

KERR-MCGEE OIL & GAS ONSHORE LP

Location: COLORADO

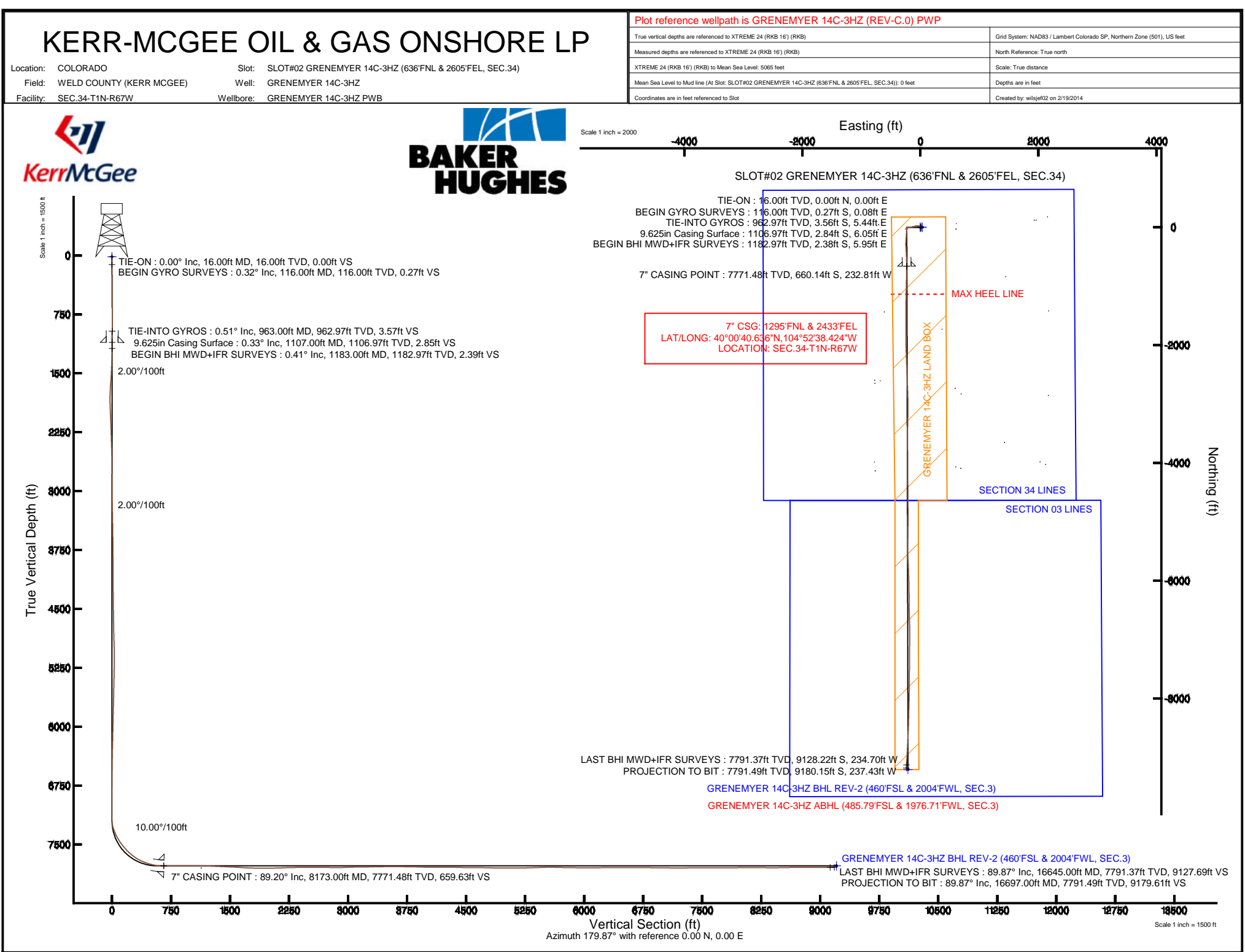
Slot: SLOT#02 GRENNEMYER 14C-3HZ (636'FNL & 2605'FEL, SEC.34)

Field: WELD COUNTY (KERR MCGEE)

Well: GRENNEMYER 14C-3HZ

Facility: SEC.34-T1N-R67W

Wellbore: GRENNEMYER 14C-3HZ PWB

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Actual Wellpath Report

GRENNEMYER 14C-3HZ AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#02 GRENNEMYER 14C-3HZ (636'FNL & 2605'FEL, SEC.34)
Area	COLORADO	Well	GRENNEMYER 14C-3HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	GRENNEMYER 14C-3HZ AWP
Facility	SEC.34-T1N-R67W		

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	0.999965	Report Generated	2/19/2014 at 14:07:59
Convergence at slot	n/a	Database/Source file	WellArchitectDB/GRENNEMYER_14C-3HZ_AWP.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	0.00	-29.96	3174638.28	1248232.78	40°00'47.160"N	104°52'35.432"W
Facility Reference Pt			3174668.24	1248232.99	40°00'47.160"N	104°52'35.047"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 24 (RKB 16') (RKB) to Facility Vertical Datum	5065.00ft
Horizontal Reference Pt	Slot	XTREME 24 (RKB 16') (RKB) to Mean Sea Level	5065.00ft
Vertical Reference Pt	XTREME 24 (RKB 16') (RKB)	XTREME 24 (RKB 16') (RKB) to Mud Line at Slot (SLOT#02 GRENNEMYER 14C-3HZ (636'FNL & 2605'FEL, SEC.34))	5065.00ft
MD Reference Pt	XTREME 24 (RKB 16') (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	181.48°



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Field	WELD COUNTY (KERR MCGEE)	Wellbore	GRENEMYER 14C-3HZ AWP
Facility	SEC.34-T1N-R67W		

WELLPATH DATA (164 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	164.300	0.00	0.00	0.00	0.00	40°00'47.160"N	104°52'35.432"W	0.00	
16.00	0.000	164.300	16.00	0.00	0.00	0.00	40°00'47.160"N	104°52'35.432"W	0.00	TIE-ON
116.00	0.320	164.300	116.00	0.27	-0.27	0.08	40°00'47.157"N	104°52'35.431"W	0.32	BEGIN GYRO SURVEYS
216.00	0.460	141.190	216.00	0.84	-0.85	0.40	40°00'47.152"N	104°52'35.427"W	0.21	
316.00	0.430	144.300	315.99	1.44	-1.47	0.87	40°00'47.145"N	104°52'35.421"W	0.04	
416.00	0.560	143.760	415.99	2.13	-2.17	1.38	40°00'47.139"N	104°52'35.414"W	0.13	
516.00	0.490	132.050	515.99	2.80	-2.85	1.99	40°00'47.132"N	104°52'35.406"W	0.13	
616.00	0.450	122.310	615.98	3.27	-3.34	2.64	40°00'47.127"N	104°52'35.398"W	0.09	
716.00	0.470	103.770	715.98	3.56	-3.65	3.37	40°00'47.124"N	104°52'35.389"W	0.15	
816.00	0.530	95.640	815.98	3.68	-3.79	4.23	40°00'47.123"N	104°52'35.378"W	0.09	
916.00	0.470	72.680	915.97	3.59	-3.72	5.08	40°00'47.123"N	104°52'35.367"W	0.21	
963.00	0.510	60.990	962.97	3.42	-3.56	5.44	40°00'47.125"N	104°52'35.362"W	0.23	TIE-INTO GYROS
1183.00	0.410	333.920	1182.97	2.22	-2.38	5.95	40°00'47.137"N	104°52'35.355"W	0.29	BEGIN BHI MWD+IFR SURVEYS
1277.00	2.450	307.040	1276.93	0.76	-0.86	4.20	40°00'47.151"N	104°52'35.378"W	2.23	
1371.00	3.060	317.770	1370.82	-2.23	2.20	0.91	40°00'47.182"N	104°52'35.420"W	0.85	
1465.00	4.320	305.870	1464.63	-6.04	6.14	-3.64	40°00'47.221"N	104°52'35.479"W	1.56	
1559.00	6.300	307.610	1558.22	-11.08	11.36	-10.60	40°00'47.272"N	104°52'35.568"W	2.11	
1653.00	8.760	296.090	1651.41	-17.10	17.66	-21.11	40°00'47.334"N	104°52'35.703"W	3.06	
1748.00	9.690	282.840	1745.19	-21.69	22.61	-35.41	40°00'47.383"N	104°52'35.887"W	2.43	
1842.00	9.610	269.850	1837.87	-23.03	24.35	-50.97	40°00'47.401"N	104°52'36.087"W	2.31	
1937.00	10.680	257.550	1931.39	-20.68	22.43	-67.50	40°00'47.382"N	104°52'36.299"W	2.54	
2029.00	10.060	256.500	2021.89	-16.55	18.72	-83.64	40°00'47.345"N	104°52'36.507"W	0.70	
2121.00	9.630	256.590	2112.54	-12.50	15.06	-98.93	40°00'47.309"N	104°52'36.704"W	0.47	
2213.00	9.030	256.090	2203.32	-8.60	11.54	-113.43	40°00'47.274"N	104°52'36.890"W	0.66	
2305.00	10.560	261.770	2293.98	-5.26	8.60	-128.78	40°00'47.245"N	104°52'37.087"W	1.97	
2397.00	10.390	260.910	2384.44	-2.32	6.08	-145.32	40°00'47.220"N	104°52'37.300"W	0.25	
2489.00	10.450	258.660	2474.93	1.05	3.13	-161.69	40°00'47.191"N	104°52'37.510"W	0.45	
2581.00	8.990	263.810	2565.61	3.87	0.71	-177.02	40°00'47.167"N	104°52'37.707"W	1.85	
2673.00	8.860	266.990	2656.49	5.38	-0.44	-191.24	40°00'47.156"N	104°52'37.890"W	0.55	
2765.00	6.760	264.250	2747.63	6.62	-1.35	-203.70	40°00'47.147"N	104°52'38.050"W	2.32	
2857.00	4.360	265.820	2839.19	7.64	-2.15	-212.58	40°00'47.139"N	104°52'38.164"W	2.61	
2949.00	4.520	260.700	2930.92	8.67	-2.99	-219.64	40°00'47.130"N	104°52'38.255"W	0.46	
3041.00	2.870	278.130	3022.73	9.08	-3.25	-225.50	40°00'47.128"N	104°52'38.330"W	2.15	
3133.00	1.150	164.330	3114.69	9.69	-3.81	-227.53	40°00'47.122"N	104°52'38.356"W	3.80	
3592.00	0.740	183.780	3573.63	17.06	-11.20	-226.48	40°00'47.049"N	104°52'38.343"W	0.11	
4058.00	0.540	249.980	4039.60	20.87	-14.96	-228.74	40°00'47.012"N	104°52'38.372"W	0.15	
4527.00	0.930	213.350	4508.57	24.91	-18.89	-232.91	40°00'46.973"N	104°52'38.425"W	0.13	
4961.00	1.890	218.370	4942.43	33.63	-27.45	-239.29	40°00'46.889"N	104°52'38.507"W	0.22	
5004.00	2.300	212.240	4985.40	34.93	-28.73	-240.19	40°00'46.876"N	104°52'38.519"W	1.09	
5046.00	2.080	212.560	5027.37	36.31	-30.09	-241.05	40°00'46.863"N	104°52'38.530"W	0.52	
5089.00	0.540	205.130	5070.36	37.17	-30.93	-241.56	40°00'46.854"N	104°52'38.537"W	3.60	
5131.00	0.470	187.730	5112.36	37.52	-31.28	-241.67	40°00'46.851"N	104°52'38.538"W	0.40	
5216.00	1.870	46.650	5197.34	36.89	-30.67	-240.70	40°00'46.857"N	104°52'38.526"W	2.65	
5643.00	1.940	53.010	5624.11	27.48	-21.54	-229.87	40°00'46.947"N	104°52'38.386"W	0.05	
5899.00	1.360	8.100	5880.01	21.76	-15.93	-225.98	40°00'47.003"N	104°52'38.336"W	0.53	

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GRENEMYER 14C-3HZ AWP

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Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#02 GRENEMYER 14C-3HZ (636'FNL & 2605'FEL, SEC.34)
Area	COLORADO	Well	GRENEMYER 14C-3HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	GRENEMYER 14C-3HZ AWB
Facility	SEC.34-T1N-R67W		

WELLPATH DATA (164 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
6325.00	1.260	4.900	6305.90	12.07	-6.26	-224.86	40°00'47.098"N	104°52'38.322"W	0.03	
6750.00	0.700	36.500	6730.84	5.28	0.49	-222.92	40°00'47.165"N	104°52'38.297"W	0.18	
7091.00	0.420	341.830	7071.82	2.39	3.35	-222.07	40°00'47.193"N	104°52'38.286"W	0.17	
7177.00	0.760	156.540	7157.82	2.61	3.13	-221.94	40°00'47.191"N	104°52'38.284"W	1.37	
7219.00	5.740	186.620	7199.74	4.96	0.78	-222.07	40°00'47.168"N	104°52'38.286"W	12.13	
7262.00	11.030	193.750	7242.27	11.13	-5.35	-223.30	40°00'47.107"N	104°52'38.302"W	12.51	
7304.00	17.200	193.210	7282.98	21.14	-15.31	-225.68	40°00'47.009"N	104°52'38.332"W	14.69	
7347.00	20.520	190.060	7323.67	34.82	-28.93	-228.45	40°00'46.874"N	104°52'38.368"W	8.07	
7390.00	24.530	188.870	7363.38	51.13	-45.17	-231.14	40°00'46.714"N	104°52'38.403"W	9.39	
7432.00	27.310	186.420	7401.15	69.38	-63.37	-233.56	40°00'46.534"N	104°52'38.434"W	7.09	
7475.00	31.640	183.780	7438.58	90.49	-84.43	-235.41	40°00'46.326"N	104°52'38.458"W	10.51	
7518.00	35.050	183.080	7474.49	114.11	-108.02	-236.82	40°00'46.092"N	104°52'38.476"W	7.98	
7560.00	38.940	181.400	7508.03	139.38	-133.27	-237.79	40°00'45.843"N	104°52'38.488"W	9.57	
7603.00	39.970	183.970	7541.24	166.69	-160.56	-239.08	40°00'45.573"N	104°52'38.505"W	4.49	
7645.00	43.060	185.270	7572.68	194.48	-188.30	-241.33	40°00'45.299"N	104°52'38.534"W	7.64	
7688.00	45.990	184.890	7603.34	224.57	-218.33	-243.99	40°00'45.002"N	104°52'38.568"W	6.84	
7730.00	50.530	182.700	7631.29	255.87	-249.59	-246.05	40°00'44.693"N	104°52'38.594"W	11.49	
7773.00	55.280	179.820	7657.22	290.15	-283.87	-246.77	40°00'44.355"N	104°52'38.604"W	12.27	
7816.00	59.590	177.540	7680.36	326.34	-320.09	-245.92	40°00'43.997"N	104°52'38.593"W	10.97	
7858.00	62.830	175.820	7700.59	363.01	-356.83	-243.78	40°00'43.634"N	104°52'38.565"W	8.51	
7901.00	66.180	176.500	7719.10	401.65	-395.55	-241.19	40°00'43.251"N	104°52'38.532"W	7.92	
7944.00	70.250	177.260	7735.05	441.44	-435.41	-239.02	40°00'42.857"N	104°52'38.504"W	9.61	
7986.00	74.620	176.830	7747.72	481.35	-475.39	-236.95	40°00'42.462"N	104°52'38.477"W	10.45	
8029.00	77.950	177.760	7757.92	523.01	-517.11	-234.98	40°00'42.050"N	104°52'38.452"W	8.02	
8071.00	81.720	178.570	7765.33	564.27	-558.42	-233.66	40°00'41.642"N	104°52'38.435"W	9.17	
8114.00	86.570	179.440	7769.71	607.00	-601.17	-232.92	40°00'41.219"N	104°52'38.425"W	11.46	
8127.00	87.940	179.750	7770.34	619.97	-614.16	-232.83	40°00'41.091"N	104°52'38.424"W	10.80	
8173.00†	89.199	180.210	7771.48	665.94	-660.14	-232.81	40°00'40.636"N	104°52'38.424"W	2.91	7" CASING POINT
8184.00	89.500	180.320	7771.61	676.94	-671.14	-232.86	40°00'40.528"N	104°52'38.425"W	2.91	
8269.00	91.290	181.180	7771.02	761.93	-756.13	-233.97	40°00'39.688"N	104°52'38.439"W	2.34	
8354.00	89.190	180.790	7770.67	846.92	-841.11	-235.44	40°00'38.848"N	104°52'38.458"W	2.51	
8439.00	90.210	181.140	7771.11	931.91	-926.10	-236.87	40°00'38.008"N	104°52'38.476"W	1.27	
8524.00	90.000	180.810	7770.96	1016.91	-1011.08	-238.31	40°00'37.168"N	104°52'38.495"W	0.46	
8609.00	89.630	181.450	7771.23	1101.91	-1096.07	-239.99	40°00'36.328"N	104°52'38.516"W	0.87	
8694.00	88.640	181.380	7772.51	1186.89	-1181.03	-242.09	40°00'35.489"N	104°52'38.543"W	1.17	
8786.00	86.880	179.960	7776.11	1278.81	-1272.95	-243.16	40°00'34.580"N	104°52'38.557"W	2.46	
8878.00	88.030	180.970	7780.20	1370.70	-1364.85	-243.91	40°00'33.672"N	104°52'38.567"W	1.66	
8970.00	87.960	180.080	7783.41	1462.63	-1456.79	-244.75	40°00'32.764"N	104°52'38.577"W	0.97	
9062.00	86.640	180.640	7787.75	1554.51	-1548.68	-245.33	40°00'31.855"N	104°52'38.585"W	1.56	
9154.00	86.760	179.520	7793.04	1646.33	-1640.53	-245.46	40°00'30.948"N	104°52'38.586"W	1.22	
9246.00	87.040	180.060	7798.02	1738.15	-1732.39	-245.12	40°00'30.040"N	104°52'38.582"W	0.66	
9338.00	88.980	180.460	7801.21	1830.07	-1824.33	-245.54	40°00'29.131"N	104°52'38.587"W	2.15	
9430.00	90.030	179.690	7802.01	1922.04	-1916.33	-245.66	40°00'28.222"N	104°52'38.589"W	1.42	
9522.00	90.700	178.210	7801.42	2013.94	-2008.31	-243.97	40°00'27.313"N	104°52'38.567"W	1.77	
9614.00	91.900	178.040	7799.34	2105.76	-2100.23	-240.96	40°00'26.405"N	104°52'38.529"W	1.32	



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9706.00	92.030	178.030	7796.18	2197.54	-2192.12	-237.81	40°00'25.497"N	104°52'38.488"W	0.14	
9798.00	91.230	178.060	7793.56	2289.34	-2284.03	-234.67	40°00'24.588"N	104°52'38.448"W	0.87	
9890.00	90.090	177.010	7792.50	2381.11	-2375.94	-230.72	40°00'23.680"N	104°52'38.397"W	1.68	
9982.00	89.960	178.110	7792.46	2472.89	-2467.85	-226.80	40°00'22.772"N	104°52'38.347"W	1.20	
10074.00	90.210	178.490	7792.33	2564.75	-2559.81	-224.07	40°00'21.863"N	104°52'38.311"W	0.49	
10166.00	90.830	177.890	7791.49	2656.59	-2651.76	-221.17	40°00'20.954"N	104°52'38.274"W	0.94	
10258.00	88.550	177.610	7791.99	2748.39	-2743.68	-217.55	40°00'20.046"N	104°52'38.228"W	2.50	
10349.00	89.470	178.460	7793.56	2839.21	-2834.61	-214.43	40°00'19.147"N	104°52'38.188"W	1.38	
10441.00	91.410	179.120	7792.86	2931.10	-2926.59	-212.49	40°00'18.239"N	104°52'38.163"W	2.23	
10533.00	92.180	180.030	7789.97	3023.00	-3018.54	-211.81	40°00'17.330"N	104°52'38.154"W	1.30	
10627.00	91.790	180.100	7786.72	3116.92	-3112.48	-211.92	40°00'16.402"N	104°52'38.155"W	0.42	
10719.00	89.870	180.710	7785.39	3208.89	-3204.46	-212.57	40°00'15.493"N	104°52'38.164"W	2.19	
10813.00	90.550	181.260	7785.04	3302.88	-3298.45	-214.18	40°00'14.564"N	104°52'38.184"W	0.93	
11000.00	91.170	181.270	7782.23	3489.86	-3485.38	-218.31	40°00'12.716"N	104°52'38.237"W	0.33	
11095.00	89.530	179.340	7781.65	3584.83	-3580.37	-218.82	40°00'11.778"N	104°52'38.244"W	2.67	
11281.00	89.410	179.360	7783.37	3770.69	-3766.35	-216.71	40°00'09.940"N	104°52'38.217"W	0.07	
11375.00	88.420	178.680	7785.15	3864.59	-3860.32	-215.10	40°00'09.011"N	104°52'38.196"W	1.28	
11469.00	88.580	179.460	7787.61	3958.47	-3954.27	-213.57	40°00'08.083"N	104°52'38.176"W	0.85	
11554.00	89.840	180.070	7788.79	4043.42	-4039.26	-213.23	40°00'07.243"N	104°52'38.172"W	1.65	
11639.00	89.960	180.020	7788.94	4128.40	-4124.26	-213.29	40°00'06.403"N	104°52'38.173"W	0.15	
11809.00	90.030	180.100	7788.95	4298.34	-4294.26	-213.47	40°00'04.723"N	104°52'38.175"W	0.06	
11895.00	88.020	179.290	7790.41	4384.29	-4380.24	-213.01	40°00'03.873"N	104°52'38.169"W	2.52	
11980.00	88.180	179.360	7793.23	4469.18	-4465.19	-212.01	40°00'03.034"N	104°52'38.156"W	0.21	
12065.00	89.590	179.600	7794.89	4554.11	-4550.17	-211.24	40°00'02.194"N	104°52'38.146"W	1.68	
12150.00	90.800	179.910	7794.60	4639.07	-4635.16	-210.88	40°00'01.354"N	104°52'38.142"W	1.47	
12235.00	88.520	179.000	7795.10	4724.01	-4720.15	-210.07	40°00'00.514"N	104°52'38.131"W	2.89	
12321.00	88.520	179.550	7797.32	4809.91	-4806.12	-208.98	39°59'59.664"N	104°52'38.117"W	0.64	
12406.00	89.930	179.950	7798.47	4894.86	-4891.11	-208.61	39°59'58.825"N	104°52'38.113"W	1.72	
12491.00	89.500	180.130	7798.89	4979.84	-4976.11	-208.67	39°59'57.985"N	104°52'38.113"W	0.55	
12578.00	89.440	180.870	7799.70	5066.82	-5063.10	-209.43	39°59'57.125"N	104°52'38.123"W	0.85	
12663.00	90.370	181.480	7799.84	5151.82	-5148.08	-211.17	39°59'56.285"N	104°52'38.145"W	1.31	
12749.00	91.200	180.500	7798.66	5237.80	-5234.06	-212.66	39°59'55.435"N	104°52'38.165"W	1.49	
12834.00	91.700	180.720	7796.51	5322.77	-5319.02	-213.56	39°59'54.596"N	104°52'38.176"W	0.64	
12919.00	91.870	180.060	7793.86	5407.71	-5403.98	-214.14	39°59'53.756"N	104°52'38.184"W	0.80	
13004.00	92.030	180.000	7790.97	5492.63	-5488.93	-214.18	39°59'52.917"N	104°52'38.184"W	0.20	
13090.00	89.660	178.260	7789.70	5578.54	-5574.90	-212.88	39°59'52.067"N	104°52'38.167"W	3.42	
13175.00	88.540	177.130	7791.04	5663.34	-5659.82	-209.46	39°59'51.228"N	104°52'38.123"W	1.87	
13260.00	88.790	176.980	7793.02	5748.07	-5744.68	-205.10	39°59'50.389"N	104°52'38.067"W	0.34	
13345.00	89.260	178.470	7794.46	5832.87	-5829.60	-201.72	39°59'49.550"N	104°52'38.024"W	1.84	
13515.00	89.130	178.040	7796.85	6002.58	-5999.51	-196.55	39°59'47.871"N	104°52'37.957"W	0.26	
13601.00	90.730	179.540	7796.96	6088.48	-6085.48	-194.73	39°59'47.021"N	104°52'37.934"W	2.55	
13686.00	90.860	178.890	7795.78	6173.41	-6170.46	-193.57	39°59'46.182"N	104°52'37.919"W	0.78	
13771.00	90.400	179.800	7794.84	6258.34	-6255.45	-192.59	39°59'45.342"N	104°52'37.907"W	1.20	
13856.00	90.490	179.450	7794.18	6343.29	-6340.45	-192.04	39°59'44.502"N	104°52'37.899"W	0.43	
13942.00	90.060	179.380	7793.77	6429.24	-6426.44	-191.16	39°59'43.652"N	104°52'37.888"W	0.51	



Actual Wellpath Report

GRENEMYER 14C-3HZ AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#02 GRENEMYER 14C-3HZ (636'FNL & 2605'FEL, SEC.34)
Area	COLORADO	Well	GRENEMYER 14C-3HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	GRENEMYER 14C-3HZ AWB
Facility	SEC.34-T1N-R67W		

WELLPATH DATA (164 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
14027.00	90.090	178.760	7793.66	6514.16	-6511.43	-189.78	39°59'42.812"N	104°52'37.870"W	0.73	
14112.00	90.270	178.760	7793.39	6599.06	-6596.41	-187.94	39°59'41.972"N	104°52'37.847"W	0.21	
14197.00	90.310	177.360	7792.96	6683.91	-6681.36	-185.06	39°59'41.133"N	104°52'37.810"W	1.65	
14282.00	88.700	179.390	7793.70	6768.77	-6766.31	-182.65	39°59'40.293"N	104°52'37.779"W	3.05	
14368.00	89.040	179.550	7795.39	6854.70	-6852.29	-181.86	39°59'39.444"N	104°52'37.769"W	0.44	
14453.00	89.720	180.430	7796.31	6939.67	-6937.29	-181.84	39°59'38.604"N	104°52'37.768"W	1.31	
14538.00	89.250	180.230	7797.08	7024.65	-7022.28	-182.33	39°59'37.764"N	104°52'37.775"W	0.60	
14623.00	89.630	180.620	7797.91	7109.63	-7107.28	-182.96	39°59'36.924"N	104°52'37.783"W	0.64	
14709.00	89.810	180.220	7798.33	7195.61	-7193.27	-183.59	39°59'36.074"N	104°52'37.791"W	0.51	
14794.00	90.490	180.320	7798.11	7280.59	-7278.27	-183.99	39°59'35.234"N	104°52'37.796"W	0.81	
14879.00	90.800	180.780	7797.15	7365.58	-7363.26	-184.81	39°59'34.394"N	104°52'37.806"W	0.65	
14964.00	90.030	180.090	7796.53	7450.56	-7448.25	-185.45	39°59'33.554"N	104°52'37.815"W	1.22	
15049.00	90.300	181.240	7796.29	7535.55	-7533.25	-186.44	39°59'32.714"N	104°52'37.827"W	1.39	
15134.00	89.560	180.260	7796.39	7620.54	-7618.24	-187.55	39°59'31.874"N	104°52'37.842"W	1.44	
15304.00	90.030	180.560	7797.00	7790.51	-7788.23	-188.77	39°59'30.194"N	104°52'37.857"W	0.33	
15474.00	91.200	181.200	7795.18	7960.49	-7958.20	-191.38	39°59'28.515"N	104°52'37.891"W	0.78	
15559.00	89.750	180.970	7794.47	8045.48	-8043.18	-192.99	39°59'27.675"N	104°52'37.912"W	1.73	
15644.00	90.920	181.720	7793.97	8130.48	-8128.15	-194.99	39°59'26.835"N	104°52'37.937"W	1.63	
15729.00	89.010	180.800	7794.03	8215.47	-8213.13	-196.85	39°59'25.995"N	104°52'37.961"W	2.49	
15814.00	89.530	181.440	7795.11	8300.46	-8298.10	-198.52	39°59'25.156"N	104°52'37.982"W	0.97	
15899.00	89.530	181.280	7795.81	8385.46	-8383.07	-200.53	39°59'24.316"N	104°52'38.008"W	0.19	
15984.00	90.980	182.360	7795.43	8470.45	-8468.03	-203.23	39°59'23.476"N	104°52'38.043"W	2.13	
16069.00	91.230	182.560	7793.79	8555.42	-8552.93	-206.88	39°59'22.637"N	104°52'38.090"W	0.38	
16154.00	91.260	182.910	7791.94	8640.38	-8637.82	-210.93	39°59'21.798"N	104°52'38.142"W	0.41	
16238.00	89.720	182.230	7791.22	8724.36	-8721.73	-214.70	39°59'20.969"N	104°52'38.190"W	2.00	
16408.00	90.580	182.830	7790.78	8894.33	-8891.56	-222.20	39°59'19.291"N	104°52'38.287"W	0.62	
16493.00	89.590	183.100	7790.65	8979.30	-8976.44	-226.60	39°59'18.452"N	104°52'38.343"W	1.21	
16645.00	89.870	183.010	7791.37	9131.24	-9128.22	-234.70	39°59'16.952"N	104°52'38.447"W	0.19	LAST BHI MWD+IFR SURVEYS
16697.00	89.870	183.010	7791.49	9183.22	-9180.15	-237.43	39°59'16.439"N	104°52'38.482"W	0.00	PROJECTION TO BIT

HOLE & CASING SECTIONS - Ref Wellbore: GRENEMYER 14C-3HZ AWB Ref Wellpath: GRENEMYER 14C-3HZ 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	1107.00	1091.00	16.00	1106.97	0.00	0.00	-2.84	6.05
9.625in Casing Surface	16.00	1107.00	1091.00	16.00	1106.97	0.00	0.00	-2.84	6.05
8.75in Open Hole	1107.00	8185.00	7078.00	1106.97	7771.62	-2.84	6.05	-672.14	-232.87
7in Casing Intermediate	16.00	8173.00	8157.00	16.00	7771.48	0.00	0.00	-660.14	-232.81
6.125in Open Hole	8173.00	16697.00	8524.00	7771.48	7791.49	-660.14	-232.81	-9180.15	-237.43



Actual Wellpath Report

GRENNEMYER 14C-3HZ AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#02 GRENNEMYER 14C-3HZ (636'FNL & 2605'FEL, SEC.34)
Area	COLORADO	Well	GRENNEMYER 14C-3HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	GRENNEMYER 14C-3HZ AWB
Facility	SEC.34-T1N-R67W		

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
GRENNEMYER SECTION 34 LINES		16.00	0.00	29.94	3174668.22	1248232.99	40°00'47.160"N	104°52'35.047"W	polygon
GRENNEMYER SECTION 03 LINES		5065.00	0.00	29.94	3174668.22	1248232.99	40°00'47.160"N	104°52'35.047"W	polygon
GRENNEMYER 14C-3HZ BHL ON PLAT REV-1 (460'FSL & 2104'FWL, SEC.3)		7772.00	-9205.90	-110.16	3174592.86	1239026.67	39°59'16.184"N	104°52'36.847"W	point
GRENNEMYER 14C-3HZ BHL REV-2 (460'FSL & 2004'FWL, SEC.3)		7772.00	-9205.94	-210.14	3174492.88	1239025.93	39°59'16.184"N	104°52'38.132"W	point
GRENNEMYER MAX HEEL LINE		7800.00	0.00	0.00	3174638.28	1248232.78	40°00'47.160"N	104°52'35.432"W	polygon
GRENNEMYER 14C-3HZ LAND BOX		7800.00	0.00	0.00	3174638.28	1248232.78	40°00'47.160"N	104°52'35.432"W	polygon

WELLPATH COMPOSITION - Ref Wellbore: GRENNEMYER 14C-3HZ AWB Ref Wellpath: GRENNEMYER 14C-3HZ AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
16.00	963.00	Generic gyro - continuous (Standard)	MS ENERGY GYRODATA SURVEYS <116-963>	GRENNEMYER 14C-3HZ AWB
963.00	8127.00	NaviTrak (MAGCORR,IFR)	BHI MWD+IFR SURVEYS 8 3/4" HOLE <1183-8127>	GRENNEMYER 14C-3HZ AWB
8127.00	16645.00	NaviTrak (MAGCORR,IFR)	BHI MWD+IFR SURVEYS 6 1/8" HOLE <8184-16645>	GRENNEMYER 14C-3HZ AWB
16645.00	16697.00	Blind Drilling (std)	Projection to bit	GRENNEMYER 14C-3HZ AWB



Actual Wellpath Report

GRENEMYER 14C-3HZ AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#02 GRENEMYER 14C-3HZ (636'FNL & 2605'FEL, SEC.34)
Area	COLORADO	Well	GRENEMYER 14C-3HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	GRENEMYER 14C-3HZ AWP
Facility	SEC.34-T1N-R67W		

WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
16.00	0.000	164.300	16.00	TIE-ON
116.00	0.320	164.300	116.00	BEGIN GYRO SURVEYS
963.00	0.510	60.990	962.97	TIE-INTO GYROS
1183.00	0.410	333.920	1182.97	BEGIN BHI MWD+IFR SURVEYS
8173.00	89.199	180.210	7771.48	7" CASING POINT
16645.00	89.870	183.010	7791.37	LAST BHI MWD+IFR SURVEYS
16697.00	89.870	183.010	7791.49	PROJECTION TO BIT