

Appendix 2
Trace element concentrations of bulk samples from study area

| Sample | Parent rock | | Kaolin samples | | | | | | | | | | | | | | | |
|---------------------|-------------|-------|----------------|--------|--------|----------|-------|-------|--------|-------|-------|-------|-------|-------|-------|-------|------|------|
| | (ppm) | At-1 | At-2 | BK51-2 | BK53-3 | KN-Geo-1 | A22 | Yass1 | E GA3* | TRM2* | EMA1* | KHA1* | GAW5* | EMB5* | BAM6* | R32* | MR3* | AS2* |
| Ba | 180 | 174 | 104 | 54 | 146 | 71 | 251 | | | | | | | | | | | |
| Rb | 333.2 | 328.5 | | 0.4 | 308.9 | 0.4 | 2 | | | | | | | | | | | |
| Sr | 39.3 | 28.1 | 1138 | 1042 | 95 | 1021 | 254.8 | | | | | | | | | | | |
| Zr | 48.5 | 47.8 | 73.4 | 62.3 | 746 | 39.4 | 63.1 | | | | | | | | | | | |
| Nb | 9.5 | 11.3 | 14.2 | 11.3 | 27.9 | 5.7 | 8.7 | | | | | | | | | | | |
| Co | 0.5 | <0.2 | <0.2 | <0.2 | <0.2 | 0.4 | <0.2 | | | | | | | | | | | |
| La | 9.8 | 8.2 | 14.3 | 11.6 | 85 | 27.8 | 11.7 | 3.50 | 5.11 | 10.04 | 5.92 | 6.51 | 8.97 | 6.97 | 6.2 | 8.22 | 8.43 | |
| Ce | 18.9 | 17.8 | 29.2 | 23.1 | 182.9 | 81 | 28.3 | 2.48 | 0.93 | 14.16 | 6.29 | 3.19 | 5.68 | 14.4 | 3.1 | 13.1 | 4.43 | |
| Pr | 1.93 | 1.81 | 2.41 | 2.07 | 18.65 | 8.77 | 2.76 | 6.76 | 42.2 | 30.62 | 50.4 | 24 | 37.1 | 21.8 | 14 | 27.3 | 65.7 | |
| Nd | 6.7 | 5.7 | 7 | 7.8 | 66.8 | 22.8 | 10.7 | 11.9 | 78.9 | 55.3 | 83.8 | 42.7 | 51.6 | 38.9 | 25 | 50.9 | 136 | |
| Sm | 1.74 | 1.43 | 1.37 | 1.63 | 13.25 | 1.17 | 2.47 | 1.74 | 7.31 | 5.95 | 8.06 | 4.37 | 5.02 | 4.51 | 2.6 | 5.58 | 15.9 | |
| Eu | 0.14 | 0.15 | 0.16 | 0.13 | 1.3 | 0.12 | 0.25 | 5.82 | 19.7 | 17.24 | 32.9 | 12.8 | 17.7 | 16.2 | 6.6 | 17.1 | 58.3 | |
| Gd | 1.94 | 2.06 | 0.9 | 0.75 | 11.75 | <0.05 | 1.98 | 1.71 | 2.77 | 2.45 | 7.81 | 2.05 | 3.95 | 4.03 | 1.2 | 2.89 | 7.54 | |
| Tb | 0.42 | 0.39 | 0.14 | 0.1 | 2.06 | 0.02 | 0.34 | 0.67 | 0.73 | 0.90 | 2.01 | 0.73 | 0.94 | 1.05 | 0.6 | 0.87 | 1.20 | |
| Dy | 2.87 | 2.6 | 0.85 | 0.47 | 11.66 | 0.36 | 1.77 | 1.28 | 1.52 | 2.60 | 6.49 | 1.87 | 2.55 | 3.57 | 1.1 | 2.8 | 2.54 | |
| Ho | 0.60 | 0.49 | 0.2 | 0.12 | 2.58 | 0.05 | 0.31 | 0.58 | 0.58 | 0.97 | 1.04 | 0.65 | 0.73 | 1.04 | 0.5 | 0.89 | 0.74 | |
| Er | 1.95 | 1.93 | 0.73 | 0.35 | 7.16 | 0.23 | 1 | 1.09 | 0.81 | 3.71 | 2.48 | 1.54 | 2.13 | 4.45 | 1.3 | 3.76 | 1.54 | |
| Tm | 0.30 | 0.24 | 0.14 | 0.06 | 1.11 | 0.03 | 0.15 | 0.57 | 0.51 | 1.22 | 0.78 | 0.64 | 0.76 | 1.29 | 0.6 | 1.21 | 0.70 | |
| Yb | 1.87 | 1.81 | 1.28 | 0.5 | 7.4 | 0.47 | 0.96 | 0.86 | 0.62 | 3.01 | 1.4 | 1.11 | 1.51 | 3.25 | 1.1 | 3.15 | 1.20 | |
| Lu | 0.30 | 0.29 | 0.22 | 0.06 | 1.25 | 0.05 | 0.16 | 0.53 | 0.5 | 0.95 | 0.59 | 0.58 | 0.63 | 0.89 | 0.5 | 0.91 | 0.64 | |
| Y | 16.5 | 16.4 | 5.4 | 2.6 | 64 | 1.6 | 7.8 | 0.94 | 0.63 | 3.8 | 1.33 | 1.33 | 1.79 | 3.54 | 1.3 | 3.73 | 1.38 | |
| Cs | 19.8 | 19.4 | 0.6 | 0.4 | 21.4 | 0.3 | 0.9 | 0.54 | 0.5 | 1.009 | 0.58 | 0.61 | 0.66 | 0.88 | 0.5 | 0.95 | 0.65 | |
| Ta | 1.5 | 1.3 | 2.3 | 2.1 | 2.3 | 0.9 | 1.2 | | | | | | | | | | | |
| Hf | 1.8 | 1.8 | 2.5 | 2.3 | 19.9 | 1.1 | 2.1 | | | | | | | | | | | |
| Be | <1 | 3 | <1 | <1 | 7 | 3 | 3 | | | | | | | | | | | |
| Ga | 14.5 | 17 | 33 | 31 | 33.6 | 16.6 | 14.8 | | | | | | | | | | | |
| Sn | 8 | 10 | 16 | 16 | 8 | 7 | 10 | | | | | | | | | | | |
| Th | 12.6 | 12.4 | 17.2 | 13.2 | 27.3 | 4.1 | 13.5 | | | | | | | | | | | |
| U | 3.8 | 3 | 3.3 | 1.5 | 7 | 0.7 | 2.1 | | | | | | | | | | | |
| V | 13 | 21 | <8 | 9 | 20 | 58 | <8 | | | | | | | | | | | |
| W | 2.2 | 2.5 | 5 | 2 | 0.8 | 6.7 | 3.4 | | | | | | | | | | | |
| LaN/Yb _N | 3.5 | 0.3 | 7.532 | 15.64 | 7.744 | 39.88 | 8.217 | 2.7 | 5.49 | 2.22 | 2.82 | 3.91 | 3.96 | 1.43 | 3.7 | 1.74 | 4.66 | |
| Eu/Eu* | 0.2 | 0.3 | 0.441 | 0.359 | 0.319 | - | 0.346 | 10.3 | 13.5 | 13.87 | 12.8 | 13.2 | 12.2 | 11.7 | 11 | 13.09 | 16.4 | |

*Data from Gharibnavaz et al. (2007).