

Table S7. Concentrations of the Yb, Lu, and ΣREE (expressed in mg/kg) in BCR fractions and AR eluates of the tailings sample.

| Yb | | | | | | |
|----------|---------------|---------------|---------------|---------------|-------|------------------------------|
| BCR step | BCR1 | BCR2 | BCR3 | BCR4 | ΣBCR | Control <i>aqua regia</i> |
| | Exchangeable | Reducible | Oxidisable | Residual | | |
| Site | mg/kg | | | | | |
| Tailings | n.d. | 0.028 ± 0.001 | 0.610 ± 0.038 | 0.466 ± 0.017 | 1.10 | 0.968 |
| Dust | 0.170 ± 0.007 | 0.402 ± 0.008 | 0.698 ± 0.024 | 0.499 ± 0.021 | 1.77 | 1.72 |
| MMART0-3 | n.d. | n.d. | 0.367 ± 0.025 | 0.080 ± 0.027 | 0.447 | 0.386 |
| MMART5-7 | n.d. | n.d. | 0.213 ± 0.006 | 0.062 ± 0.001 | 0.275 | 0.382 |
| MSTUP0-3 | n.d. | n.d. | 0.118 ± 0.004 | 0.046 ± 0.065 | 0.166 | 0.220 |
| Lu | | | | | | |
| BCR step | BCR1 | BCR2 | BCR3 | BCR4 | ΣBCR | Control <i>aqua regia</i> |
| | Exchangeable | Reducible | Oxidisable | Residual | | |
| Site | mg/kg | | | | | |
| Tailings | n.d. | n.d. | 0.086 ± 0.002 | 0.066 ± 0.003 | 0.152 | 0.148 |
| Dust | 0.010 ± 0.014 | 0.040 ± 0.001 | 0.077 ± 0.002 | 0.054 ± 0.004 | 0.182 | 0.180 |
| MMART0-3 | n.d. | n.d. | 0.051 ± 0.002 | n.d. | 0.051 | 0.060 |
| MMART5-7 | n.d. | n.d. | 0.033 ± 0.005 | n.d. | 0.033 | 0.051 |
| MSTUP0-3 | n.d. | n.d. | n.d. | n.d. | n.d. | n.d. |
| ΣREE | | | | | | |
| BCR step | BCR1 | BCR2 | BCR3 | BCR4 | ΣBCR | Control <i>aqua regia</i> |
| | Exchangeable | Reducible | Oxidisable | Residual | | |
| Site | mg/kg | | | | | |
| Tailings | 0.080 | 2.55 | 45.5 | 59.4 | 107 | 91.3 |
| Dust | 7.44 | 22.7 | 31.8 | 34.0 | 95.9 | 88.3 |
| MMART0-3 | n.d. | 0.012 | 31.7 | 13.4 | 45.1 | 36.7 |
| MMART5-7 | n.d. | 0.177 | 18.8 | 9.23 | 28.3 | 36.9 |
| MSTUP0-3 | 0.006 | 0.084 | 14.1 | 10.1 | 24.4 | 23.0 |

*n.d. – not detected