### TABLE DR1. MAJOR AND TRACE ELEMENT GEOCHEMICAL RESULTS

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<th>BD002</th>
<th>BD003</th>
<th>TH001</th>
<th>TH002</th>
<th>TH003</th>
<th>HS002</th>
<th>LB011</th>
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#### Major Elements

- **SiO₂**: 52.02 to 53.45
- **TiO₂**: 0.89 to 1.72
- **Al₂O₃**: 14.67 to 15.55
- **Fe₂O₃**: 10.72 to 13.29
- **MnO**: 0.18 to 0.17
- **MgO**: 6.87 to 7.53
- **CaO**: 10.39 to 11.85
- **Na₂O**: 2.15 to 3.01
- **K₂O**: 0.90 to 1.50
- **P₂O₅**: 0.11 to 0.15
- **LOI**: 1.34 to 2.61

#### Trace Elements

- **Ti**: 5312 to 10305
- **P**: 7429 to 19159
- **K**: 489 to 672
- **Sc**: 38.9 to 35.5
- **V**: 97.3 to 184.3
- **Cr**: 85 to 29.2
- **Ni**: 75 to 52.4
- **Co**: 42.21 to 428.6
- **Cu**: 97.3 to 10102
- **Zn**: 89.3 to 39.8
- **Ga**: 32.6 to 124.6
- **Rb**: 188.6 to 140.2
- **Sr**: 22.93 to 154.6
- **Y**: 96.9 to 124.8
- **Zr**: 32.6 to 124.6
- **Nb**: 188.6 to 103.2
- **Sn**: 85 to 29.2
- **Cs**: 75 to 52.4
- **Ba**: 236.5 to 29.2
- **La**: 5312 to 124.6
- **Ce**: 53.9 to 140.2
- **Pr**: 32.6 to 124.6
- **Nd**: 188.6 to 124.6
- **Sm**: 22.93 to 124.6
- **Eu**: 96.9 to 124.6
- **Gd**: 22.93 to 124.6
- **Tb**: 96.9 to 124.6
- **Dy**: 22.93 to 124.6
- **Ho**: 22.93 to 124.6
- **Er**: 22.93 to 124.6
- **Tm**: 22.93 to 124.6
- **Yb**: 22.93 to 124.6
- **Lu**: 22.93 to 124.6
- **Hf**: 22.93 to 124.6
- **Ta**: 22.93 to 124.6
- **Pb**: 22.93 to 124.6
- **Th**: 22.93 to 124.6
- **U**: 22.93 to 124.6

#### Note

- Major elements were determined by XRF using facilities in the Department of Geology, The Australian National University.
- Trace elements were analysed by laser ablation-ICPMS on lithium borate fusion beads at the Research School of Earth Sciences, The Australian National University.

**Mg#.15** = molar [100 * Mg/(Mg+Fe²⁺)] for Fe₂O₃/FeO = 0.15.

#N.D. = not determined.
**Errors are one sigma uncertainties and exclude uncertainties in the J-value.**

### TABLE DR2. \(^{39}\text{Ar}/^{37}\text{Ar}\) ANALYTICAL RESULTS

| Temp (˚C) | Cum. \(^{36}\text{Ar}\) \((\text{mole}^\circ)\) | \(^{36}\text{Ar}\) \((\text{mole}^\circ)\) | \(^{39}\text{Ar}\) \((\text{mole}^\circ)\) | \(^{40}\text{Ar}\) \((\text{mole}^\circ)\) | \(^{39}\text{Ar}/^{37}\text{Ar}\) | \(^{40}\text{Ar}/^{37}\text{Ar}\) | Ca/K | \(^{40}\text{Ar}/^{36}\text{Ar}\) | Age (Ma) | **\(Z_{100}^{\text{calc}}\)**
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Note: Isotopic intercalibration corrections \(\Delta^{39}\text{Ar}/^{37}\text{Ar} = 3.45 \times 10^{-7}\) (at 1400 ˚C) and \(\Delta^{40}\text{Ar}/^{37}\text{Ar} = 7.86 \times 10^{-8}\) (at 1400 ˚C) (Spiegel et al. 1996). 

\(^{(39)}\text{Ar}/^{37}\text{Ar} = 2.03 \pm 0.03 (2\sigma)\).