|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample name | HR-1f | HR-2f | HR-3f | HR-5f | HR-6f | HR-9f | HR-11f | HR-13f | HR-16f | HR-18f | HR-21f | HR-24f | HR-25f | HR-29f | HR-32f | HR-35f |
| Site | Mt. Harif (30º30.2’N 34º33.2’E) | | | | | | | | | | | | | | | |
| Depth (cm) | 0.5 | 5.5 | 15 | 38 | 45 | 75 | 95 | 115 | 145 | 165 | 195 | 225 | 235 | 275 | 305 | 335 |
| Age (ka) |  |  | 13.7 | 29.1\* | 32.8 | 42.0 | 44.8\* | 47.0\* | 53.2\* | 61.5 | 77.4 | 76.5\* | 72.5 | 73.0 | 131.0 | 173.9\* |
| Age error ± (ka) |  |  | 0.7 |  | 2.0 | 3.0 |  |  |  | 3.8 | 5.2 |  | 5.8 | 6.2 | 9.7 |  |
| TiO2 | 0.7 | 0.6 | N/A | 0.6 | 0.4 | N/A | 0.8 | 0.6 | N/A | 0.8 | 0.8 | 1.0 | 0.7 | N/A | N/A | N/A |
| Al2O3 | 13.9 | 13.7 | 8.5 | 13.3 | 9.3 | 6.5 | 12.1 | 12.0 | 4.1 | 12.0 | 12.1 | 11.8 | 11.7 | 4.9 | 2.8 | 2.5 |
| Fe2O3 | 9.0 | 8.6 | 4.8 | 8.6 | 6.0 | 4.9 | 7.9 | 8.0 | 2.7 | 7.8 | 8.0 | 7.9 | 7.6 | 3.5 | 2.0 | 2.0 |
| CaO | 1.0 | 1.2 | 0.4 | 1.1 | 0.8 | 0.4 | 1.0 | 1.1 | 0.9 | 1.1 | 1.6 | 1.1 | 1.8 | 0.6 | 0.3 | 0.6 |
| MgO | 2.5 | 2.4 | 1.6 | 2.2 | 1.6 | 1.1 | 2.1 | 2.0 | 0.8 | 2.2 | 2.3 | 2.3 | 2.3 | 0.9 | 0.6 | 0.5 |
| MnO | 0.05 | 0.04 | 0.03 | 0.04 | 0.03 | 0.02 | 0.05 | 0.05 | 0.02 | 0.05 | 0.05 | 0.05 | 0.05 | 0.02 | 0.01 | 0.01 |
| Na2O | 0.70 | 0.59 | 0.38 | 0.57 | 0.40 | 0.25 | 0.54 | 0.52 | 0.09 | 0.52 | 0.47 | 0.48 | 0.42 | 0.14 | 0.07 | 0.08 |
| K2O | 1.84 | 1.76 | 1.29 | 1.76 | 1.24 | 1.13 | 1.56 | 1.57 | 0.33 | 1.43 | 1.06 | 1.14 | 1.18 | 0.58 | 0.32 | 0.25 |
| Cr | 159.19 | 128.82 | 76.52 | 128.16 | 89.89 | 77.51 | 116.20 | 115.37 | 47.99 | 115.67 | 114.80 | 115.01 | 114.95 | 52.45 | 29.63 | 40.52 |
| Co | 15.83 | 14.81 | 8.05 | 15.45 | 11.08 | 8.35 | 15.14 | 14.12 | 5.99 | 16.20 | 14.18 | 14.02 | 14.98 | 7.62 | 4.61 | 3.94 |
| Ni | 62.42 | 52.22 | 29.76 | 51.36 | 36.61 | 31.71 | 50.75 | 49.81 | 23.14 | 50.76 | 49.49 | 48.87 | 50.31 | 27.16 | 15.97 | 13.99 |
| Cu | 27.61 | 25.10 | 12.71 | 26.54 | 19.28 | 15.69 | 28.38 | 26.58 | 13.45 | 27.94 | 29.78 | 28.16 | 27.89 | 13.61 | 7.42 | 7.24 |
| Zn | 116.62 | 107.70 | 64.16 | 104.75 | 72.74 | 59.36 | 96.20 | 98.21 | 32.78 | 90.85 | 89.26 | 89.47 | 88.67 | 43.71 | 24.80 | 23.17 |
| Rb | 63.85 | 62.40 | 29.53 | 64.36 | 45.31 | 21.76 | 58.02 | 58.49 | 19.58 | 54.60 | 41.69 | 44.89 | 46.56 | 34.04 | 20.39 | 13.63 |
| Ba | 286.35 | 257.22 | 204.37 | 392.04 | 351.36 | 133.86 | 255.39 | 324.63 | 157.50 | 247.86 | 712.04 | 189.57 | 216.37 | 161.47 | 70.56 | 66.85 |
| Th | 50.64 | 36.90 | 7.17 | 33.72 | 23.20 | 3.36 | 27.67 | 29.95 | 4.12 | 25.45 | 21.79 | 23.12 | 25.56 | 5.88 | 2.62 | 2.37 |
| U | 3.01 | 2.47 | 1.52 | 2.77 | 1.99 | 1.50 | 2.19 | 2.20 | 1.44 | 2.22 | 2.03 | 2.09 | 2.24 | 1.38 | 0.66 | 0.67 |
| La | 26.32 | 25.33 | 5.19 | 25.34 | 17.94 | 3.21 | 21.39 | 23.14 | 7.07 | 18.73 | 16.84 | 18.90 | 20.20 | 11.15 | 5.10 | 4.62 |
| Ce | 48.08 | 50.35 | 13.10 | 52.33 | 42.98 | 6.93 | 45.82 | 47.28 | 14.41 | 43.42 | 38.25 | 41.81 | 45.17 | 28.28 | 13.43 | 11.98 |
| Pb | 16.56 | 14.77 | 10.36 | 14.26 | 10.31 | 8.64 | 11.72 | 11.50 | 5.24 | 10.83 | 9.50 | 9.97 | 10.92 | 7.52 | 3.45 | 3.13 |
| Pr | 5.75 | 5.42 | 1.37 | 5.39 | 3.84 | 0.83 | 4.71 | 5.02 | 1.72 | 4.07 | 3.66 | 4.09 | 4.40 | 2.70 | 1.22 | 1.15 |
| Sr | 129.27 | 123.66 | 102.84 | 130.46 | 100.74 | 65.13 | 118.69 | 126.19 | 47.27 | 107.10 | 125.86 | 96.89 | 106.10 | 70.52 | 32.49 | 38.19 |
| Nd | 20.60 | 19.39 | 5.01 | 19.19 | 13.76 | 3.10 | 16.67 | 18.12 | 6.07 | 14.62 | 13.34 | 14.83 | 16.05 | 9.44 | 4.35 | 4.15 |
| Sm | 1.80 | 1.79 | 0.93 | 1.72 | 1.19 | 0.59 | 2.26 | 2.42 | 1.09 | 1.71 | 2.05 | 2.87 | 2.57 | 1.67 | 0.77 | 0.74 |
| Eu | 1.03 | 0.95 | 0.28 | 0.99 | 0.74 | 0.17 | 0.85 | 0.84 | 0.28 | 0.78 | 0.86 | 0.73 | 0.78 | 0.41 | 0.19 | 0.19 |
| Gd | 3.92 | 3.54 | 0.93 | 3.58 | 2.57 | 0.56 | 3.14 | 3.27 | 1.04 | 2.84 | 2.66 | 2.78 | 3.01 | 1.62 | 0.74 | 0.71 |
| Tb | 0.61 | 0.54 | 0.15 | 0.54 | 0.37 | 0.09 | 0.46 | 0.47 | 0.16 | 0.43 | 0.39 | 0.39 | 0.43 | 0.24 | 0.11 | 0.10 |
| Dy | 3.70 | 3.23 | 0.97 | 3.22 | 2.23 | 0.57 | 2.67 | 2.75 | 0.95 | 2.58 | 2.36 | 2.39 | 2.54 | 1.45 | 0.66 | 0.62 |
| Ho | 0.77 | 0.67 | 0.20 | 0.65 | 0.46 | 0.11 | 0.55 | 0.55 | 0.19 | 0.54 | 0.47 | 0.48 | 0.50 | 0.30 | 0.14 | 0.12 |
| Er | 2.46 | 2.06 | 0.64 | 2.06 | 1.41 | 0.38 | 1.65 | 1.71 | 0.61 | 1.68 | 1.47 | 1.54 | 1.58 | 0.93 | 0.43 | 0.37 |
| Tm | 0.39 | 0.32 | 0.10 | 0.32 | 0.22 | 0.06 | 0.26 | 0.26 | 0.10 | 0.26 | 0.23 | 0.21 | 0.23 | 0.14 | 0.07 | 0.06 |
| Yb | 2.60 | 2.17 | 0.68 | 2.13 | 1.48 | 0.43 | 1.72 | 1.70 | 0.62 | 1.71 | 1.50 | 1.56 | 1.61 | 0.98 | 0.43 | 0.39 |
| Lu | 0.41 | 0.34 | 0.11 | 0.33 | 0.23 | 0.07 | 0.27 | 0.26 | 0.10 | 0.27 | 0.24 | 0.23 | 0.26 | 0.15 | 0.07 | 0.06 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample name | HR-36f | HR-37f | HR-41f | HR-1c | HR-2c | HR-3c | HR-5c | HR-6c | HR-9c | HR-11c | HR-13c | HR-16c | HR-18c | HR-21c | HR-24c | HR-25c |
| Site | Mt. Harif (30º30.2’N 34º33.2’E) | | | | | | | | | | | | | | | |
| Depth (cm) | 345 | 355 | 395 | 0.5 | 5.5 | 15 | 38 | 45 | 75 | 95 | 115 | 145 | 165 | 195 | 225 | 235 |
| Age (ka) | 181.0 | 181 | 181.0 |  |  | 13.7 | 29.1\* | 32.8 | 42.0 | 44.8\* | 47\* | 53.2\* | 61.5 | 77.4 | 76.5\* | 72.5 |
| Age error ± (ka) | 10.0 |  | 11.0 |  |  | 0.7 |  | 2.0 | 3.0 |  |  |  | 3.8 | 5.2 |  | 5.8 |
| TiO2 | 0.7 | 0.2 | N/A | 0.7 | 0.5 | N/A | 0.5 | 0.5 | N/A | 0.5 | 0.6 | N/A | 0.6 | 0.6 | 0.6 | 0.6 |
| Al2O3 | 11.1 | 2.8 | 2.1 | 2.9 | 2.5 | 4.6 | 3.0 | 2.7 | 4.0 | 3.0 | 3.8 | 2.7 | 3.0 | 3.2 | 2.6 | 2.8 |
| Fe2O3 | 7.2 | 1.8 | 1.6 | 1.4 | 1.0 | 2.6 | 1.2 | 1.1 | 1.7 | 1.2 | 1.7 | 1.3 | 1.1 | 1.3 | 1.0 | 1.2 |
| CaO | 1.4 | 3.8 | 0.5 | 0.5 | 0.5 | 0.9 | 0.5 | 0.5 | 0.9 | 0.6 | 0.6 | 0.8 | 0.7 | 0.7 | 0.5 | 0.5 |
| MgO | 2.6 | 0.8 | 0.4 | 0.3 | 0.2 | 0.5 | 0.3 | 0.2 | 0.3 | 0.2 | 0.4 | 0.3 | 0.2 | 0.3 | 0.2 | 0.3 |
| MnO | 0.05 | 0.02 | 0.01 | 0.02 | 0.01 | 0.02 | 0.01 | 0.01 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 |
| Na2O | 0.46 | 0.11 | 0.06 | 0.56 | 0.52 | 1.16 | 0.60 | 0.57 | 0.95 | 0.63 | 0.69 | 0.87 | 0.68 | 0.68 | 0.56 | 0.51 |
| K2O | 1.17 | 0.29 | 0.17 | 0.79 | 0.70 | 1.68 | 0.84 | 0.80 | 1.23 | 0.85 | 0.96 | 1.06 | 0.84 | 0.79 | 0.69 | 0.70 |
| Cr | 107.45 | 28.99 | 30.49 | 28.37 | 20.82 | 238.72 | 22.89 | 23.04 | 146.73 | 25.16 | 29.64 | 321.55 | 25.51 | 31.47 | 21.67 | 27.70 |
| Co | 18.05 | 5.82 | 3.04 | 2.80 | 1.96 | 4.70 | 2.59 | 2.29 | 3.18 | 2.49 | 3.70 | 2.37 | 2.38 | 2.77 | 2.09 | 2.71 |
| Ni | 48.22 | 13.80 | 11.59 | 6.87 | 4.37 | 16.04 | 6.93 | 5.44 | 8.76 | 6.38 | 10.68 | 15.88 | 5.78 | 7.73 | 5.53 | 7.49 |
| Cu | 27.37 | 7.70 | 6.40 | 4.47 | 3.66 | 7.08 | 4.40 | 3.65 | 4.60 | 4.09 | 6.61 | 3.39 | 4.04 | 5.19 | 3.83 | 4.96 |
| Zn | 81.10 | 21.25 | 17.65 | 18.21 | 12.08 | 28.37 | 17.46 | 14.09 | 21.01 | 15.57 | 23.02 | 15.25 | 14.83 | 17.82 | 13.06 | 16.77 |
| Rb | 46.15 | 11.29 | 10.81 | 19.14 | 16.53 | 30.69 | 20.67 | 19.19 | 24.74 | 20.59 | 25.64 | 17.46 | 20.35 | 19.33 | 16.26 | 17.79 |
| Ba | 319.11 | 247.97 | 40.85 | 244.19 | 225.71 | 370.65 | 333.35 | 291.99 | 312.83 | 285.60 | 342.04 | 255.76 | 275.83 | 1345.30 | 283.50 | 366.51 |
| Th | 28.12 | 6.03 | 1.60 | 15.50 | 8.92 | 3.03 | 8.29 | 8.74 | 4.31 | 8.23 | 9.33 | 2.61 | 9.77 | 8.56 | 8.59 | 11.61 |
| U | 2.39 | 0.81 | 0.46 | 1.09 | 0.78 | 0.94 | 0.79 | 0.78 | 1.11 | 0.77 | 0.84 | 0.82 | 0.91 | 0.81 | 0.73 | 0.92 |
| La | 16.88 | 8.41 | 3.54 | 12.31 | 7.30 | 4.54 | 6.75 | 7.06 | 5.86 | 7.09 | 8.22 | 4.02 | 9.19 | 8.27 | 7.05 | 10.16 |
| Ce | 38.81 | 16.38 | 7.36 | 23.25 | 13.74 | 7.31 | 12.68 | 13.39 | 12.36 | 13.49 | 15.99 | 7.69 | 17.10 | 15.38 | 13.63 | 19.74 |
| Pb | 10.42 | 3.55 | 2.19 | 6.42 | 5.34 | 8.23 | 6.05 | 5.52 | 7.16 | 6.13 | 7.05 | 5.51 | 5.77 | 5.49 | 5.09 | 5.49 |
| Pr | 3.76 | 2.18 | 0.86 | 2.89 | 1.76 | 1.34 | 1.64 | 1.73 | 1.79 | 1.75 | 1.99 | 1.21 | 2.19 | 1.99 | 1.80 | 2.46 |
| Sr | 106.33 | 75.89 | 25.55 | 87.48 | 77.43 | 128.29 | 94.92 | 90.23 | 120.70 | 98.35 | 111.73 | 99.59 | 104.03 | 151.91 | 90.01 | 88.84 |
| Nd | 13.73 | 8.57 | 3.03 | 10.84 | 6.54 | 5.17 | 6.05 | 6.50 | 6.84 | 6.61 | 7.43 | 4.76 | 8.19 | 7.55 | 6.67 | 9.23 |
| Sm | 1.60 | 1.76 | 0.54 | 3.81 | 2.36 | 1.04 | 2.35 | 2.48 | 1.36 | 2.23 | 2.43 | 0.98 | 2.71 | 2.50 | 2.57 | 3.28 |
| Eu | 0.76 | 0.56 | 0.13 | 0.53 | 0.44 | 0.37 | 0.50 | 0.49 | 0.39 | 0.49 | 0.59 | 0.32 | 0.53 | 1.00 | 0.47 | 0.53 |
| Gd | 2.62 | 1.84 | 0.53 | 2.05 | 1.35 | 0.96 | 1.22 | 1.32 | 1.30 | 1.40 | 1.49 | 0.95 | 1.64 | 1.49 | 1.38 | 1.76 |
| Tb | 0.38 | 0.27 | 0.08 | 0.27 | 0.20 | 0.15 | 0.19 | 0.18 | 0.20 | 0.20 | 0.21 | 0.16 | 0.22 | 0.21 | 0.20 | 0.23 |
| Dy | 2.30 | 1.55 | 0.47 | 1.45 | 1.06 | 0.98 | 0.99 | 1.11 | 1.25 | 1.13 | 1.21 | 1.12 | 1.31 | 1.13 | 1.09 | 1.18 |
| Ho | 0.47 | 0.30 | 0.10 | 0.27 | 0.22 | 0.21 | 0.20 | 0.20 | 0.26 | 0.22 | 0.24 | 0.22 | 0.25 | 0.22 | 0.22 | 0.23 |
| Er | 1.47 | 0.89 | 0.30 | 0.90 | 0.68 | 0.64 | 0.69 | 0.67 | 0.81 | 0.70 | 0.77 | 0.75 | 0.81 | 0.74 | 0.67 | 0.73 |
| Tm | 0.23 | 0.13 | 0.05 | 0.13 | 0.11 | 0.10 | 0.10 | 0.10 | 0.13 | 0.11 | 0.12 | 0.12 | 0.12 | 0.11 | 0.10 | 0.10 |
| Yb | 1.51 | 0.77 | 0.32 | 0.92 | 0.74 | 0.70 | 0.71 | 0.73 | 0.92 | 0.70 | 0.77 | 0.89 | 0.88 | 0.75 | 0.75 | 0.75 |
| Lu | 0.23 | 0.12 | 0.05 | 0.15 | 0.11 | 0.11 | 0.12 | 0.11 | 0.14 | 0.12 | 0.12 | 0.14 | 0.13 | 0.12 | 0.11 | 0.11 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample name | HR-29c | HR-32c | HR-35c | HR-36c | HR-37c | HR-41c | RB1-4f | RB1-8f | RB1-10f | RB1-13f | RB1-15f | RB1-20f | RB1-21f | RB1-25f | RB1-29f | RB1-30f |
| Site | Mt. Harif (30º30.2’N 34º33.2’E) | | | | | | Ramat Beka (31º8.5’N 34º57.0’E) | | | | | | | | | |
| Depth (cm) | 275 | 305 | 335 | 345 | 355 | 395 | 15 | 55 | 75 | 105 | 125 | 175 | 185 | 225 | 265 | 275 |
| Age (ka) | 73.0 | 131.0 | 173.9\* | 181.0 | 184.9\* | 181.0 | 14.2 | 18.6\* | 20.3 | 22.3\* | 23.9 | 31.1 | 33.0 \* | 40.0 | 43.2\* | 44.2 |
| Age error ± (ka) | 6.2 | 9.7 |  | 10.0 |  | 11.0 | 0.8 |  | 1.0 |  | 1.3 | 1.6 |  | 2.2 |  | 2.5 |
| TiO2 | 0.0 | N/A | N/A | 0.8 | 0.7 | N/A | 0.7 | 0.7 | 0.9 | 0.8 | N/A | 0.7 | 0.8 | 0.8 | 0.8 | 0.7 |
| Al2O3 | 3.1 | 2.2 | 5.9 | 2.8 | 2.7 | 4.5 | 10.2 | 10.2 | 10.1 | 10.5 | 3.7 | 9.9 | 10.1 | 10.2 | 9.5 | 9.6 |
| Fe2O3 | 1.5 | 1.6 | 2.9 | 1.2 | 1.1 | 3.1 | 6.8 | 6.7 | 6.7 | 7.2 | 2.6 | 6.8 | 7.0 | 7.0 | 6.7 | 6.6 |
| CaO | 0.8 | 0.7 | 1.0 | 0.6 | 0.5 | 0.6 | 0.8 | 0.8 | 0.8 | 0.9 | 0.4 | 0.8 | 0.9 | 1.0 | 0.9 | 1.0 |
| MgO | 0.3 | 0.3 | 1.0 | 0.2 | 0.2 | 0.4 | 1.9 | 1.7 | 1.7 | 1.8 | 0.7 | 1.7 | 1.8 | 1.8 | 1.7 | 1.8 |
| MnO | 0.02 | 0.02 | 0.03 | 0.02 | 0.02 | 0.02 | 0.04 | 0.03 | 0.04 | 0.05 | 0.02 | 0.05 | 0.05 | 0.00 | 0.05 | 0.04 |
| Na2O | 0.88 | 0.91 | 0.88 | 0.61 | 0.56 | 0.71 | 0.54 | 0.61 | 0.65 | 0.66 | 0.19 | 0.66 | 0.64 | 0.64 | 0.63 | 0.59 |
| K2O | 1.05 | 1.08 | 1.06 | 0.73 | 0.68 | 1.16 | 1.48 | 1.39 | 1.43 | 1.50 | 0.52 | 1.43 | 1.40 | 1.49 | 1.35 | 1.34 |
| Cr | 37.81 | 42.54 | 97.39 | 30.90 | 26.48 | 78.50 | 102.82 | 97.94 | 105.82 | 108.35 | 36.51 | 102.77 | 104.83 | 105.02 | 96.51 | 97.41 |
| Co | 3.49 | 3.31 | 4.96 | 2.58 | 2.37 | 5.36 | 12.28 | 12.18 | 12.28 | 13.14 | 5.43 | 12.68 | 13.01 | 13.40 | 12.33 | 12.20 |
| Ni | 7.54 | 8.40 | 14.86 | 6.26 | 6.46 | 17.63 | 39.40 | 35.66 | 37.15 | 40.44 | 17.29 | 38.50 | 39.81 | 40.16 | 37.45 | 37.99 |
| Cu | 4.37 | 4.59 | 9.50 | 4.62 | 4.72 | 10.87 | 19.72 | 20.86 | 20.55 | 21.25 | 8.63 | 21.38 | 22.13 | 22.73 | 22.91 | 21.58 |
| Zn | 18.60 | 16.63 | 31.01 | 15.53 | 15.72 | 27.51 | 83.67 | 80.56 | 81.10 | 84.66 | 29.66 | 79.66 | 84.43 | 82.07 | 76.20 | 76.95 |
| Rb | 20.98 | 13.88 | 24.63 | 17.77 | 16.47 | 20.75 | 51.44 | 48.23 | 48.83 | 52.60 | 29.41 | 49.88 | 50.94 | 52.13 | 47.44 | 47.86 |
| Ba | 267.11 | 213.30 | 291.02 | 328.40 | 1526.00 | 222.62 | 222.85 | 232.57 | 241.09 | 240.13 | 144.94 | 242.09 | 248.98 | 284.03 | 217.03 | 217.77 |
| Th | 3.18 | 2.30 | 4.30 | 11.34 | 9.57 | 2.19 | 26.34 | 30.70 | 24.38 | 26.81 | 5.81 | 29.18 | 25.30 | 25.50 | 27.48 | 22.02 |
| U | 0.93 | 0.93 | 1.41 | 1.01 | 0.89 | 0.99 | 2.02 | 2.30 | 2.33 | 2.25 | 0.85 | 2.20 | 2.12 | 2.15 | 2.08 | 2.06 |
| La | 4.87 | 2.79 | 7.40 | 9.85 | 8.43 | 2.86 | 18.96 | 22.82 | 19.59 | 21.97 | 10.79 | 23.24 | 19.34 | 20.35 | 21.39 | 17.23 |
| Ce | 9.99 | 6.03 | 14.62 | 18.90 | 16.42 | 6.79 | 39.42 | 43.67 | 36.73 | 43.38 | 25.89 | 45.58 | 38.72 | 42.96 | 42.58 | 34.93 |
| Pb | 6.24 | 6.02 | 7.57 | 5.52 | 5.36 | 6.89 | 10.80 | 11.01 | 10.74 | 11.01 | 5.51 | 10.40 | 10.47 | 10.94 | 9.77 | 9.55 |
| Pr | 1.43 | 0.89 | 2.13 | 2.41 | 2.07 | 0.88 | 4.07 | 4.96 | 4.20 | 4.76 | 2.15 | 5.09 | 4.20 | 4.50 | 4.77 | 3.77 |
| Sr | 104.57 | 92.34 | 131.40 | 97.72 | 128.18 | 81.52 | 102.56 | 110.39 | 114.77 | 117.83 | 65.80 | 116.62 | 114.66 | 121.25 | 109.11 | 105.66 |
| Nd | 5.57 | 3.56 | 8.11 | 9.13 | 8.04 | 3.41 | 14.76 | 17.89 | 15.17 | 17.12 | 7.54 | 18.49 | 15.20 | 16.34 | 17.35 | 13.70 |
| Sm | 1.12 | 0.73 | 1.59 | 3.40 | 3.35 | 0.71 | 2.21 | 2.69 | 2.24 | 2.76 | 1.41 | 2.77 | 2.49 | 2.13 | 2.97 | 2.21 |
| Eu | 0.35 | 0.24 | 0.41 | 0.57 | 1.13 | 0.20 | 0.78 | 0.83 | 0.83 | 0.87 | 0.37 | 0.89 | 0.82 | 0.92 | 0.86 | 0.78 |
| Gd | 1.09 | 0.70 | 1.52 | 1.75 | 1.57 | 0.64 | 2.92 | 3.37 | 3.05 | 3.32 | 1.45 | 3.45 | 2.96 | 3.23 | 3.29 | 2.77 |
| Tb | 0.18 | 0.12 | 0.23 | 0.24 | 0.22 | 0.09 | 0.45 | 0.49 | 0.47 | 0.49 | 0.21 | 0.50 | 0.46 | 0.48 | 0.47 | 0.41 |
| Dy | 1.15 | 0.78 | 1.40 | 1.35 | 1.18 | 0.62 | 2.76 | 2.85 | 2.97 | 2.89 | 1.20 | 2.93 | 2.73 | 2.87 | 2.69 | 2.50 |
| Ho | 0.25 | 0.16 | 0.28 | 0.27 | 0.24 | 0.13 | 0.58 | 0.57 | 0.63 | 0.60 | 0.26 | 0.58 | 0.59 | 0.58 | 0.54 | 0.50 |
| Er | 0.75 | 0.52 | 0.87 | 0.84 | 0.74 | 0.41 | 1.81 | 1.76 | 1.93 | 1.89 | 0.78 | 1.85 | 1.77 | 1.90 | 1.70 | 1.63 |
| Tm | 0.12 | 0.09 | 0.14 | 0.12 | 0.11 | 0.06 | 0.28 | 0.27 | 0.31 | 0.29 | 0.12 | 0.28 | 0.28 | 0.29 | 0.27 | 0.26 |
| Yb | 0.85 | 0.62 | 1.00 | 0.89 | 0.80 | 0.43 | 1.88 | 1.87 | 2.11 | 2.00 | 0.75 | 1.94 | 1.87 | 1.95 | 1.78 | 1.67 |
| Lu | 0.18 | 0.11 | 0.16 | 0.13 | 0.13 | 0.06 | 0.30 | 0.29 | 0.33 | 0.31 | 0.12 | 0.30 | 0.27 | 0.30 | 0.28 | 0.26 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample name | RB1-33c | RB1-35c | RB1-41c | RB1-45c | RB1-48c | RB1-49c | HU1-1f | HU1-2f | HU1-3f | HU1-4f | HU1-6f | HU1-7f | HU1-10f | HU1-12f | HU1-15f | HU1-20f |
| Site | Ramat Beka (31º8.5’N 34º57.0’E) | | | | | | Hura Village (31º18.5’N 34º57.0’E) | | | | | | | | | |
| Depth (cm) | 305 | 325 | 385 | 437 | 475 | 495 | 5 | 15 | 25 | 35 | 55 | 65 | 95 | 115 | 145 | 175 |
| Age (ka) | 49.5\* | 54.0 | 61.1 | 63.7 | 104.0 | 128.6\* |  |  | 10.7 | 13.1\* | 17.3 | 18.8\* | 18.9 | 14.9\* | 18.8 | 41.6 |
| Age error ± (ka) |  | 2.3 | 3.8 | 2.4 | 6.2 |  |  |  | 0.7 |  | 1.3 |  | 1.2 |  | 1.4 | 2.5 |
| TiO2 | 0.6 | 1.0 | N/A | N/A | 0.8 | 0.8 | N/A | N/A | 0.5 | N/A | 0.6 | N/A | 0.6 | N/A | 0.5 | 0.7 |
| Al2O3 | 2.9 | 3.0 | 4.7 | 3.4 | 2.9 | 3.0 | 2.5 | 2.4 | 8.1 | 3.1 | 8.4 | 3.2 | 8.7 | 3.1 | 7.6 | 8.2 |
| Fe2O3 | 1.2 | 1.5 | 3.8 | 1.8 | 1.3 | 1.3 | 1.7 | 1.6 | 5.3 | 2.1 | 5.6 | 2.2 | 5.9 | 2.1 | 5.2 | 5.7 |
| CaO | 0.6 | 0.7 | 0.7 | 0.9 | 0.7 | 0.7 | 0.3 | 0.4 | 0.6 | 0.4 | 0.7 | 0.4 | 0.6 | 0.4 | 0.5 | 0.8 |
| MgO | 0.3 | 0.3 | 0.8 | 0.4 | 0.3 | 0.3 | 0.5 | 0.5 | 1.5 | 0.7 | 1.5 | 0.7 | 1.6 | 0.6 | 1.4 | 1.6 |
| MnO | 0.02 | 0.02 | 0.03 | 0.02 | 0.02 | 0.02 | 0.02 | 0.01 | 0.04 | 0.02 | 0.03 | 0.02 | 0.03 | 0.02 | 0.03 | 0.05 |
| Na2O | 0.65 | 0.66 | 0.56 | 0.99 | 0.67 | 0.72 | 0.11 | 0.12 | 0.41 | 0.13 | 0.46 | 0.15 | 0.48 | 0.14 | 0.43 | 0.42 |
| K2O | 0.74 | 0.74 | 0.99 | 1.11 | 0.66 | 0.70 | 0.41 | 0.37 | 1.28 | 0.48 | 1.31 | 0.49 | 1.36 | 0.46 | 1.25 | 1.35 |
| Cr | 27.06 | 35.35 | 125.74 | 244.06 | 33.38 | 29.50 | 23.94 | 27.48 | 75.68 | 28.49 | 80.89 | 29.95 | 87.91 | 32.67 | 78.94 | 79.82 |
| Co | 2.51 | 3.12 | 8.04 | 4.17 | 2.82 | 2.75 | 3.89 | 3.08 | 9.63 | 5.50 | 10.32 | 5.53 | 10.85 | 4.46 | 9.95 | 12.66 |
| Ni | 5.44 | 6.11 | 26.02 | 13.81 | 5.91 | 5.64 | 12.07 | 10.67 | 29.86 | 15.19 | 31.43 | 15.83 | 34.00 | 14.95 | 30.32 | 36.52 |
| Cu | 4.17 | 4.82 | 17.13 | 5.74 | 4.74 | 4.66 | 5.53 | 5.84 | 15.48 | 8.20 | 22.26 | 7.82 | 18.69 | 8.69 | 16.82 | 21.85 |
| Zn | 14.05 | 17.15 | 43.43 | 17.95 | 15.18 | 15.06 | 20.15 | 19.58 | 61.92 | 25.41 | 66.21 | 26.37 | 69.50 | 26.53 | 62.12 | 63.92 |
| Rb | 17.37 | 17.45 | 22.85 | 18.88 | 15.24 | 16.19 | 17.92 | 17.75 | 42.21 | 21.82 | 44.30 | 23.28 | 45.96 | 23.67 | 41.52 | 44.20 |
| Ba | 232.61 | 233.52 | 892.50 | 294.93 | 246.60 | 240.48 | 73.32 | 71.55 | 176.32 | 98.04 | 202.67 | 153.71 | 195.95 | 91.17 | 178.00 | 174.00 |
| Th | 11.43 | 13.55 | 3.35 | 2.33 | 10.21 | 13.37 | 3.81 | 3.77 | 28.32 | 4.62 | 26.16 | 4.92 | 24.20 | 4.98 | 20.28 | 18.92 |
| U | 0.84 | 1.27 | 1.44 | 0.62 | 1.04 | 1.07 | 0.49 | 0.46 | 1.56 | 0.83 | 1.81 | 0.92 | 1.90 | 0.81 | 1.72 | 1.92 |
| La | 7.34 | 12.24 | 4.77 | 3.24 | 8.93 | 10.12 | 5.57 | 5.42 | 16.46 | 8.80 | 19.61 | 8.35 | 19.25 | 9.07 | 16.01 | 14.88 |
| Ce | 14.22 | 23.65 | 11.58 | 6.04 | 17.62 | 19.07 | 15.83 | 14.92 | 35.71 | 23.74 | 39.88 | 22.23 | 39.37 | 21.85 | 33.64 | 32.62 |
| Pb | 5.40 | 5.83 | 8.18 | 5.90 | 5.45 | 5.64 | 3.55 | 3.78 | 8.77 | 5.34 | 9.90 | 5.51 | 9.95 | 5.25 | 8.93 | 8.90 |
| Pr | 1.87 | 3.02 | 1.50 | 1.06 | 2.35 | 2.47 | 1.37 | 1.34 | 3.56 | 2.54 | 4.31 | 2.23 | 4.20 | 2.02 | 3.46 | 3.24 |
| Sr | 91.53 | 97.49 | 104.99 | 123.31 | 97.46 | 99.65 | 34.83 | 37.68 | 75.68 | 46.52 | 87.00 | 55.96 | 87.78 | 52.11 | 79.23 | 80.14 |
| Nd | 7.18 | 11.40 | 5.87 | 4.30 | 9.02 | 9.53 | 4.87 | 4.72 | 13.04 | 9.50 | 15.56 | 8.19 | 15.16 | 7.23 | 12.48 | 11.76 |
| Sm | 2.79 | 4.37 | 1.19 | 0.87 | 3.46 | 3.19 | 0.92 | 0.90 | 2.13 | 2.01 | 2.50 | 1.65 | 2.53 | 1.35 | 2.12 | 1.75 |
| Eu | 0.51 | 0.59 | 0.45 | 0.34 | 0.59 | 0.59 | 0.23 | 0.22 | 0.66 | 0.50 | 0.77 | 0.41 | 0.77 | 0.33 | 0.69 | 0.67 |
| Gd | 1.47 | 2.33 | 1.13 | 0.88 | 1.86 | 1.93 | 0.92 | 0.89 | 2.52 | 1.96 | 2.97 | 1.60 | 2.97 | 1.33 | 2.51 | 2.36 |
| Tb | 0.22 | 0.31 | 0.16 | 0.14 | 0.26 | 0.28 | 0.13 | 0.12 | 0.37 | 0.29 | 0.42 | 0.23 | 0.42 | 0.19 | 0.37 | 0.34 |
| Dy | 1.20 | 1.76 | 1.03 | 0.88 | 1.48 | 1.46 | 0.76 | 0.72 | 2.17 | 1.62 | 2.38 | 1.35 | 2.53 | 1.07 | 2.19 | 2.00 |
| Ho | 0.23 | 0.34 | 0.21 | 0.18 | 0.29 | 0.29 | 0.16 | 0.17 | 0.44 | 0.32 | 0.48 | 0.27 | 0.51 | 0.22 | 0.46 | 0.41 |
| Er | 0.72 | 1.04 | 0.66 | 0.56 | 0.91 | 0.92 | 0.51 | 0.46 | 1.39 | 0.95 | 1.54 | 0.80 | 1.60 | 0.67 | 1.46 | 1.30 |
| Tm | 0.11 | 0.16 | 0.10 | 0.09 | 0.13 | 0.14 | 0.08 | 0.07 | 0.21 | 0.13 | 0.23 | 0.12 | 0.26 | 0.10 | 0.22 | 0.20 |
| Yb | 0.82 | 1.08 | 0.65 | 0.66 | 0.96 | 0.99 | 0.47 | 0.44 | 1.43 | 0.83 | 1.58 | 0.73 | 1.70 | 0.62 | 1.49 | 1.36 |
| Lu | 0.13 | 0.18 | 0.10 | 0.09 | 0.15 | 0.16 | 0.08 | 0.07 | 0.22 | 0.13 | 0.26 | 0.11 | 0.26 | 0.10 | 0.24 | 0.21 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample name | HU1-21f | HU1-23f | | HU1-25f | HU1-27f | HU1-30f | HU1-34f | HU1-1c | HU1-2c | HU1-3c | HU1-4c | HU1-6c | HU1-7c | HU1-10c | HU1-12c | HU1-15c | HU1-21c |
| Site | Hura Village (31º18.5’N 34º57.0’E) | | | | | | | | | | | | | | | | |
| Depth (cm) | 195 | 235 | 275 | | 315 | 350 | 390 | 5 | 15 | 25 | 35 | 55 | 65 | 95 | 115 | 145 | 195 |
| Age (ka) | 45.2 | 56.9 | 77.9 | | 120.0 | 157.9\* | 174.2\* |  |  | 10.7 | 13.1\* | 17.3 | 18.8\* | 18.9 | 14.9\* | 18.8 | 45.2 |
| Age error ± (ka) | 2.9 | 3.2 | 5.5 | | 7.6 |  |  |  |  | 0.7 |  | 1.3 |  | 1.2 |  | 1.4 | 2.9 |
| TiO2 | N/A | 0.6 | 0.8 | | 0.9 | 0.6 | N/A | N/A | N/A | 0.6 | N/A | 0.7 | N/A | 0.6 | N/A | N/A | N/A |
| Al2O3 | 2.8 | 7.6 | 7.8 | | 7.9 | 7.4 | 1.4 | 4.1 | 2.8 | 2.9 | 3.7 | 2.9 | 3.8 | 3.0 | 4.0 | 2.9 | 4.3 |
| Fe2O3 | 2.0 | 5.3 | 5.4 | | 5.4 | 5.2 | 1.0 | 1.7 | 1.9 | 1.0 | 2.1 | 1.1 | 1.8 | 1.0 | 1.8 | 1.1 | 1.8 |
| CaO | 0.4 | 0.6 | 0.5 | | 0.5 | 0.7 | 0.2 | 0.9 | 0.8 | 0.6 | 0.8 | 0.7 | 0.9 | 0.7 | 1.0 | 0.7 | 1.1 |
| MgO | 0.6 | 1.5 | 1.5 | | 1.5 | 1.5 | 0.3 | 0.4 | 0.5 | 0.2 | 0.6 | 0.2 | 0.4 | 0.2 | 0.5 | 0.2 | 0.3 |
| MnO | 0.02 | 0.05 | 0.04 | | 0.03 | 0.04 | 0.01 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 |
| Na2O | 0.14 | 0.36 | 0.34 | | 0.28 | 0.37 | 0.06 | 1.05 | 1.02 | 0.65 | 1.04 | 0.65 | 0.99 | 0.69 | 1.09 | 0.67 | 0.98 |
| K2O | 0.42 | 1.26 | 1.25 | | 1.15 | 1.12 | 0.19 | 1.32 | 1.32 | 0.77 | 1.22 | 0.75 | 1.15 | 0.78 | 1.22 | 0.76 | 1.14 |
| Cr | 29.74 | 76.23 | 75.20 | | 81.26 | 75.76 | 15.24 | 118.82 | 140.93 | 24.25 | 109.20 | 29.11 | 86.24 | 26.19 | 94.88 | 26.11 | 97.60 |
| Co | 5.35 | 13.10 | 11.17 | | 9.53 | 10.89 | 2.76 | 3.83 | 3.83 | 2.21 | 4.19 | 2.36 | 3.29 | 2.18 | 3.84 | 2.31 | 3.70 |
| Ni | 15.39 | 35.37 | 32.58 | | 31.63 | 33.29 | 7.79 | 9.79 | 10.34 | 4.55 | 11.01 | 4.74 | 8.14 | 4.62 | 8.26 | 4.63 | 7.87 |
| Cu | 9.33 | 21.31 | 31.49 | | 19.70 | 19.45 | 4.43 | 4.41 | 5.40 | 5.29 | 5.90 | 3.43 | 4.32 | 3.17 | 4.47 | 3.15 | 4.75 |
| Zn | 23.72 | 60.43 | 61.34 | | 61.27 | 60.58 | 11.66 | 16.54 | 15.96 | 13.69 | 19.92 | 13.43 | 14.09 | 11.68 | 18.63 | 12.44 | 15.68 |
| Rb | 19.65 | 41.67 | 41.17 | | 39.92 | 40.09 | 8.44 | 19.47 | 16.29 | 17.32 | 14.75 | 16.77 | 19.49 | 17.82 | 18.70 | 17.12 | 21.21 |
| Ba | 87.16 | 373.91 | 158.79 | | 150.47 | 184.54 | 47.44 | 273.82 | 285.31 | 243.10 | 242.45 | 236.57 | 280.29 | 250.60 | 278.94 | 244.02 | 333.54 |
| Th | 3.66 | 19.67 | 18.61 | | 19.03 | 16.44 | 1.72 | 3.31 | 2.90 | 10.62 | 2.51 | 14.20 | 3.04 | 9.96 | 2.96 | 9.49 | 3.66 |
| U | 0.74 | 1.77 | 1.63 | | 1.58 | 1.59 | 0.36 | 0.82 | 0.51 | 0.81 | 0.74 | 1.16 | 0.74 | 0.83 | 0.87 | 0.93 | 0.97 |
| La | 5.59 | 14.98 | 13.59 | | 14.60 | 13.15 | 2.61 | 3.84 | 3.95 | 7.83 | 2.84 | 11.27 | 4.17 | 6.37 | 4.45 | 7.60 | 4.96 |
| Ce | 18.10 | 31.37 | 28.50 | | 29.90 | 27.51 | 6.06 | 8.07 | 6.87 | 15.12 | 6.59 | 21.62 | 9.62 | 12.38 | 9.11 | 14.41 | 11.59 |
| Pb | 4.19 | 8.42 | 9.49 | | 7.84 | 8.06 | 1.95 | 7.20 | 5.29 | 5.57 | 6.48 | 5.52 | 4.98 | 5.34 | 6.57 | 5.41 | 6.30 |
| Pr | 1.44 | 3.31 | 2.96 | | 3.19 | 2.85 | 0.68 | 1.18 | 1.23 | 1.98 | 0.90 | 2.77 | 1.28 | 1.62 | 1.35 | 1.85 | 1.53 |
| Sr | 44.50 | 82.85 | 62.05 | | 56.62 | 70.55 | 15.62 | 111.20 | 94.92 | 93.78 | 100.58 | 94.37 | 116.12 | 98.23 | 123.99 | 97.01 | 146.00 |
| Nd | 5.05 | 12.08 | 10.77 | | 11.27 | 10.25 | 2.42 | 4.70 | 4.85 | 7.54 | 3.66 | 10.47 | 4.92 | 6.23 | 5.31 | 7.12 | 5.99 |
| Sm | 0.98 | 2.13 | 2.47 | | 3.51 | 2.22 | 0.46 | 0.97 | 0.97 | 2.87 | 0.73 | 3.90 | 1.03 | 2.41 | 1.07 | 2.64 | 1.28 |
| Eu | 0.26 | 0.71 | 0.57 | | 0.55 | 0.58 | 0.12 | 0.33 | 0.31 | 0.49 | 0.25 | 0.54 | 0.36 | 0.51 | 0.36 | 0.51 | 0.42 |
| Gd | 0.95 | 2.31 | 2.12 | | 2.18 | 2.06 | 0.47 | 0.93 | 0.91 | 1.57 | 0.72 | 2.08 | 1.00 | 1.38 | 1.02 | 1.47 | 1.23 |
| Tb | 0.14 | 0.33 | 0.30 | | 0.30 | 0.30 | 0.06 | 0.15 | 0.14 | 0.21 | 0.12 | 0.28 | 0.17 | 0.20 | 0.17 | 0.22 | 0.20 |
| Dy | 0.79 | 1.90 | 1.81 | | 1.82 | 1.84 | 0.36 | 0.91 | 0.88 | 1.14 | 0.74 | 1.53 | 1.00 | 1.12 | 1.03 | 1.22 | 1.25 |
| Ho | 0.16 | 0.38 | 0.36 | | 0.34 | 0.37 | 0.08 | 0.20 | 0.18 | 0.23 | 0.16 | 0.29 | 0.22 | 0.24 | 0.22 | 0.24 | 0.28 |
| Er | 0.49 | 1.17 | 1.14 | | 1.17 | 1.20 | 0.23 | 0.62 | 0.59 | 0.70 | 0.50 | 0.96 | 0.66 | 0.71 | 0.71 | 0.78 | 0.87 |
| Tm | 0.07 | 0.18 | 0.17 | | 0.18 | 0.18 | 0.03 | 0.09 | 0.09 | 0.10 | 0.08 | 0.14 | 0.12 | 0.11 | 0.11 | 0.11 | 0.13 |
| Yb | 0.46 | 1.19 | 1.19 | | 1.15 | 1.22 | 0.21 | 0.71 | 0.64 | 0.78 | 0.56 | 1.02 | 0.75 | 0.73 | 0.77 | 0.79 | 0.96 |
| Lu | 0.08 | 0.19 | 0.19 | | 0.20 | 0.19 | 0.03 | 0.10 | 0.10 | 0.12 | 0.09 | 0.16 | 0.12 | 0.11 | 0.12 | 0.13 | 0.15 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sample name | HU1-23c | HU1-25c | HU1-27c | HU1-30c | HU1-34c | MKE-6 | KE-1 | KE-2 | KE-3 | | KE-4 | KE-5 | KE-6 | KE-7 | KE-8 | KE-9 |
| Site | Hura Village (31º18.5’N 34º57.0’E) | | | | | Mt. Keren (31°01.3’N 34°30.0’E) | | | | | | | | Be’er Milka (30°55.4’N 34°24.4’E) | | Sekher Valley  (31°06.1’N 34°49.5’E) |
| Depth (cm) | 235 | 275 | 315 | 350 | 390 | surface | surface | surface | | surface | surface | surface | surface | surface | surface | surface |
| Age (ka) | **56.9** | **77.9** | **120.0** | 157.9\* | 174.2\* |  |  |  | |  |  |  |  |  |  |  |
| Age error ± (ka) | 3.2 | 5.5 | 7.6 |  |  |  |  |  | |  |  |  |  |  |  |  |
| TiO2 | 0.6 | 0.6 | 0.7 | 0.7 | N/A | 0.2 | 0.1 | 0.2 | | 0.1 | 0.3 | 0.1 | 0.5 | 0.1 | 0.1 | 0.1 |
| Al2O3 | 3.3 | 3.9 | 2.8 | 2.8 | 3.6 | 2.1 | 1.6 | 1.5 | | 1.6 | 1.9 | 1.5 | 3.6 | 1.6 | 1.6 | 1.6 |
| Fe2O3 | 1.1 | 1.2 | 1.1 | 1.2 | 1.5 | 0.7 | 0.3 | 0.5 | | 0.5 | 0.8 | 0.4 | 3.1 | 0.5 | 0.4 | 0.7 |
| CaO | 0.8 | 0.8 | 0.6 | 0.6 | 1.0 | 0.5 | 0.3 | 0.4 | | 0.3 | 0.4 | 0.3 | 1.3 | 0.3 | 0.3 | 0.4 |
| MgO | 0.2 | 0.3 | 0.2 | 0.2 | 0.4 | 0.2 | 0.1 | 0.1 | | 0.1 | 0.2 | 0.1 | 1.2 | 0.1 | 0.1 | 0.1 |
| MnO | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.01 | 0.02 | | 0.01 | 0.02 | 0.01 | 0.02 | 0.01 | 0.01 | 0.01 |
| Na2O | 0.79 | 0.96 | 0.66 | 0.64 | 1.05 | 0.44 | 0.33 | 0.30 | | 0.32 | 0.36 | 0.29 | 0.16 | 0.31 | 0.35 | 0.36 |
| K2O | 0.84 | 1.01 | 0.76 | 0.72 | 1.06 | 0.56 | 0.48 | 0.44 | | 0.47 | 0.54 | 0.48 | 0.73 | 0.46 | 0.52 | 0.56 |
| Cr | 29.77 | 29.75 | 27.65 | 30.20 | 99.11 | 26.53 | 9.67 | 14.12 | | 11.39 | 24.79 | 8.47 | 62.05 | 9.65 | 10.33 | 16.80 |
| Co | 2.48 | 2.63 | 2.23 | 2.53 | 3.22 | 1.31 | 0.67 | 1.10 | | 0.89 | 1.44 | 0.76 | 6.80 | 0.92 | 0.82 | 1.20 |
| Ni | 5.00 | 5.57 | 4.46 | 5.33 | 6.55 | 3.35 | 1.75 | 2.21 | | 2.26 | 3.13 | 1.88 | 24.35 | 2.47 | 2.82 | 3.17 |
| Cu | 3.65 | 4.42 | 3.60 | 4.07 | 3.79 | 1.38 | 0.77 | 0.93 | | 0.85 | 1.24 | 0.66 | 14.32 | 0.87 | 0.97 | 1.30 |
| Zn | 13.30 | 14.57 | 12.04 | 13.46 | 14.34 | 7.79 | 4.41 | 5.94 | | 5.19 | 8.43 | 4.70 | 48.75 | 5.85 | 5.33 | 7.96 |
| Rb | 19.27 | 23.05 | 17.16 | 16.76 | 16.92 | 14.88 | 12.62 | 10.82 | | 11.70 | 14.16 | 12.05 | 33.80 | 10.64 | 12.65 | 14.20 |
| Ba | 344.23 | 334.11 | 264.80 | 236.03 | 249.99 | 214.70 | 175.04 | 156.11 | | 165.42 | 197.80 | 162.20 | 104.97 | 151.58 | 175.37 | 181.98 |
| Th | 11.05 | 12.24 | 10.26 | 11.94 | 2.38 | 21.18 | 49.86 | 25.86 | | 16.57 | 40.11 | 16.68 | 100.46 | 9.12 | 8.60 | 14.48 |
| U | 0.89 | 0.93 | 0.88 | 0.96 | 0.72 | 0.45 | 0.21 | 0.26 | | 0.23 | 0.61 | 0.36 | 1.33 | 0.26 | 0.23 | 0.34 |
| La | 9.04 | 8.59 | 8.30 | 9.65 | 3.73 | 4.92 | 3.68 | 3.36 | | 3.04 | 4.93 | 3.02 | 12.82 | 3.13 | 2.92 | 3.85 |
| Ce | 17.18 | 16.57 | 15.70 | 18.55 | 8.36 | 9.07 | 6.52 | 6.24 | | 5.32 | 8.96 | 5.00 | 28.88 | 5.58 | 4.91 | 6.82 |
| Pb | 5.96 | 6.86 | 5.66 | 5.46 | 5.18 | 4.08 | 3.32 | 3.27 | | 3.11 | 4.31 | 3.03 | 8.53 | 2.98 | 3.19 | 3.89 |
| Pr | 2.25 | 2.16 | 2.05 | 2.43 | 1.16 | 1.20 | 0.84 | 0.85 | | 0.69 | 1.19 | 0.67 | 3.01 | 0.74 | 0.63 | 0.90 |
| Sr | 112.52 | 128.00 | 90.57 | 91.38 | 108.63 | 88.13 | 58.97 | 57.38 | | 57.75 | 75.15 | 51.46 | 73.35 | 52.55 | 54.54 | 60.09 |
| Nd | 8.49 | 8.25 | 7.68 | 9.28 | 4.60 | 4.56 | 3.22 | 3.19 | | 2.62 | 4.50 | 2.57 | 11.25 | 2.83 | 2.28 | 3.46 |
| Sm | 2.86 | 2.86 | 2.85 | 3.26 | 0.95 | 0.90 | 0.64 | 0.64 | | 0.48 | 0.88 | 0.50 | 2.17 | 0.60 | 0.44 | 0.69 |
| Eu | 0.62 | 0.64 | 0.54 | 0.54 | 0.34 | 0.27 | 0.19 | 0.21 | | 0.18 | 0.27 | 0.17 | 0.47 | 0.19 | 0.17 | 0.23 |
| Gd | 1.80 | 1.76 | 1.58 | 1.87 | 0.97 | 0.91 | 0.63 | 0.66 | | 0.50 | 0.92 | 0.48 | 2.26 | 0.62 | 0.47 | 0.69 |
| Tb | 0.25 | 0.25 | 0.22 | 0.25 | 0.16 | 0.13 | 0.09 | 0.11 | | 0.08 | 0.14 | 0.07 | 0.33 | 0.10 | 0.08 | 0.11 |
| Dy | 1.35 | 1.37 | 1.27 | 1.33 | 1.09 | 0.80 | 0.51 | 0.67 | | 0.45 | 0.89 | 0.46 | 2.01 | 0.61 | 0.48 | 0.67 |
| Ho | 0.26 | 0.26 | 0.25 | 0.28 | 0.20 | 0.16 | 0.10 | 0.13 | | 0.09 | 0.18 | 0.09 | 0.40 | 0.12 | 0.10 | 0.14 |
| Er | 0.84 | 0.87 | 0.82 | 0.81 | 0.66 | 0.54 | 0.31 | 0.47 | | 0.31 | 0.63 | 0.32 | 1.30 | 0.43 | 0.35 | 0.46 |
| Tm | 0.12 | 0.14 | 0.12 | 0.12 | 0.10 | 0.09 | 0.04 | 0.07 | | 0.05 | 0.10 | 0.06 | 0.19 | 0.07 | 0.06 | 0.07 |
| Yb | 0.84 | 0.88 | 0.85 | 0.83 | 0.75 | 0.60 | 0.30 | 0.48 | | 0.32 | 0.70 | 0.37 | 1.28 | 0.46 | 0.38 | 0.47 |
| Lu | 0.13 | 0.14 | 0.14 | 0.13 | 0.12 | 0.09 | 0.04 | 0.08 | | 0.06 | 0.11 | 0.06 | 0.20 | 0.08 | 0.06 | 0.08 |

\* Modeled ages using a cubic spline interpolation with regard to position in the sequence and adjacent measured ages. Errors are not presented for these ages.