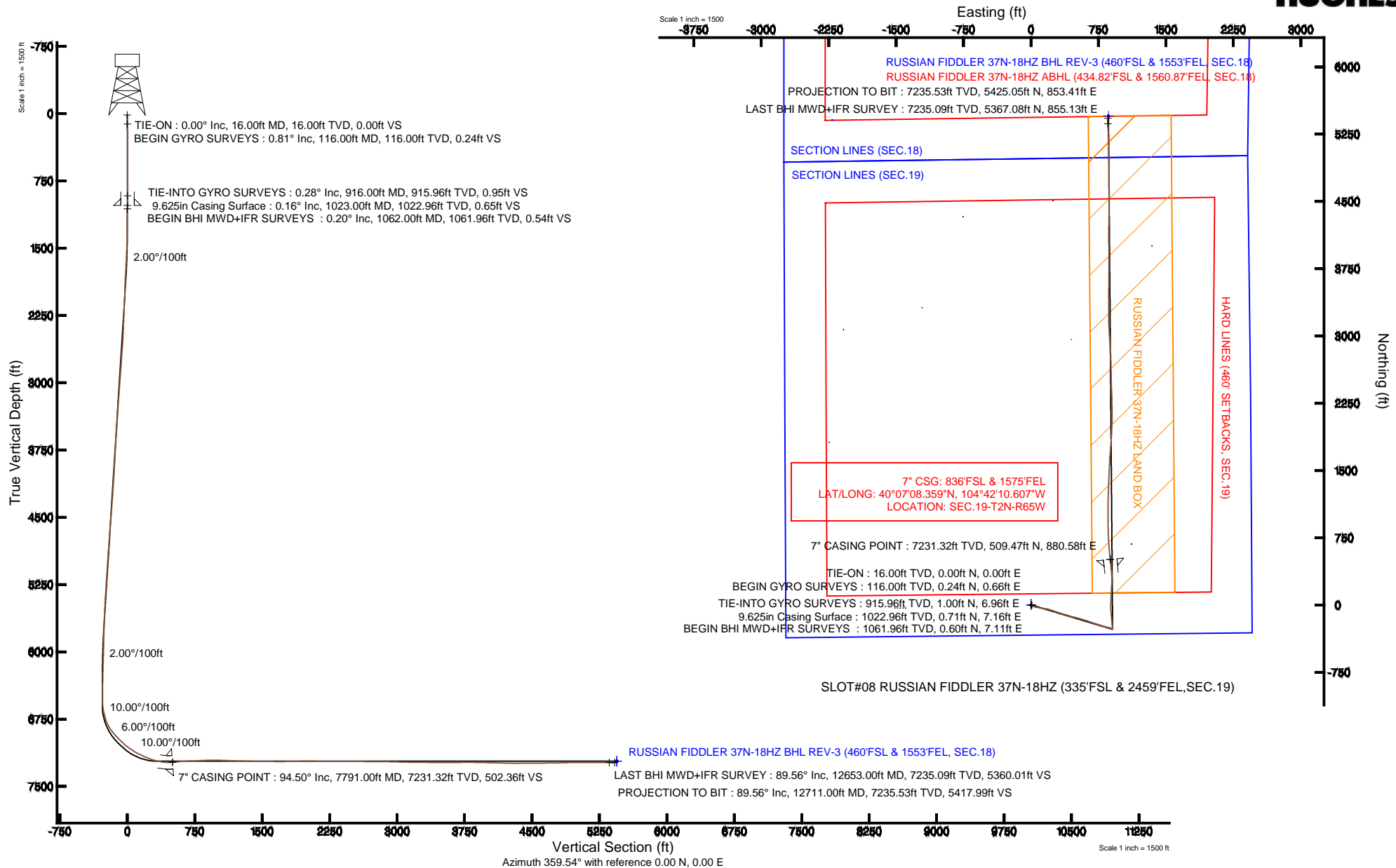


KERR-MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#08 RUSSIAN FIDDLER 37N-18HZ (335'FSL & 2459'FEL, SEC.19)
 Field: WELD COUNTY (KERR MCGEE) Well: RUSSIAN FIDDLER 37N-18HZ
 Facility: SEC.19-T2N-R65W Wellbore: RUSSIAN FIDDLER 37N-18HZ PWB

Plot reference wellpath is RUSSIAN FIDDLER 37N-18HZ (REV-A.0) PWP

True vertical depths are referenced to XTREME 6 (RKB)	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
Measured depths are referenced to XTREME 6 (RKB)	North Reference: True north
XTREME 6 (RKB) to Mean Sea Level: 5005 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#08 RUSSIAN FIDDLER 37N-18HZ (335'FSL & 2459'FEL, SEC.19)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: wilajet02 on 6/6/2013





Actual Wellpath Report

RUSSIAN FIDDLER 37N-18HZ AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#08 RUSSIAN FIDDLER 37N-18HZ (335'FSL & 2459'FEL,SEC.19)
Area	COLORADO	Well	RUSSIAN FIDDLER 37N-18HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	RUSSIAN FIDDLER 37N-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	Wilsjef02
Scale	0.99996	Report Generated	6/6/2013 at 09:46:25
Convergence at slot	n/a	Database/Source file	WellArchitectDB/RUSSIAN_FIDDLER_37N-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	-4974.39	229.89	3222028.87	1286675.99	40°07'03.324"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#08 RUSSIAN FIDDLER 37N-18HZ (335'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	8.94°



Actual Wellpath Report

RUSSIAN FIDDLER 37N-18HZ AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#08 RUSSIAN FIDDLER 37N-18HZ (335'FSL & 2459'FEL,SEC.19)
Area	COLORADO	Well	RUSSIAN FIDDLER 37N-18HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	RUSSIAN FIDDLER 37N-18HZ AWB
Facility	SEC.19-T2N-R65W		

WELLPATH DATA (150 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	70.110	0.00	0.00	0.00	0.00	40°07'03.324"N	104°42'21.942"W	0.00	
16.00	0.000	70.110	16.00	0.00	0.00	0.00	40°07'03.324"N	104°42'21.942"W	0.00	TIE-ON
116.00	0.810	70.110	116.00	0.34	0.24	0.66	40°07'03.326"N	104°42'21.933"W	0.81	BEGIN GYRO SURVEYS
216.00	0.610	70.870	215.99	0.93	0.66	1.83	40°07'03.330"N	104°42'21.918"W	0.20	
316.00	0.540	72.790	315.98	1.39	0.97	2.79	40°07'03.334"N	104°42'21.906"W	0.07	
416.00	0.700	76.070	415.98	1.84	1.26	3.83	40°07'03.336"N	104°42'21.893"W	0.16	
516.00	0.680	75.470	515.97	2.31	1.55	5.00	40°07'03.339"N	104°42'21.878"W	0.02	
616.00	0.240	92.310	615.97	2.57	1.69	5.78	40°07'03.341"N	104°42'21.868"W	0.46	
716.00	0.220	79.080	715.97	2.66	1.72	6.18	40°07'03.341"N	104°42'21.862"W	0.06	
816.00	0.420	148.110	815.97	2.45	1.45	6.56	40°07'03.338"N	104°42'21.858"W	0.40	
916.00	0.280	122.780	915.96	2.07	1.00	6.96	40°07'03.334"N	104°42'21.852"W	0.21	TIE-INTO GYRO SURVEYS
1062.00	0.200	214.480	1061.96	1.70	0.60	7.11	40°07'03.330"N	104°42'21.850"W	0.24	BEGIN BHI MWD+IFR SURVEYS
1154.00	0.090	241.760	1153.96	1.51	0.43	6.96	40°07'03.328"N	104°42'21.852"W	0.14	
1246.00	0.720	146.570	1245.96	1.04	-0.08	7.21	40°07'03.323"N	104°42'21.849"W	0.80	
1337.00	2.280	118.720	1336.93	0.00	-1.43	9.12	40°07'03.310"N	104°42'21.825"W	1.84	
1428.00	3.190	120.550	1427.82	-1.54	-3.59	12.88	40°07'03.289"N	104°42'21.776"W	1.00	
1520.00	3.580	129.710	1519.66	-3.95	-6.72	17.30	40°07'03.258"N	104°42'21.719"W	0.72	
1612.00	4.910	118.480	1611.41	-6.74	-10.44	22.97	40°07'03.221"N	104°42'21.646"W	1.70	
1704.00	6.450	117.370	1702.95	-9.69	-14.69	31.02	40°07'03.179"N	104°42'21.543"W	1.68	
1797.00	8.430	111.640	1795.17	-12.84	-19.61	42.00	40°07'03.130"N	104°42'21.401"W	2.27	
1889.00	9.570	102.950	1886.04	-14.86	-23.81	55.72	40°07'03.089"N	104°42'21.225"W	1.93	
1974.00	11.600	95.030	1969.59	-14.77	-26.14	71.12	40°07'03.066"N	104°42'21.027"W	2.93	
2059.00	13.130	103.590	2052.63	-14.97	-29.16	89.02	40°07'03.036"N	104°42'20.796"W	2.80	
2144.00	13.350	100.170	2135.37	-15.97	-33.16	108.06	40°07'02.996"N	104°42'20.551"W	0.96	
2229.00	13.350	99.190	2218.07	-16.22	-36.46	127.41	40°07'02.964"N	104°42'20.302"W	0.27	
2314.00	13.130	98.270	2300.81	-16.15	-39.42	146.65	40°07'02.934"N	104°42'20.054"W	0.36	
2400.00	12.980	97.560	2384.59	-15.80	-42.09	165.89	40°07'02.908"N	104°42'19.807"W	0.26	
2485.00	12.580	102.860	2467.49	-16.20	-45.41	184.38	40°07'02.875"N	104°42'19.569"W	1.46	
2570.00	12.260	107.650	2550.50	-18.20	-50.21	202.00	40°07'02.828"N	104°42'19.342"W	1.27	
2655.00	12.760	109.680	2633.48	-21.32	-56.10	219.44	40°07'02.770"N	104°42'19.117"W	0.78	
2740.00	12.140	105.530	2716.48	-24.10	-61.66	236.89	40°07'02.715"N	104°42'18.893"W	1.28	
2825.00	12.410	110.320	2799.54	-26.92	-67.22	254.07	40°07'02.660"N	104°42'18.672"W	1.24	
2910.00	12.100	107.810	2882.60	-30.10	-73.12	271.12	40°07'02.601"N	104°42'18.452"W	0.73	
2995.00	13.500	109.060	2965.49	-33.22	-79.08	288.98	40°07'02.542"N	104°42'18.222"W	1.68	
3080.00	13.500	107.850	3048.14	-36.50	-85.36	307.80	40°07'02.480"N	104°42'17.980"W	0.33	
3165.00	13.510	105.510	3130.79	-39.17	-91.06	326.81	40°07'02.424"N	104°42'17.735"W	0.64	
3250.00	13.070	107.580	3213.52	-41.75	-96.62	345.54	40°07'02.369"N	104°42'17.494"W	0.76	
3335.00	12.750	105.510	3296.37	-44.27	-102.03	363.74	40°07'02.316"N	104°42'17.260"W	0.66	
3421.00	12.840	107.690	3380.23	-46.81	-107.47	381.99	40°07'02.262"N	104°42'17.025"W	0.57	
3506.00	12.660	104.920	3463.14	-49.21	-112.74	399.99	40°07'02.210"N	104°42'16.793"W	0.75	
3591.00	11.640	109.630	3546.24	-51.77	-118.02	417.07	40°07'02.158"N	104°42'16.574"W	1.67	
3676.00	12.200	106.590	3629.40	-54.56	-123.46	433.75	40°07'02.104"N	104°42'16.359"W	0.99	
3761.00	11.640	102.690	3712.57	-56.32	-127.91	450.72	40°07'02.060"N	104°42'16.140"W	1.15	
3846.00	12.140	105.690	3795.75	-57.93	-132.21	467.69	40°07'02.017"N	104°42'15.922"W	0.94	
3931.00	12.060	104.820	3878.86	-59.89	-136.90	484.88	40°07'01.971"N	104°42'15.701"W	0.23	



Actual Wellpath Report

RUSSIAN FIDDLER 37N-18HZ AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#08 RUSSIAN FIDDLER 37N-18HZ (335'FSL & 2459'FEL,SEC.19)
Area	COLORADO	Well	RUSSIAN FIDDLER 37N-18HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	RUSSIAN FIDDLER 37N-18HZ AWB
Facility	SEC.19-T2N-R65W		

WELLPATH DATA (150 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4016.00	11.950	104.230	3962.00	-61.61	-141.34	502.00	40°07'01.927"N	104°42'15.480"W	0.19	
4100.00	12.380	104.750	4044.11	-63.32	-145.77	519.13	40°07'01.883"N	104°42'15.260"W	0.53	
4185.00	13.010	107.720	4127.04	-65.71	-151.00	537.06	40°07'01.832"N	104°42'15.029"W	1.07	
4271.00	12.590	105.140	4210.90	-68.20	-156.39	555.33	40°07'01.778"N	104°42'14.794"W	0.82	
4356.00	13.860	107.130	4293.64	-70.65	-161.81	574.00	40°07'01.725"N	104°42'14.554"W	1.59	
4441.00	13.820	104.000	4376.18	-72.99	-167.27	593.58	40°07'01.671"N	104°42'14.302"W	0.88	
4526.00	13.980	107.890	4458.69	-75.49	-172.88	613.20	40°07'01.616"N	104°42'14.049"W	1.12	
4611.00	13.510	110.390	4541.26	-79.05	-179.49	632.28	40°07'01.550"N	104°42'13.804"W	0.89	
4696.00	13.260	109.430	4623.95	-82.80	-186.19	650.78	40°07'01.484"N	104°42'13.565"W	0.39	
4781.00	12.720	108.620	4706.77	-86.15	-192.42	668.84	40°07'01.422"N	104°42'13.333"W	0.67	
4867.00	12.970	108.900	4790.62	-89.41	-198.57	686.95	40°07'01.362"N	104°42'13.100"W	0.30	
4950.00	12.850	107.610	4871.52	-92.41	-204.38	704.55	40°07'01.304"N	104°42'12.873"W	0.38	
5035.00	12.310	106.470	4954.48	-95.02	-209.81	722.25	40°07'01.251"N	104°42'12.645"W	0.70	
5118.00	12.200	108.690	5035.59	-97.67	-215.13	739.05	40°07'01.198"N	104°42'12.429"W	0.58	
5203.00	11.200	107.260	5118.82	-100.38	-220.46	755.44	40°07'01.145"N	104°42'12.218"W	1.22	
5286.00	12.360	106.780	5200.07	-102.76	-225.41	771.64	40°07'01.096"N	104°42'12.010"W	1.40	
5371.00	11.720	107.630	5283.20	-105.31	-230.65	788.58	40°07'01.045"N	104°42'11.792"W	0.78	
5456.00	11.270	108.180	5366.50	-107.95	-235.86	804.70	40°07'00.993"N	104°42'11.584"W	0.54	
5542.00	10.230	106.580	5450.99	-110.31	-240.66	820.00	40°07'00.946"N	104°42'11.387"W	1.26	
5627.00	9.480	104.880	5534.73	-112.04	-244.61	834.00	40°07'00.907"N	104°42'11.207"W	0.95	
5712.00	8.850	102.210	5618.65	-113.14	-247.79	847.16	40°07'00.875"N	104°42'11.038"W	0.89	
5796.00	7.410	106.280	5701.80	-114.20	-250.68	858.67	40°07'00.847"N	104°42'10.890"W	1.85	
5881.00	6.060	106.450	5786.21	-115.48	-253.48	868.24	40°07'00.819"N	104°42'10.766"W	1.59	
5966.00	5.480	101.650	5870.78	-116.26	-255.57	876.51	40°07'00.798"N	104°42'10.660"W	0.89	
6050.00	4.810	101.290	5954.45	-116.60	-257.07	883.90	40°07'00.783"N	104°42'10.565"W	0.80	
6135.00	3.880	115.270	6039.20	-117.55	-259.00	889.99	40°07'00.764"N	104°42'10.486"W	1.65	
6220.00	3.340	119.380	6124.03	-119.22	-261.44	894.75	40°07'00.740"N	104°42'10.425"W	0.70	
6305.00	3.020	115.860	6208.90	-120.74	-263.63	898.92	40°07'00.719"N	104°42'10.371"W	0.44	
6390.00	2.490	121.440	6293.80	-122.10	-265.57	902.51	40°07'00.699"N	104°42'10.325"W	0.70	
6475.00	2.250	113.210	6378.73	-123.22	-267.19	905.62	40°07'00.683"N	104°42'10.285"W	0.49	
6560.00	1.160	137.250	6463.69	-124.16	-268.48	907.74	40°07'00.671"N	104°42'10.258"W	1.51	
6602.00	1.140	119.350	6505.69	-124.57	-269.00	908.39	40°07'00.666"N	104°42'10.250"W	0.85	
6645.00	1.190	25.500	6548.68	-124.29	-268.81	908.96	40°07'00.667"N	104°42'10.242"W	3.96	
6687.00	4.590	351.890	6590.62	-122.27	-266.75	908.91	40°07'00.688"N	104°42'10.243"W	8.71	
6730.00	8.310	351.270	6633.34	-117.66	-261.97	908.19	40°07'00.735"N	104°42'10.252"W	8.65	
6772.00	12.250	350.620	6674.66	-110.53	-254.57	907.01	40°07'00.808"N	104°42'10.267"W	9.38	
6815.00	15.160	349.690	6716.43	-100.89	-244.54	905.26	40°07'00.907"N	104°42'10.290"W	6.79	
6857.00	19.450	351.540	6756.52	-89.03	-232.21	903.24	40°07'01.029"N	104°42'10.316"W	10.30	
6900.00	24.210	354.480	6796.43	-73.65	-216.35	901.34	40°07'01.186"N	104°42'10.340"W	11.35	
6942.00	29.340	355.470	6833.91	-55.29	-197.50	899.70	40°07'01.372"N	104°42'10.361"W	12.26	
6985.00	34.630	356.390	6870.37	-33.11	-174.79	898.10	40°07'01.597"N	104°42'10.382"W	12.35	
7028.00	39.340	355.060	6904.71	-7.94	-149.01	896.15	40°07'01.851"N	104°42'10.407"W	11.11	
7070.00	41.950	354.400	6936.58	18.58	-121.77	893.64	40°07'02.121"N	104°42'10.439"W	6.30	
7113.00	45.680	355.280	6967.60	47.45	-92.12	890.97	40°07'02.413"N	104°42'10.474"W	8.79	
7155.00	45.680	355.760	6996.94	76.68	-62.17	888.62	40°07'02.710"N	104°42'10.504"W	0.82	



Actual Wellpath Report

RUSSIAN FIDDLER 37N-18HZ AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#08 RUSSIAN FIDDLER 37N-18HZ (335'FSL & 2459'FEL,SEC.19)
Area	COLORADO	Well	RUSSIAN FIDDLER 37N-18HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	RUSSIAN FIDDLER 37N-18HZ AWB
Facility	SEC.19-T2N-R65W		

WELLPATH DATA (150 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
7198.00	47.960	359.840	7026.37	107.43	-30.85	887.44	40°07'03.019"N	104°42'10.519"W	8.72	
7241.00	51.100	1.100	7054.28	139.78	1.86	887.71	40°07'03.342"N	104°42'10.516"W	7.63	
7283.00	55.600	1.630	7079.34	173.18	35.54	888.52	40°07'03.675"N	104°42'10.505"W	10.76	
7326.00	57.490	2.570	7103.05	208.80	71.39	889.84	40°07'04.029"N	104°42'10.488"W	4.76	
7368.00	61.440	2.630	7124.38	244.74	107.52	891.48	40°07'04.386"N	104°42'10.467"W	9.41	
7411.00	63.780	1.880	7144.16	282.66	145.66	892.98	40°07'04.763"N	104°42'10.448"W	5.66	
7454.00	65.950	3.550	7162.43	321.36	184.54	894.83	40°07'05.148"N	104°42'10.424"W	6.15	
7496.00	66.780	3.330	7179.26	359.66	222.95	897.14	40°07'05.527"N	104°42'10.394"W	2.03	
7539.00	69.990	0.710	7195.10	399.33	262.89	898.53	40°07'05.922"N	104°42'10.376"W	9.37	
7581.00	73.480	358.530	7208.27	438.68	302.77	898.26	40°07'06.316"N	104°42'10.380"W	9.66	
7624.00	77.660	356.330	7218.98	479.47	344.36	896.39	40°07'06.727"N	104°42'10.404"W	10.91	
7666.00	80.820	354.190	7226.82	519.55	385.47	892.98	40°07'07.133"N	104°42'10.448"W	9.04	
7709.00	85.960	354.530	7231.77	560.88	427.96	888.78	40°07'07.553"N	104°42'10.502"W	11.98	
7752.00	90.610	354.130	7233.06	602.46	470.72	884.53	40°07'07.976"N	104°42'10.556"W	10.85	
7791.00†	94.502	354.213	7231.32	640.12	509.47	880.58	40°07'08.359"N	104°42'10.607"W	9.98	7" CASING POINT
7799.00	95.300	354.230	7230.64	647.83	517.40	879.78	40°07'08.437"N	104°42'10.618"W	9.98	
7844.00	94.680	354.570	7226.72	691.23	562.02	875.40	40°07'08.878"N	104°42'10.674"W	1.57	
7929.00	93.820	355.100	7220.42	773.44	646.44	867.77	40°07'09.712"N	104°42'10.772"W	1.19	
8013.00	92.580	356.760	7215.73	855.15	730.09	861.82	40°07'10.539"N	104°42'10.849"W	2.46	
8098.00	92.240	359.080	7212.16	938.50	814.96	858.74	40°07'11.377"N	104°42'10.888"W	2.76	
8183.00	90.800	358.850	7209.90	1022.18	899.91	857.20	40°07'12.217"N	104°42'10.908"W	1.72	
8268.00	90.000	0.340	7209.31	1106.05	984.90	856.60	40°07'13.057"N	104°42'10.916"W	1.99	
8353.00	88.520	0.210	7210.41	1190.07	1069.89	857.01	40°07'13.897"N	104°42'10.910"W	1.75	
8438.00	88.240	0.830	7212.81	1274.12	1154.85	857.78	40°07'14.736"N	104°42'10.900"W	0.80	
8523.00	87.870	1.460	7215.70	1358.29	1239.79	859.48	40°07'15.576"N	104°42'10.878"W	0.86	
8608.00	88.270	1.770	7218.56	1442.55	1324.71	861.87	40°07'16.415"N	104°42'10.848"W	0.60	
8693.00	89.290	3.030	7220.37	1526.97	1409.61	865.43	40°07'17.254"N	104°42'10.802"W	1.91	
8778.00	89.560	2.660	7221.22	1611.49	1494.50	869.65	40°07'18.093"N	104°42'10.747"W	0.54	
8863.00	89.350	2.540	7222.03	1695.96	1579.41	873.51	40°07'18.932"N	104°42'10.698"W	0.28	
8948.00	89.560	3.960	7222.84	1780.54	1664.27	878.32	40°07'19.770"N	104°42'10.636"W	1.69	
9033.00	90.520	4.810	7222.78	1865.27	1749.01	884.82	40°07'20.608"N	104°42'10.552"W	1.51	
9119.00	90.950	3.840	7221.68	1950.98	1834.76	891.31	40°07'21.455"N	104°42'10.468"W	1.23	
9204.00	90.920	2.840	7220.29	2035.56	1919.60	896.26	40°07'22.294"N	104°42'10.405"W	1.18	
9289.00	89.780	1.730	7219.77	2119.98	2004.53	899.65	40°07'23.133"N	104°42'10.361"W	1.87	
9374.00	89.620	0.630	7220.21	2204.20	2089.51	901.40	40°07'23.973"N	104°42'10.338"W	1.31	
9459.00	89.720	359.090	7220.70	2288.13	2174.51	901.19	40°07'24.813"N	104°42'10.341"W	1.82	
9544.00	89.810	359.030	7221.05	2371.87	2259.50	899.80	40°07'25.652"N	104°42'10.359"W	0.13	
9629.00	89.690	358.080	7221.42	2455.48	2344.47	897.65	40°07'26.492"N	104°42'10.387"W	1.13	
9715.00	89.780	357.660	7221.82	2539.88	2430.41	894.46	40°07'27.341"N	104°42'10.428"W	0.50	
9800.00	90.090	359.710	7221.92	2623.52	2515.38	892.51	40°07'28.181"N	104°42'10.453"W	2.44	
9885.00	89.290	358.040	7222.38	2707.20	2600.36	890.84	40°07'29.021"N	104°42'10.474"W	2.18	
9970.00	89.960	358.790	7222.93	2790.77	2685.32	888.49	40°07'29.861"N	104°42'10.504"W	1.18	
10055.00	89.750	358.270	7223.15	2874.37	2770.29	886.31	40°07'30.700"N	104°42'10.532"W	0.66	
10140.00	89.070	356.120	7224.02	2957.58	2855.18	882.15	40°07'31.539"N	104°42'10.586"W	2.65	
10309.00	88.330	356.420	7227.86	3122.42	3023.78	871.16	40°07'33.205"N	104°42'10.727"W	0.47	



Actual Wellpath Report

RUSSIAN FIDDLER 37N-18HZ AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#08 RUSSIAN FIDDLER 37N-18HZ (335'FSL & 2459'FEL,SEC.19)
Area	COLORADO	Well	RUSSIAN FIDDLER 37N-18HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	RUSSIAN FIDDLER 37N-18HZ AWB
Facility	SEC.19-T2N-R65W		

WELLPATH DATA (150 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
10479.00	89.500	358.850	7231.08	3289.08	3193.59	864.14	40°07'34.883"N	104°42'10.818"W	1.59	
10649.00	89.220	0.960	7232.98	3456.95	3363.57	863.86	40°07'36.563"N	104°42'10.821"W	1.25	
10819.00	90.060	0.020	7234.05	3625.10	3533.55	865.31	40°07'38.243"N	104°42'10.802"W	0.74	
10990.00	90.740	0.700	7232.85	3794.18	3704.55	866.39	40°07'39.933"N	104°42'10.788"W	0.56	
11160.00	89.290	359.740	7232.81	3962.21	3874.54	867.04	40°07'41.612"N	104°42'10.780"W	1.02	
11331.00	88.320	358.780	7236.37	4130.73	4045.48	864.83	40°07'43.302"N	104°42'10.808"W	0.80	
11499.00	88.390	1.440	7241.20	4296.66	4213.40	865.16	40°07'44.961"N	104°42'10.804"W	1.58	
11669.00	90.830	0.650	7242.35	4465.03	4383.35	868.26	40°07'46.641"N	104°42'10.764"W	1.51	
11840.00	90.150	359.510	7240.89	4633.98	4554.34	868.49	40°07'48.330"N	104°42'10.761"W	0.78	
12010.00	90.820	359.740	7239.45	4801.73	4724.33	867.38	40°07'50.010"N	104°42'10.775"W	0.42	
12180.00	91.720	359.850	7235.68	4969.52	4894.29	866.77	40°07'51.690"N	104°42'10.783"W	0.53	
12351.00	89.810	358.990	7233.40	5138.14	5065.25	865.04	40°07'53.379"N	104°42'10.805"W	1.22	
12520.00	89.660	357.550	7234.18	5304.22	5234.17	859.94	40°07'55.048"N	104°42'10.871"W	0.86	
12653.00	89.560	358.300	7235.09	5434.76	5367.08	855.13	40°07'56.362"N	104°42'10.933"W	0.57	LAST BHI MWD+IFR SURVEY
12711.00	89.560	358.300	7235.53	5491.76	5425.05	853.41	40°07'56.935"N	104°42'10.955"W	0.00	PROJECTION TO BIT

HOLE & CASING SECTIONS - Ref Wellbore: RUSSIAN FIDDLER 37N-18HZ AWB Ref Wellpath: RUSSIAN FIDDLER 37N-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	1022.96	0.00	0.00	0.71	7.16
9.625in Casing Surface	16.00	1023.00	1007.00	16.00	1022.96	0.00	0.00	0.71	7.16
8.75in Open Hole	1023.00	7799.00	6776.00	1022.96	7230.64	0.71	7.16	517.40	879.78
7in Casing Intermediate	16.00	7791.00	7775.00	16.00	7231.32	0.00	0.00	509.47	880.58
6.125in Open Hole	7791.00	12711.00	4920.00	7231.32	7235.53	509.47	880.58	5425.05	853.41



Actual Wellpath Report

RUSSIAN FIDDLER 37N-18HZ AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#08 RUSSIAN FIDDLER 37N-18HZ (335'FSL & 2459'FEL,SEC.19)
Area	COLORADO	Well	RUSSIAN FIDDLER 37N-18HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	RUSSIAN FIDDLER 37N-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 SECTION LINES (SEC.18)		-8.00	5405.50	-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	5405.52	-2214.29	3219766.37	1292061.24	40°07'56.741"N	104°42'50.450"W	polygon
RUSSIAN FIDDLER 37N-18HZ BHL ON PLAT REV-1 (460'FSL & 1421'FEL, SEC.18)		7220.00	5451.28	993.51	3222973.49	1292135.72	40°07'57.194"N	104°42'09.151"W	point
RUSSIAN FIDDLER 37N-18HZ BHL ON PLAT REV-2 (460'FSL & 1503'FEL, SEC.18)		7220.00	5450.27	911.25	3222891.25	1292133.96	40°07'57.184"N	104°42'10.210"W	point
RUSSIAN FIDDLER 37N-18HZ BHL REV-3 (460'FSL & 1553'FEL, SEC.18)		7220.00	5450.23	861.28	3222841.28	1292133.48	40°07'57.184"N	104°42'10.853"W	point
RUSSIAN FIDDLER 37N-18HZ/37C-18HZ LAND BOX		7400.00	0.00	0.00	3222028.87	1286675.99	40°07'03.324"N	104°42'21.942"W	polygon
RUSSIAN FIDDLER 5 PAD HARD LINES (460' SETBACKS, SEC.18)		7400.00	5405.52	-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)		7400.00	5405.52	-2214.29	3219766.37	1292061.24	40°07'56.741"N	104°42'50.450"W	polygon

WELLPATH COMPOSITION - Ref Wellbore: RUSSIAN FIDDLER 37N-18HZ AWB Ref Wellpath: RUSSIAN FIDDLER 37N-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 37N-18HZ AWB
916.00	7799.00	NaviTrak (MAGCORR,IFR)	BHI MWD SURVEYS 8 3/4" HOLE <1062-7799>	RUSSIAN FIDDLER 37N-18HZ AWB
7799.00	12653.00	OnTrak (MAGCORR,IFR)	BHI MWD SURVEYS 6 1/8" HOLE <7844-12653>	RUSSIAN FIDDLER 37N-18HZ AWB
12653.00	12711.00	Blind Drilling (std)	Projection to bit	RUSSIAN FIDDLER 37N-18HZ AWB



Actual Wellpath Report

RUSSIAN FIDDLER 37N-18HZ AWP

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REFERENCE WELLPATH IDENTIFICATION				
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#08 RUSSIAN FIDDLER 37N-18HZ (335'FSL & 2459'FEL,SEC.19)	
Area	COLORADO	Well	RUSSIAN FIDDLER 37N-18HZ	
Field	WELD COUNTY (KERR MCGEE)	Wellbore	RUSSIAN FIDDLER 37N-18HZ AWB	
Facility	SEC.19-T2N-R65W			

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
16.00	0.000	70.110	16.00	TIE-ON
116.00	0.810	70.110	116.00	BEGIN GYRO SURVEYS
916.00	0.280	122.780	915.96	TIE-INTO GYRO SURVEYS
1062.00	0.200	214.480	1061.96	BEGIN BHI MWD+IFR SURVEYS
7791.00	94.502	354.213	7231.32	7" CASING POINT
12653.00	89.560	358.300	7235.09	LAST BHI MWD+IFR SURVEY
12711.00	89.560	358.300	7235.53	PROJECTION TO BIT