

Supplementary material 1

Results of the 115 heat flow sites acquired with the multi-penetration MCHF device during the WestMedflux cruise in 2016: Tw is temperature of near-bottom water; Zpen is penetration depth of lowest sensor; nK is amount of thermal conductivity (TC) measurements; TC is the harmonic mean of the thermal conductivity; nT is amount of temperature measurements in the sediments; TG is the average thermal gradient; and HF is the calculated heat flow.

| MCHF site | Latitude (nord) | Longitude (east) | Tilt (°) | Tw (°C) | Zpen (m) | nK | TC (W/m/K) | σTC | nT | TG (mK/m) | σTG | HF (mW/m ²) | σHF |
|-----------|--------------------|---------------------|-------------|------------|-------------|----|---------------|-------|----|--------------|------|----------------------------|------|
| HF-01-01 | 42°19.630' | 5°51.86' | 1.6 | 13.34 | 5.01 | 0 | 1.327 | 0.150 | 7 | 41.1 | 1.1 | 54.5 | 6.3 |
| HF-01-02 | 42°16.317' | 5°45.534' | 1.8 | 13.33 | 5.01 | 0 | 1.327 | 0.150 | 7 | 45.8 | 1.4 | 60.8 | 7.1 |
| HF-01-03 | 42°9.418' | 5°34.882' | 1.0 | 13.33 | 5.02 | 6 | 1.308 | 0.042 | 7 | 43.9 | 3.5 | 57.4 | 4.9 |
| HF-01-04 | 42°6.61' | 5°29.677' | 1.6 | 13.32 | 5.01 | 6 | 1.346 | 0.043 | 7 | 44.9 | 2.9 | 60.4 | 4.4 |
| HF-02-01 | 41°8.397' | 5°44.315' | 2.3 | 13.37 | 3.32 | 6 | 1.221 | 0.096 | 6 | 50.4 | 3.4 | 61.5 | 6.4 |
| HF-03-01 | 38°38.400' | 5°12.239' | 4.1 | 13.41 | 5.00 | 6 | 1.167 | 0.075 | 6 | 61.2 | 3.0 | 71.4 | 5.8 |
| HF-03-02 | 38°41.678' | 5°6.648' | 2.8 | 13.4 | 5.01 | 6 | 1.204 | 0.047 | 7 | 59.7 | 2.2 | 71.9 | 3.9 |
| HF-03-03 | 38°44.934' | 5°1.115' | 5.3 | 13.39 | 4.99 | 6 | 1.149 | 0.081 | 6 | 70.8 | 3.3 | 81.3 | 6.9 |
| HF-03-04 | 38°48.181' | 4°55.615' | 1.4 | 13.38 | 5.01 | 6 | 1.666 | 0.108 | 6 | 83.7 | 4.6 | 139.4 | 11.9 |
| HF-03-05 | 38°51.313' | 4°50.277' | 0.7 | 13.39 | 5.01 | 6 | 1.273 | 0.048 | 6 | 82.8 | 2.4 | 105.4 | 5.0 |
| HF-03-06 | 38°51.321' | 4°50.286' | 1.5 | 13.37 | 5.01 | 6 | 1.292 | 0.055 | 7 | 83.1 | 16.6 | 107.4 | 21.9 |
| HF-03-07 | 39°11.193' | 3°54.233' | 1.1 | 13.26 | 5.02 | 6 | 1.024 | 0.040 | 7 | 73.0 | 2.0 | 74.8 | 3.6 |
| HF-03-08 | 39°4.410' | 3°49.869' | 1.5 | 13.26 | 5.01 | 6 | 1.004 | 0.026 | 7 | 67.1 | 1.0 | 67.4 | 2.0 |
| HF-03-09 | 39°1.530' | 3°45.503' | 1.3 | 13.28 | 5.01 | 6 | 0.975 | 0.016 | 7 | 89.1 | 1.2 | 86.9 | 1.8 |
| HF-03-10 | 38°58.411' | 3°41.77' | 1.4 | 13.31 | 5.01 | 6 | 1.065 | 0.035 | 7 | 81.4 | 1.2 | 86.7 | 3.1 |
| HF-03-12 | 38°52.828' | 3°35.122' | 10.5 | 13.33 | 2.07 | 4 | 0.954 | 0.037 | 4 | 111.5 | 6.4 | 106.4 | 7.4 |
| HF-04-01 | 39°6.889' | 4°23.597' | 2.3 | 13.29 | 5.01 | 6 | 1.072 | 0.040 | 7 | 73.1 | 2.4 | 78.4 | 3.9 |
| HF-04-02 | 39°3.607' | 4°29.244' | 8.2 | 13.32 | 4.97 | 6 | 1.134 | 0.034 | 7 | 49.8 | 1.4 | 56.5 | 2.3 |
| HF-04-03 | 39°0.559' | 4°34.489' | 5.3 | 13.35 | 4.99 | 6 | 1.156 | 0.025 | 7 | 42.6 | 0.9 | 49.2 | 1.5 |
| HF-04-04 | 38°57.377' | 4°40.120' | 6.9 | 13.35 | 4.98 | 6 | 1.137 | 0.036 | 7 | 60.8 | 0.8 | 69.1 | 2.4 |
| HF-04-05 | 38°54.460' | 4°45.196' | 4.4 | 13.36 | 5.00 | 6 | 1.074 | 0.047 | 7 | 64.0 | 0.7 | 68.7 | 3.1 |
| HF-05-01 | 38°46.194' | 6°14.600' | 3.4 | 13.41 | 5.01 | 6 | 1.442 | 0.074 | 7 | 66.1 | 3.3 | 95.3 | 6.8 |
| HF-05-02 | 38°48.198' | 6°21.440' | 3.4 | 13.42 | 5.01 | 6 | 1.115 | 0.050 | 7 | 64.4 | 3.6 | 71.8 | 5.1 |
| HF-05-03 | 38°50.224' | 6°27.904' | 4.4 | 13.44 | 5.00 | 6 | 1.569 | 0.067 | 7 | 60.1 | 3.6 | 94.3 | 6.9 |
| HF-05-04 | 38°52.155' | 6°34.510' | 2.2 | 13.42 | 5.01 | 6 | 1.520 | 0.083 | 7 | 57.0 | 3.5 | 86.6 | 7.1 |
| HF-05-05 | 38°56.543' | 6°48.391' | 3.7 | 13.44 | 5.01 | 6 | 1.192 | 0.057 | 7 | 60.8 | 6.4 | 72.5 | 8.4 |
| HF-05-06 | 38°59.266' | 6°56.925' | 3.1 | 13.43 | 4.36 | 6 | 1.145 | 0.044 | 5 | 60.9 | 0.9 | 69.7 | 2.9 |
| HF-05-07 | 39°12.98' | 7°13.724' | 2.3 | 13.44 | 5.01 | 6 | 1.116 | 0.046 | 7 | 79.2 | 2.9 | 88.4 | 4.9 |
| HF-05-08 | 39°11.610' | 7°20.431' | 2.0 | 13.37 | 4.37 | 6 | 1.031 | 0.026 | 6 | 74.2 | 1.5 | 76.5 | 2.5 |
| HF-05-09 | 39°11.81' | 7°28.264' | 4.8 | 13.3 | 4.35 | 5 | 1.139 | 0.096 | 6 | 62.4 | 1.4 | 71.1 | 6.2 |
| HF-05-10 | 39°10.834' | 7°32.392' | 2.8 | 13.34 | 4.90 | 6 | 1.097 | 0.013 | 7 | 60.6 | 0.8 | 66.5 | 1.2 |
| HF-06-01 | 39°45.778' | 7°40.839' | 3.2 | 13.27 | 4.36 | 5 | 1.124 | 0.019 | 6 | 75.4 | 0.7 | 84.7 | 1.6 |
| HF-06-02 | 39°46.129' | 7°36.471' | 3.1 | 13.29 | 5.01 | 6 | 1.065 | 0.036 | 7 | 55.5 | 1.7 | 59.1 | 2.7 |
| HF-06-03 | 39°46.826' | 7°28.780' | 3.6 | 13.36 | 5.01 | 6 | 1.120 | 0.040 | 7 | 81.4 | 2.5 | 91.2 | 4.3 |
| HF-06-06 | 39°49.691' | 6°56.671' | 2.2 | 13.41 | 5.01 | 6 | 1.203 | 0.083 | 7 | 60.2 | 1.6 | 72.4 | 5.4 |
| HF-06-07 | 39°50.628' | 6°45.721' | 3.1 | 13.41 | 5.01 | 6 | 1.105 | 0.090 | 7 | 65.1 | 1.6 | 71.9 | 6.1 |
| HF-06-08 | 39°50.807' | 6°42.959' | 21.6 | 13.41 | 4.66 | 6 | 1.002 | 0.086 | 7 | 71.4 | 2.5 | 71.5 | 6.6 |
| HF-06-09 | 39°51.302' | 6°37.364' | 1.8 | 13.4 | 5.01 | 6 | 1.019 | 0.089 | 7 | 70.6 | 1.8 | 71.9 | 6.5 |
| HF-07-01 | 38°21.210' | 1°59.628' | 2.8 | 13.22 | 3.88 | 5 | 1.046 | 0.056 | 6 | 55.1 | 1.8 | 57.6 | 3.6 |
| HF-07-02 | 38°18.181' | 2°1.966' | 1.3 | 13.21 | 3.30 | 5 | 1.027 | 0.048 | 6 | 12.8 | 1.3 | 13.1 | 1.5 |
| HF-07-03 | 38°15.198' | 2°4.104' | 9.8 | 13.21 | 4.27 | 5 | 1.011 | 0.038 | 6 | 38.2 | 1.1 | 38.6 | 1.8 |
| HF-07-04 | 38°12.462' | 2°6.214' | 10.8 | 13.24 | 4.22 | 5 | 1.010 | 0.020 | 6 | 49.7 | 1.4 | 50.2 | 1.7 |
| HF-07-05 | 38°9.496' | 2°8.336' | 7.3 | 13.27 | 4.09 | 5 | 1.187 | 0.060 | 6 | 70.7 | 2.0 | 83.9 | 4.9 |
| HF-07-06 | 38°5.322' | 2°11.572' | 3.2 | 13.36 | 4.36 | 5 | 1.069 | 0.023 | 6 | 94.4 | 1.0 | 100.9 | 2.4 |
| HF-07-07 | 38°4.554' | 2°12.86' | 3.7 | 13.36 | 4.36 | 5 | 1.052 | 0.009 | 6 | 82.7 | 1.4 | 87.0 | 1.7 |
| HF-07-08 | 38°3.555' | 2°12.843' | 2.0 | 13.37 | 4.37 | 5 | 1.031 | 0.046 | 6 | 86.7 | 1.0 | 89.4 | 4.1 |
| HF-07-09 | 38°2.335' | 2°13.766' | 2.9 | 13.37 | 4.36 | 5 | 1.023 | 0.052 | 6 | 89.1 | 0.8 | 91.1 | 4.7 |
| HF-07-10 | 38°1.205' | 2°14.581' | 2.3 | 13.37 | 4.37 | 5 | 1.046 | 0.033 | 6 | 95.8 | 2.1 | 100.2 | 3.8 |
| HF-07-11 | 38°0.665' | 2°14.976' | 2.5 | 13.38 | 4.37 | 5 | 1.036 | 0.065 | 6 | 90.5 | 0.7 | 93.8 | 5.9 |
| HF-07-12 | 37°59.593' | 2°15.774' | 3.3 | 13.39 | 4.36 | 5 | 1.048 | 0.054 | 5 | 81.5 | 1.5 | 85.4 | 4.7 |
| HF-07-14 | 37°57.949' | 2°17.7' | 2.3 | 13.4 | 4.37 | 5 | 1.120 | 0.046 | 6 | 113.2 | 1.1 | 126.8 | 5.4 |
| HF-07-15 | 37°56.926' | 2°17.828' | 3.6 | 13.4 | 4.36 | 5 | 1.150 | 0.036 | 6 | 90.1 | 1.2 | 103.6 | 3.5 |
| HF-07-16 | 37°56.93' | 2°18.403' | 3.1 | 13.39 | 4.36 | 5 | 1.112 | 0.112 | 5 | 78.1 | 2.7 | 86.8 | 9.2 |
| HF-07-17 | 37°55.243' | 2°19.27' | 3.5 | 13.4 | 4.36 | 5 | 1.108 | 0.044 | 5 | 56.8 | 1.9 | 62.9 | 3.3 |
| HF-07-18 | 37°54.802' | 2°19.336' | 1.6 | 13.4 | 4.37 | 5 | 1.152 | 0.054 | 5 | 68.1 | 2.4 | 78.5 | 4.6 |
| HF-07-19 | 37°54.104' | 2°19.972' | 1.8 | 13.4 | 4.37 | 5 | 0.997 | 0.066 | 6 | 90.0 | 2.8 | 89.7 | 6.6 |
| HF-07-20 | 37°52.750' | 2°20.892' | 1.8 | 13.43 | 4.37 | 5 | 1.059 | 0.046 | 6 | 92.1 | 1.6 | 97.5 | 4.6 |

Continuation of table (see explanation on previous page)

| MCHF site | Latitude (nord) | Longitude (east) | Tilt (°) | Tw (°C) | Zpen (m) | nK | TC (W/m/K) | σTC | nT | TG (mK/m) | σTG | HF (mW/m ²) | σHF |
|-----------|--------------------|---------------------|-------------|------------|-------------|----|---------------|-------|----|--------------|------|----------------------------|------|
| HF-07-21 | 37°51.627' | 2°21.756' | 1.9 | 13.41 | 4.37 | 5 | 1.022 | 0.077 | 6 | 89.3 | 2.8 | 91.3 | 7.4 |
| HF-07-22 | 37°50.798' | 2°22.328' | 3.8 | 13.41 | 4.36 | 5 | 1.150 | 0.109 | 6 | 101.6 | 3.6 | 116.8 | 11.8 |
| HF-07-23 | 37°50.236' | 2°22.702' | 2.6 | 13.4 | 4.37 | 5 | 1.168 | 0.075 | 6 | 90.5 | 3.0 | 105.7 | 7.6 |
| HF-07-24 | 37°49.684' | 2°23.142' | 1.1 | 13.39 | 3.62 | 5 | 1.246 | 0.180 | 5 | 80.0 | 5.5 | 99.7 | 15.9 |
| HF-07-25 | 37°49.180' | 2°23.533' | 2.2 | 13.4 | 4.37 | 5 | 1.116 | 0.082 | 6 | 85.1 | 2.1 | 95.0 | 7.4 |
| HF-07-26 | 37°48.209' | 2°24.193' | 1.9 | 13.4 | 4.37 | 5 | 0.996 | 0.045 | 6 | 91.6 | 3.9 | 91.2 | 5.7 |
| HF-08-01 | 37°43.860' | 1°22.831' | 1.7 | 13.39 | 5.01 | 6 | 1.102 | 0.034 | 5 | 94.2 | 1.4 | 103.8 | 3.6 |
| HF-08-02 | 37°44.928' | 1°25.623' | 3.3 | 13.39 | 5.01 | 6 | 1.053 | 0.011 | 6 | 98.8 | 1.5 | 104.0 | 1.9 |
| HF-08-03 | 37°46.335' | 1°28.635' | 1.9 | 13.39 | 5.01 | 6 | 1.170 | 0.021 | 6 | 108.9 | 1.1 | 127.4 | 2.6 |
| HF-08-04 | 37°47.766' | 1°31.572' | 2.3 | 13.4 | 5.01 | 6 | 1.114 | 0.042 | 7 | 94.7 | 2.9 | 105.5 | 5.1 |
| HF-08-05 | 37°48.975' | 1°34.542' | 2.1 | 13.39 | 5.01 | 6 | 1.112 | 0.048 | 7 | 102.8 | 1.2 | 114.3 | 5.1 |
| HF-08-06 | 37°50.404' | 1°37.804' | 2.6 | 13.38 | 5.01 | 6 | 1.116 | 0.037 | 6 | 99.9 | 4.3 | 111.5 | 6.1 |
| HF-08-07 | 37°52.805' | 1°43.367' | 3.4 | 13.38 | 5.01 | 6 | 1.201 | 0.040 | 7 | 81.8 | 2.0 | 98.2 | 4.1 |
| HF-08-08 | 37°54.751' | 1°48.152' | 2.3 | 13.38 | 5.01 | 6 | 1.151 | 0.026 | 7 | 89.6 | 1.1 | 103.1 | 2.7 |
| HF-08-09 | 37°57.316' | 1°53.961' | 3.9 | 13.38 | 5.00 | 6 | 1.188 | 0.055 | 7 | 89.7 | 5.8 | 106.6 | 8.5 |
| HF-08-10 | 37°58.717' | 1°57.804' | 2.5 | 13.36 | 2.31 | 4 | 1.113 | 0.016 | 4 | 104.2 | 7.9 | 116.0 | 8.9 |
| HF-08-11 | 37°59.514' | 2°0.766' | 1.8 | 13.34 | 5.01 | 6 | 1.234 | 0.036 | 7 | 81.5 | 1.7 | 100.6 | 3.6 |
| HF-08-12 | 37°59.709' | 2°5.858' | 1.7 | 13.34 | 5.01 | 6 | 1.175 | 0.040 | 7 | 80.5 | 0.7 | 94.6 | 3.3 |
| HF-08-13 | 37°56.377' | 2°8.254' | 2.2 | 13.4 | 5.01 | 6 | 1.069 | 0.028 | 6 | 149.3 | 2.6 | 159.6 | 5.0 |
| HF-08-14 | 37°58.692' | 2°11.566' | 1.9 | 13.39 | 4.98 | 6 | 1.202 | 0.035 | 7 | 113.3 | 1.9 | 136.2 | 4.6 |
| HF-08-15 | 38°13.740' | 2°0.383' | 2.2 | 13.23 | 3.95 | 6 | 1.073 | 0.050 | 7 | 6.3 | 1.1 | 6.8 | 1.2 |
| HF-08-16 | 38°16.981' | 2°2.896' | 2.6 | 13.21 | 4.87 | 6 | 1.067 | 0.043 | 6 | 30.5 | 1.6 | 32.5 | 2.2 |
| HF-08-17 | 38°19.354' | 2°4.390' | 20.0 | 13.21 | 4.55 | 6 | 1.093 | 0.020 | 7 | 149.3 | 3.1 | 163.2 | 4.5 |
| HF-08-18 | 38°19.759' | 2°0.810' | 21.0 | 13.2 | 4.46 | 6 | 1.049 | 0.027 | 7 | 50.2 | 1.4 | 52.7 | 2.0 |
| HF-09-01 | 40°25.948' | 3°8.955' | 1.6 | 13.24 | 5.01 | 6 | 1.204 | 0.033 | 7 | 82.1 | 3.5 | 98.8 | 5.0 |
| HF-09-02 | 40°29.664' | 3°12.883' | 2.6 | 13.26 | 4.54 | 6 | 1.118 | 0.039 | 7 | 54.8 | 0.6 | 61.3 | 2.2 |
| HF-09-04 | 40°35.195' | 3°19.27' | ? | 13.29 | 5.02 | 6 | 1.184 | 0.045 | 7 | 13.2 | 2.8 | 15.6 | 3.4 |
| HF-09-05 | 40°38.806' | 3°23.338' | 2.6 | 13.3 | 5.01 | 6 | 1.112 | 0.052 | 7 | 38.7 | 1.3 | 43.0 | 2.5 |
| HF-09-06 | 40°36.812' | 3°29.926' | 2.0 | 13.3 | 5.01 | 6 | 1.145 | 0.060 | 7 | 15.0 | 1.6 | 17.2 | 2.0 |
| HF-09-07 | 40°34.222' | 3°30.175' | ? | 13.29 | 3.63 | 6 | 1.180 | 0.029 | 7 | 0.6 | 5.4 | 0.7 | 6.4 |
| HF-09-07b | 40°34.222' | 3°30.178' | ? | 13.29 | 2.99 | 6 | 1.166 | 0.036 | 7 | -2.7 | 6.8 | -3.1 | 7.9 |
| HF-09-08 | 41°4.978' | 3°52.670' | 2.9 | 13.34 | 5.01 | 6 | 1.215 | 0.052 | 7 | 55.9 | 1.4 | 67.9 | 3.4 |
| HF-09-09 | 41°7.847' | 3°55.903' | 5.5 | 13.34 | 4.99 | 6 | 1.146 | 0.033 | 7 | 54.6 | 1.3 | 62.6 | 2.3 |
| HF-09-10 | 41°10.254' | 3°58.641' | 3.4 | 13.35 | 5.01 | 6 | 1.351 | 0.068 | 7 | 58.6 | 2.5 | 79.2 | 5.2 |
| HF-09-11 | 41°12.699' | 4°1.630' | 6.7 | 13.34 | 4.98 | 6 | 1.127 | 0.049 | 6 | 38.8 | 2.8 | 43.7 | 3.7 |
| HF-09-12 | 41°14.938' | 4°4.758' | 5.2 | 13.35 | 5.00 | 6 | 1.191 | 0.072 | 7 | 51.3 | 0.9 | 61.1 | 3.8 |
| HF-09-13 | 41°17.296' | 4°7.12' | 4.5 | 13.35 | 5.00 | 6 | 1.125 | 0.039 | 7 | 38.3 | 1.4 | 43.1 | 2.2 |
| HF-09-14 | 41°16.2' | 4°15.910' | 10.0 | 13.36 | 2.50 | 4 | 1.413 | 0.281 | 4 | 56.8 | 10.4 | 80.3 | 21.7 |
| HF-10-01 | 42°14.331' | 4°3.12' | 8.4 | 13.21 | 4.96 | 6 | 1.136 | 0.066 | 7 | 45.3 | 0.9 | 51.5 | 3.2 |
| HF-10-02 | 42°12.336' | 4°5.658' | 9.4 | 13.22 | 4.95 | 7 | 1.374 | 0.019 | 7 | 45.4 | 1.1 | 62.4 | 1.7 |
| HF-10-03 | 42°9.899' | 4°9.906' | 2.6 | 13.23 | 5.01 | 7 | 1.326 | 0.042 | 7 | 39.0 | 0.8 | 51.7 | 2.0 |
| HF-10-04 | 42°7.914' | 4°12.899' | 3.5 | 13.25 | 5.01 | 7 | 1.267 | 0.048 | 7 | 43.0 | 0.8 | 54.5 | 2.3 |
| HF-10-05 | 42°6.52' | 4°15.952' | 4.6 | 13.26 | 5.00 | 7 | 1.282 | 0.042 | 7 | 42.3 | 0.7 | 54.2 | 2.0 |
| HF-10-06 | 42°3.578' | 4°19.776' | 2.9 | 13.28 | 5.01 | 7 | 1.132 | 0.027 | 7 | 42.9 | 0.8 | 48.6 | 1.5 |
| HF-10-07 | 42°1.990' | 4°22.425' | 7.0 | 13.29 | 4.98 | 7 | 1.338 | 0.069 | 7 | 45.1 | 0.6 | 60.3 | 3.2 |
| HF-10-08 | 42°0.114' | 4°25.429' | 4.8 | 13.31 | 5.00 | 7 | 1.115 | 0.057 | 7 | 45.2 | 0.6 | 50.4 | 2.7 |
| HF-10-09 | 41°58.962' | 4°27.268' | 6.7 | 13.32 | 4.98 | 7 | 1.073 | 0.035 | 7 | 55.8 | 0.8 | 59.9 | 2.1 |
| HF-10-10 | 41°57.511' | 4°29.493' | 5.9 | 13.32 | 4.99 | 7 | 1.241 | 0.052 | 7 | 46.0 | 0.8 | 57.1 | 2.6 |
| HF-10-11 | 41°56.784' | 4°30.829' | 6.2 | 13.33 | 4.99 | 6 | 1.317 | 0.023 | 7 | 47.6 | 1.9 | 62.7 | 2.7 |
| HF-10-12 | 41°31.360' | 5°1.348' | 6.2 | 13.35 | 4.99 | 6 | 1.239 | 0.022 | 6 | 48.9 | 1.6 | 60.6 | 2.3 |
| HF-10-13 | 41°32.605' | 5°3.334' | 5.0 | 13.34 | 5.00 | 6 | 1.051 | 0.050 | 6 | 51.5 | 1.3 | 54.1 | 2.9 |
| HF-10-14 | 41°33.898' | 5°4.874' | 5.8 | 13.34 | 4.99 | 7 | 1.115 | 0.037 | 7 | 50.1 | 1.0 | 55.9 | 2.2 |
| HF-10-15 | 41°34.573' | 5°7.423' | 6.5 | 13.34 | 3.92 | 7 | 1.250 | 0.045 | 7 | 44.6 | 1.1 | 55.8 | 2.4 |
| HF-10-17 | 41°37.277' | 5°10.501' | 5.3 | 13.34 | 4.99 | 7 | 1.249 | 0.049 | 6 | 43.1 | 0.4 | 53.8 | 2.2 |
| HF-10-18 | 41°36.740' | 5°14.127' | 6.4 | 13.33 | 4.98 | 6 | 1.120 | 0.021 | 6 | 35.8 | 0.8 | 40.1 | 1.2 |
| HF-10-19 | 41°36.978' | 5°16.939' | 5.2 | 13.34 | 5.00 | 7 | 1.159 | 0.039 | 7 | 39.2 | 0.9 | 45.4 | 1.9 |

Supplementary material 2

Results of the 35 thermal measurements made using autonomous NKE temperature loggers on a gravity core during the Medsalt cruise (prefix GC) and on a Kullenberg corer during WestMedflux cruise (prefix KF & GF): Tw is temperature of near-bottom water; Zpen is penetration depth of lowest sensor; nK is amount of thermal conductivity (TC) measurements; TC is the harmonic mean of the thermal conductivity; nT is amount of temperature measurements in the sediments; TG is the average thermal gradient; and HF is the calculated heat flow.

| Core | Latitude (nord) | Longitude (east) | Tilt (°) | Tw (°C) | Zpen (m) | nK | TC (W/m/K) | σTC | nT | TG (mK/m) | σTG | HF (mW/m ²) | σHF |
|-------|--------------------|---------------------|-------------|------------|-------------|----|---------------|-------|----|--------------|-----|----------------------------|------|
| GC-01 | 37°44.55' | 2°11.57' | 18.1 | 13.35 | 4.5 | 0 | 0.991 | 0.057 | 5 | 111.7 | 0.1 | 110.7 | 6.5 |
| GC-02 | 37°52.08 | 2°11.3' | 17.4 | 13.35 | 5.0 | 11 | 0.991 | 0.057 | 5 | 86.8 | 0.0 | 86.0 | 5.0 |
| GC-03 | 38°2.38' | 2°13.77' | 20.7 | 13.33 | 4.7 | 41 | 1.023 | 0.051 | 5 | 83.4 | 0.0 | 85.3 | 4.2 |
| GC-06 | 38°16.79' | 1°58.69' | 26.9 | 13.13 | 4.8 | 15 | 1.064 | 0.084 | 5 | 27.8 | 0.0 | 29.6 | 2.3 |
| GC-07 | 38°41.67' | 2°5.97' | 40.7 | 13.11 | 3.1 | 11 | 1.080 | 0.057 | 5 | 84.4 | 1.4 | 91.1 | 6.3 |
| GC-09 | 38°47.01' | 2°14.62' | 16 | 13.10 | 5.0 | 11 | 1.025 | 0.090 | 5 | 59.1 | 0.0 | 60.6 | 5.3 |
| GC-10 | 38°54.81' | 2°16.69' | 17.7 | 13.11 | 4.8 | 13 | 1.036 | 0.190 | 5 | 69.8 | 2.4 | 72.3 | 15.8 |
| GC-11 | 38°10.71' | 2°8.65' | 18.7 | 13.13 | 4.5 | 12 | 1.158 | 0.109 | 5 | 58.1 | 2.9 | 67.3 | 9.7 |
| KF-01 | 42°1.447' | 5°22.785' | 0.9 | 13.25 | 9.2 | 31 | 1.315 | 0.110 | 7 | 44.3 | 1.7 | 58.3 | 5.5 |
| KF-03 | 38°56.833' | 4°6.955' | 1 | 13.23 | 10.0 | 29 | 1.093 | 0.090 | 7 | 86.3 | 1.5 | 94.3 | 7.6 |
| KF-04 | 38°44.686' | 6°9.178' | 0.9 | 13.35 | 10.0 | 26 | 1.072 | 0.140 | 5 | 63.7 | 1.5 | 68.3 | 9.1 |
| KF-05 | 39°45.382' | 7°45.43' | 0.7 | 13.21 | 5.0 | 16 | 1.038 | 0.190 | 4 | 59.6 | 1.8 | 61.9 | 11.0 |
| KF-06 | 38°56.577' | 4°5.76' | 1.2 | 13.24 | 5.9 | 20 | 1.090 | 0.100 | 5 | 96.6 | 2.4 | 105.3 | 9.7 |
| KF-07 | 39°18.598' | 3°41.309' | 1.1 | 13.17 | 5.9 | 19 | 1.130 | 0.100 | 5 | 79.1 | 2.9 | 89.4 | 8.7 |
| KF-08 | 38°24.624' | 2°39.285' | 0.7 | 13.33 | 5.9 | 19 | 1.095 | 0.070 | 5 | 84.6 | 2.6 | 92.7 | 6.8 |
| KF-09 | 38°27.367' | 2°35.989' | 1.8 | 13.33 | 5.9 | 16 | 1.117 | 0.190 | 5 | 90.3 | 4.6 | 100.8 | 18.0 |
| KF-10 | 37°52.797' | 2°20.882' | 0.9 | 13.34 | 5.9 | 21 | 1.049 | 0.080 | 5 | 91 | 2.0 | 95.4 | 7.7 |
| KF-11 | 37°49.108' | 2°23.578' | 0.7 | 13.34 | 5.9 | 19 | 1.043 | 0.140 | 5 | 84.7 | 2.2 | 88.3 | 12.0 |
| KF-12 | 37°41.737' | 2°14.234' | 1.4 | 13.34 | 5.9 | 20 | 0.953 | 0.050 | 4 | 87.4 | 2.2 | 83.3 | 5.1 |
| KF-13 | 37°41.360' | 2°14.744' | 1.2 | 13.33 | 5.9 | 20 | 1.045 | 0.050 | 5 | 78.5 | 1.8 | 82.0 | 4.4 |
| KF-14 | 37°41.107' | 2°14.926' | 1.4 | 13.34 | 5.9 | 19 | 1.066 | 0.070 | 5 | 122.3 | 1.5 | 130.3 | 8.1 |
| KF-15 | 37°50.512' | 2°18.79' | 2 | 13.33 | 5.9 | 19 | 1.087 | 0.090 | 5 | 113.9 | 2.9 | 123.9 | 11.0 |
| KF-16 | 38°17.486' | 2°0.599' | 1.5 | 13.13 | 10.0 | 39 | 1.134 | 0.110 | 6 | 18.8 | 0.6 | 21.3 | 2.1 |
| KF-17 | 38°19.299' | 2°4.468' | 1.7 | 13.14 | 9.8 | 37 | 1.119 | 0.090 | 7 | 131.1 | 2.2 | 146.7 | 12.0 |
| KF-18 | 37°57.160' | 2°9.733' | 1.2 | 13.33 | 10.0 | 38 | 1.072 | 0.140 | 7 | 152.1 | 2.6 | 163.1 | 21.0 |
| GF-19 | 38°35.84' | 3°12.996' | 5.7 | 13.32 | 5.9 | 0 | 1.100 | 0.150 | 5 | 72.6 | 2.2 | 79.9 | 11.0 |
| KF-20 | 40°25.854' | 3°29.943' | 0.9 | 13.23 | 5.9 | 17 | 1.217 | 0.100 | 5 | 1.9 | 0.8 | 2.3 | 1.0 |
| KF-21 | 41°35.15' | 4°54.490' | 6.2 | 13.28 | 9.2 | 25 | 1.232 | 0.080 | 7 | 46.5 | 0.8 | 57.3 | 3.8 |
| KF-22 | 41°45.963' | 4°59.973' | 4.8 | 13.27 | 10.0 | 30 | 1.212 | 0.130 | 7 | 43.3 | 1.2 | 52.5 | 5.6 |
| KF-23 | 42°18.785' | 3°55.513' | 1.1 | 13.13 | 5.9 | 13 | 1.212 | 0.150 | 5 | 36.8 | 0.6 | 44.6 | 5.7 |
| KF-24 | 41°49.724' | 5°5.742' | 1.2 | 13.25 | 5.9 | 15 | 1.180 | 0.120 | 5 | 44.8 | 0.6 | 52.9 | 5.3 |
| KF-25 | 41°36.978' | 5°12.559' | 1.3 | 13.26 | 5.9 | 15 | 1.259 | 0.100 | 5 | 121.8 | 0.8 | 153.4 | 12.0 |
| KF-26 | 41°23.939' | 5°23.800' | 1.4 | 13.29 | 5.9 | 15 | 1.162 | 0.060 | 5 | 111.5 | 0.9 | 129.6 | 7.0 |
| KF-27 | 41°20.700' | 5°29.103' | 1.4 | 13.3 | 5.9 | 15 | 1.129 | 0.110 | 5 | 44.3 | 0.9 | 50.0 | 5.0 |
| KF-28 | 41°12.503' | 5°36.234' | 1.3 | 13.31 | 5.9 | 14 | 1.180 | 0.130 | 5 | 45.5 | 1.2 | 53.7 | 6.0 |