

Location:	COLORADO	Slot:	SLOT#01 MILLENSIFER FED 36N-30HZ (471'FNL & 2099'FEL, SEC.30)
Field:	WELD COUNTY (KERR MCGEE)	Well:	MILLENSIFER FED 36N-30HZ
Facility:	SEC.30-T3N-R66W	Wellbore:	MILLENSIFER FED 36N-30HZ PWB

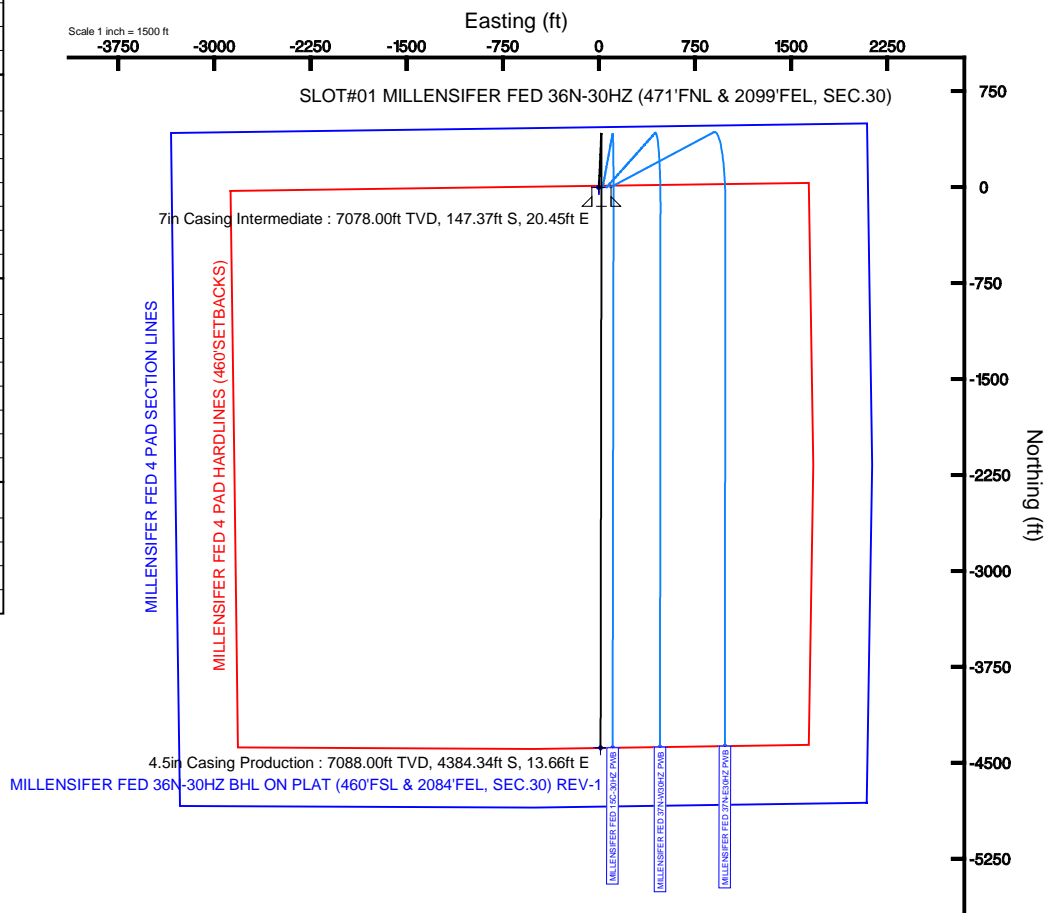
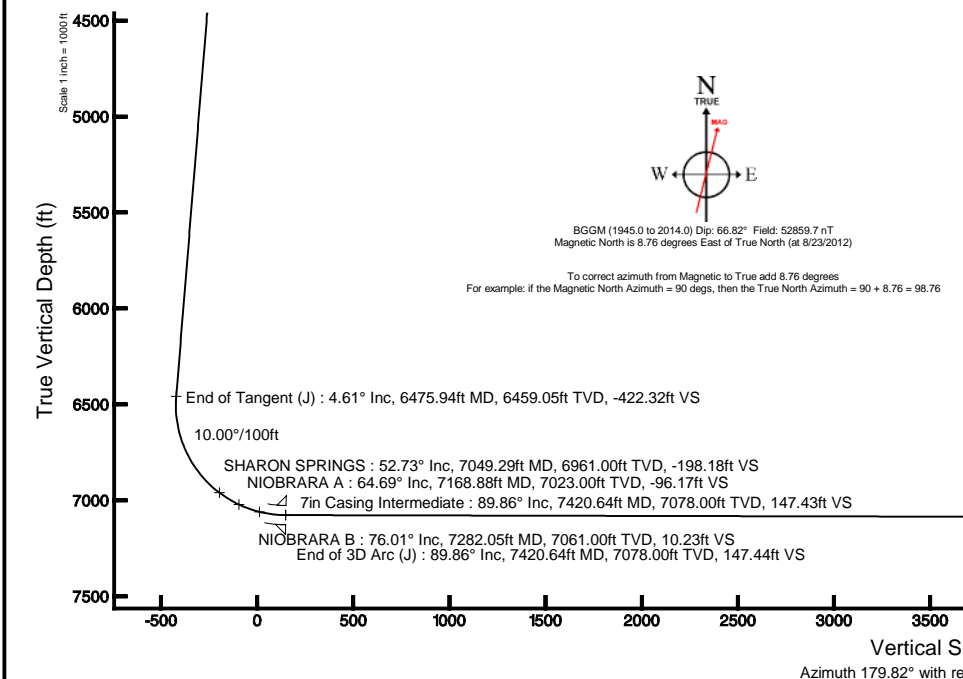
Location:	COLORADO	Slot:	SLOT#01 MILLENSIFER FED 36N-30HZ (471'FNL & 2099'FEL, SEC.30)
Field:	WELD COUNTY (KERR MCGEE)	Well:	MILLENSIFER FED 36N-30HZ
Facility:	SEC.30-T3N-R66W	Wellbore:	MILLENSIFER FED 36N-30HZ PWB

True vertical depths are referenced to Rig on SLO7#04 MILLENSIFER FED 36N-30HZ (471FNL & 2100FEL, SEC.30) (RKB)	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
Measured depths are referenced to Rig on SLO7#04 MILLENSIFER FED 36N-30HZ (471FNL & 2100FEL, SEC.30) (RKB)	North Reference: True north
Rig on SLO7#04 MILLENSIFER FED 36N-30HZ (471FNL & 2100FEL, SEC.30) (RKB) to Mean Sea Level: 4843 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLO7#01 MILLENSIFER FED 36N-30HZ (471FNL & 2099FEL, SEC.30): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: wlsjg02 on 8/23/2012

Facility Name			Grid East (SJS ft)	Grid North (SJS ft)	Latitude	Longitude
SEC.30.729N.R66W			3190547.453	1317021.496	40°12'05.792"N	104°49'04.163"W
Site	Local N (ft)	Local E (ft)	Grid East (SJS ft)	Grid North (SJS ft)	Latitude	Longitude
SLOT#01 MELLENSPIER FED 30N-30'0" (471'FN & 2099'FE), SEC.30)	0.40	-89.93	3190487.825	1317021.210	40°12'05.796"N	104°49'05.322"W
fig on SLOT#04 MELLENSPIER FED 30N-30'0" (471'FN & 2100'FE, SEC.30) (R#0) to Mud line (in Slot: SLOT#01 MELLENSPIER FED 30N-30'0" (471'FN & 2099'FE, SEC.30)						484.91
Mud line Level to Mud line (in Slot: SLOT#01 MELLENSPIER FED 30N-30'0" (471'FN & 2099'FE, SEC.30)						0.01
fig on SLOT#04 MELLENSPIER FED 30N-30'0" (471'FN & 2100'FE, SEC.30) (R#0) to Mean Sea Level						484.91

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	16.00	0.000	2.600	16.00	0.00	0.00	0.00	0.00
End of Tangent	1100.00	0.000	2.600	1100.00	0.00	0.00	0.00	0.00
End of Build (J)	1330.50	4.610	2.600	1330.25	9.26	0.42	2.00	-9.26
End of Tangent (J)	6475.94	4.610	2.600	6459.05	422.39	19.18	0.00	-422.32
End of 3D Arc (J)	7420.64	89.865	180.092	7078.00	-147.37	20.45	10.00	147.44
End of Tangent (J)	11657.63	89.865	180.092	7088.00	-4384.34	13.66	0.00	4384.36

Name	MD (ft)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
MILLENIFER FED 4 PAD SECTION LINES		0.00	0.00	0.00	1390467.53	1317021.21	40°12'05.796"N	104°49'05.322"W
MILLENIFER FED 30N-30HZ BH, ON PLAT (460FSL & 2084FSL, SEC.3) REV-1	11657.63	7088.00	-4384.34	13.66	1390504.80	1312637.30	40°11'22.470"N	104°49'05.148"W
MILLENIFER FED 4 PAD HARDLINES (460FSLBACKS)		7300.00	0.00	0.00	1390467.53	1317021.21	40°12'05.796"N	104°49'05.322"W





Planned Wellpath Report
MILLENSIFER FED 36N-30HZ (PERMIT) PWP
Page 1 of 6



REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#01 MILLENSIFER FED 36N-30HZ (471'FNL & 2099'FEL, SEC.30)
Area	COLORADO	Well	MILLENSIFER FED 36N-30HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	MILLENSIFER FED 36N-30HZ PWB
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	8/23/2012 at 12:30:51
Convergence at slot	0.44° East	Database/Source file	WellArchitectDB/MILLENSIFER_FED_36N-30HZ_PWB.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	0.40	-89.93	3190457.53	1317021.21	40°12'05.796"N	104°49'05.322"W
Facility Reference Pt			3190547.45	1317021.50	40°12'05.792"N	104°49'04.163"W
Field Reference Pt			3197771.84	1268891.29	40°04'09.600"N	104°47'36.000"W

WELLPATH DATUM	
Calculation method	Minimum curvature
Horizontal Reference Pt	Slot
Vertical Reference Pt	Rig on SLOT#04 MILLENSIFER FED 36N-30HZ (471'FNL & 2100'FEL, SEC.30) (RKB)
MD Reference Pt	Rig on SLOT#04 MILLENSIFER FED 36N-30HZ (471'FNL & 2100'FEL, SEC.30) (RKB)
Field Vertical Reference	Mean Sea Level



Planned Wellpath Report

MILLENSIFER FED 36N-30HZ (PERMIT) PWP
Page 2 of 6



REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#01 MILLENSIFER FED 36N-30HZ (471°FNL & 2099°FEL, SEC.30)
Area	COLORADO	Well	MILLENSIFER FED 36N-30HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	MILLENSIFER FED 36N-30HZ PWB
Facility	SEC.30-T3N-R66W		

WELLPATH DATA (129 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	2.600	0.00	0.00	0.00	0.00	40°12'05.796"N	104°49'05.322"W	0.00	
16.00	0.000	2.600	16.00	0.00	0.00	0.00	40°12'05.796"N	104°49'05.322"W	0.00	Tie On
116.00†	0.000	2.600	116.00	0.00	0.00	0.00	40°12'05.796"N	104°49'05.322"W	0.00	
216.00†	0.000	2.600	216.00	0.00	0.00	0.00	40°12'05.796"N	104°49'05.322"W	0.00	
316.00†	0.000	2.600	316.00	0.00	0.00	0.00	40°12'05.796"N	104°49'05.322"W	0.00	
416.00†	0.000	2.600	416.00	0.00	0.00	0.00	40°12'05.796"N	104°49'05.322"W	0.00	
516.00†	0.000	2.600	516.00	0.00	0.00	0.00	40°12'05.796"N	104°49'05.322"W	0.00	
616.00†	0.000	2.600	616.00	0.00	0.00	0.00	40°12'05.796"N	104°49'05.322"W	0.00	
706.00†	0.000	2.600	706.00	0.00	0.00	0.00	40°12'05.796"N	104°49'05.322"W	0.00	FOX HILLS
716.00†	0.000	2.600	716.00	0.00	0.00	0.00	40°12'05.796"N	104°49'05.322"W	0.00	
816.00†	0.000	2.600	816.00	0.00	0.00	0.00	40°12'05.796"N	104°49'05.322"W	0.00	
916.00†	0.000	2.600	916.00	0.00	0.00	0.00	40°12'05.796"N	104°49'05.322"W	0.00	
1016.00†	0.000	2.600	1016.00	0.00	0.00	0.00	40°12'05.796"N	104°49'05.322"W	0.00	
1100.00	0.000	2.600	1100.00	0.00	0.00	0.00	40°12'05.796"N	104°49'05.322"W	0.00	End of Tangent
1116.00†	0.320	2.600	1116.00	-0.04	0.04	0.00	40°12'05.796"N	104°49'05.322"W	2.00	
1216.00†	2.320	2.600	1215.97	-2.35	2.35	0.11	40°12'05.819"N	104°49'05.321"W	2.00	
1316.00†	4.320	2.600	1315.80	-8.13	8.13	0.37	40°12'05.876"N	104°49'05.317"W	2.00	
1330.50	4.610	2.600	1330.25	-9.26	9.26	0.42	40°12'05.887"N	104°49'05.317"W	2.00	End of Build (J)
1416.00†	4.610	2.600	1415.47	-16.12	16.12	0.73	40°12'05.955"N	104°49'05.313"W	0.00	
1516.00†	4.610	2.600	1515.15	-24.15	24.15	1.10	40°12'06.035"N	104°49'05.308"W	0.00	
1616.00†	4.610	2.600	1614.83	-32.18	32.18	1.46	40°12'06.114"N	104°49'05.303"W	0.00	
1716.00†	4.610	2.600	1714.50	-40.20	40.21	1.83	40°12'06.193"N	104°49'05.298"W	0.00	
1816.00†	4.610	2.600	1814.18	-48.23	48.24	2.19	40°12'06.273"N	104°49'05.294"W	0.00	
1916.00†	4.610	2.600	1913.86	-56.26	56.27	2.56	40°12'06.352"N	104°49'05.289"W	0.00	
2016.00†	4.610	2.600	2013.53	-64.29	64.30	2.92	40°12'06.431"N	104°49'05.284"W	0.00	
2116.00†	4.610	2.600	2113.21	-72.32	72.33	3.28	40°12'06.511"N	104°49'05.280"W	0.00	
2216.00†	4.610	2.600	2212.89	-80.34	80.36	3.65	40°12'06.590"N	104°49'05.275"W	0.00	
2316.00†	4.610	2.600	2312.56	-88.37	88.38	4.01	40°12'06.669"N	104°49'05.270"W	0.00	
2416.00†	4.610	2.600	2412.24	-96.40	96.41	4.38	40°12'06.749"N	104°49'05.266"W	0.00	
2516.00†	4.610	2.600	2511.92	-104.43	104.44	4.74	40°12'06.828"N	104°49'05.261"W	0.00	
2616.00†	4.610	2.600	2611.59	-112.45	112.47	5.11	40°12'06.907"N	104°49'05.256"W	0.00	
2716.00†	4.610	2.600	2711.27	-120.48	120.50	5.47	40°12'06.987"N	104°49'05.251"W	0.00	
2816.00†	4.610	2.600	2810.95	-128.51	128.53	5.84	40°12'07.066"N	104°49'05.247"W	0.00	
2916.00†	4.610	2.600	2910.62	-136.54	136.56	6.20	40°12'07.145"N	104°49'05.242"W	0.00	
3016.00†	4.610	2.600	3010.30	-144.57	144.59	6.57	40°12'07.225"N	104°49'05.237"W	0.00	
3116.00†	4.610	2.600	3109.98	-152.59	152.62	6.93	40°12'07.304"N	104°49'05.233"W	0.00	
3216.00†	4.610	2.600	3209.65	-160.62	160.65	7.29	40°12'07.383"N	104°49'05.228"W	0.00	
3316.00†	4.610	2.600	3309.33	-168.65	168.67	7.66	40°12'07.463"N	104°49'05.223"W	0.00	
3344.77†	4.610	2.600	3338.00	-170.96	170.98	7.76	40°12'07.486"N	104°49'05.222"W	0.00	PARKMAN
3416.00†	4.610	2.600	3409.00	-176.68	176.70	8.02	40°12'07.542"N	104°49'05.219"W	0.00	
3516.00†	4.610	2.600	3508.68	-184.71	184.73	8.39	40°12'07.622"N	104°49'05.214"W	0.00	
3616.00†	4.610	2.600	3608.36	-192.73	192.76	8.75	40°12'07.701"N	104°49'05.209"W	0.00	
3716.00†	4.610	2.600	3708.03	-200.76	200.79	9.12	40°12'07.780"N	104°49'05.204"W	0.00	
3816.00†	4.610	2.600	3807.71	-208.79	208.82	9.48	40°12'07.860"N	104°49'05.200"W	0.00	
3916.00†	4.610	2.600	3907.39	-216.82	216.85	9.85	40°12'07.939"N	104°49'05.195"W	0.00	



Planned Wellpath Report

MILLENSIFER FED 36N-30HZ (PERMIT) PWP

Page 3 of 6



REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#01 MILLENSIFER FED 36N-30HZ (471'FNL & 2099'FEL, SEC.30)
Area	COLORADO	Well	MILLENSIFER FED 36N-30HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	MILLENSIFER FED 36N-30HZ PWB
Facility	SEC.30-T3N-R66W		

WELLPATH DATA (129 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4016.00†	4.610	2.600	4007.06	-224.84	224.88	10.21	40°12'08.018"N	104°49'05.190"W	0.00	
4116.00†	4.610	2.600	4106.74	-232.87	232.91	10.58	40°12'08.098"N	104°49'05.186"W	0.00	
4216.00†	4.610	2.600	4206.42	-240.90	240.94	10.94	40°12'08.177"N	104°49'05.181"W	0.00	
4251.70†	4.610	2.600	4242.00	-243.77	243.80	11.07	40°12'08.205"N	104°49'05.179"W	0.00	SUSSEX
4316.00†	4.610	2.600	4306.09	-248.93	248.96	11.31	40°12'08.256"N	104°49'05.176"W	0.00	
4416.00†	4.610	2.600	4405.77	-256.96	256.99	11.67	40°12'08.336"N	104°49'05.172"W	0.00	
4516.00†	4.610	2.600	4505.45	-264.98	265.02	12.03	40°12'08.415"N	104°49'05.167"W	0.00	
4616.00†	4.610	2.600	4605.12	-273.01	273.05	12.40	40°12'08.494"N	104°49'05.162"W	0.00	
4716.00†	4.610	2.600	4704.80	-281.04	281.08	12.76	40°12'08.574"N	104°49'05.158"W	0.00	
4816.00†	4.610	2.600	4804.48	-289.07	289.11	13.13	40°12'08.653"N	104°49'05.153"W	0.00	
4916.00†	4.610	2.600	4904.15	-297.10	297.14	13.49	40°12'08.732"N	104°49'05.148"W	0.00	
5016.00†	4.610	2.600	5003.83	-305.12	305.17	13.86	40°12'08.812"N	104°49'05.143"W	0.00	
5116.00†	4.610	2.600	5103.50	-313.15	313.20	14.22	40°12'08.891"N	104°49'05.139"W	0.00	
5216.00†	4.610	2.600	5203.18	-321.18	321.23	14.59	40°12'08.970"N	104°49'05.134"W	0.00	
5316.00†	4.610	2.600	5302.86	-329.21	329.25	14.95	40°12'09.050"N	104°49'05.129"W	0.00	
5416.00†	4.610	2.600	5402.53	-337.23	337.28	15.32	40°12'09.129"N	104°49'05.125"W	0.00	
5516.00†	4.610	2.600	5502.21	-345.26	345.31	15.68	40°12'09.208"N	104°49'05.120"W	0.00	
5616.00†	4.610	2.600	5601.89	-353.29	353.34	16.05	40°12'09.288"N	104°49'05.115"W	0.00	
5716.00†	4.610	2.600	5701.56	-361.32	361.37	16.41	40°12'09.367"N	104°49'05.111"W	0.00	
5816.00†	4.610	2.600	5801.24	-369.35	369.40	16.77	40°12'09.446"N	104°49'05.106"W	0.00	
5916.00†	4.610	2.600	5900.92	-377.37	377.43	17.14	40°12'09.526"N	104°49'05.101"W	0.00	
6016.00†	4.610	2.600	6000.59	-385.40	385.46	17.50	40°12'09.605"N	104°49'05.096"W	0.00	
6116.00†	4.610	2.600	6100.27	-393.43	393.49	17.87	40°12'09.684"N	104°49'05.092"W	0.00	
6216.00†	4.610	2.600	6199.95	-401.46	401.52	18.23	40°12'09.764"N	104°49'05.087"W	0.00	
6316.00†	4.610	2.600	6299.62	-409.49	409.55	18.60	40°12'09.843"N	104°49'05.082"W	0.00	
6416.00†	4.610	2.600	6399.30	-417.51	417.57	18.96	40°12'09.922"N	104°49'05.078"W	0.00	
6475.94	4.610	2.600	6459.05	-422.32	422.39	19.18	40°12'09.970"N	104°49'05.075"W	0.00	End of Tangent (J)
6516.00†	0.633	18.723	6499.06	-424.14	424.21	19.32	40°12'09.988"N	104°49'05.073"W	10.00	
6616.00†	9.403	178.871	6598.63	-416.48	416.54	19.66	40°12'09.912"N	104°49'05.069"W	10.00	
6716.00†	19.401	179.518	6695.37	-391.64	391.70	19.96	40°12'09.667"N	104°49'05.065"W	10.00	
6816.00†	29.401	179.734	6786.32	-350.38	350.44	20.22	40°12'09.259"N	104°49'05.061"W	10.00	
6916.00†	39.401	179.846	6868.73	-293.95	294.02	20.42	40°12'08.701"N	104°49'05.059"W	10.00	
7016.00†	49.401	179.919	6940.08	-224.07	224.14	20.56	40°12'08.011"N	104°49'05.057"W	10.00	
7049.29†	52.730	179.938	6961.00	-198.18	198.25	20.59	40°12'07.755"N	104°49'05.057"W	10.00	SHARON SPRINGS
7116.00†	59.401	179.973	6998.22	-142.87	142.93	20.63	40°12'07.208"N	104°49'05.056"W	10.00	
7168.88†	64.689	179.997	7023.00	-96.17	96.24	20.64	40°12'06.747"N	104°49'05.056"W	10.00	NIOBRARA A
7216.00†	69.401	180.016	7041.37	-52.80	52.86	20.64	40°12'06.318"N	104°49'05.056"W	10.00	
7282.05†	76.006	180.042	7061.00	10.23	-10.17	20.61	40°12'05.696"N	104°49'05.056"W	10.00	NIOBRARA B
7316.00†	79.400	180.054	7068.23	43.40	-43.33	20.58	40°12'05.368"N	104°49'05.057"W	10.00	
7416.00†	89.400	180.090	7077.97	142.79	-142.73	20.45	40°12'04.386"N	104°49'05.058"W	10.00	
7420.64	89.865	180.092	7078.00	147.44	-147.37	20.45	40°12'04.340"N	104°49'05.058"W	10.00	End of 3D Arc (J)
7516.00†	89.865	180.092	7078.23	242.79	-242.73	20.29	40°12'03.397"N	104°49'05.060"W	0.00	
7616.00†	89.865	180.092	7078.46	342.79	-342.73	20.13	40°12'02.409"N	104°49'05.063"W	0.00	
7716.00†	89.865	180.092	7078.70	442.79	-442.73	19.97	40°12'01.421"N	104°49'05.065"W	0.00	
7816.00†	89.865	180.092	7078.94	542.79	-542.73	19.81	40°12'00.433"N	104°49'05.067"W	0.00	



Planned Wellpath Report

MILLENSIFER FED 36N-30HZ (PERMIT) PWP
Page 4 of 6



REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#01 MILLENSIFER FED 36N-30HZ (471'FNL & 2099'FEL, SEC.30)
Area	COLORADO	Well	MILLENSIFER FED 36N-30HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	MILLENSIFER FED 36N-30HZ PWB
Facility	SEC.30-T3N-R66W		

WELLPATH DATA (129 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
7916.00†	89.865	180.092	7079.17	642.78	-642.73	19.65	40°11'59.445"N	104°49'05.069"W	0.00	
8016.00†	89.865	180.092	7079.41	742.78	-742.73	19.49	40°11'58.456"N	104°49'05.071"W	0.00	
8116.00†	89.865	180.092	7079.64	842.78	-842.73	19.33	40°11'57.468"N	104°49'05.073"W	0.00	
8216.00†	89.865	180.092	7079.88	942.78	-942.72	19.17	40°11'56.480"N	104°49'05.075"W	0.00	
8316.00†	89.865	180.092	7080.12	1042.78	-1042.72	19.01	40°11'55.492"N	104°49'05.077"W	0.00	
8416.00†	89.865	180.092	7080.35	1142.78	-1142.72	18.85	40°11'54.504"N	104°49'05.079"W	0.00	
8516.00†	89.865	180.092	7080.59	1242.78	-1242.72	18.69	40°11'53.515"N	104°49'05.081"W	0.00	
8616.00†	89.865	180.092	7080.82	1342.77	-1342.72	18.53	40°11'52.527"N	104°49'05.083"W	0.00	
8716.00†	89.865	180.092	7081.06	1442.77	-1442.72	18.37	40°11'51.539"N	104°49'05.085"W	0.00	
8816.00†	89.865	180.092	7081.30	1542.77	-1542.72	18.21	40°11'50.551"N	104°49'05.087"W	0.00	
8916.00†	89.865	180.092	7081.53	1642.77	-1642.72	18.05	40°11'49.563"N	104°49'05.089"W	0.00	
9016.00†	89.865	180.092	7081.77	1742.77	-1742.72	17.89	40°11'48.574"N	104°49'05.091"W	0.00	
9116.00†	89.865	180.092	7082.00	1842.77	-1842.72	17.73	40°11'47.586"N	104°49'05.094"W	0.00	
9216.00†	89.865	180.092	7082.24	1942.77	-1942.72	17.57	40°11'46.598"N	104°49'05.096"W	0.00	
9316.00†	89.865	180.092	7082.48	2042.76	-2042.72	17.41	40°11'45.610"N	104°49'05.098"W	0.00	
9416.00†	89.865	180.092	7082.71	2142.76	-2142.72	17.25	40°11'44.622"N	104°49'05.100"W	0.00	
9516.00†	89.865	180.092	7082.95	2242.76	-2242.72	17.09	40°11'43.633"N	104°49'05.102"W	0.00	
9616.00†	89.865	180.092	7083.18	2342.76	-2342.72	16.93	40°11'42.645"N	104°49'05.104"W	0.00	
9716.00†	89.865	180.092	7083.42	2442.76	-2442.72	16.77	40°11'41.657"N	104°49'05.106"W	0.00	
9816.00†	89.865	180.092	7083.66	2542.76	-2542.72	16.61	40°11'40.669"N	104°49'05.108"W	0.00	
9916.00†	89.865	180.092	7083.89	2642.76	-2642.72	16.45	40°11'39.681"N	104°49'05.110"W	0.00	
10016.00†	89.865	180.092	7084.13	2742.76	-2742.72	16.29	40°11'38.693"N	104°49'05.112"W	0.00	
10116.00†	89.865	180.092	7084.36	2842.75	-2842.72	16.13	40°11'37.704"N	104°49'05.114"W	0.00	
10216.00†	89.865	180.092	7084.60	2942.75	-2942.72	15.97	40°11'36.716"N	104°49'05.116"W	0.00	
10316.00†	89.865	180.092	7084.83	3042.75	-3042.72	15.81	40°11'35.728"N	104°49'05.118"W	0.00	
10416.00†	89.865	180.092	7085.07	3142.75	-3142.72	15.65	40°11'34.740"N	104°49'05.120"W	0.00	
10516.00†	89.865	180.092	7085.31	3242.75	-3242.72	15.49	40°11'33.752"N	104°49'05.122"W	0.00	
10616.00†	89.865	180.092	7085.54	3342.75	-3342.72	15.33	40°11'32.763"N	104°49'05.124"W	0.00	
10716.00†	89.865	180.092	7085.78	3442.75	-3442.71	15.17	40°11'31.775"N	104°49'05.127"W	0.00	
10816.00†	89.865	180.092	7086.01	3542.74	-3542.71	15.01	40°11'30.787"N	104°49'05.129"W	0.00	
10916.00†	89.865	180.092	7086.25	3642.74	-3642.71	14.85	40°11'29.799"N	104°49'05.131"W	0.00	
11016.00†	89.865	180.092	7086.49	3742.74	-3742.71	14.69	40°11'28.811"N	104°49'05.133"W	0.00	
11116.00†	89.865	180.092	7086.72	3842.74	-3842.71	14.53	40°11'27.822"N	104°49'05.135"W	0.00	
11216.00†	89.865	180.092	7086.96	3942.74	-3942.71	14.37	40°11'26.834"N	104°49'05.137"W	0.00	
11316.00†	89.865	180.092	7087.19	4042.74	-4042.71	14.21	40°11'25.846"N	104°49'05.139"W	0.00	
11416.00†	89.865	180.092	7087.43	4142.74	-4142.71	14.05	40°11'24.858"N	104°49'05.141"W	0.00	
11516.00†	89.865	180.092	7087.67	4242.73	-4242.71	13.89	40°11'23.870"N	104°49'05.143"W	0.00	
11616.00†	89.865	180.092	7087.90	4342.73	-4342.71	13.73	40°11'22.881"N	104°49'05.145"W	0.00	
11657.63	89.865	180.092	7088.00 [†]	4384.36	-4384.34	13.66	40°11'22.470"N	104°49'05.146"W	0.00	End of Tangent (J)



Planned Wellpath Report

MILLENSIFER FED 36N-30HZ (PERMIT) PWP

Page 5 of 6

**REFERENCE WELLPATH IDENTIFICATION**

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#01 MILLENSIFER FED 36N-30HZ (471'FNL & 2099'FEL, SEC.30)
Area	COLORADO	Well	MILLENSIFER FED 36N-30HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	MILLENSIFER FED 36N-30HZ PWB
Facility	SEC.30-T3N-R66W		

HOLE & CASING SECTIONS - Ref Wellbore: MILLENSIFER FED 36N-30HZ PWB Ref Wellpath: MILLENSIFER FED 36N-30HZ (PERMIT) PWP

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	700.00	684.00	16.00	700.00	0.00	0.00	0.00	0.00
9.625in Casing Surface	16.00	700.00	684.00	16.00	700.00	0.00	0.00	0.00	0.00
8.75in Open Hole	700.00	7420.64	6720.64	700.00	7078.00	0.00	0.00	-147.37	20.45
7in Casing Intermediate	16.00	7420.64	7404.64	16.00	7078.00	0.00	0.00	-147.37	20.45
6.125in Open Hole	7420.64	11657.63	4236.99	7078.00	7088.00	-147.37	20.45	-4384.34	13.66
4.5in Casing Production	16.00	11657.63	11641.63	16.00	7088.00	0.00	0.00	-4384.34	13.66

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		0.00	0.00	0.00	3190457.53	1317021.21	40°12'05.796"N	104°49'05.322"W	polygon
1) MILLENSIFER FED 36N-30HZ BHL ON PLAT (460'FSL & 2084'FEL, SEC.30) REV-1	11657.63	7088.00	-4384.34	13.66	3190504.89	1312637.30	40°11'22.470"N	104°49'05.146"W	point
MILLENSIFER FED 4 PAD HARDLINES (460'SETBACKS)		7300.00	0.00	0.00	3190457.53	1317021.21	40°12'05.796"N	104°49'05.322"W	polygon

SURVEY PROGRAM - Ref Wellbore: MILLENSIFER FED 36N-30HZ PWB Ref Wellpath: MILLENSIFER FED 36N-30HZ (PERMIT) PWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
16.00	7420.64	NaviTrak (Standard)		MILLENSIFER FED 36N-30HZ PWB
7420.64	11657.63	OnTrak (Standard)		MILLENSIFER FED 36N-30HZ PWB



Planned Wellpath Report
MILLENSIFER FED 36N-30HZ (PERMIT) PWP
Page 6 of 6



REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#01 MILLENSIFER FED 36N-30HZ (471'FNL & 2099'FEL, SEC.30)
Area	COLORADO	Well	MILLENSIFER FED 36N-30HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	MILLENSIFER FED 36N-30HZ PWB
Facility	SEC.30-T3N-R66W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
706.00	0.000	2.600	706.00	FOX HILLS
3344.77	4.610	2.600	3338.00	PARKMAN
4251.70	4.610	2.600	4242.00	SUSSEX
7049.29	52.730	179.938	6961.00	SHARON SPRINGS
7168.88	64.689	179.997	7023.00	NIOBRARA A
7282.05	76.006	180.042	7061.00	NIOBRARA B