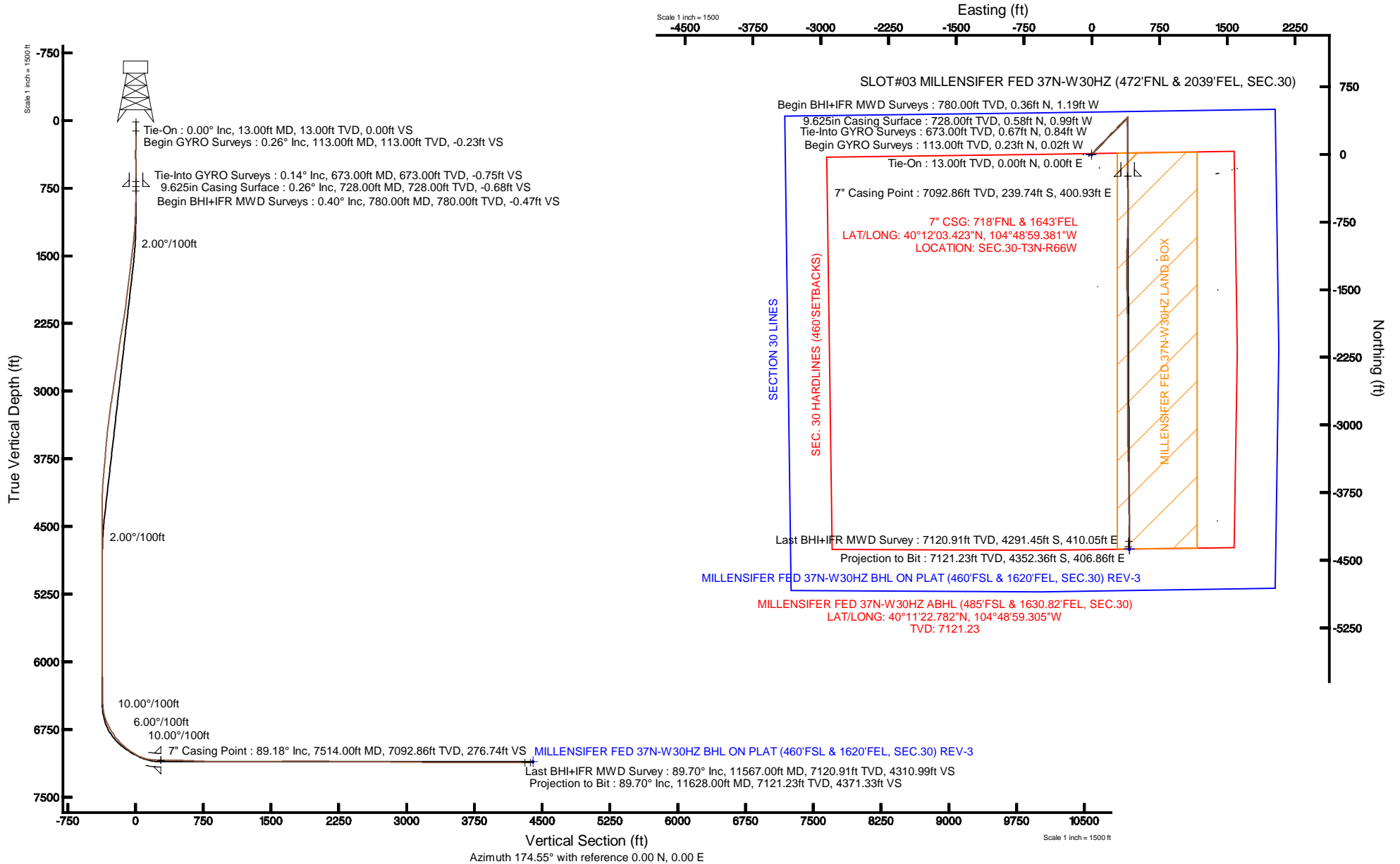


# KERR-MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#03 MILLENSIFER FED 37N-W30HZ (472'FNL & 2039'FEL, SEC.30)  
 Field: WELD COUNTY (KERR MCGEE) Well: MILLENSIFER FED 37N-W30HZ  
 Facility: SEC.30-T3N-R66W Wellbore: MILLENSIFER FED 37N-W30HZ PWB

Plot reference wellpath is MILLENSIFER FED 37N-W30HZ (REV-C.0) PWP

True vertical depths are referenced to ENSIGN 138 (RKB)	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
Measured depths are referenced to ENSIGN 138 (RKB)	North Reference: True north
ENSGN 138 (RKB) to Mean Sea Level: 4841 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#03 MILLENSIFER FED 37N-W30HZ (472'FNL & 2039'FEL, SEC.30)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: wlsj02 on 2/22/2013





# Actual Wellpath Report

MILLENSIFER FED 37N-W30HZ AWP  
Page 1 of 7



REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#03 MILLENSIFER FED 37N-W30HZ (472'FNL & 2039'FEL, SEC.30)
Area	COLORADO	Well	MILLENSIFER FED 37N-W30HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	MILLENSIFER FED 37N-W30HZ AWB
Facility	SEC.30-T3N-R66W		

REPORT SETUP INFORMATION			
Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 3.0.2
North Reference	True	User	Wilsjef02
Scale	0.999957	Report Generated	2/22/2013 at 13:26:25
Convergence at slot	0.44° East	Database/Source file	WellArchitectDB/MILLENSIFER_FED_37N-W30HZ_AWB.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	-29.87	3190517.58	1317021.27	40°12'05.792"N	104°49'04.548"W
Facility Reference Pt			3190547.45	1317021.50	40°12'05.792"N	104°49'04.163"W
Field Reference Pt			<b>3197771.84</b>	<b>1268891.29</b>	40°04'09.600"N	104°47'36.000"W

WELLPATH DATUM			
Calculation method	<b>Minimum curvature</b>	ENSIGN 138 (RKB) to Facility Vertical Datum	<b>4841.00ft</b>
Horizontal Reference Pt	<b>Slot</b>	ENSIGN 138 (RKB) to Mean Sea Level	<b>4841.00ft</b>
Vertical Reference Pt	<b>ENSIGN 138 (RKB)</b>	ENSIGN 138 (RKB) to Mud Line at Slot (SLOT#03 MILLENSIFER FED 37N-W30HZ (472'FNL & 2039'FEL, SEC.30))	<b>4841.00ft</b>
MD Reference Pt	<b>ENSIGN 138 (RKB)</b>	Section Origin	<b>N 0.00, E 0.00 ft</b>
Field Vertical Reference	<b>Mean Sea Level</b>	Section Azimuth	<b>174.55°</b>



# Actual Wellpath Report

MILLENSIFER FED 37N-W30HZ AWP  
Page 2 of 7



REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#03 MILLENSIFER FED 37N-W30HZ (472'FNL & 2039'FEL, SEC.30)
Area	COLORADO	Well	MILLENSIFER FED 37N-W30HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	MILLENSIFER FED 37N-W30HZ AWB
Facility	SEC.30-T3N-R66W		

WELLPATH DATA (125 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	355.430	0.00	0.00	0.00	0.00	40°12'05.792"N	104°49'04.548"W	0.00	
13.00	0.000	355.430	13.00	0.00	0.00	0.00	40°12'05.792"N	104°49'04.548"W	0.00	Tie-On
113.00	0.260	355.430	113.00	-0.23	0.23	-0.02	40°12'05.794"N	104°49'04.548"W	0.26	Begin GYRO Surveys
213.00	0.270	31.060	213.00	-0.64	0.65	0.09	40°12'05.798"N	104°49'04.547"W	0.16	
313.00	0.130	307.400	313.00	-0.91	0.92	0.12	40°12'05.801"N	104°49'04.546"W	0.29	
413.00	0.290	253.860	413.00	-0.94	0.92	-0.22	40°12'05.801"N	104°49'04.551"W	0.24	
513.00	0.090	245.630	513.00	-0.87	0.82	-0.53	40°12'05.800"N	104°49'04.555"W	0.20	
613.00	0.140	235.450	613.00	-0.78	0.72	-0.70	40°12'05.799"N	104°49'04.557"W	0.05	
673.00	0.140	265.440	673.00	-0.75	0.67	-0.84	40°12'05.799"N	104°49'04.559"W	0.12	Tie-Into GYRO Surveys
780.00	0.400	215.900	780.00	-0.47	0.36	-1.19	40°12'05.796"N	104°49'04.563"W	0.31	Begin BHI+IFR MWD Surveys
872.00	1.000	59.700	871.99	-0.57	0.50	-0.68	40°12'05.797"N	104°49'04.557"W	1.50	
963.00	3.000	44.200	962.93	-2.44	2.61	1.66	40°12'05.818"N	104°49'04.527"W	2.26	
1053.00	4.200	51.600	1052.75	-5.76	6.35	5.89	40°12'05.855"N	104°49'04.472"W	1.43	
1145.00	5.400	50.300	1144.43	-10.03	11.21	11.86	40°12'05.903"N	104°49'04.395"W	1.31	
1236.00	6.700	40.700	1234.92	-16.12	17.97	18.62	40°12'05.970"N	104°49'04.308"W	1.81	
1327.00	8.500	38.900	1325.12	-24.60	27.22	26.30	40°12'06.061"N	104°49'04.209"W	2.00	
1419.00	9.600	39.100	1415.97	-34.93	38.47	35.41	40°12'06.172"N	104°49'04.092"W	1.20	
1510.00	10.100	40.900	1505.63	-45.85	50.39	45.42	40°12'06.290"N	104°49'03.963"W	0.65	
1601.00	10.500	47.600	1595.17	-56.34	62.01	56.77	40°12'06.405"N	104°49'03.816"W	1.39	
1693.00	11.400	46.100	1685.49	-67.03	73.97	69.51	40°12'06.523"N	104°49'03.652"W	1.03	
1784.00	12.000	48.400	1774.60	-78.21	86.49	83.07	40°12'06.647"N	104°49'03.477"W	0.83	
1875.00	11.300	43.400	1863.73	-89.65	99.25	96.27	40°12'06.773"N	104°49'03.307"W	1.35	
1971.00	11.000	49.000	1957.92	-101.17	112.09	109.64	40°12'06.900"N	104°49'03.135"W	1.17	
2065.00	11.800	47.900	2050.06	-112.12	124.42	123.54	40°12'07.021"N	104°49'02.956"W	0.88	
2160.00	13.000	42.100	2142.85	-125.13	138.86	137.91	40°12'07.164"N	104°49'02.771"W	1.82	
2254.00	13.000	38.900	2234.44	-139.83	154.93	151.64	40°12'07.323"N	104°49'02.594"W	0.77	
2350.00	13.200	37.500	2327.94	-155.57	172.03	165.09	40°12'07.492"N	104°49'02.420"W	0.39	
2445.00	13.000	40.600	2420.47	-170.93	188.75	178.65	40°12'07.657"N	104°49'02.246"W	0.77	
2538.00	12.500	47.200	2511.18	-184.29	203.53	192.84	40°12'07.803"N	104°49'02.063"W	1.65	
2633.00	13.300	49.400	2603.79	-196.82	217.63	208.68	40°12'07.943"N	104°49'01.859"W	0.99	
2729.00	13.300	48.700	2697.21	-209.64	232.10	225.36	40°12'08.086"N	104°49'01.644"W	0.17	
2823.00	13.000	48.000	2788.75	-222.27	246.31	241.34	40°12'08.226"N	104°49'01.438"W	0.36	
2918.00	13.600	45.100	2881.20	-235.73	261.35	257.20	40°12'08.375"N	104°49'01.233"W	0.94	
3012.00	12.900	43.200	2972.70	-249.69	276.80	272.21	40°12'08.527"N	104°49'01.040"W	0.88	
3106.00	12.800	43.200	3064.34	-263.50	292.03	286.52	40°12'08.678"N	104°49'00.855"W	0.11	
3201.00	12.300	42.300	3157.07	-277.26	307.19	300.53	40°12'08.828"N	104°49'00.675"W	0.57	
3295.00	11.300	40.400	3249.09	-290.40	321.61	313.24	40°12'08.970"N	104°49'00.511"W	1.14	
3390.00	10.400	44.200	3342.39	-302.44	334.85	325.25	40°12'09.101"N	104°49'00.356"W	1.21	
3484.00	9.400	41.800	3434.99	-313.14	346.65	336.28	40°12'09.218"N	104°49'00.214"W	1.15	
3579.00	9.000	48.400	3528.77	-322.79	357.37	347.01	40°12'09.323"N	104°49'00.076"W	1.19	
3674.00	8.400	50.200	3622.67	-331.09	366.74	357.90	40°12'09.416"N	104°48'59.935"W	0.69	
3769.00	7.600	48.000	3716.75	-338.75	375.39	367.90	40°12'09.502"N	104°48'59.807"W	0.90	
3863.00	7.000	38.500	3809.99	-346.57	384.03	376.08	40°12'09.587"N	104°48'59.701"W	1.43	
3957.00	7.100	36.900	3903.28	-354.99	393.16	383.14	40°12'09.677"N	104°48'59.610"W	0.23	
4051.00	6.200	38.600	3996.65	-362.93	401.77	389.79	40°12'09.762"N	104°48'59.524"W	0.98	



# Actual Wellpath Report

MILLENSIFER FED 37N-W30HZ AWP  
Page 3 of 7



REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#03 MILLENSIFER FED 37N-W30HZ (472'FNL & 2039'FEL, SEC.30)
Area	COLORADO	Well	MILLENSIFER FED 37N-W30HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	MILLENSIFER FED 37N-W30HZ AWB
Facility	SEC.30-T3N-R66W		

WELLPATH DATA (125 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4147.00	4.600	46.000	4092.22	-369.06	408.50	395.80	40°12'09.829"N	104°48'59.447"W	1.81	
4242.00	2.500	43.600	4187.03	-372.79	412.65	399.97	40°12'09.870"N	104°48'59.393"W	2.22	
4337.00	0.500	340.600	4282.00	-374.55	414.54	401.26	40°12'09.888"N	104°48'59.377"W	2.44	
4432.00	0.600	289.900	4376.99	-375.16	415.10	400.65	40°12'09.894"N	104°48'59.384"W	0.50	
4528.00	0.700	238.900	4472.99	-375.13	414.97	399.68	40°12'09.893"N	104°48'59.397"W	0.59	
4718.00	1.000	227.000	4662.97	-373.61	413.24	397.47	40°12'09.876"N	104°48'59.425"W	0.18	
4906.00	0.600	92.200	4850.96	-372.48	412.08	397.25	40°12'09.864"N	104°48'59.428"W	0.79	
5097.00	1.100	121.400	5041.94	-371.25	411.08	399.82	40°12'09.854"N	104°48'59.395"W	0.34	
5287.00	0.900	358.500	5231.92	-371.64	411.63	401.34	40°12'09.860"N	104°48'59.376"W	0.93	
5477.00	1.400	229.300	5421.90	-371.79	411.60	399.54	40°12'09.859"N	104°48'59.399"W	1.10	
5667.00	0.800	51.700	5611.89	-371.17	410.91	398.82	40°12'09.853"N	104°48'59.408"W	1.16	
5856.00	1.100	47.900	5800.86	-372.97	412.95	401.20	40°12'09.873"N	104°48'59.377"W	0.16	
6047.00	0.800	200.800	5991.85	-372.87	412.93	402.09	40°12'09.873"N	104°48'59.366"W	0.97	
6236.00	0.800	206.100	6180.83	-370.56	410.51	401.04	40°12'09.849"N	104°48'59.379"W	0.04	
6331.00	0.800	183.400	6275.82	-369.34	409.25	400.71	40°12'09.836"N	104°48'59.384"W	0.33	
6426.00	0.500	179.100	6370.82	-368.27	408.18	400.67	40°12'09.826"N	104°48'59.384"W	0.32	
6458.00	0.400	188.400	6402.82	-368.03	407.93	400.66	40°12'09.823"N	104°48'59.384"W	0.39	
6489.00	1.700	193.800	6433.81	-367.49	407.37	400.53	40°12'09.818"N	104°48'59.386"W	4.20	
6521.00	3.200	196.200	6465.78	-366.21	406.05	400.17	40°12'09.805"N	104°48'59.391"W	4.70	
6553.00	4.800	198.100	6497.70	-364.15	403.92	399.51	40°12'09.784"N	104°48'59.399"W	5.02	
6584.00	6.700	193.700	6528.55	-361.25	400.93	398.68	40°12'09.754"N	104°48'59.410"W	6.29	
6616.00	9.900	188.000	6560.21	-356.81	396.40	397.85	40°12'09.709"N	104°48'59.421"W	10.31	
6663.00	15.700	186.000	6606.02	-346.64	386.06	396.62	40°12'09.607"N	104°48'59.436"W	12.37	
6710.00	23.100	182.300	6650.32	-331.25	370.50	395.59	40°12'09.453"N	104°48'59.450"W	15.95	
6757.00	25.400	179.600	6693.17	-312.07	351.21	395.29	40°12'09.263"N	104°48'59.454"W	5.43	
6805.00	28.700	178.700	6735.92	-290.32	329.38	395.62	40°12'09.047"N	104°48'59.449"W	6.93	
6852.00	31.500	177.900	6776.57	-266.80	305.83	396.33	40°12'08.814"N	104°48'59.440"W	6.02	
6899.00	34.900	177.300	6815.90	-241.10	280.12	397.41	40°12'08.560"N	104°48'59.426"W	7.27	
6946.00	38.700	176.300	6853.52	-212.98	252.01	398.99	40°12'08.282"N	104°48'59.406"W	8.18	
6994.00	43.700	179.900	6889.63	-181.44	220.43	399.99	40°12'07.970"N	104°48'59.393"W	11.53	
7041.00	47.000	182.000	6922.66	-148.23	187.01	399.42	40°12'07.640"N	104°48'59.400"W	7.71	
7089.00	50.900	180.300	6954.18	-112.27	150.83	398.71	40°12'07.282"N	104°48'59.410"W	8.55	
7136.00	54.200	180.600	6982.75	-75.17	113.52	398.41	40°12'06.914"N	104°48'59.413"W	7.04	
7185.00	57.600	181.400	7010.22	-34.85	72.96	397.70	40°12'06.513"N	104°48'59.423"W	7.07	
7232.00	60.800	180.400	7034.29	5.26	32.60	397.07	40°12'06.114"N	104°48'59.431"W	7.05	
7280.00	67.200	179.300	7055.32	48.20	-10.52	397.20	40°12'05.688"N	104°48'59.429"W	13.49	
7326.00	72.800	179.100	7071.04	91.27	-53.72	397.80	40°12'05.261"N	104°48'59.421"W	12.18	
7374.00	79.900	179.400	7082.36	137.72	-100.33	398.41	40°12'04.800"N	104°48'59.413"W	14.80	
7422.00	84.600	178.800	7088.84	185.12	-147.88	399.16	40°12'04.331"N	104°48'59.404"W	9.87	
7470.00	88.200	178.900	7091.85	232.88	-195.76	400.12	40°12'03.857"N	104°48'59.391"W	7.50	
7514.00†	89.178	178.982	7092.86	276.74	-239.74	400.93	40°12'03.423"N	104°48'59.381"W	2.23	7" Casing Point
7578.00	90.600	179.100	7092.98	340.54	-303.73	402.00	40°12'02.790"N	104°48'59.367"W	2.23	
7673.00	88.300	180.000	7093.89	435.17	-398.72	402.75	40°12'01.852"N	104°48'59.358"W	2.60	
7768.00	87.900	180.000	7097.04	529.69	-493.67	402.75	40°12'00.914"N	104°48'59.358"W	0.42	
7863.00	87.300	180.100	7101.02	624.17	-588.58	402.67	40°11'59.976"N	104°48'59.359"W	0.64	



# Actual Wellpath Report

MILLENSIFER FED 37N-W30HZ AWP  
Page 4 of 7



REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#03 MILLENSIFER FED 37N-W30HZ (472'FNL & 2039'FEL, SEC.30)
Area	COLORADO	Well	MILLENSIFER FED 37N-W30HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	MILLENSIFER FED 37N-W30HZ AWB
Facility	SEC.30-T3N-R66W		

WELLPATH DATA (125 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
7957.00	87.700	180.200	7105.12	717.63	-682.49	402.42	40°11'59.048"N	104°48'59.362"W	0.44	
8052.00	88.800	181.300	7108.02	812.03	-777.44	401.18	40°11'58.109"N	104°48'59.378"W	1.64	
8147.00	90.800	181.900	7108.35	906.30	-872.39	398.52	40°11'57.171"N	104°48'59.412"W	2.20	
8244.00	90.400	183.100	7107.34	1002.36	-969.29	394.29	40°11'56.213"N	104°48'59.467"W	1.30	
8338.00	90.000	181.200	7107.01	1095.53	-1063.22	390.77	40°11'55.285"N	104°48'59.512"W	2.07	
8433.00	89.100	181.300	7107.75	1189.88	-1158.20	388.69	40°11'54.347"N	104°48'59.539"W	0.95	
8527.00	89.500	179.800	7108.90	1283.36	-1252.18	387.79	40°11'53.418"N	104°48'59.551"W	1.65	
8623.00	90.100	179.000	7109.24	1379.01	-1348.17	388.80	40°11'52.469"N	104°48'59.538"W	1.04	
8718.00	89.800	179.400	7109.32	1473.70	-1443.17	390.12	40°11'51.531"N	104°48'59.521"W	0.53	
8812.00	91.400	178.800	7108.34	1567.39	-1537.15	391.60	40°11'50.602"N	104°48'59.502"W	1.82	
8907.00	91.700	178.900	7105.77	1662.09	-1632.09	393.51	40°11'49.664"N	104°48'59.477"W	0.33	
9002.00	90.700	178.800	7103.78	1756.80	-1727.05	395.41	40°11'48.725"N	104°48'59.452"W	1.06	
9097.00	89.300	178.900	7103.78	1851.53	-1822.03	397.32	40°11'47.787"N	104°48'59.428"W	1.48	
9192.00	89.600	179.200	7104.69	1946.23	-1917.01	398.89	40°11'46.848"N	104°48'59.408"W	0.45	
9287.00	89.600	179.900	7105.35	2040.87	-2012.00	399.64	40°11'45.909"N	104°48'59.398"W	0.74	
9382.00	88.900	179.800	7106.60	2135.45	-2107.00	399.89	40°11'44.971"N	104°48'59.395"W	0.74	
9477.00	88.400	179.500	7108.83	2230.05	-2201.97	400.47	40°11'44.032"N	104°48'59.387"W	0.61	
9572.00	89.700	180.100	7110.41	2324.64	-2296.95	400.80	40°11'43.094"N	104°48'59.383"W	1.51	
9666.00	89.900	180.600	7110.74	2418.15	-2390.95	400.23	40°11'42.165"N	104°48'59.391"W	0.57	
9761.00	89.800	181.100	7110.99	2512.58	-2485.94	398.82	40°11'41.226"N	104°48'59.409"W	0.54	
9855.00	90.000	179.400	7111.15	2606.11	-2579.93	398.41	40°11'40.297"N	104°48'59.414"W	1.82	
10045.00	89.700	179.900	7111.65	2795.36	-2769.93	399.57	40°11'38.420"N	104°48'59.399"W	0.31	
10235.00	88.800	180.700	7114.13	2984.38	-2959.91	398.57	40°11'36.542"N	104°48'59.412"W	0.63	
10331.00	89.400	179.400	7115.64	3079.93	-3055.89	398.49	40°11'35.594"N	104°48'59.413"W	1.49	
10522.00	88.900	179.000	7118.48	3270.27	-3246.85	401.16	40°11'33.707"N	104°48'59.379"W	0.34	
10618.00	89.500	178.300	7119.82	3366.02	-3342.81	403.42	40°11'32.758"N	104°48'59.350"W	0.96	
10714.00	90.400	177.300	7119.90	3461.86	-3438.74	407.10	40°11'31.810"N	104°48'59.302"W	1.40	
10808.00	89.900	177.400	7119.65	3555.75	-3532.64	411.45	40°11'30.882"N	104°48'59.246"W	0.54	
10902.00	90.500	179.200	7119.33	3649.54	-3626.59	414.24	40°11'29.954"N	104°48'59.210"W	2.02	
10997.00	90.400	179.200	7118.58	3744.23	-3721.58	415.56	40°11'29.015"N	104°48'59.193"W	0.11	
11186.00	89.800	179.900	7118.25	3932.51	-3910.57	417.05	40°11'27.148"N	104°48'59.174"W	0.49	
11281.00	89.100	180.200	7119.16	4027.06	-4005.57	416.96	40°11'26.209"N	104°48'59.175"W	0.80	
11376.00	89.800	180.700	7120.07	4121.55	-4100.56	416.22	40°11'25.270"N	104°48'59.185"W	0.91	
11567.00	89.700	183.000	7120.91	4310.99	-4291.45	410.05	40°11'23.384"N	104°48'59.264"W	1.21	Last BHI+IFR MWD Survey
11628.00	89.700	183.000	7121.23	4371.33	-4352.36	406.86	40°11'22.782"N	104°48'59.305"W	0.00	Projection to Bit



# Actual Wellpath Report

MILLENSIFER FED 37N-W30HZ AWP  
Page 5 of 7



REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#03 MILLENSIFER FED 37N-W30HZ (472'FNL & 2039'FEL, SEC.30)
Area	COLORADO	Well	MILLENSIFER FED 37N-W30HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	MILLENSIFER FED 37N-W30HZ AWB
Facility	SEC.30-T3N-R66W		

HOLE & CASING SECTIONS - Ref Wellbore: MILLENSIFER FED 37N-W30HZ AWB Ref Wellpath: MILLENSIFER FED 37N-W30HZ 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	13.00	728.00	715.00	13.00	728.00	0.00	0.00	0.58	-0.99
9.625in Casing Surface	13.00	728.00	715.00	13.00	728.00	0.00	0.00	0.58	-0.99
8.75in Open Hole	728.00	7522.00	6794.00	728.00	7092.96	0.58	-0.99	-247.74	401.07
7in Casing Intermediate	13.00	7514.00	7501.00	13.00	7092.86	0.00	0.00	-239.74	400.93
6.125in Open Hole	7514.00	11628.00	4114.00	7092.86	7121.23	-239.74	400.93	-4352.36	406.86

TARGETS									
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
MILLENSIFER FED 4 PAD SECTION LINES		-2.00	0.40	-60.06	3190457.53	1317021.21	40°12'05.796"N	104°49'05.322"W	polygon
MILLENSIFER FED 37N-W30HZ BHL ON PLAT (460'FSL & 1620'FEL, SEC.30) REV-1		7081.00	-4377.36	417.68	3190968.90	1312647.45	40°11'22.535"N	104°48'59.166"W	point
MEEKS L 30-22 (NOBLE) 100' CIRCLE		7106.00	-2436.24	858.12	3191394.37	1314591.81	40°11'41.717"N	104°48'53.490"W	circle
MILLER 30-9K (NOBLE) 100' CIRCLE		7106.00	-2948.87	1351.15	3191891.31	1314083.01	40°11'36.651"N	104°48'47.137"W	circle
MILLENSIFER FED 37N-W30HZ BHL ON PLAT (460'FSL & 1620'FEL, SEC.30) REV-3		7110.00	-4377.36	417.68	3190968.90	1312647.44	40°11'22.535"N	104°48'59.166"W	point
MEEKS L 30-18D (NOBLE) 100' CIRCLE		7115.00	-837.88	-653.52	3189870.56	1316178.42	40°11'57.512"N	104°49'12.970"W	circle
MEEKS L 30-21D (NOBLE) 100' CIRCLE		7115.00	-2037.03	-633.06	3189900.23	1314979.52	40°11'45.662"N	104°49'12.706"W	circle
FREEWAY L 30-10 JI (NOBLE) 100' CIRCLE		7116.00	-2661.21	-244.06	3190294.01	1314358.38	40°11'39.494"N	104°49'07.693"W	circle
MILLENSIFER 30-10K (NOBLE) 100' CIRCLE		7121.00	-3174.56	521.34	3191063.30	1313850.95	40°11'34.421"N	104°48'57.830"W	circle
MILLENSIFER FED 37N-W30HZ BHL ON PLAT (460'FSL & 1620'FEL, SEC.30) REV-2		7121.00	-4377.36	417.68	3190968.90	1312647.44	40°11'22.535"N	104°48'59.166"W	point
MILLENSIFER 30-15K (NOBLE) 100' CIRCLE		7218.00	-4076.81	212.95	3190761.87	1312946.40	40°11'25.505"N	104°49'01.804"W	circle
MILLENSIFER FED 37N-W30HZ LAND BOX		7298.00	0.00	0.00	3190517.58	1317021.27	40°12'05.792"N	104°49'04.548"W	polygon
MILLENSIFER FED 4 PAD HARDLINES (460'SETBACKS)		7298.00	0.40	-60.06	3190457.53	1317021.21	40°12'05.796"N	104°49'05.322"W	polygon



**Actual Wellpath Report**  
**MILLENSIFER FED 37N-W30HZ AWP**  
 Page 6 of 7



REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#03 MILLENSIFER FED 37N-W30HZ (472'FNL & 2039'FEL, SEC.30)
Area	COLORADO	Well	MILLENSIFER FED 37N-W30HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	MILLENSIFER FED 37N-W30HZ AWB
Facility	SEC.30-T3N-R66W		

WELLPATH COMPOSITION - Ref Wellbore: MILLENSIFER FED 37N-W30HZ AWB Ref Wellpath: MILLENSIFER FED 37N-W30HZ AWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
13.00	673.00	Generic gyro - continuous (Standard)	GYRODATA SURVEYS <113-673>	MILLENSIFER FED 37N-W30HZ AWB
673.00	7470.00	NaviTrak (MAGCORR,IFR)	BHI MWD+IFR SURVEYS 8 3/4" HOLE <780-7470>	MILLENSIFER FED 37N-W30HZ AWB
7470.00	11567.00	OnTrak (MAGCORR,IFR)	BHI MWD+IFR SURVEYS 6 1/8" HOLE <7578-11567>	MILLENSIFER FED 37N-W30HZ AWB
11567.00	11628.00	Blind Drilling (std)	Projection to bit	MILLENSIFER FED 37N-W30HZ AWB



**Actual Wellpath Report**  
 MILLENSIFER FED 37N-W30HZ AWP  
 Page 7 of 7



REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#03 MILLENSIFER FED 37N-W30HZ (472'FNL & 2039'FEL, SEC.30)
Area	COLORADO	Well	MILLENSIFER FED 37N-W30HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	MILLENSIFER FED 37N-W30HZ AWP
Facility	SEC.30-T3N-R66W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
13.00	0.000	355.430	13.00	Tie-On
113.00	0.260	355.430	113.00	Begin GYRO Surveys
673.00	0.140	265.440	673.00	Tie-Into GYRO Surveys
780.00	0.400	215.900	780.00	Begin BHI+IFR MWD Surveys
7514.00	89.178	178.982	7092.86	7" Casing Point
11567.00	89.700	183.000	7120.91	Last BHI+IFR MWD Survey
11628.00	89.700	183.000	7121.23	Projection to Bit