

TABLE 1. CHEMICAL ANALYSES MOTTON SPILITE, BARRINGTON CHERT, BEULAH 'GRANITE'

| Name | Motton Sp | Motton Sp | Barr Chert | Vitric ash | Beulah 'Gr' | Beulah 'Gr' |
|--------------------------------|-------------|-----------|-------------|--------------|-------------|-------------|
| Number | 102 | 114 | 101 | 168 | 180 | 177 |
| Locality | West Gawler | Gunns Pl | Barren Knob | Gentle Annie | Beulah | Paradise |
| Easting | 424464 | 423705 | 424755 | 434575 | 447475 | 443675 |
| Northing | 5429906 | 5432745 | 5432450 | 5429925 | 5410875 | 5414125 |
| SiO ₂ | 47.3 | 47.4 | 99.1 | 73.7 | 59.2 | 58.4 |
| TiO ₂ | 1.8 | 1.39 | 0.09 | 0.29 | 0.56 | 0.61 |
| Al ₂ O ₃ | 13 | 13.3 | 0.94 | 12.9 | 15.3 | 15.6 |
| Fe ₂ O ₃ | 15.5 | 14.1 | 0.66 | 1.65 | 8.3 | 9.28 |
| MnO | 0.26 | 0.19 | <0.01 | <0.01 | 0.12 | 0.09 |
| MgO | 5.85 | 7.85 | 0.1 | 0.34 | 2.77 | 3.01 |
| CaO | 8.77 | 8.87 | 0.14 | 0.05 | 3.43 | 3.44 |
| Na ₂ O | 3.59 | 2.47 | 0.05 | 0.28 | 2.82 | 3.43 |
| K ₂ O | 0.33 | 0.5 | 0.17 | 6.16 | 5.55 | 3.94 |
| P ₂ O ₅ | 0.17 | 0.12 | <0.01 | 0.02 | 0.36 | 0.33 |
| LOI | 2.68 | 3.36 | 0.89 | 2.97 | 2.1 | 3.24 |
| Ba | 200 | 60 | 140 | 1450 | 1550 | 900 |
| Rb | 9.5 | 8.5 | 7 | 250 | 195 | 120 |
| Sr | 210 | 220 | 16 | 76 | 220 | 370 |
| Y | 35 | 26 | 4 | 28 | 27 | 31 |
| Nb | 10 | 6 | <5 | 24 | 32 | 34 |
| Zr | 120 | 80 | <20 | 160 | 190 | 180 |
| Ni | 60 | 68 | 5 | 3 | 18 | 17 |
| Cr | 120 | 130 | 190 | <20 | 60 | 60 |
| As | <3 | 4 | 4 | 10 | 6 | 4 |
| Sb | <0.5 | <0.5 | <0.5 | 2 | 0.5 | 1 |
| Th | 0.91 | 1.75 | 0.99 | 23 | 26 | 19 |
| U | 0.2 | 0.53 | 0.54 | 4.7 | 6 | 4.3 |
| La | 6.5 | 13.5 | 4.5 | 54 | 52 | 52 |
| Nd | 12.5 | 8.5 | 3 | 36 | 47 | 48.5 |
| Ce | 17.5 | 12 | 8.5 | 100 | 105 | 94 |
| Sm | 3.8 | 2.7 | 0.52 | 5.5 | 8 | 8.5 |
| Eu | 1.55 | 1.15 | 0.18 | 1.35 | 2.4 | 2.3 |
| Gd | 5.5 | 1.75 | 0.55 | 5 | 6.5 | 7 |
| Tb | 0.89 | 0.63 | 0.09 | 0.73 | 0.86 | 0.93 |
| Yb | 4.3 | 2.9 | 0.45 | 3.1 | 2.5 | 3.2 |
| Tl | <0.1 | <0.1 | <0.1 | 1 | 1.1 | 0.6 |
| Cu | 150 | 190 | 10 | 3 | 37 | 4 |
| Pb | 6 | <5 | 48 | 42 | <5 | 6 |
| Zn | 105 | 84 | 78 | 60 | 34 | 35 |
| Au | 0.003 | 0.001 | | | 0.005 | 0.003 |
| S | 800 | 1300 | 3 | <100 | <100 | <100 |