Harvard Forest Data Archive HF108-02

Data File:

Name = hf108-02-air-soil-temp-2004-2011-filt.csv
Description = filtered air and soil temperature, 2004-2011
Rows = 61395 Columns = 93
MD5 checksum = 0d0dbe7257e4013d346d7d1d360502e2

Variables:

datetime = date and time (EST)
year = year
month = month (number)
week = week (nominalWeek)
ym = year and month. This column is useful for plotting the data.
   (number)
yw = year and week. This column is useful for plotting the data.
   (number)
doy = day of year (nominalDay)
hour = hour in 24-hour format (EST) (number)
daytime = a composite of day (integer) + time (in 1/24ths). The
   value for the initial measurement year is the actual julian day + hours
   (in 1/24ths); subsequent years add 365 to day (for 2005), etc. This
   column is useful for plotting the data. (nominalDay)
meanair1 = the mean hourly air temperature (degrees C; N = 60) in
   plot 1 (celsius)
meanair2 = the mean hourly air temperature (degrees C; N = 60) in
   plot 2 (celsius)
meanair3 = the mean hourly air temperature (degrees C; N = 60) in
   plot 3 (celsius)
meanair4 = the mean hourly air temperature (degrees C; N = 60) in
   plot 4 (celsius)
meanair5 = the mean hourly air temperature (degrees C; N = 60) in
   plot 5 (celsius)
meanair6 = the mean hourly air temperature (degrees C; N = 60) in
   plot 6 (celsius)
meanair7 = the mean hourly air temperature (degrees C; N = 60) in
   plot 7 (celsius)
meanair8 = the mean hourly air temperature (degrees C; N = 60) in
   plot 8 (celsius)
meanmineralsoil1 = the mean hourly soil temperature in the mineral
   layer (degrees C; N = 60) in plot 1 (celsius)
meanmineralsoil2 = the mean hourly soil temperature in the mineral
   layer (degrees C; N = 60) in plot 2 (celsius)
meanmineralsoil3 = the mean hourly soil temperature in the mineral
   layer (degrees C; N = 60) in plot 3 (celsius)
meanmineralsoil4 = the mean hourly soil temperature in the mineral
   layer (degrees C; N = 60) in plot 4 (celsius)
meanmineralsoil5 = the mean hourly soil temperature in the mineral
   layer (degrees C; N = 60) in plot 5 (celsius)

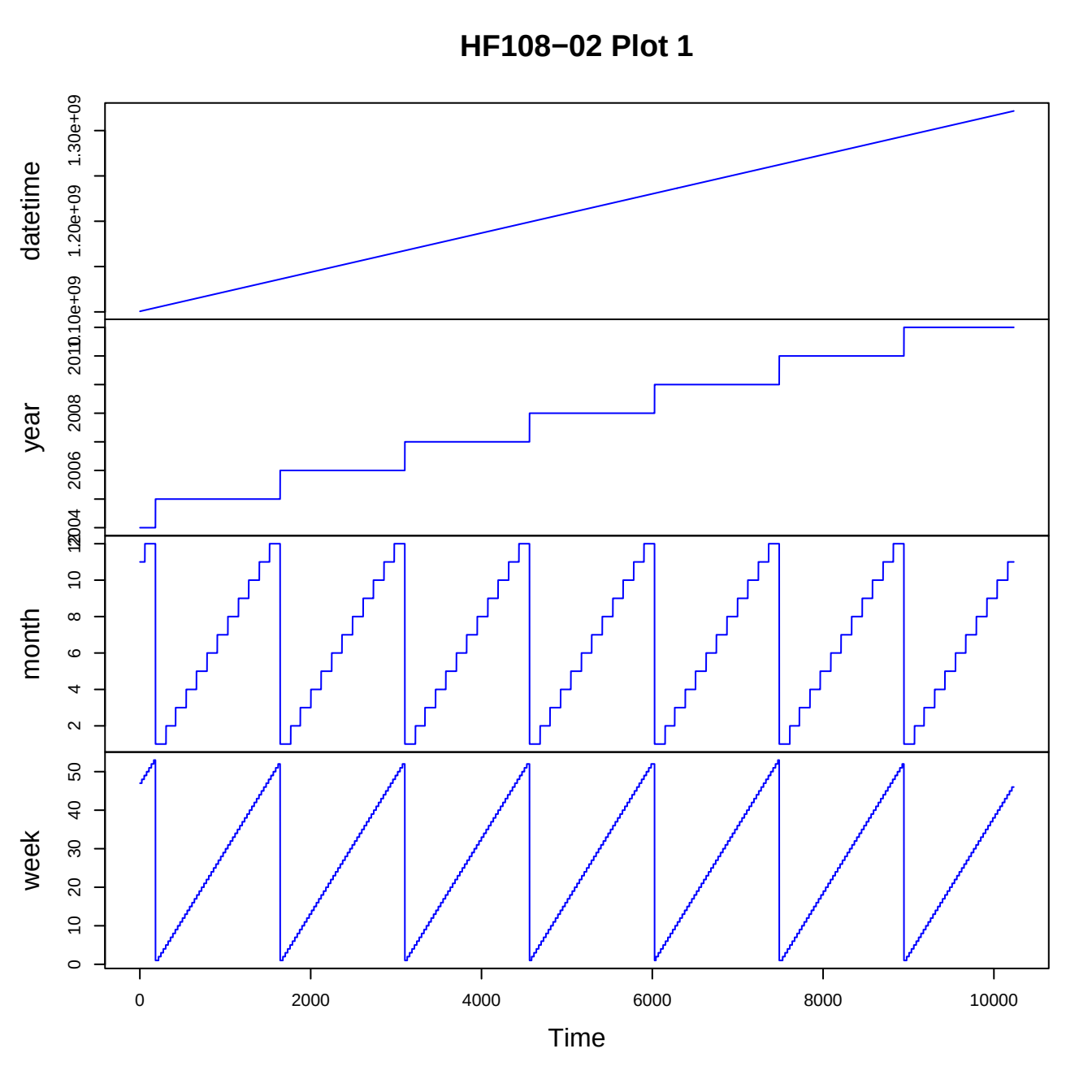
meanmineralsoil6 = the mean hourly soil temperature in the mineral layer (degrees C; N = 60) in plot 6 (celsius)
meanmineralsoil7 = the mean hourly soil temperature in the mineral layer (degrees C; N = 60) in plot 7 (celsius)
meanmineralsoil8 = the mean hourly soil temperature in the mineral layer (degrees C; N = 60) in plot 8 (celsius)
meanorgsoil1 = the mean hourly soil temperature in the organic layer (degrees C; N = 60) in plot 1 (celsius)
meanorgsoil2 = the mean hourly soil temperature in the organic layer (degrees C; N = 60) in plot 2 (celsius)
meanorgsoil3 = the mean hourly soil temperature in the organic layer (degrees C; N = 60) in plot 3 (celsius)
meanorgsoil4 = the mean hourly soil temperature in the organic layer (degrees C; N = 60) in plot 4 (celsius)
meanorgsoil5 = the mean hourly soil temperature in the organic layer (degrees C; N = 60) in plot 5 (celsius)
meanorgsoil6 = the mean hourly soil temperature in the organic layer (degrees C; N = 60) in plot 6 (celsius)
meanorgsoil7 = the mean hourly soil temperature in the organic layer (degrees C; N = 60) in plot 7 (celsius)
meanorgsoil8 = the mean hourly soil temperature in the organic layer (degrees C; N = 60) in plot 8 (celsius)
meanref = the average internal panel temperature (degrees C) of datalogger 1 for Plots 1–3 (celsius)
meanref2 = the average internal panel temperature (degrees C) of datalogger 2 for Plots 4–6 (celsius)
meanref7 = the average internal panel temperature (degrees C) of the datalogger for Plot 7 (celsius)
meanref8 = the average internal panel temperature (degrees C) of the datalogger for Plot 8 (celsius)
minair1 = the minimum hourly air temperature (degrees C; N = 60) in plot 1 (celsius)
minair2 = the minimum hourly air temperature (degrees C; N = 60) in plot 2 (celsius)
minair3 = the minimum hourly air temperature (degrees C; N = 60) in plot 3 (celsius)
minair4 = the minimum hourly air temperature (degrees C; N = 60) in plot 4 (celsius)
minair5 = the minimum hourly air temperature (degrees C; N = 60) in plot 5 (celsius)
minair6 = the minimum hourly air temperature (degrees C; N = 60) in plot 6 (celsius)
minair7 = the minimum hourly air temperature (degrees C; N = 60) in plot 7 (celsius)
minair8 = the minimum hourly air temperature (degrees C; N = 60) in plot 8 (celsius)
minmineralsoil1 = the minimum hourly soil temperature in the mineral layer (degrees C; N = 60) in plot 1 (celsius)
minmineralsoil2 = the minimum hourly soil temperature in the mineral layer (degrees C; N = 60) in plot 2 (celsius)
minmineralsoil3 = the minimum hourly soil temperature in the mineral layer (degrees C; N = 60) in plot 3 (celsius)

minmineralsoil4 = the minimum hourly soil temperature in the mineral layer (degrees C; N = 60) in plot 4 (celsius)
minmineralsoil5 = the minimum hourly soil temperature in the mineral layer (degrees C; N = 60) in plot 5 (celsius)
minmineralsoil6 = the minimum hourly soil temperature in the mineral layer (degrees C; N = 60) in plot 6 (celsius)
minmineralsoil7 = the minimum hourly soil temperature in the mineral layer (degrees C; N = 60) in plot 7 (celsius)
minmineralsoil8 = the minimum hourly soil temperature in the mineral layer (degrees C; N = 60) in plot 8 (celsius)
minorgsoil1 = the minimum hourly soil temperature in the organic layer (degrees C; N = 60) in plot 1 (celsius)
minorgsoil2 = the minimum hourly soil temperature in the organic layer (degrees C; N = 60) in plot 2 (celsius)
minorgsoil3 = the minimum hourly soil temperature in the organic layer (degrees C; N = 60) in plot 3 (celsius)
minorgsoil4 = the minimum hourly soil temperature in the organic layer (degrees C; N = 60) in plot 4 (celsius)
minorgsoil5 = the minimum hourly soil temperature in the organic layer (degrees C; N = 60) in plot 5 (celsius)
minorgsoil6 = the minimum hourly soil temperature in the organic layer (degrees C; N = 60) in plot 6 (celsius)
minorgsoil7 = the minimum hourly soil temperature in the organic layer (degrees C; N = 60) in plot 7 (celsius)
minorgsoil8 = the minimum hourly soil temperature in the organic layer (degrees C; N = 60) in plot 8 (celsius)
minref = the minimum internal temperature (degrees C) of datalogger 1 for Plots 1–3 (celsius)
minref2 = the minimum internal temperature (degrees C) of datalogger 2 for Plots 4–6 (celsius)
minref7 = the minimum internal temperature (degrees C) of the datalogger for Plot 7 (celsius)
minref8 = the minimum internal temperature (degrees C) of the datalogger for Plot 8 (celsius)
maxair1 = the maximum hourly air temperature (degrees C; N = 60) in plot 1 (celsius)
maxair2 = the maximum hourly air temperature (degrees C; N = 60) in plot 2 (celsius)
maxair3 = the maximum hourly air temperature (degrees C; N = 60) in plot 3 (celsius)
maxair4 = the maximum hourly air temperature (degrees C; N = 60) in plot 4 (celsius)
maxair5 = the maximum hourly air temperature (degrees C; N = 60) in plot 5 (celsius)
maxair6 = the maximum hourly air temperature (degrees C; N = 60) in plot 6 (celsius)
maxair7 = the maximum hourly air temperature (degrees C; N = 60) in plot 7 (celsius)
maxair8 = the maximum hourly air temperature (degrees C; N = 60) in plot 8 (celsius)
maxmineralsoil1 = the maximum hourly soil temperature in the mineral layer (degrees C; N = 60) in plot 1 (celsius)

maxmineralsoil2 = the maximum hourly soil temperature in the mineral layer (degrees C; N = 60) in plot 2 (celsius)
maxmineralsoil3 = the maximum hourly soil temperature in the mineral layer (degrees C; N = 60) in plot 3 (celsius)
maxmineralsoil4 = the maximum hourly soil temperature in the mineral layer (degrees C; N = 60) in plot 4 (celsius)
maxmineralsoil5 = the maximum hourly soil temperature in the mineral layer (degrees C; N = 60) in plot 5 (celsius)
maxmineralsoil6 = the maximum hourly soil temperature in the mineral layer (degrees C; N = 60) in plot 6 (celsius)
maxmineralsoil7 = the maximum hourly soil temperature in the mineral layer (degrees C; N = 60) in plot 7 (celsius)
maxmineralsoil8 = the maximum hourly soil temperature in the mineral layer (degrees C; N = 60) in plot 8 (celsius)
maxorgsoil1 = the maximum hourly soil temperature in the organic layer (degrees C; N = 60) in plot 1 (celsius)
maxorgsoil2 = the maximum hourly soil temperature in the organic layer (degrees C; N = 60) in plot 2 (celsius)
maxorgsoil3 = the maximum hourly soil temperature in the organic layer (degrees C; N = 60) in plot 3 (celsius)
maxorgsoil4 = the maximum hourly soil temperature in the organic layer (degrees C; N = 60) in plot 4 (celsius)
maxorgsoil5 = the maximum hourly soil temperature in the organic layer (degrees C; N = 60) in plot 5 (celsius)
maxorgsoil6 = the maximum hourly soil temperature in the organic layer (degrees C; N = 60) in plot 6 (celsius)
maxorgsoil7 = the maximum hourly soil temperature in the organic layer (degrees C; N = 60) in plot 7 (celsius)
maxorgsoil8 = the maximum hourly soil temperature in the organic layer (degrees C; N = 60) in plot 8 (celsius)
maxref = the maximum internal temperature (degrees C) of datalogger 1 for Plots 1–3 (celsius)
maxref2 = the maximum internal temperature (degrees C) of datalogger 2 for Plots 4–6 (celsius)
maxref7 = the maximum internal temperature (degrees C) of the datalogger for Plot 7 (celsius)
maxref8 = the maximum internal temperature (degrees C) of the datalogger for Plot 8 (celsius)

Variable	Min	Median	Mean	Max	NAs
datetime	2004-11-16T13:00			2011-11-18T15:00	0
year	2004.000	2008.000	2007.878	2011.000	0
month	1.000	7.000	6.528	12.000	0
week	1.000	27.000	26.551	53.000	0
ym	200411.000	200805.000	200794.327	201111.000	0
yw	200447.000	200820.000	200814.349	201146.000	0
doy	1.000	183.000	183.209	366.000	0
hour	100.000	1300.000	1250.007	2400.000	0
daytime	321.540	1600.580	1600.714	2880.620	0
meanair1	−27.330	8.520	8.131	42.550	1797
meanair2	−29.550	8.430	8.158	39.600	2843
meanair3	−26.880	8.420	7.757	33.240	1846
meanair4	−25.990	8.490	8.414	44.500	3603
meanair5	−26.350	8.600	8.243	40.930	2551
meanair6	−25.280	8.280	7.774	33.330	3005
meanair7	−26.620	9.965	8.685	32.370	32597
meanair8	−26.740	9.510	8.332	34.590	32834
meanminerals	−2.530	8.670	8.978	26.420	2925
meanminerals	−5.870	9.510	9.309	27.470	1843
meanminerals	−2.330	8.365	8.477	22.100	3337
meanminerals	−3.490	9.850	9.615	24.170	6021
meanminerals	−1.470	8.810	8.825	22.720	5998
meanminerals	−1.160	8.350	8.336	21.910	4561
meanminerals	−1.750	10.220	9.832	21.440	32596
meanminerals	−2.720	9.560	9.148	21.680	32835
meanorgsoil1	−2.530	9.580	9.439	30.810	32105
meanorgsoil2	−3.125	9.290	9.371	44.530	33351
meanorgsoil3	−3.070	7.960	7.831	27.030	32148
meanorgsoil4	−0.520	10.100	9.556	22.910	32168
meanorgsoil5	−1.460	10.150	9.545	24.800	32139
meanorgsoil6	−1.450	9.080	8.750	20.850	32174
meanorgsoil7	−1.960	10.120	9.674	21.820	32596
meanorgsoil8	−3.310	9.560	9.076	25.270	32840
meanref	−54.140	9.110	8.806	42.900	1756
meanref2	−26.930	8.610	8.245	39.590	2168
meanref7	−13.480	10.420	9.283	32.200	32596
meanref8	−17.090	10.090	8.946	35.320	32832
minair1	−27.600	7.920	7.520	39.870	1796
minair2	−30.060	7.690	7.343	37.940	2842
minair3	−27.230	7.920	7.290	32.170	1846
minair4	−26.610	7.700	7.530	40.400	3603
minair5	−26.580	7.990	7.660	37.880	2551
minair6	−26.060	7.760	7.281	32.520	3005
minair7	−26.970	9.465	8.196	31.500	32597
minair8	−27.230	8.850	7.757	32.370	32834
minmineralso	−2.160	9.600	9.262	25.760	32095
minmineralso	−6.220	9.400	9.220	27.330	1842
minmineralso	−2.350	8.290	8.400	21.780	3337
minmineralso	−3.650	9.590	9.343	24.090	6021

Variable	Min	Median	Mean	Max	NAs
minmineralso	−1.740	8.720	8.756	22.540	5998
minmineralso	−1.800	8.020	7.994	20.940	4561
minmineralso	−2.540	10.090	9.729	21.230	32596
minmineralso	−3.480	9.445	9.059	21.480	32835
minorgsoil1	−2.590	9.180	9.077	28.410	32105
minorgsoil2	−3.578	9.060	9.157	40.430	33351
minorgsoil3	−5.060	7.510	7.434	26.200	32148
minorgsoil4	−1.870	9.350	8.812	21.950	32168
minorgsoil5	−1.490	9.970	9.406	24.490	32139
minorgsoil6	−6.300	8.550	8.221	20.500	32174
minorgsoil7	−2.760	9.990	9.573	21.630	32596
minorgsoil8	−3.630	9.340	8.927	25.270	32840
minref	−54.140	8.880	8.459	41.590	1755
minref2	−27.070	8.270	7.937	38.480	2176
minref7	−13.500	10.100	9.041	32.000	32596
minref8	−17.170	9.710	8.627	34.990	32832
maxair1	−27.100	9.160	8.814	45.060	1796
maxair2	−29.100	9.340	9.116	41.580	2842
maxair3	−26.300	8.950	8.271	34.440	1846
maxair4	−25.410	9.360	9.443	50.070	3603
maxair5	−26.060	9.200	8.889	43.940	2551
maxair6	−24.640	8.860	8.294	33.930	3005
maxair7	−25.790	10.540	9.240	36.210	32597
maxair8	−26.240	10.180	8.980	36.560	32834
maxmineralso	−2.520	8.810	9.138	43.030	2922
maxmineralso	−5.610	9.630	9.399	27.710	1842
maxmineralso	−2.320	8.450	8.557	23.310	3337
maxmineralso	−3.350	10.120	9.889	25.450	6021
maxmineralso	−1.360	8.890	8.893	22.800	5998
maxmineralso	−1.060	8.670	8.677	24.100	4561
maxmineralso	−1.450	10.340	9.932	21.520	32596
maxmineralso	−2.550	9.660	9.237	21.790	32835
maxorgsoil1	−2.450	9.965	9.816	32.370	32105
maxorgsoil2	−2.651	9.560	9.607	48.490	33351
maxorgsoil3	−2.930	8.370	8.233	28.050	32148
maxorgsoil4	−0.260	10.840	10.308	26.720	32168
maxorgsoil5	−1.410	10.330	9.685	25.000	32139
maxorgsoil6	−1.270	9.640	9.280	25.200	32174
maxorgsoil7	−1.520	10.240	9.772	21.920	32596
maxorgsoil8	−3.060	9.780	9.225	25.600	32840
maxref	−54.140	9.500	9.182	43.740	1755
maxref2	−26.510	8.960	8.565	120.100	2173
maxref7	−13.410	10.710	9.525	32.310	32596
maxref8	−16.950	10.470	9.266	35.420	32832


HF108−02 Plot 1
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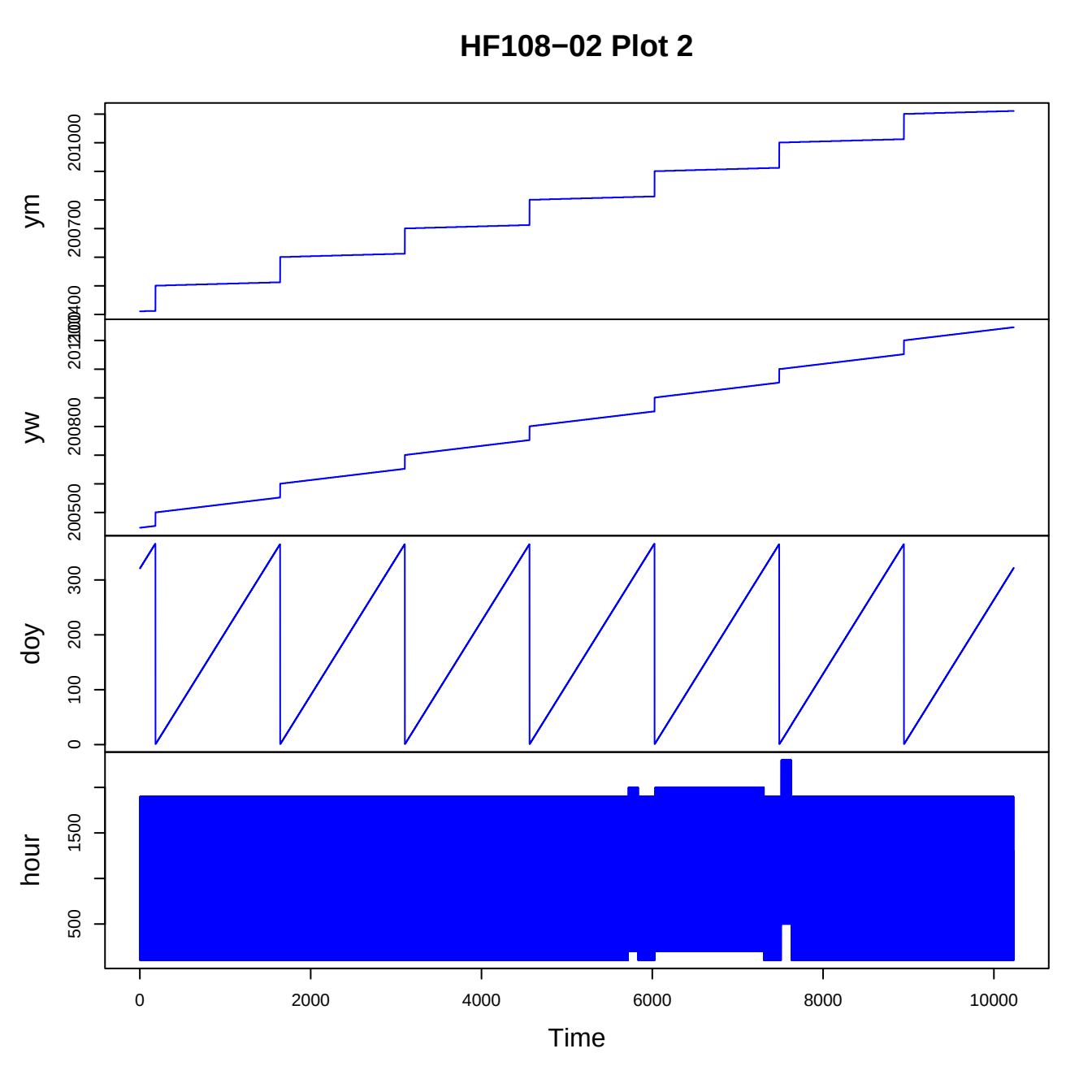
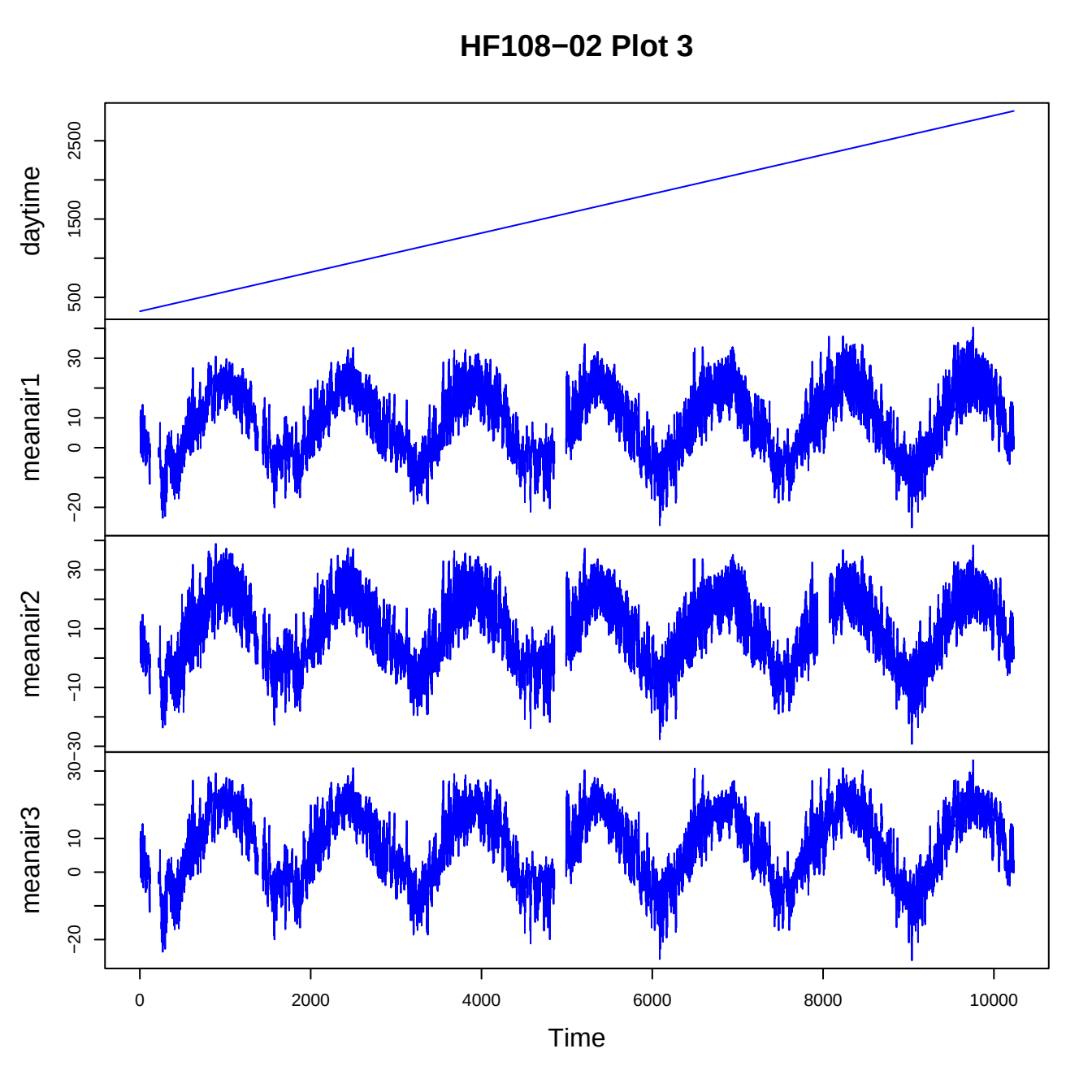
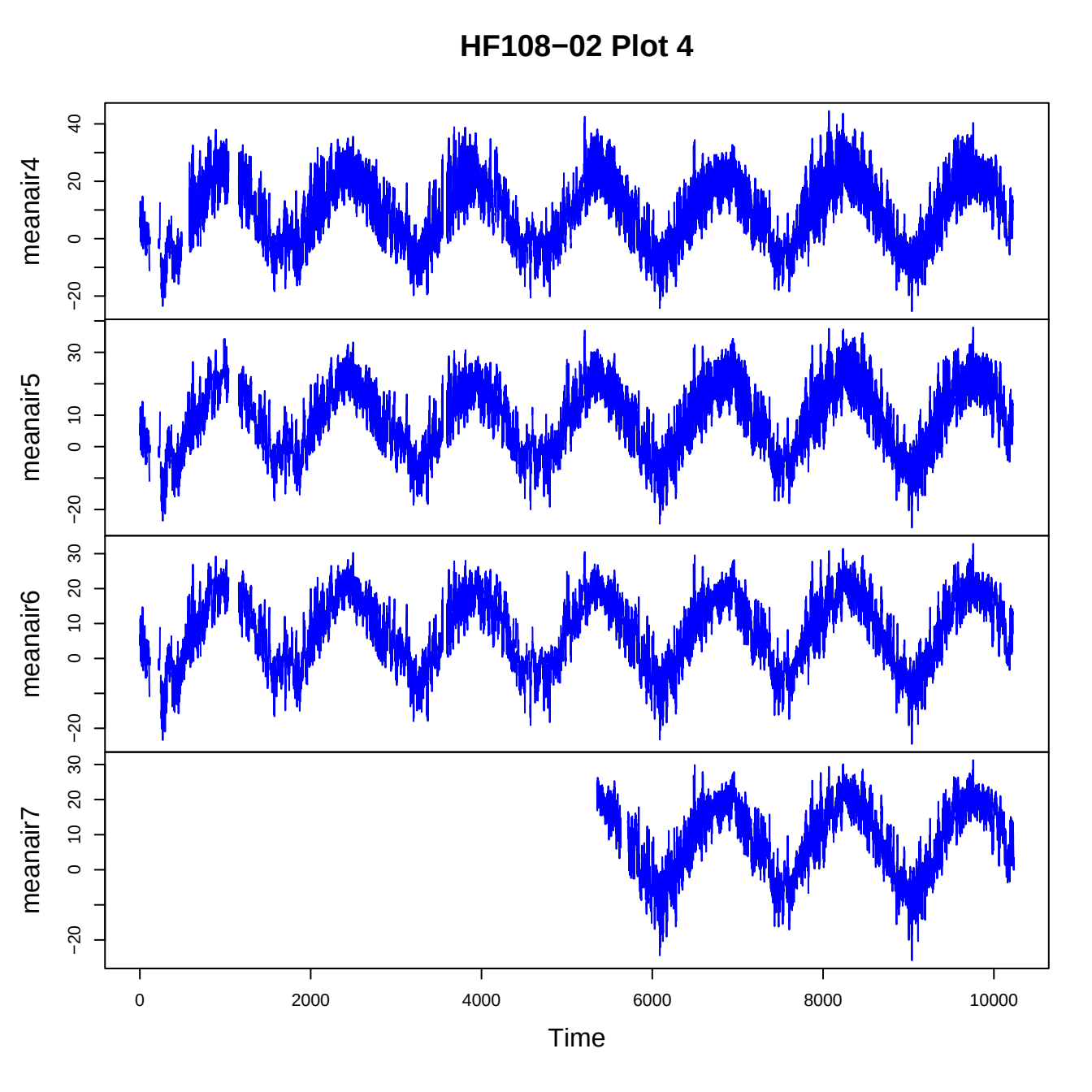
1.20e+09
1.30e+09
year
2004
2006
2008
2010
month
2
4
6
8
10
12
week
0
10
20
30
40
50
0
2000
4000
6000
8000
10000
Time


HF108−02 Plot 2
ym
201000
200700
200400
yw
200800
200500
doy
0
100
200
300
hour
1500
500
0
2000
4000
6000
8000
10000
Time


HF108−02 Plot 3
daytime
meanair1
meanair2
meanair3
500
1500
2500
−20
0
10
30
−30
−10
0
2000
4000
6000
8000
10000
Time


HF108−02 Plot 4
meanair4
meanair5
meanair6
meanair7
40
20
0
−20
30
10
0
−20
30
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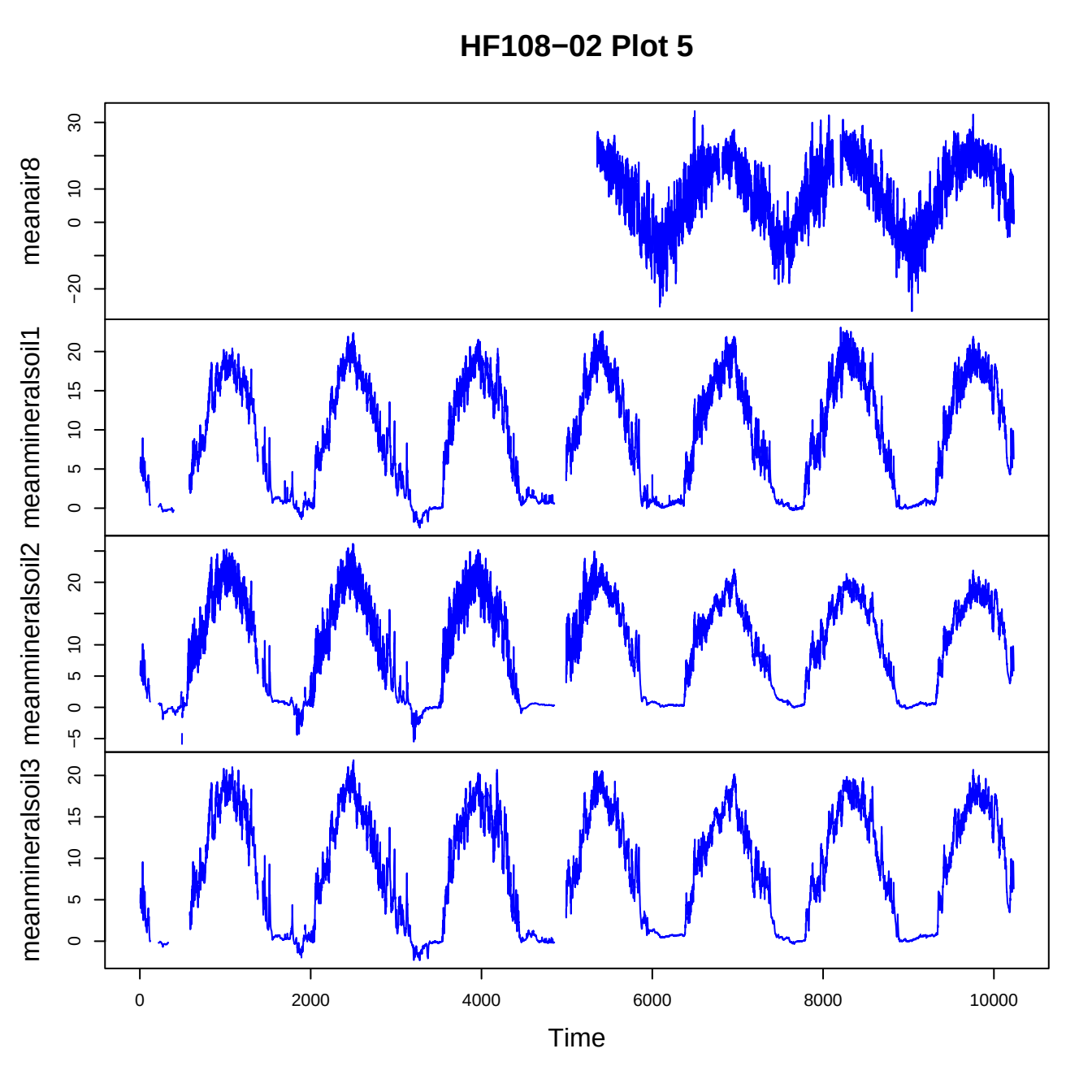
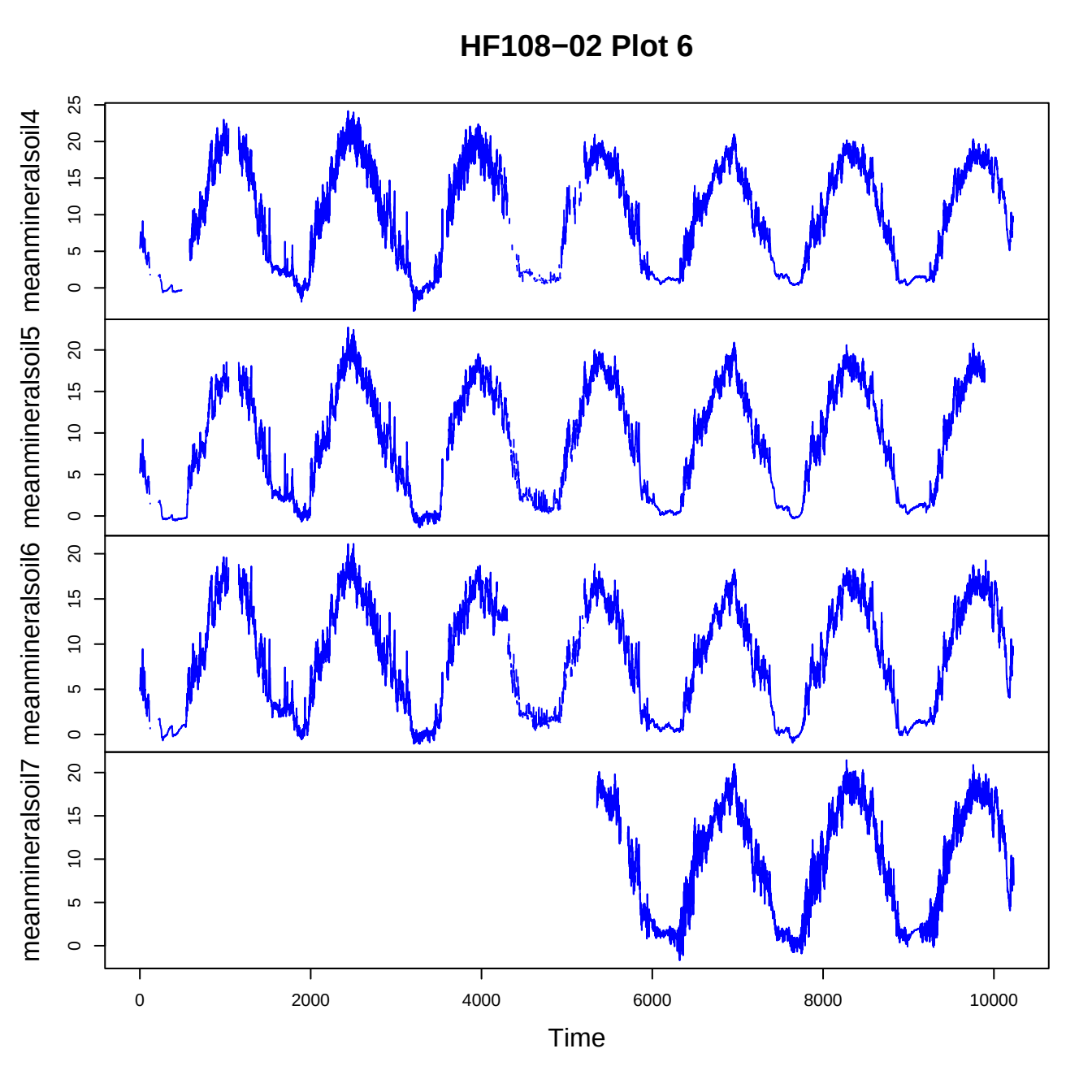
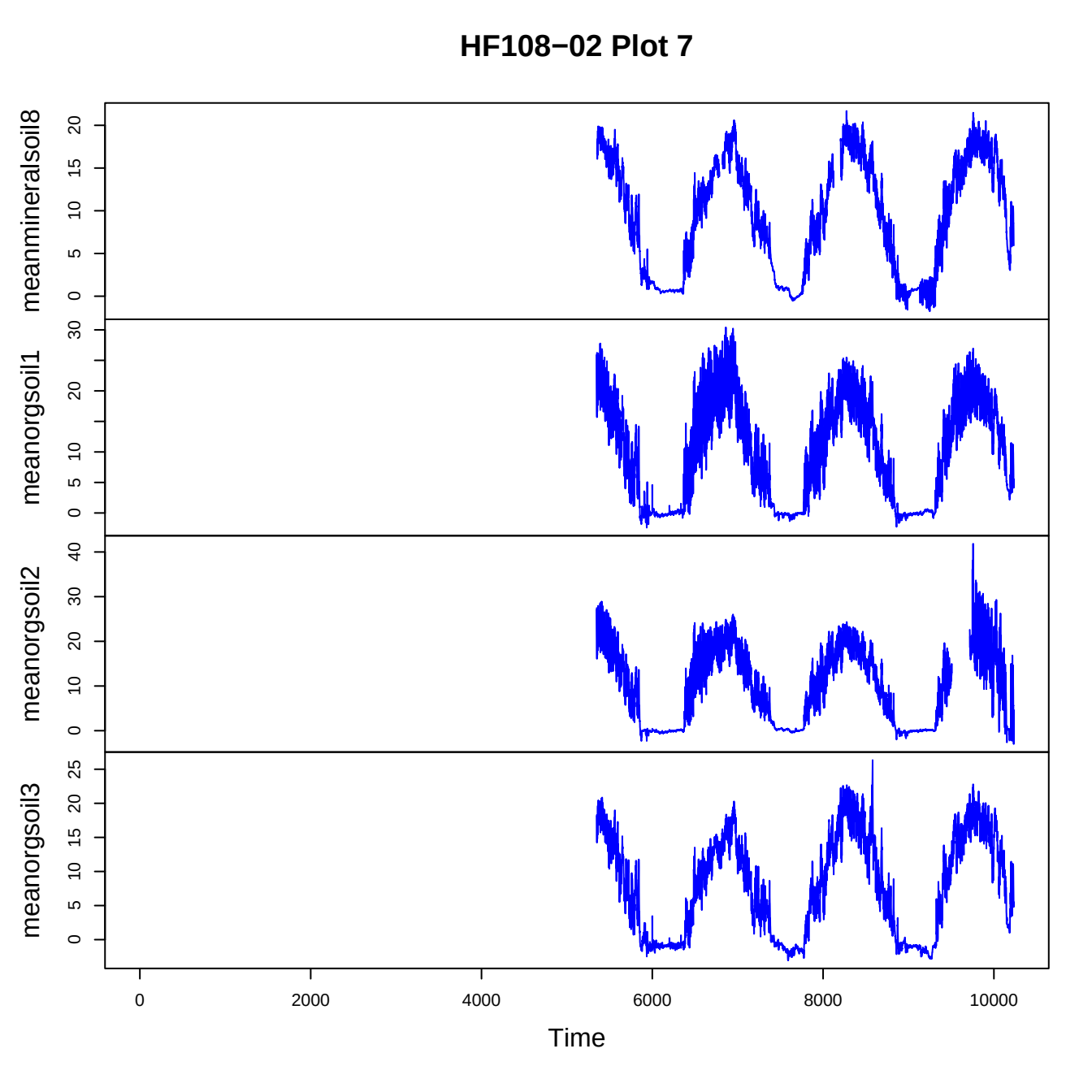
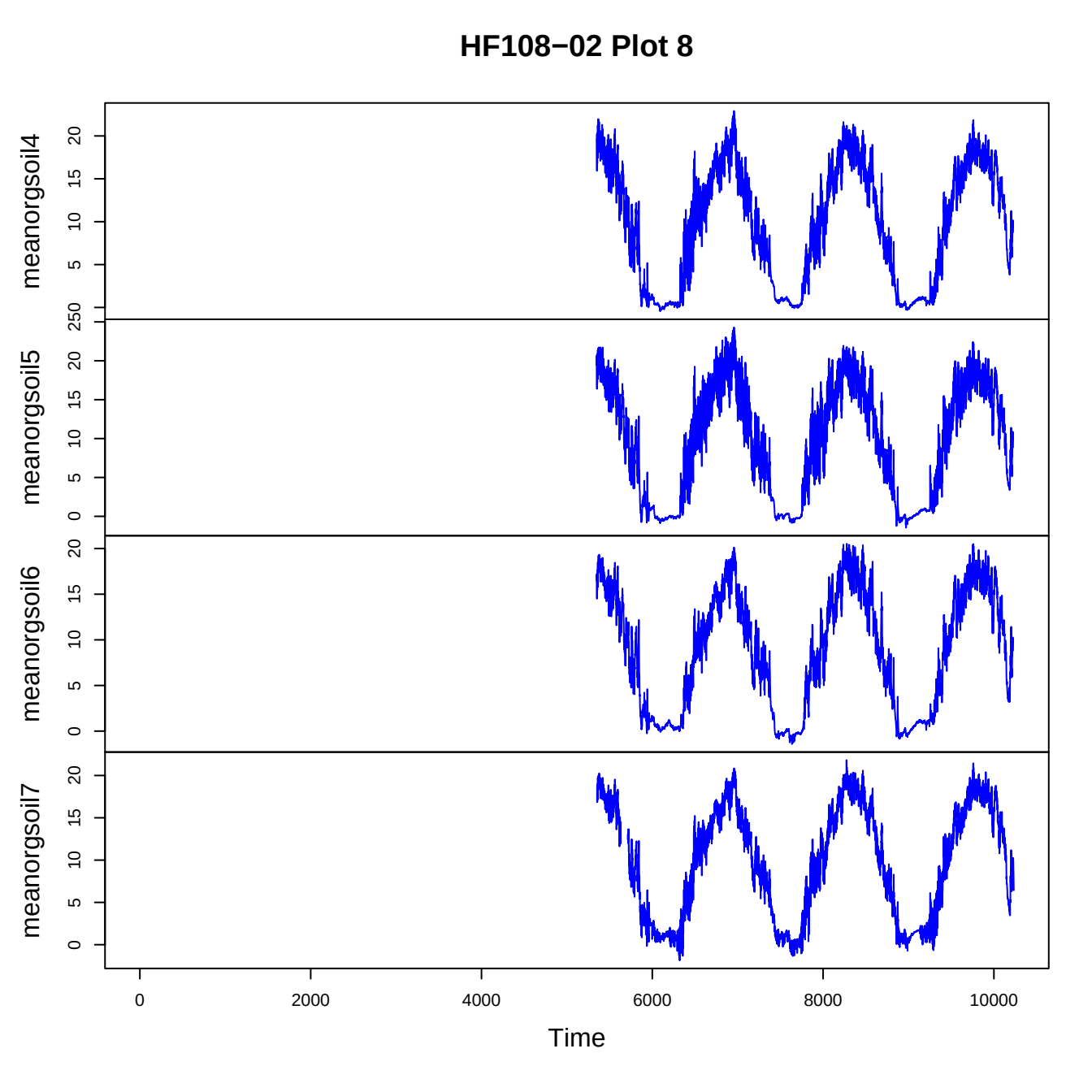
2000
4000
6000
8000
10000
Time


HF108−02 Plot 5
meanair8
meanmineralsoil1
meanmineralsoil2
meanmineralsoil3
Time
0
2000
4000
6000
8000
10000


HF108−02 Plot 6
meanmineralsoil4
meanmineralsoil5
meanmineralsoil6
meanmineralsoil7
0
5
10
15
20
25
0
2000
4000
6000
8000
10000
Time


HF108−02 Plot 7
meanmineralsoil8
meanorgsoil1
meanorgsoil2
meanorgsoil3
0
5
10
15
20
25
30
40
0
2000
4000
6000
8000
10000
Time


HF108−02 Plot 8
meanorgsoil4
meanorgsoil5
meanorgsoil6
meanorgsoil7
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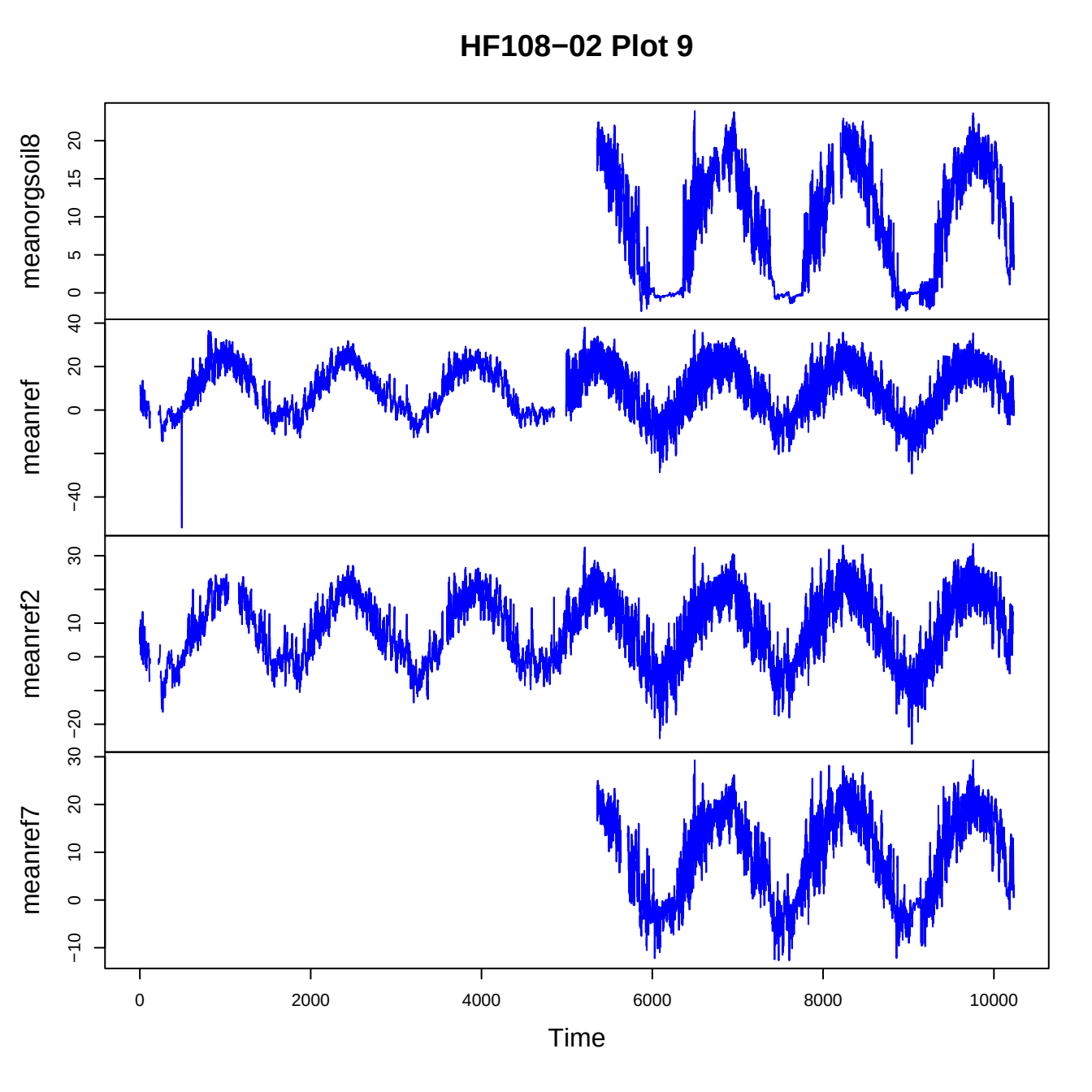
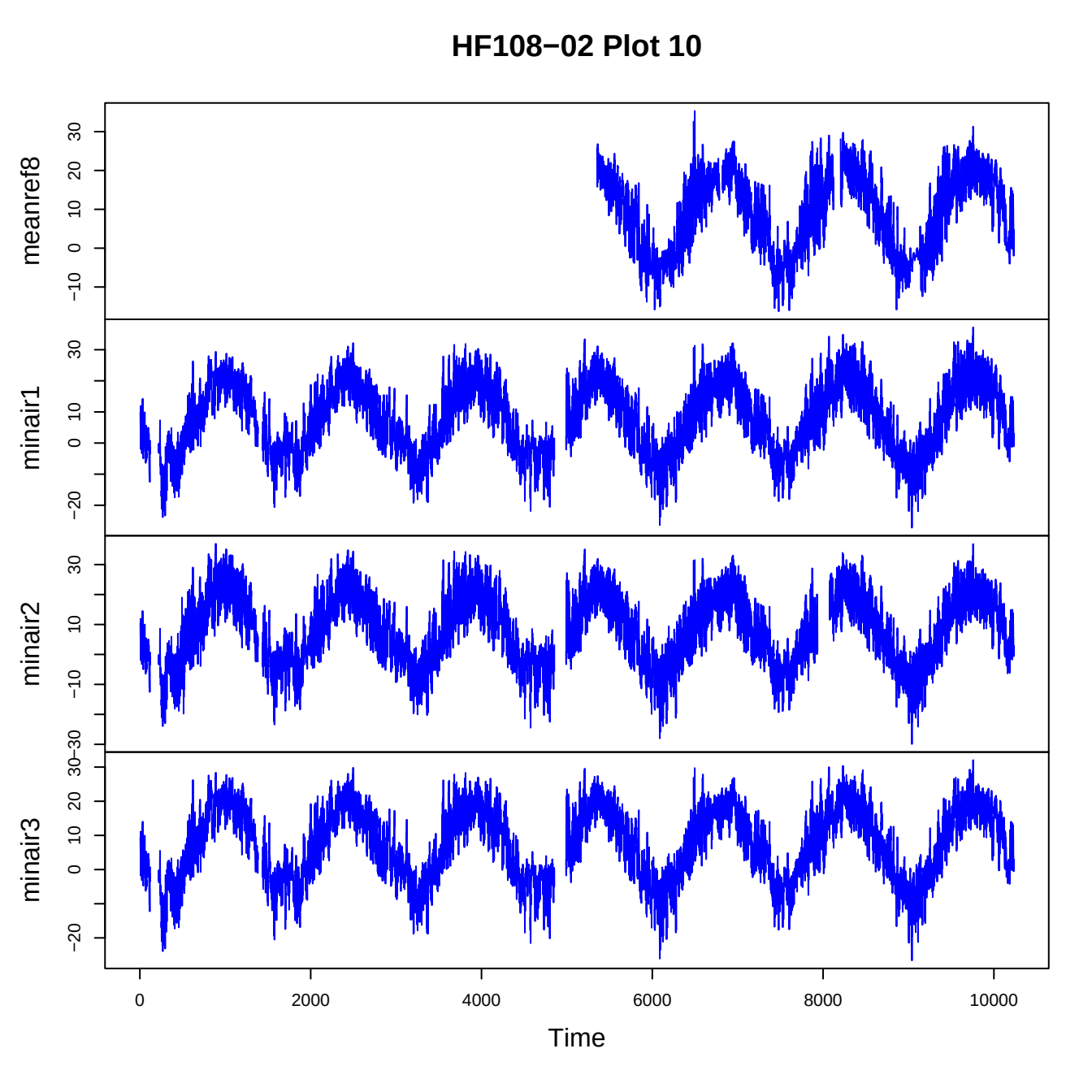
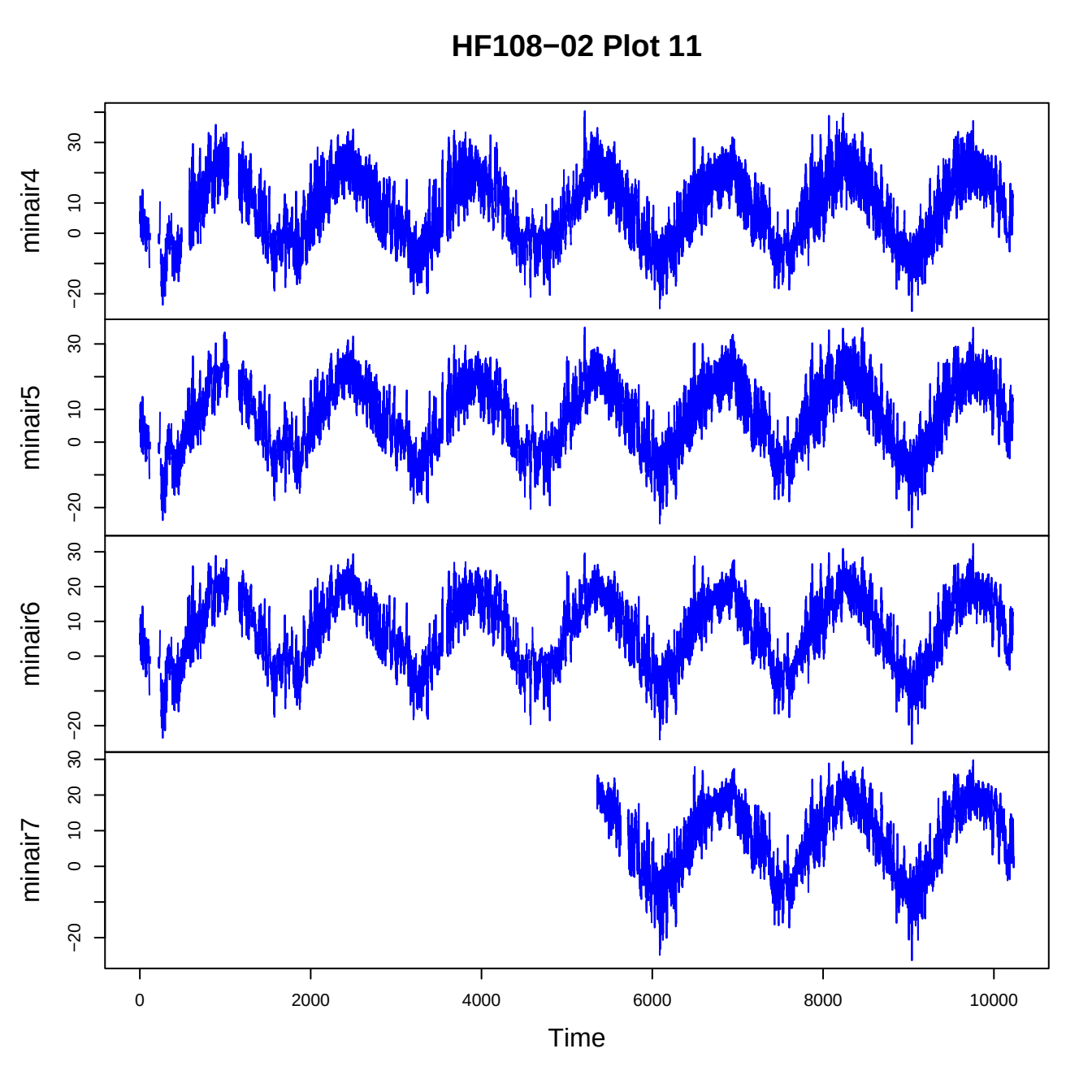
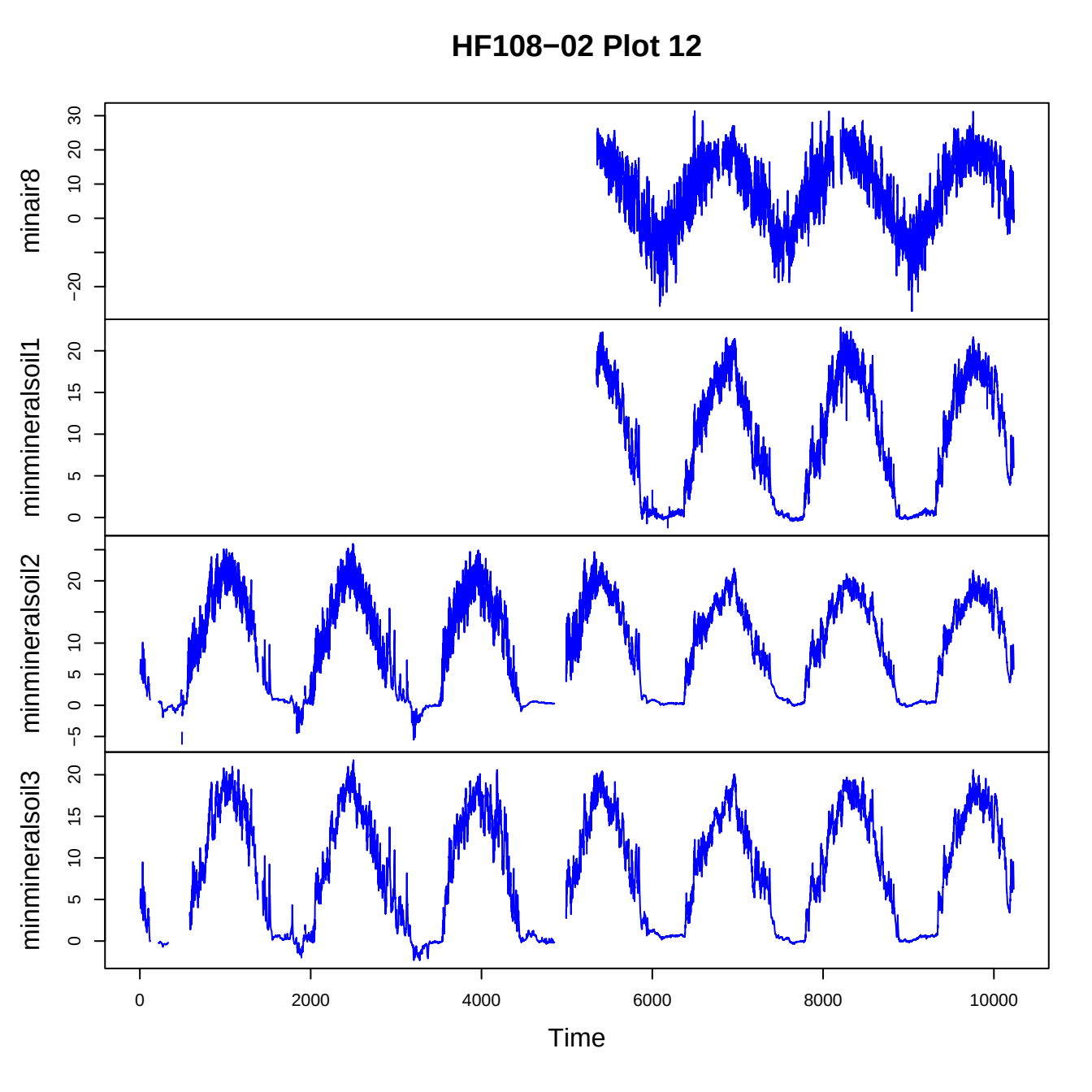
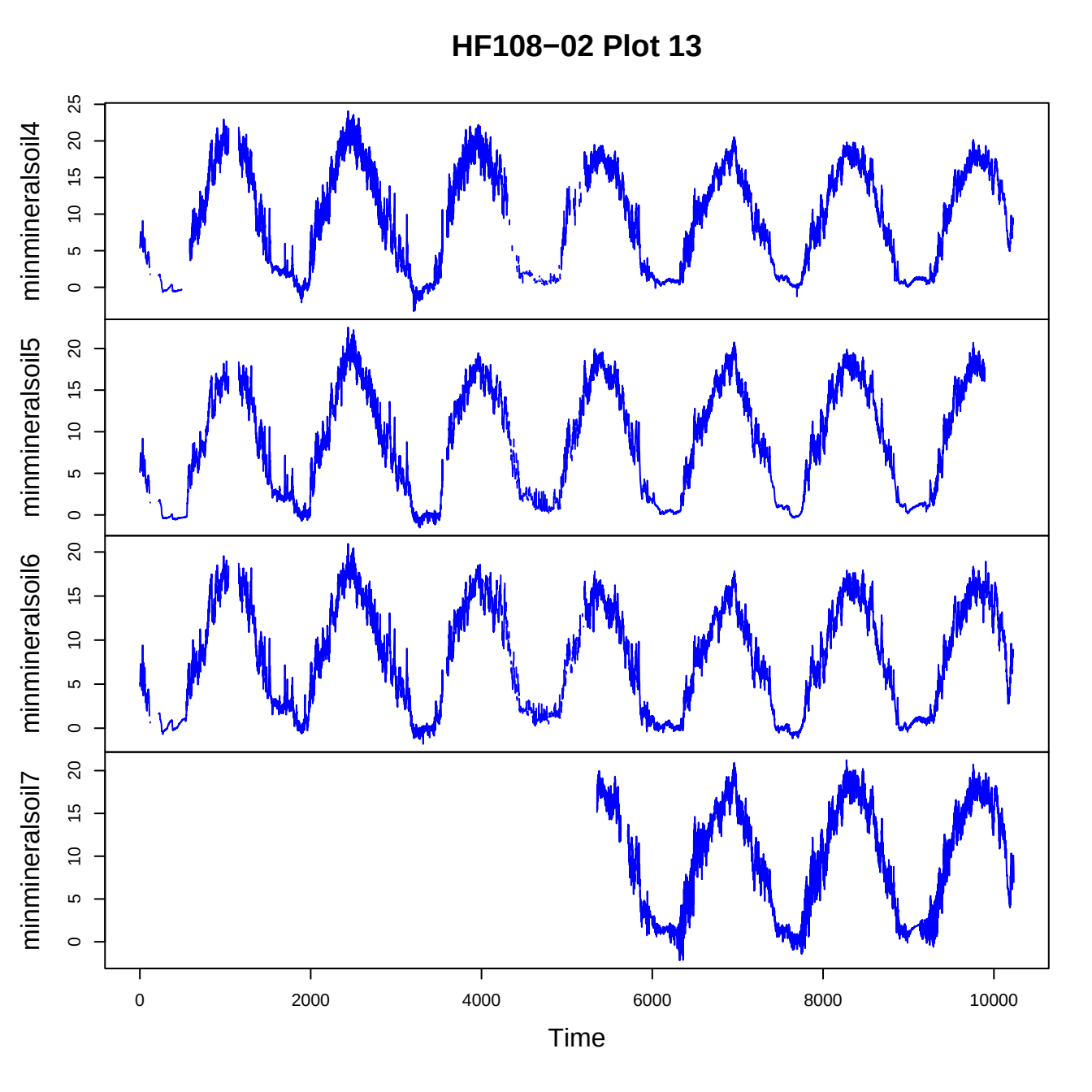
5
10
15
20
250
0
2000
4000
6000
8000
10000
Time

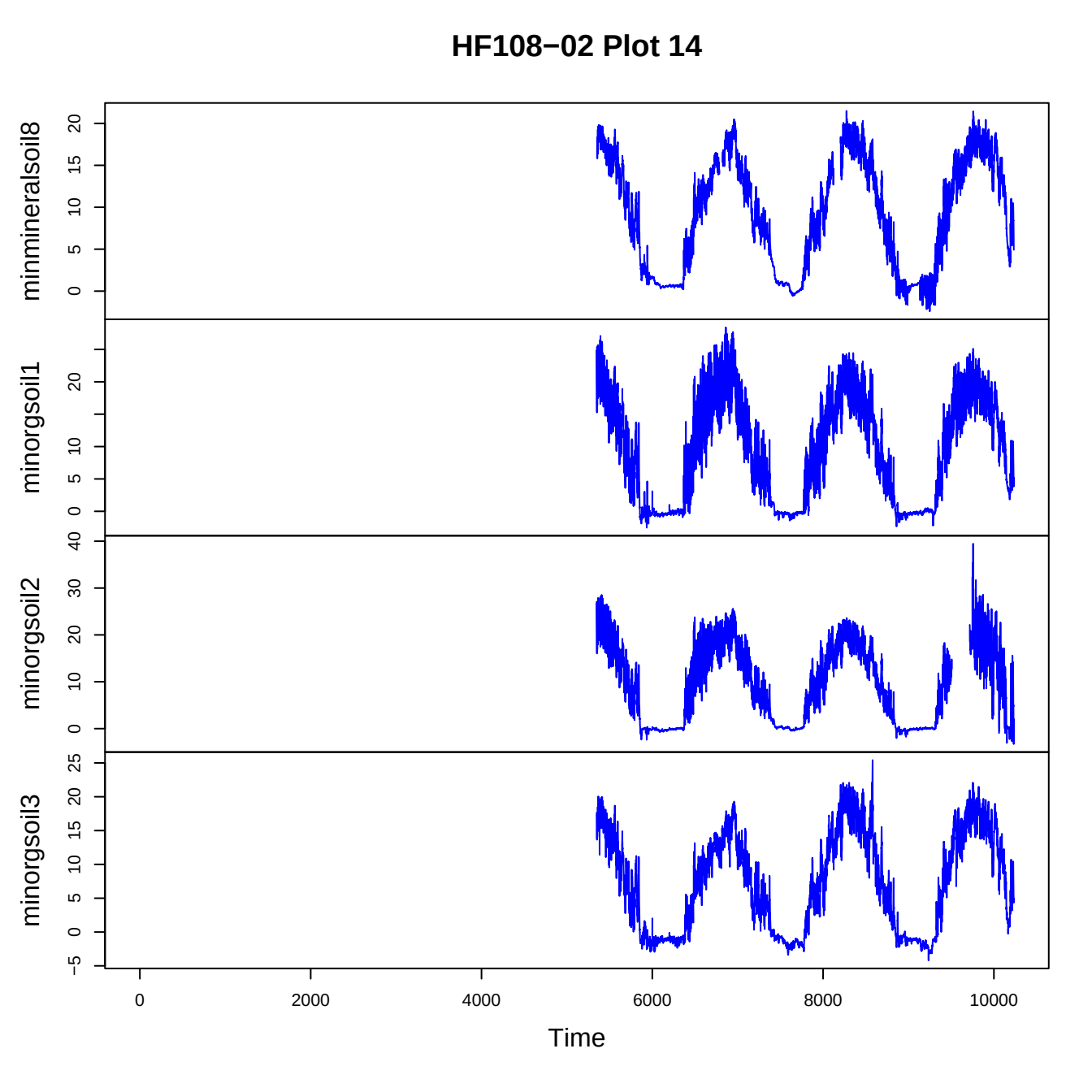

HF108−02 Plot 9
meanorgsoil8
meanref
meanref2
meanref7
Time
0
2000
4000
6000
8000
10000

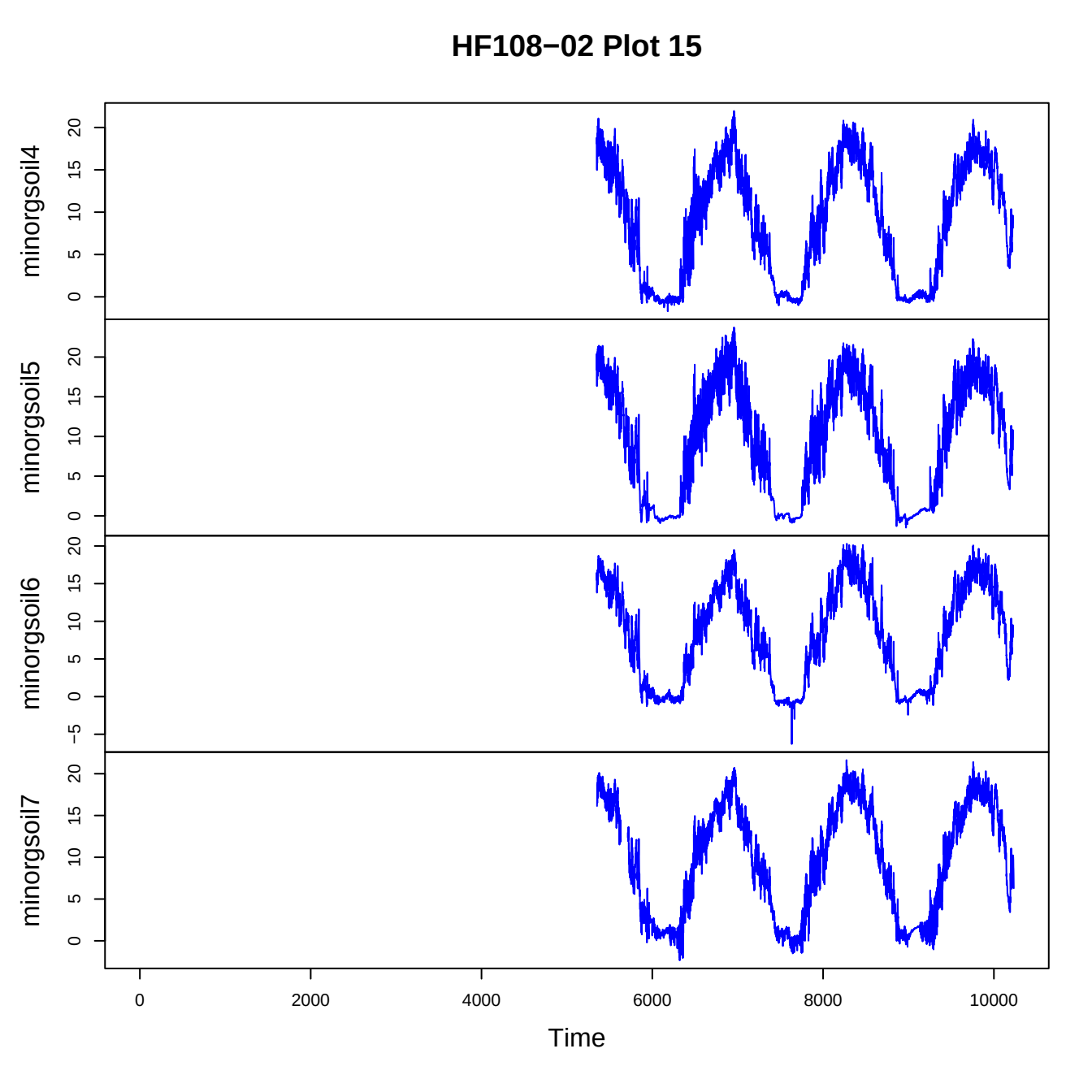

HF108−02 Plot 10
meanref8
minair1
minair2
minair3
−10
0
10
20
30
−20
−30
0
2000
4000
6000
8000
10000
Time

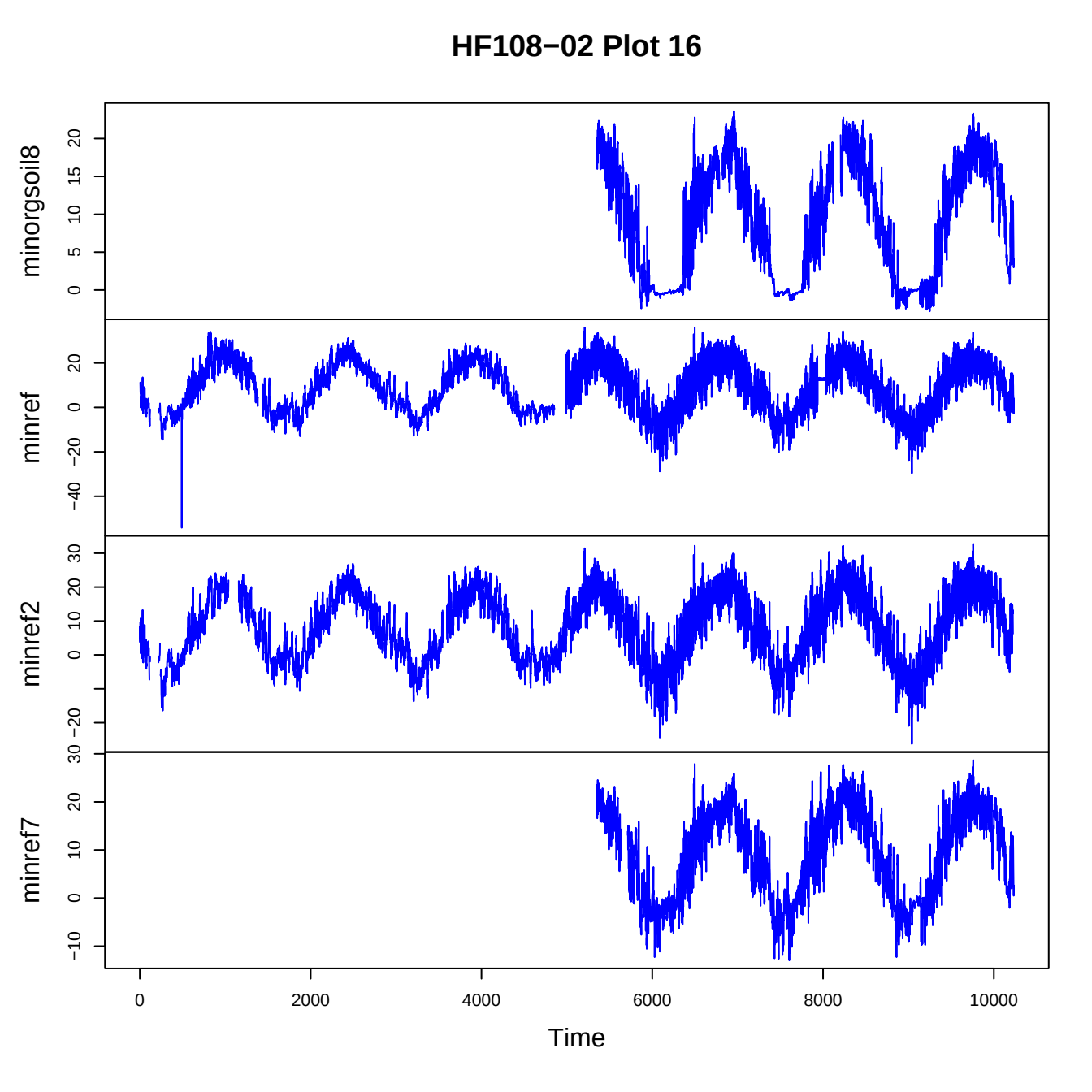

HF108−02 Plot 11
minair4
minair5
minair6
minair7
30
10
0
−20
20
0
2000
4000
6000
8000
10000
Time

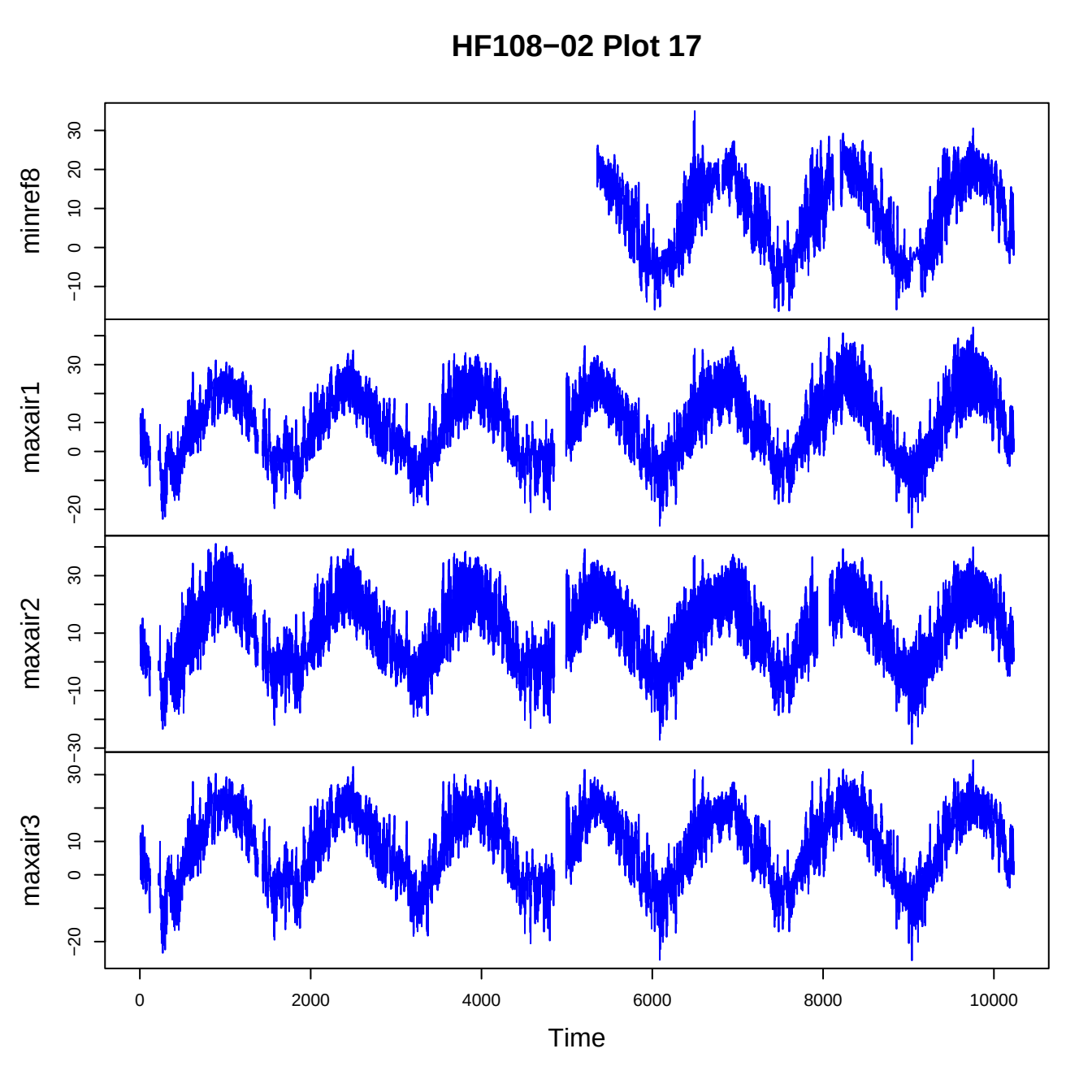

HF108−02 Plot 12
minair8
minmineralsoil1
minmineralsoil2
minmineralsoil3
Time
0
2000
4000
6000
8000
10000

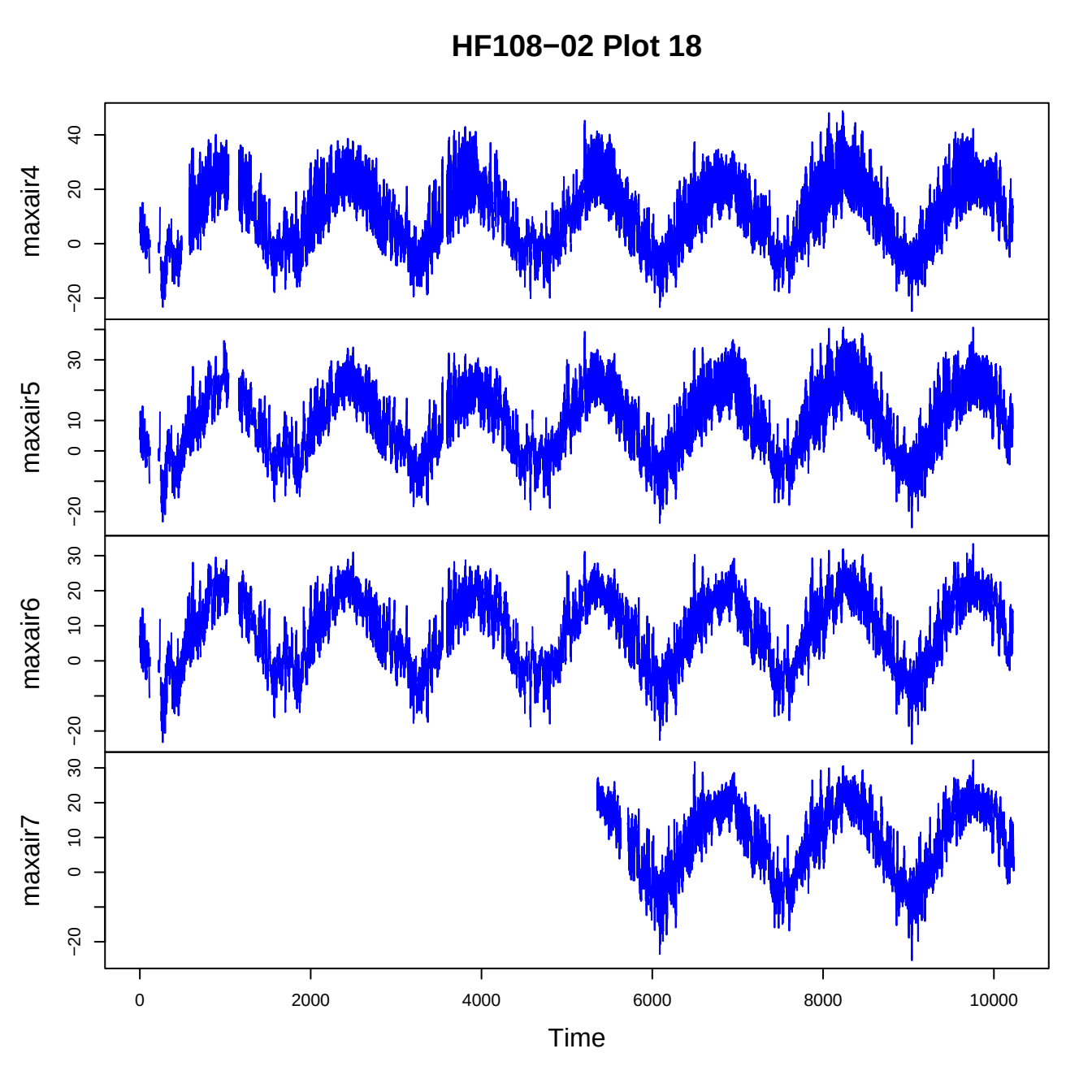

HF108−02 Plot 13
minmineralsoil4
minmineralsoil5
minmineralsoil6
minmineralsoil7
0
5
10
15
20
25
0
2000
4000
6000
8000
10000
Time

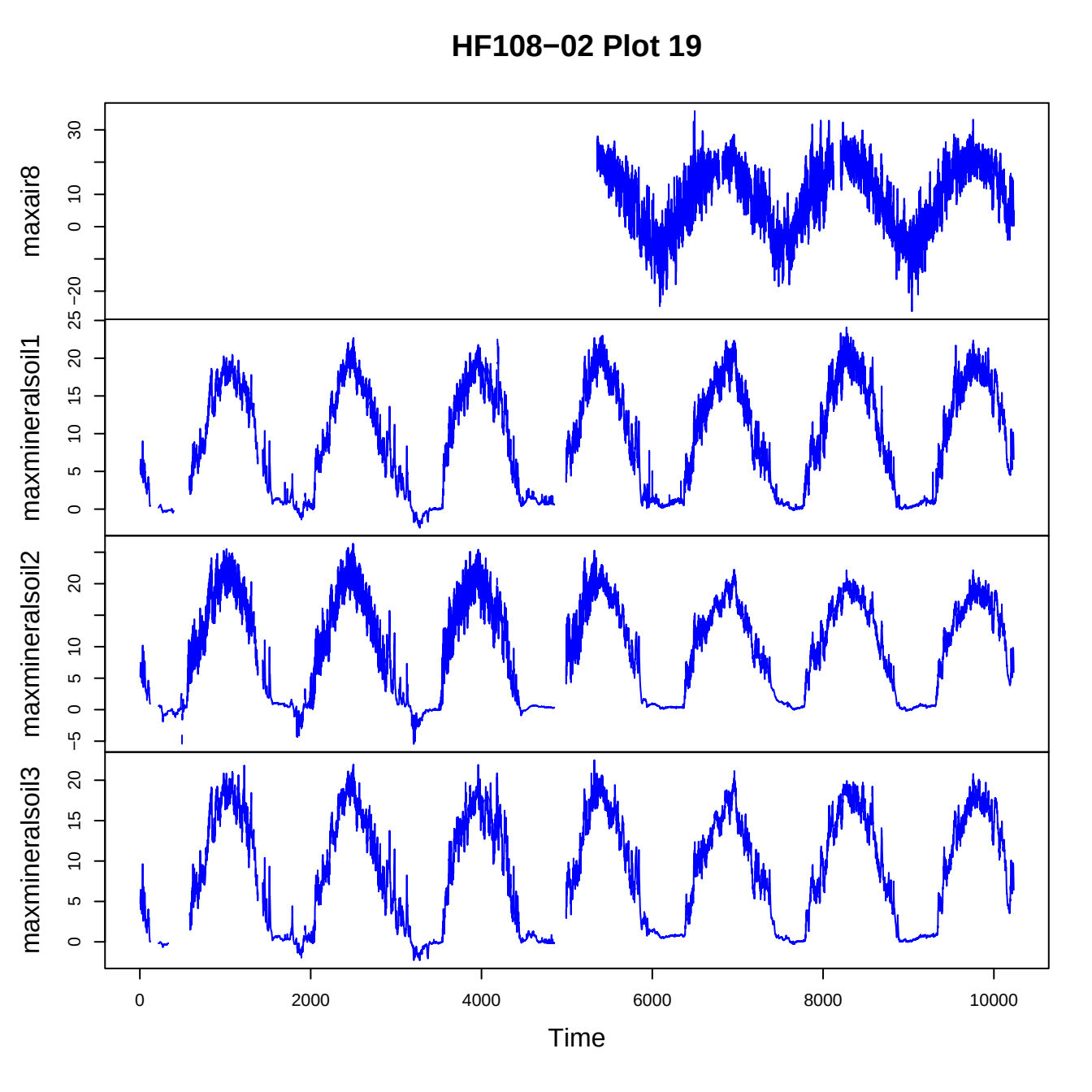

HF108−02 Plot 14
minmineralsoil8
minorgsoil1
minorgsoil2
minorgsoil3
0
5
10
15
20
0
5
10
20
0
10
20
30
40
−5
0
5
10
15
20
25
0
2000
4000
6000
8000
10000
Time

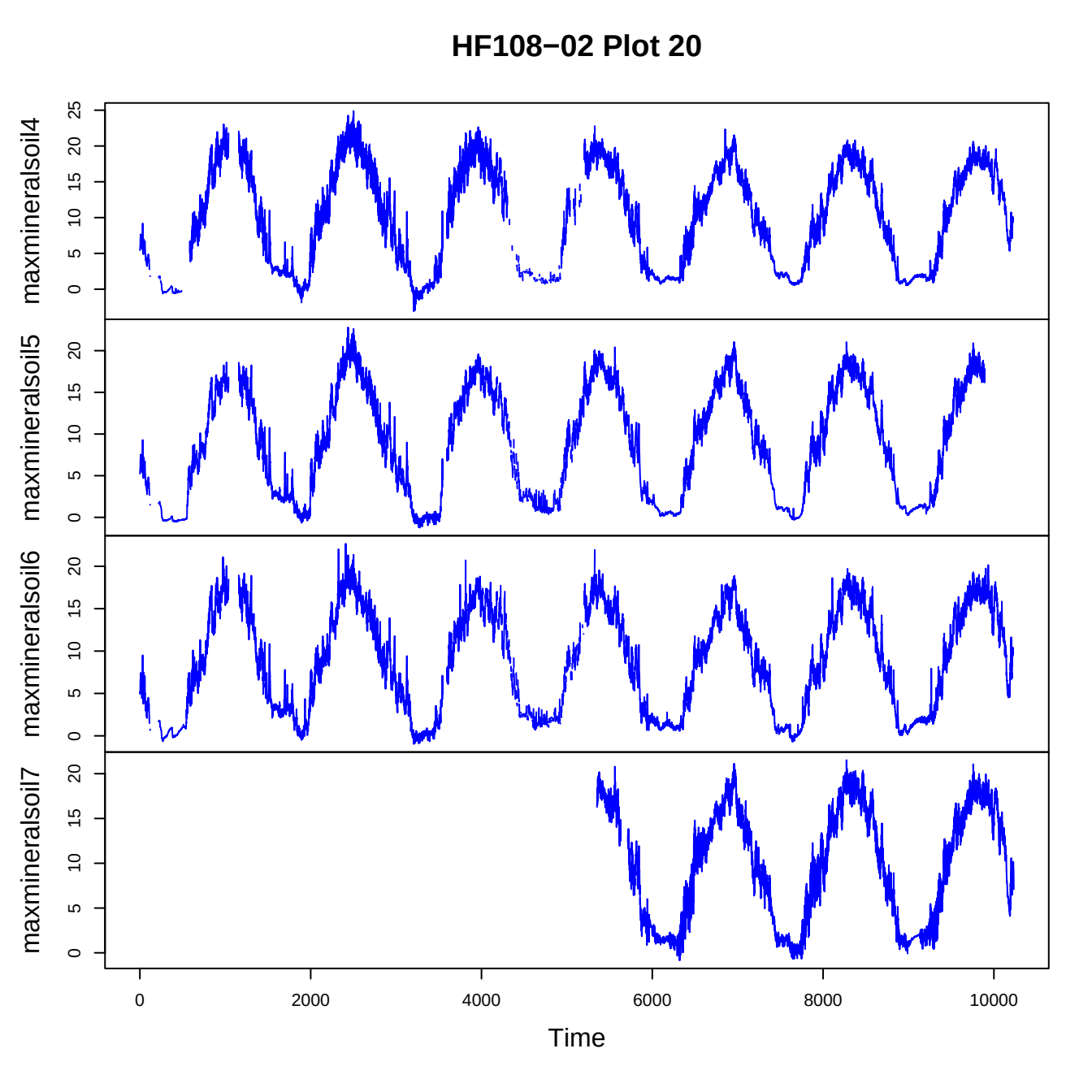

HF108−02 Plot 15
minorgsoil4
minorgsoil5
minorgsoil6
minorgsoil7
0
5
10
15
20
−5
0
2000
4000
6000
8000
10000
Time

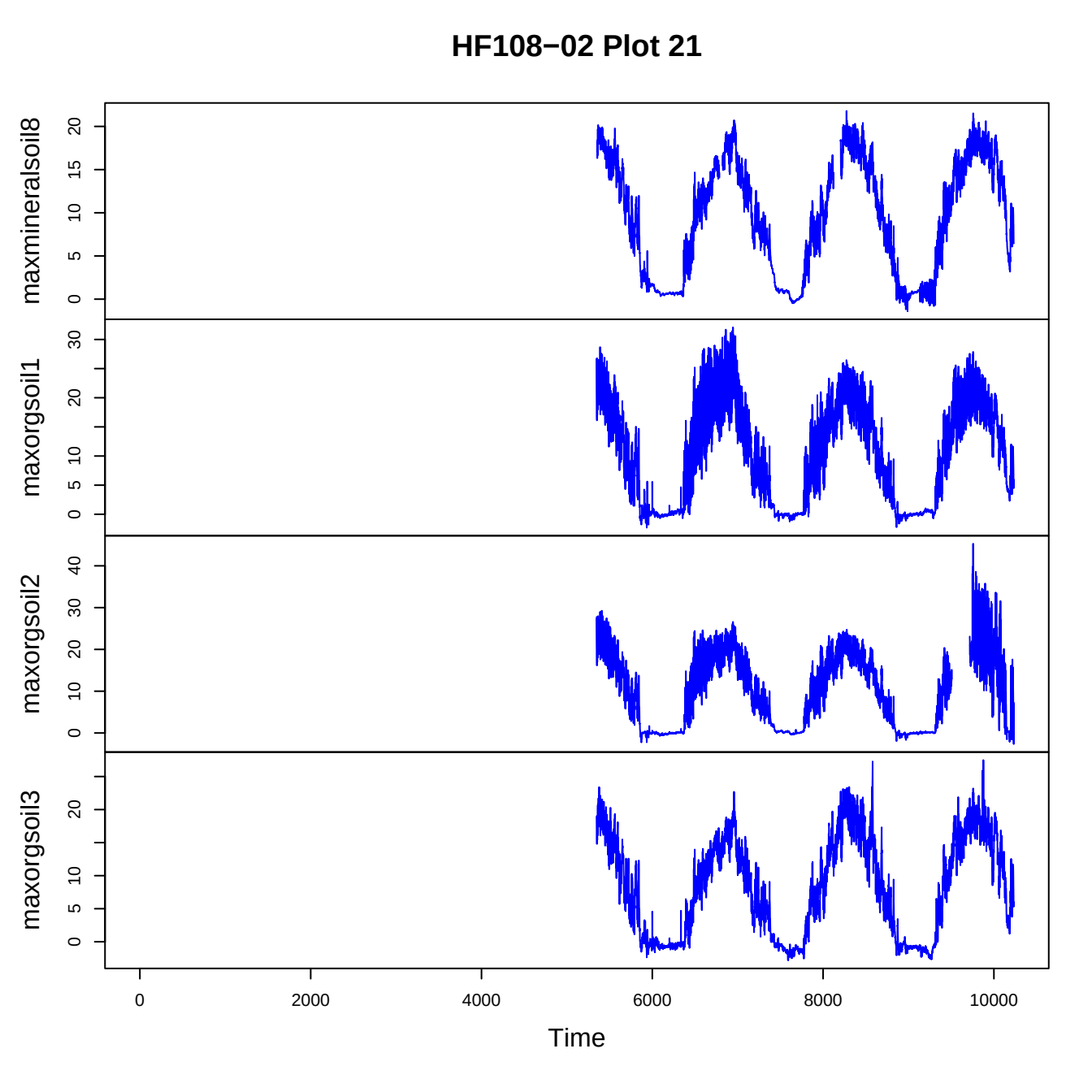

HF108−02 Plot 16
minorgsoil8
minref
minref2
minref7
Time
0
2000
4000
6000
8000
10000

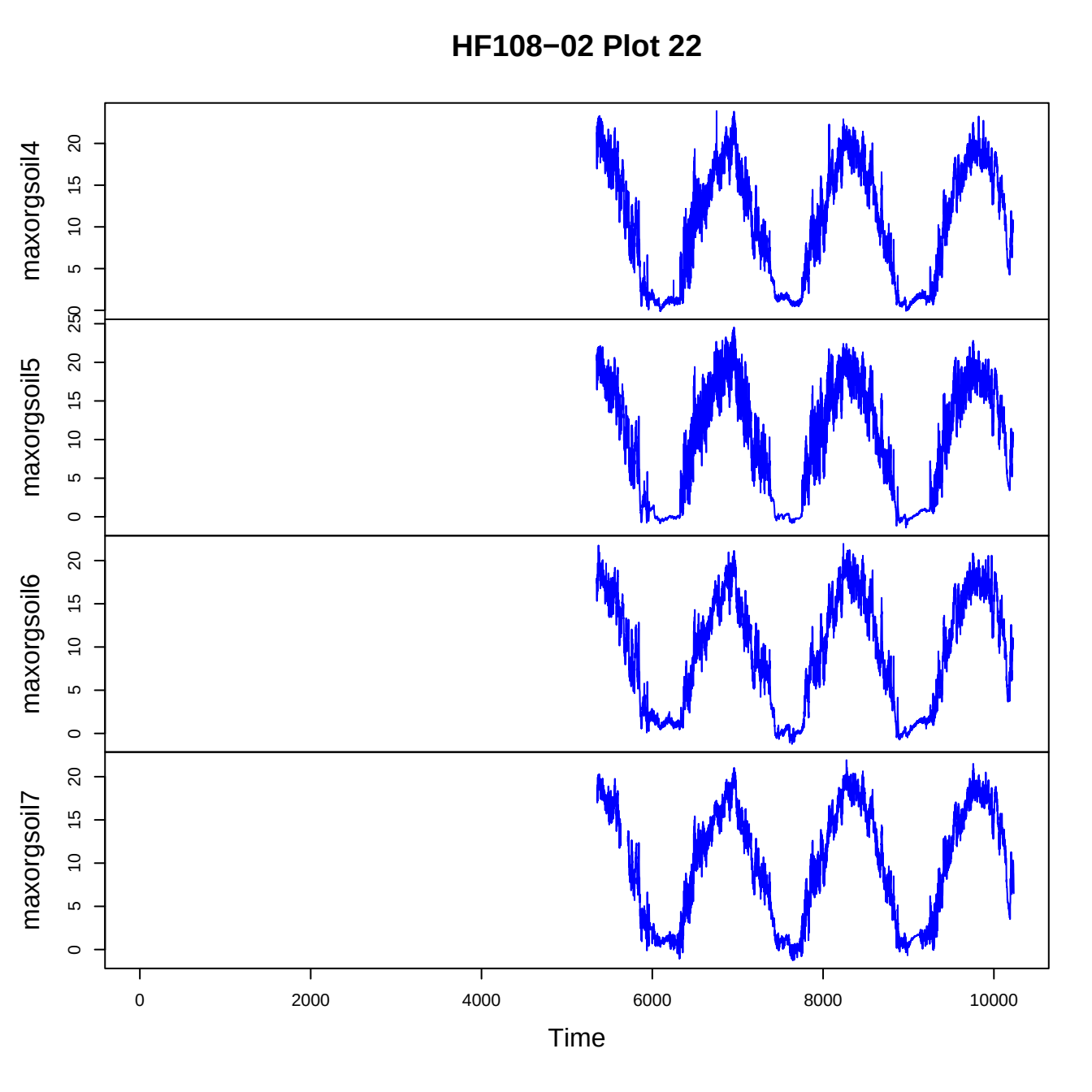

HF108−02 Plot 17
minref8
maxair1
maxair2
maxair3
−10
0
10
20
30
−20
−30
0
2000
4000
6000
8000
10000
Time

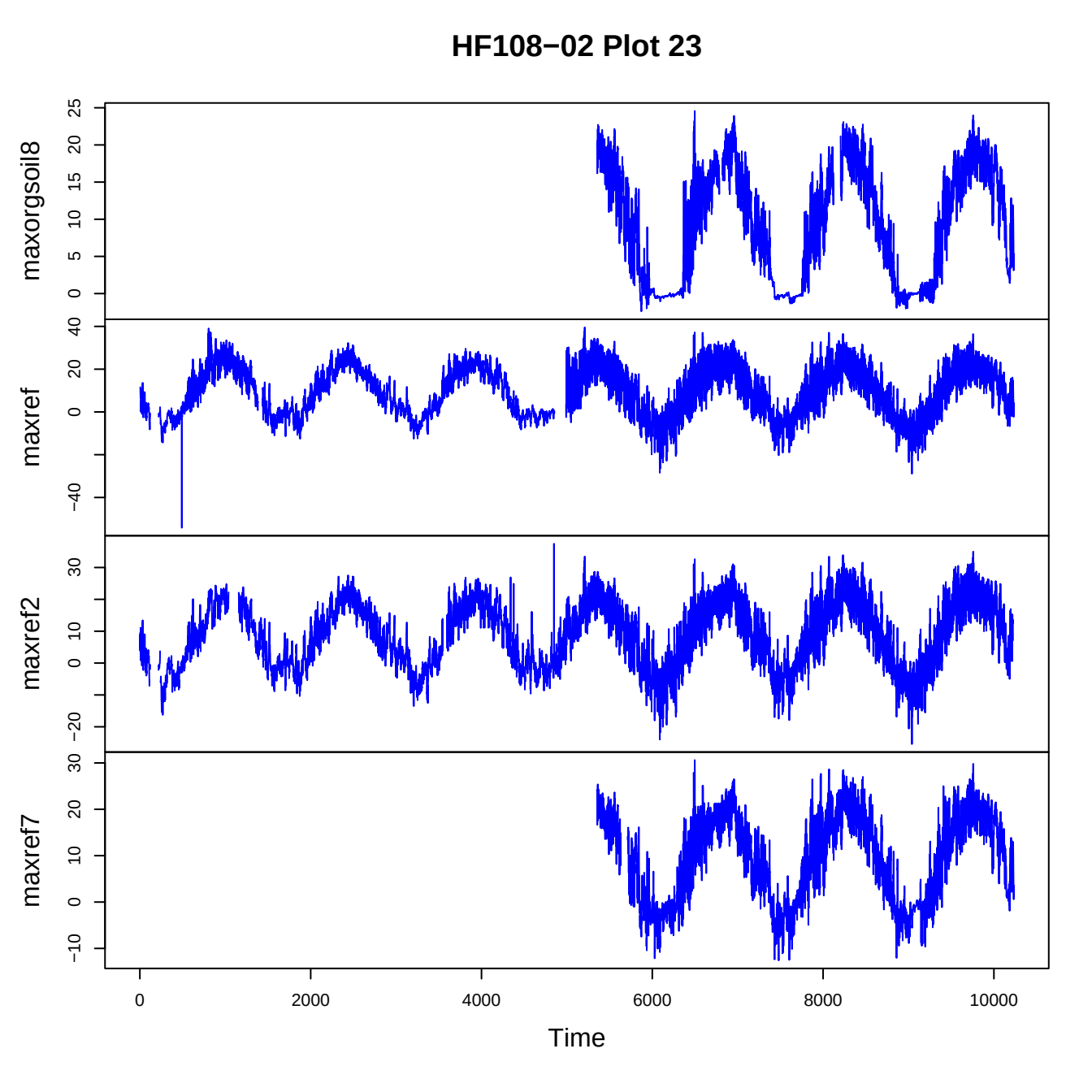

HF108−02 Plot 18
maxair4
maxair5
maxair6
maxair7
40
20
0
−20
30
10
0
−20
30
20
10
0
−20
30
20
10
0
−20
0
2000
4000
6000
8000
10000
Time

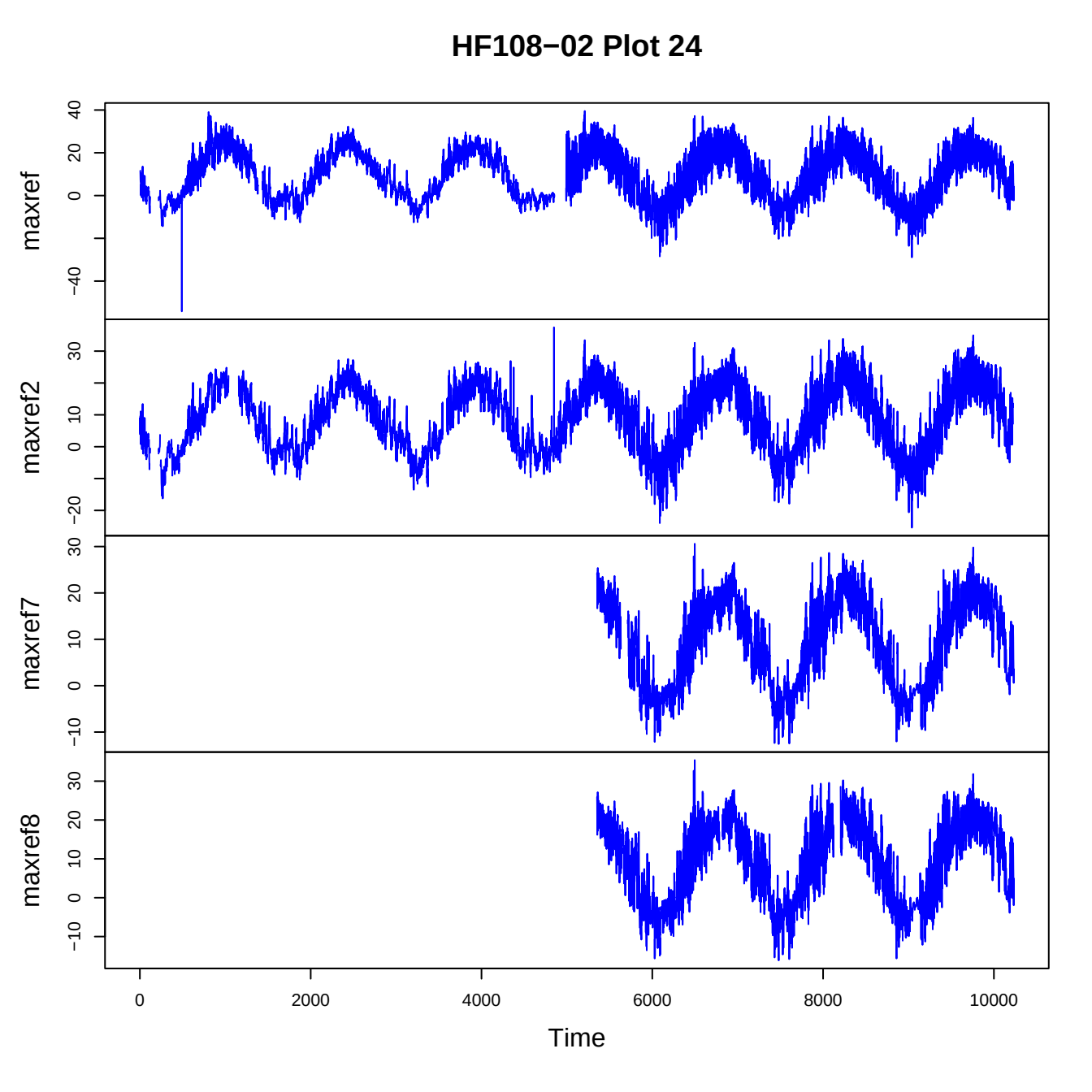

HF108−02 Plot 19
maxair8
maxmineralsoil1
maxmineralsoil2
maxmineralsoil3
Time
0
2000
4000
6000
8000
10000


HF108−02 Plot 20
maxmineralsoil4
maxmineralsoil5
maxmineralsoil6
maxmineralsoil7
0
5
10
15
20
25
0
2000
4000
6000
8000
10000
Time


HF108−02 Plot 21
maxmineralsoil8
maxorgsoil1
maxorgsoil2
maxorgsoil3
0
5
10
15
20
30
40
0
2000
4000
6000
8000
10000
Time


HF108−02 Plot 22
maxorgsoil4
maxorgsoil5
maxorgsoil6
maxorgsoil7
0
5
10
15
20
250
0
2000
4000
6000
8000
10000
Time


HF108−02 Plot 23
maxorgsoil8
maxref
maxref2
maxref7
Time
0
2000
4000
6000
8000
10000


HF108−02 Plot 24
maxref
maxref2
maxref7
maxref8
40
20
0
−40
30
10
−20
−10
0
2000
4000
6000
8000
10000
Time