

# Data Repository item 2005193

Table DR1: Whole-rock geochemical data of the Annieopsquotch ophiolite belt

| sample <sup>†</sup>              | 1J035b     | 1J35c      | 2J309b     | 2J310a     | 1J177b       | 1J181a       | 1J188        | 1J189        | 1J190        | 1J191        | 1J192        | 1J193        | 1J194        | 1J196b       |
|----------------------------------|------------|------------|------------|------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Ophiolite                        | AN         | AN         | AN         | AN         | AN           | AN           | AN           | AN           | AN           | AN           | AN           | AN           | AN           | AN           |
| Lithology                        | Troctolite | Troctolite | Troctolite | Troctolite | Sheeted dyke |
| UTM x <sup>‡</sup>               | 447956     | 447956     | 447871     | 447899     | 464470       | 459907       | 456008       | 456411       | 456345       | 456158       | 456034       | 455871       | 455599       | 455619       |
| UTM y                            | 5348318    | 5348318    | 5348194    | 5348092    | 5359115      | 5358064      | 5349897      | 5349630      | 5349588      | 5349364      | 5349225      | 5349006      | 5348700      | 5348407      |
| SiO <sub>2</sub>                 | 43.01      | 41.28      | 40.63      | 45.19      | 50.10        | 48.51        | 49.06        | 48.43        | 51.82        | 53.29        | 49.13        | 48.04        | 48.38        | 47.45        |
| TiO <sub>2</sub>                 | 0.03       | 0.04       | 0.04       | 0.08       | 1.65         | 1.20         | 1.01         | 0.90         | 1.12         | 1.81         | 1.46         | 1.14         | 0.98         | 1.05         |
| Al <sub>2</sub> O <sub>3</sub>   | 28.32      | 19.58      | 15.99      | 25.64      | 14.95        | 16.73        | 15.99        | 17.05        | 15.52        | 15.17        | 15.43        | 15.90        | 16.00        | 15.88        |
| Fe <sub>2</sub> O <sub>3</sub> * | 2.44       | 5.30       | 8.53       | 3.96       | 14.11        | 10.40        | 10.90        | 10.33        | 11.34        | 13.13        | 13.03        | 11.06        | 11.04        | 11.53        |
| MnO                              | 0.04       | 0.09       | 0.12       | 0.06       | 0.19         | 0.19         | 0.19         | 0.17         | 0.18         | 0.15         | 0.22         | 0.19         | 0.20         | 0.21         |
| MgO                              | 5.39       | 16.01      | 21.60      | 7.70       | 5.61         | 8.12         | 8.08         | 7.66         | 6.06         | 4.45         | 7.10         | 7.34         | 8.34         | 8.60         |
| CaO                              | 16.17      | 11.36      | 8.36       | 13.94      | 9.73         | 11.42        | 11.89        | 13.02        | 9.98         | 8.39         | 11.36        | 11.52        | 11.53        | 10.65        |
| Na <sub>2</sub> O                | 1.41       | 0.91       | 0.66       | 1.65       | 3.36         | 2.54         | 2.13         | 1.79         | 3.67         | 3.28         | 2.29         | 2.39         | 2.00         | 2.56         |
| K <sub>2</sub> O                 | 0.21       | 0.04       | 0.03       | 0.15       | 0.09         | 0.19         | 0.07         | 0.04         | 0.09         | 0.31         | 0.07         | 0.08         | 0.07         | 0.04         |
| P <sub>2</sub> O <sub>5</sub>    | b.d.       | b.d.       | 0.02       | 0.01       | 0.12         | 0.09         | 0.07         | 0.05         | 0.11         | 0.22         | 0.09         | 0.08         | 0.06         | 0.07         |
| LOI                              | 2.66       | 3.94       | 4.39       | 1.62       | 0.56         | 0.74         | 0.94         | 0.78         | 0.96         | 0.39         | 0.77         | 1.25         | 2.06         | 2.64         |
| Total                            | 99.68      | 98.55      | 100.48     | 100.06     | 100.48       | 100.14       | 100.34       | 100.22       | 100.85       | 100.58       | 100.96       | 98.99        | 100.66       | 100.68       |
| Trace elements (ppm)             |            |            |            |            |              |              |              |              |              |              |              |              |              |              |
| Ba                               | 16.5       | 5.9        | 2.2        | 6.6        | 25.8         | 23.2         | 14.9         | 6.7          | 45.2         | 50.3         | 14.9         | 19.5         | 20.6         | 20.3         |
| Cr                               | 56         | 268        | 310        | 220        | 69           | 401          | 329          | 330          | >500         | 41           | 190          | 306          | 311          | 259          |
| Cs                               | 1.32       | 0.56       | 0.39       | 0.41       | 0.06         | 0.25         | 0.09         | 0.07         | 0.23         | 0.29         | 0.12         | 0.13         | 0.18         | 0.07         |
| Hf                               | b.d.       | b.d.       | b.d.       | b.d.       | 2.44         | 2.01         | 1.49         | 1.30         | 2.32         | 3.81         | 2.17         | 1.95         | 1.46         | 1.56         |
| Nb                               | b.d.       | b.d.       | b.d.       | b.d.       | 1.49         | 1.19         | 0.90         | 0.75         | 1.59         | 3.74         | 1.27         | 0.67         | 0.74         | 0.80         |
| Ni                               | 158        | 516        | 665        | 244        | 41           | 158          | 120          | 100          | 35           | 32           | 77           | 105          | 125          | 113          |
| Pb                               | 1.23       | 0.62       | 1.00       | b.d.       | 0.24         | 0.68         | 0.24         | 0.29         | 0.64         | 0.68         | 0.75         | 0.27         | 0.34         | 0.73         |
| Rb                               | 8.84       | 1.9        | 0.73       | 6.78       | 0.47         | 5.54         | 0.99         | 0.47         | 1.24         | 12.86        | 0.63         | 1.51         | 1.36         | 0.26         |
| Sc                               | 2.2        | 7.7        | 4.6        | 5.6        | 41.4         | 34.9         | 39.0         | 40.1         | 41.5         | 35.1         | 42.1         | 39.8         | 40.1         | 45.2         |
| Sr                               | 218        | 127        | 84         | 125        | 109          | 97           | 101          | 73           | 164          | 146          | 94           | 100          | 102          | 153          |
| Th                               | 0.05       | b.d.       | b.d.       | b.d.       | 0.26         | 0.16         | 0.20         | 0.09         | 0.40         | 0.61         | 0.10         | 0.11         | 0.13         | 0.16         |
| U                                | 0.02       | b.d.       | b.d.       | b.d.       | 0.08         | 0.07         | 0.05         | 0.03         | 0.11         | 0.17         | 0.04         | 0.03         | 0.04         | 0.05         |
| V                                | 9          | 22         | 20         | 35         | 530          | 261          | 286          | 261          | 335          | 322          | 394          | 306          | 290          | 295          |
| Y                                | 0.34       | 0.8        | 0.65       | 1.42       | 39.98        | 30.00        | 25.09        | 22.27        | 30.50        | 51.52        | 34.34        | 27.96        | 21.68        | 25.08        |
| Zr                               | b.d.       | b.d.       | b.d.       | b.d.       | 83.10        | 65.87        | 51.24        | 36.75        | 73.60        | 135.95       | 69.02        | 59.02        | 44.43        | 51.17        |
| La                               | b.d.       | b.d.       | 0.07       | 0.09       | 2.94         | 2.16         | 1.88         | 1.23         | 3.42         | 6.38         | 1.85         | 1.61         | 1.53         | 1.81         |
| Ce                               | b.d.       | 0.46       | 0.20       | 0.31       | 9.01         | 6.80         | 5.84         | 4.12         | 9.42         | 17.75        | 6.48         | 5.52         | 4.88         | 5.77         |
| Pr                               | 0.05       | 0.07       | 0.03       | 0.06       | 1.67         | 1.25         | 1.04         | 0.78         | 1.57         | 2.94         | 1.31         | 1.10         | 0.94         | 1.07         |
| Nd                               | 0.26       | 0.33       | 0.22       | 0.33       | 9.52         | 7.52         | 6.08         | 4.72         | 8.67         | 15.74        | 8.00         | 6.59         | 5.53         | 6.01         |
| Sm                               | 0.12       | 0.1        | 0.06       | 0.14       | 3.64         | 2.79         | 2.18         | 1.92         | 3.22         | 5.05         | 3.06         | 2.59         | 2.17         | 2.32         |
| Eu                               | 0.15       | 0.13       | 0.10       | 0.18       | 1.45         | 1.12         | 0.94         | 0.83         | 1.17         | 1.65         | 1.22         | 1.10         | 0.88         | 0.81         |
| Gd                               | 0.10       | 0.13       | 0.08       | 0.20       | 5.15         | 4.16         | 3.55         | 2.98         | 4.31         | 6.90         | 4.63         | 3.84         | 3.09         | 3.45         |
| Tb                               | 0.01       | 0.02       | 0.02       | 0.04       | 0.95         | 0.71         | 0.62         | 0.54         | 0.77         | 1.27         | 0.86         | 0.73         | 0.57         | 0.62         |
| Dy                               | 0.08       | 0.16       | 0.11       | 0.26       | 6.39         | 4.91         | 4.07         | 3.63         | 4.99         | 8.20         | 5.75         | 4.84         | 3.76         | 4.08         |
| Ho                               | 0.02       | 0.03       | 0.02       | 0.06       | 1.46         | 1.08         | 0.92         | 0.83         | 1.12         | 1.83         | 1.32         | 1.07         | 0.84         | 0.90         |
| Er                               | 0.06       | 0.1        | 0.08       | 0.16       | 4.35         | 3.18         | 2.72         | 2.47         | 3.37         | 5.54         | 3.91         | 3.27         | 2.41         | 2.67         |
| Tm                               | 0.01       | 0.01       | 0.01       | 0.02       | 0.66         | 0.46         | 0.38         | 0.37         | 0.50         | 0.82         | 0.58         | 0.50         | 0.37         | 0.41         |
| Yb                               | 0.06       | 0.11       | 0.10       | 0.13       | 4.06         | 2.94         | 2.48         | 2.41         | 3.33         | 5.16         | 3.68         | 3.22         | 2.29         | 2.53         |
| Lu                               | 0.01       | 0.02       | 0.01       | 0.02       | 0.61         | 0.46         | 0.39         | 0.35         | 0.50         | 0.77         | 0.57         | 0.50         | 0.38         | 0.39         |
| Mg# <sup>§</sup>                 | 0.83       | 0.84       | 0.85       | 0.81       | 0.46         | 0.63         | 0.62         | 0.54         | 0.42         | 0.54         | 0.59         | 0.62         | 0.62         | 0.62         |

<sup>†</sup> Prefix VL0 has been omitted from all samples; <sup>‡</sup> UTM in NAD83, zone 21; <sup>§</sup> Mg# = Mg / Mg+Fe<sup>2+</sup> assuming Fe<sup>3+</sup>/Fe<sup>2+</sup>= 0.1; b.d. = below detection limit

# Data Repository item 2005193

Table DR1 (continued)

| sample                           | 1J177a       | 2A228b     | 1J195      | 1J196a     | 1J199a     | 1J205a     | 1A167b     | 1A260      | 1A105b     | 1A048      | 1A211      | 1A164b     | 1A100      | 1J203      |
|----------------------------------|--------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Ophiolite                        | AN           | AN         | AN         | AN         | AN         | AN         | AN         | AN         | AN         | AN         | AN         | AN         | AN         | AN         |
| Lithology                        | Sheeted dyke | SSZ Basalt |
| UTM x                            | 464470       | 463483     | 455720     | 455619     | 454388     | 455164     | 450771     | 458836     | 455174     | 462974     | 453255     | 451523     | 455767     | 454757     |
| UTM y                            | 5359115      | 5359321    | 5348477    | 5348407    | 5347672    | 5347338    | 5344879    | 5348483    | 5347352    | 5352999    | 5345045    | 5345001    | 5347572    | 5347733    |
| SiO <sub>2</sub>                 | 49.47        | 50.52      | 49.29      | 49.25      | 49.60      | 48.81      | 49.03      | 47.59      | 48.79      | 48.30      | 49.52      | 50.98      | 50.07      | 48.19      |
| TiO <sub>2</sub>                 | 1.44         | 1.61       | 0.93       | 0.73       | 1.04       | 1.37       | 1.70       | 1.16       | 1.34       | 1.27       | 0.93       | 1.95       | 1.92       | 1.61       |
| Al <sub>2</sub> O <sub>3</sub>   | 15.26        | 14.57      | 17.16      | 17.14      | 17.26      | 14.28      | 14.66      | 14.91      | 13.75      | 13.64      | 15.04      | 13.60      | 14.11      | 14.50      |
| Fe <sub>2</sub> O <sub>3</sub> * | 12.63        | 13.43      | 11.51      | 10.52      | 10.85      | 11.91      | 14.42      | 11.19      | 15.57      | 13.58      | 9.44       | 13.72      | 15.33      | 13.03      |
| MnO                              | 0.20         | 0.16       | 0.18       | 0.19       | 0.19       | 0.21       | 0.32       | 0.17       | 0.28       | 0.18       | 0.16       | 0.24       | 0.32       | 0.19       |
| MgO                              | 6.85         | 5.70       | 5.77       | 5.98       | 6.10       | 6.15       | 6.44       | 6.54       | 6.78       | 6.91       | 6.96       | 7.05       | 7.13       | 7.21       |
| CaO                              | 10.94        | 9.95       | 11.52      | 12.08      | 10.53      | 9.82       | 7.47       | 12.55      | 9.51       | 11.32      | 8.68       | 5.97       | 7.11       | 10.58      |
| Na <sub>2</sub> O                | 2.72         | 3.38       | 3.04       | 3.06       | 3.48       | 4.43       | 4.46       | 2.85       | 3.29       | 2.42       | 5.35       | 5.22       | 4.18       | 3.25       |
| K <sub>2</sub> O                 | 0.16         | 0.13       | 0.08       | 0.07       | 0.05       | 0.04       | 0.04       | 0.04       | 0.05       | 0.10       | 0.07       | 0.04       | 0.05       | 0.07       |
| P <sub>2</sub> O <sub>5</sub>    | 0.07         | 0.14       | 0.06       | 0.05       | 0.07       | 0.09       | 0.11       | 0.08       | 0.09       | 0.08       | 0.08       | 0.13       | 0.13       | 0.09       |
| LOI                              | 1.03         | 0.72       | 1.19       | 1.37       | 1.47       | 3.56       | 2.45       | 2.70       | 2.02       | 2.00       | 4.40       | 2.34       | 0.98       | 2.08       |
| Total                            | 100.77       | 100.37     | 100.73     | 100.44     | 100.62     | 100.66     | 101.09     | 99.84      | 101.47     | 99.84      | 100.63     | 101.23     | 101.36     | 100.80     |
| Trace elements (ppm)             |              |            |            |            |            |            |            |            |            |            |            |            |            |            |
| Ba                               | 26.1         | 30.4       | 25.1       | 26.3       | 15.4       | 16.4       | 11.0       | 23.0       | 22.7       | 35.0       | 25.4       | 6.8        | 16.1       | 12.4       |
| Cr                               | 206          | 99         | 188        | 209        | 201        | 257        | 19         | 260        | 200        | 171        | 357        | 144        | 32         | 142        |
| Cs                               | 0.20         | 0.14       | 0.14       | 0.05       | 0.06       | 0.09       | 0.08       | 0.05       | 0.14       | 0.40       | 0.19       | 0.56       | 0.13       | 0.13       |
| Hf                               | 2.18         | 2.50       | 1.50       | 1.14       | 1.64       | 2.20       | 2.71       | 2.20       | 1.99       | 1.10       | 1.41       | 3.15       | 3.30       | 2.46       |
| Nb                               | 1.04         | 1.50       | 0.62       | 0.54       | 1.16       | 1.08       | 1.51       | 1.10       | 1.01       | 0.60       | 0.95       | 1.37       | 1.64       | 0.96       |
| Ni                               | 66           | 45         | 64         | 79         | 65         | 95         | 30         | 42         | 83         | 22         | 142        | 59         | 29         | 74         |
| Pb                               | 0.61         | 0.40       | 0.24       | 0.28       | 0.38       | 0.28       | 0.88       | 0.50       | 0.73       | 0.20       | 0.49       | 0.91       | 0.29       | 0.58       |
| Rb                               | 3.50         | 1.16       | 1.48       | 1.10       | 0.68       | 0.24       | b.d.       | 0.25       | b.d.       | 2.30       | 0.65       | 0.25       | 0.22       | 0.30       |
| Sc                               | 42.2         | 42.2       | 37.7       | 34.4       | 37.9       | 40.8       | 44.3       | 36.0       | 37.0       | 37.0       | 35.4       | 48.8       | 42.8       | 42.8       |
| Sr                               | 98           | 108        | 210        | 178        | 170        | 122        | 130        | 184        | 140        | 85         | 94         | 45         | 107        | 109        |
| Th                               | 0.15         | 0.27       | 0.09       | 0.09       | 0.12       | 0.12       | 0.20       | 0.20       | 0.10       | 0.10       | 0.28       | 0.21       | 0.26       | 0.12       |
| U                                | 0.05         | 0.07       | 0.19       | 0.06       | 0.04       | 0.05       | 0.08       | 0.05       | 0.05       | 0.05       | 0.07       | 0.09       | 0.08       | 0.04       |
| V                                | 474          | 358        | 283        | 243        | 268        | 320        | 441        | 282        | 286        | 342        | 244        | 430        | 475        | 416        |
| Y                                | 34.92        | 39.72      | 26.08      | 19.85      | 25.48      | 33.75      | 40.54      | 27.10      | 33.20      | 30.30      | 20.67      | 44.51      | 45.92      | 36.88      |
| Zr                               | 65.72        | 79.60      | 46.34      | 37.47      | 53.54      | 68.71      | 88.19      | 47.80      | 63.23      | 49.40      | 49.21      | 99.73      | 103.65     | 74.04      |
| La                               | 2.13         | 3.08       | 1.52       | 1.19       | 1.76       | 1.86       | 2.86       | 2.70       | 1.84       | 1.40       | 2.67       | 2.51       | 3.31       | 1.93       |
| Ce                               | 7.02         | 9.50       | 5.02       | 3.98       | 5.64       | 6.47       | 9.27       | 8.70       | 6.05       | 4.00       | 7.21       | 8.87       | 10.91      | 6.76       |
| Pr                               | 1.36         | 1.76       | 0.94       | 0.74       | 1.04       | 1.31       | 1.74       | 1.26       | 1.23       | 0.86       | 1.22       | 1.73       | 2.08       | 1.34       |
| Nd                               | 7.99         | 10.24      | 5.52       | 4.32       | 5.90       | 7.96       | 9.91       | 7.90       | 7.25       | 5.80       | 6.28       | 10.01      | 11.40      | 8.47       |
| Sm                               | 3.22         | 3.65       | 2.40       | 1.60       | 2.38       | 3.09       | 3.73       | 2.60       | 2.92       | 2.00       | 2.17       | 4.11       | 4.46       | 3.42       |
| Eu                               | 1.17         | 1.47       | 1.10       | 0.70       | 1.01       | 1.24       | 1.50       | 1.00       | 1.25       | 0.82       | 0.91       | 0.92       | 1.44       | 1.39       |
| Gd                               | 4.57         | 5.61       | 3.29       | 2.63       | 3.41       | 4.86       | 5.52       | 3.87       | 4.48       | 3.50       | 2.94       | 6.09       | 6.23       | 5.30       |
| Tb                               | 0.87         | 1.03       | 0.62       | 0.48       | 0.65       | 0.87       | 1.05       | 0.71       | 0.81       | 0.68       | 0.55       | 1.18       | 1.20       | 0.97       |
| Dy                               | 5.75         | 6.86       | 4.11       | 3.20       | 4.21       | 5.48       | 7.00       | 4.29       | 5.46       | 4.69       | 3.46       | 7.97       | 7.87       | 6.30       |
| Ho                               | 1.29         | 1.48       | 0.97       | 0.73       | 0.93       | 1.25       | 1.60       | 0.93       | 1.22       | 1.05       | 0.81       | 1.82       | 1.81       | 1.44       |
| Er                               | 3.72         | 4.54       | 2.82       | 2.10       | 2.75       | 3.78       | 4.44       | 2.74       | 3.60       | 3.02       | 2.18       | 5.20       | 4.97       | 4.30       |
| Tm                               | 0.58         | 0.67       | 0.43       | 0.32       | 0.41       | 0.55       | 0.68       | 0.42       | 0.53       | 0.53       | 0.34       | 0.80       | 0.80       | 0.64       |
| Yb                               | 3.60         | 4.37       | 2.68       | 2.01       | 2.53       | 3.66       | 4.17       | 2.97       | 3.31       | 3.30       | 2.08       | 4.97       | 4.95       | 4.24       |
| Lu                               | 0.57         | 0.66       | 0.42       | 0.31       | 0.38       | 0.56       | 0.67       | 0.43       | 0.53       | 0.60       | 0.34       | 0.81       | 0.80       | 0.66       |
| Mg#                              | 0.54         | 0.48       | 0.52       | 0.55       | 0.55       | 0.53       | 0.49       | 0.56       | 0.49       | 0.53       | 0.62       | 0.53       | 0.50       | 0.55       |

# Data Repository item 2005193

Table DR1 (continued)

| sample                           | 1A238         | 1A197         | 1A266         | 1J198         | 2A031b        | 1J200a        | 1A103         | 1A104               | 1J201               | 1J204a              | 1J204b              | 1J205b              | 1J054b                | 1J056d                |
|----------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------------|---------------------|---------------------|---------------------|---------------------|-----------------------|-----------------------|
| Ophiolite                        | AN                  | AN                  | AN                  | AN                  | AN                  | AN                    | AN                    |
| Lithology                        | SSZ<br>Basalt | MORB-like<br>Basalt | MORB-like<br>Basalt | MORB-like<br>Basalt | MORB-like<br>Basalt | MORB-like<br>Basalt | Cross-cutting<br>dyke | Cross-cutting<br>dyke |
| UTM x                            | 456264        | 453750        | 459545        | 454822        | 464245        | 454456        | 455496        | 455211              | 454583              | 454951              | 454951              | 455164              | 456398                | 456621                |
| UTM y                            | 5346557       | 5345885       | 5349781       | 5347768       | 5354895       | 5347738       | 5347546       | 5347393             | 5347865             | 5347446             | 5347446             | 5347338             | 5354259               | 5357789               |
| SiO <sub>2</sub>                 | 48.42         | 50.49         | 48.70         | 47.75         | 48.28         | 47.46         | 48.90         | 48.68               | 49.94               | 51.02               | 52.09               | 50.89               | 45.28                 | 48.88                 |
| TiO <sub>2</sub>                 | 1.31          | 1.29          | 1.43          | 1.29          | 0.97          | 0.80          | 1.34          | 1.68                | 1.50                | 1.18                | 1.42                | 1.36                | 1.62                  | 0.91                  |
| Al <sub>2</sub> O <sub>3</sub>   | 15.22         | 13.98         | 15.05         | 16.08         | 15.45         | 18.49         | 14.77         | 13.69               | 14.51               | 13.25               | 13.51               | 14.15               | 14.56                 | 15.86                 |
| Fe <sub>2</sub> O <sub>3</sub> * | 12.14         | 13.33         | 13.17         | 12.34         | 10.64         | 10.25         | 13.99         | 15.25               | 13.46               | 12.85               | 12.39               | 12.03               | 14.46                 | 10.48                 |
| MnO                              | 0.20          | 0.26          | 0.22          | 0.23          | 0.19          | 0.20          | 0.27          | 0.22                | 0.20                | 0.19                | 0.16                | 0.20                | 0.19                  | 0.18                  |
| MgO                              | 7.26          | 7.32          | 7.37          | 7.47          | 7.49          | 7.90          | 8.02          | 6.64                | 6.31                | 6.71                | 6.33                | 5.94                | 8.57                  | 9.05                  |
| CaO                              | 11.17         | 5.65          | 11.67         | 11.18         | 11.33         | 10.88         | 6.64          | 6.64                | 8.90                | 9.18                | 9.04                | 9.79                | 13.84                 | 12.40                 |
| Na <sub>2</sub> O                | 2.43          | 4.82          | 2.24          | 2.20          | 3.60          | 2.42          | 4.13          | 4.55                | 4.05                | 4.09                | 4.52                | 4.36                | 1.65                  | 2.12                  |
| K <sub>2</sub> O                 | 0.13          | 0.05          | 0.06          | 0.03          | 0.05          | 0.04          | 0.04          | 0.07                | 0.07                | 0.05                | 0.06                | 0.04                | 0.05                  | 0.07                  |
| P <sub>2</sub> O <sub>5</sub>    | 0.08          | 0.09          | 0.09          | 0.09          | 0.08          | 0.05          | 0.09          | 0.13                | 0.13                | 0.10                | 0.12                | 0.12                | b.d.                  | 0.05                  |
| LOI                              | 2.55          | 3.68          | 0.85          | 1.58          | 2.36          | 2.18          | 2.95          | 2.26                | 1.26                | 1.45                | 1.12                | 2.08                | 0.79                  | 0.82                  |
| Total                            | 100.91        | 100.95        | 100.84        | 100.26        | 100.52        | 100.69        | 101.14        | 99.81               | 100.31              | 100.07              | 100.76              | 100.96              | 101.01                | 100.81                |
| Trace elements (ppm)             |               |               |               |               |               |               |               |                     |                     |                     |                     |                     |                       |                       |
| Ba                               | 41.0          | 14.0          | 14.6          | 8.7           | 27.9          | 8.1           | 16.2          | 11.5                | 16.7                | 15.8                | 16.3                | 21.7                | 8.6                   | 9.2                   |
| Cr                               | 211           | 23            | 181           | 207           | 207           | 269           | 247           | 180                 | 162                 | 248                 | 225                 | 239                 | 104                   | 279                   |
| Cs                               | 0.16          | 0.25          | 0.10          | 0.10          | 0.09          | 0.09          | 0.10          | 0.09                | 0.10                | 0.07                | 0.08                | 0.10                | 0.19                  | 0.04                  |
| Hf                               | 1.77          | 1.91          | 2.12          | 2.09          | 1.40          | 1.32          | 2.68          | 2.72                | 2.83                | 2.00                | 2.40                | 2.32                | 0.26                  | 1.37                  |
| Nb                               | 0.80          | 0.86          | 1.05          | 1.35          | 0.66          | 0.55          | 1.29          | 2.38                | 2.34                | 2.31                | 2.39                | 2.60                | 0.12                  | 0.51                  |
| Ni                               | 80            | 37            | 76            | 90            | 105           | 94            | 116           | 72                  | 55                  | 76                  | 86                  | 86                  | 79                    | 116                   |
| Pb                               | 1.14          | 0.64          | 0.31          | 0.22          | 0.70          | 0.14          | 0.65          | 1.04                | 1.17                | 0.68                | 0.28                | 0.74                | 1.02                  | 0.42                  |
| Rb                               | 2.90          | 0.26          | 0.84          | 0.32          | 0.31          | 0.37          | 0.34          | b.d.                | 0.29                | b.d.                | 0.23                | 0.39                | 1.12                  | 0.87                  |
| Sc                               | 43.0          | 39.2          | 42.6          | 42.3          | 39.0          | 38.9          | 40.9          | 40.3                | 38.8                | 37.2                | 37.4                | 37.2                | 55.8                  | 42.1                  |
| Sr                               | 96            | 47            | 87            | 89            | 160           | 159           | 131           | 47                  | 117                 | 106                 | 175                 | 153                 | 88                    | 90                    |
| Th                               | 0.09          | 0.16          | 0.13          | 0.14          | 0.14          | 0.10          | 0.17          | 0.18                | 0.24                | 0.18                | 0.17                | 0.21                | b.d.                  | 0.05                  |
| U                                | 0.03          | 0.10          | 0.04          | 0.04          | 0.07          | 0.09          | 0.06          | 0.08                | 0.09                | 0.13                | 0.08                | 0.09                | b.d.                  | 0.02                  |
| V                                | 323           | 308           | 339           | 322           | 281           | 238           | 280           | 298                 | 311                 | 274                 | 319                 | 319                 | 734                   | 241                   |
| Y                                | 30.54         | 30.42         | 33.18         | 33.10         | 24.89         | 20.91         | 36.88         | 35.85               | 37.01               | 26.38               | 33.49               | 31.20               | 13.08                 | 22.85                 |
| Zr                               | 55.93         | 60.02         | 66.64         | 68.59         | 50.10         | 39.80         | 86.63         | 91.02               | 95.37               | 71.72               | 82.95               | 81.96               | b.d.                  | 45.14                 |
| La                               | 1.61          | 1.85          | 1.98          | 2.20          | 1.84          | 1.37          | 3.01          | 3.20                | 3.71                | 3.07                | 3.55                | 3.60                | 0.30                  | 1.02                  |
| Ce                               | 5.71          | 6.17          | 6.78          | 7.19          | 5.54          | 4.40          | 8.02          | 9.41                | 10.96               | 9.00                | 10.56               | 10.38               | 0.93                  | 3.99                  |
| Pr                               | 1.14          | 1.19          | 1.30          | 1.35          | 0.95          | 0.82          | 1.63          | 1.65                | 1.87                | 1.54                | 1.81                | 1.76                | 0.20                  | 0.82                  |
| Nd                               | 6.62          | 6.90          | 7.57          | 8.08          | 5.70          | 4.86          | 8.87          | 9.01                | 10.29               | 8.43                | 10.22               | 9.77                | 1.51                  | 5.04                  |
| Sm                               | 2.67          | 2.75          | 2.94          | 2.96          | 2.14          | 1.83          | 3.46          | 3.56                | 3.70                | 2.78                | 3.51                | 3.23                | 0.89                  | 2.00                  |
| Eu                               | 1.10          | 1.07          | 1.25          | 1.15          | 0.92          | 0.82          | 1.01          | 1.17                | 1.36                | 1.12                | 1.43                | 1.44                | 0.60                  | 0.85                  |
| Gd                               | 4.08          | 4.05          | 4.48          | 4.44          | 3.28          | 2.81          | 5.04          | 5.02                | 5.41                | 3.85                | 4.98                | 4.62                | 1.67                  | 2.90                  |
| Tb                               | 0.78          | 0.78          | 0.86          | 0.82          | 0.61          | 0.53          | 0.91          | 0.91                | 0.98                | 0.68                | 0.86                | 0.82                | 0.32                  | 0.55                  |
| Dy                               | 5.07          | 5.21          | 5.63          | 5.41          | 4.07          | 3.44          | 6.02          | 6.04                | 6.36                | 4.34                | 5.76                | 5.23                | 2.27                  | 3.83                  |
| Ho                               | 1.19          | 1.19          | 1.30          | 1.21          | 0.90          | 0.76          | 1.32          | 1.36                | 1.37                | 0.98                | 1.24                | 1.17                | 0.51                  | 0.84                  |
| Er                               | 3.28          | 3.29          | 3.64          | 3.55          | 2.76          | 2.26          | 3.84          | 3.87                | 3.98                | 2.91                | 3.55                | 3.34                | 1.49                  | 2.34                  |
| Tm                               | 0.50          | 0.51          | 0.56          | 0.52          | 0.36          | 0.36          | 0.58          | 0.58                | 0.62                | 0.43                | 0.52                | 0.51                | 0.22                  | 0.36                  |
| Yb                               | 3.13          | 3.24          | 3.55          | 3.33          | 2.72          | 2.17          | 3.70          | 3.73                | 3.98                | 2.59                | 3.34                | 3.16                | 1.30                  | 2.22                  |
| Lu                               | 0.50          | 0.53          | 0.56          | 0.50          | 0.38          | 0.34          | 0.59          | 0.57                | 0.58                | 0.41                | 0.52                | 0.49                | 0.21                  | 0.35                  |
| Mg#                              | 0.57          | 0.54          | 0.55          | 0.57          | 0.61          | 0.63          | 0.56          | 0.49                | 0.51                | 0.53                | 0.53                | 0.52                | 0.56                  | 0.65                  |

# Data Repository item 2005193

Table DR1 (continued)

| sample                           | 1J063a             | 1J065c             | 1J199b             | 1J200b             | 1J202              | 2J308              | 2J315c             | 2J318              | 2J319              | 2J326c             | 2J341c     | 2J335a     | 2J375a     | 2J375b  |
|----------------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|------------|------------|------------|---------|
| Ophiolite                        | AN                 | AN         | SL         | SL         | SL      |
| Lithology                        | Cross-cutting dyke | Troctolite | Troctolite | Troctolite |         |
| UTM x                            | 448841             | 448583             | 454388             | 454456             | 454692             | 447970             | 447440             | 447510             | 447239             | 448207             | 447964     | 483907     | 484014     | 484014  |
| UTM y                            | 5344158            | 5345186            | 5347672            | 5347738            | 5347724            | 5348189            | 5345777            | 5346085            | 5345849            | 5346760            | 5345489    | 5383239    | 5384685    | 5384685 |
| SiO <sub>2</sub>                 | 47.45              | 47.41              | 47.71              | 48.12              | 51.89              | 48.08              | 47.68              | 48.37              | 48.50              | 48.46              | 48.61      | 44.90      | 43.35      | 46.18   |
| TiO <sub>2</sub>                 | 0.75               | 0.76               | 1.20               | 0.52               | 0.48               | 0.36               | 1.59               | 0.97               | 1.05               | 1.65               | 0.90       | 0.11       | 0.09       | 0.10    |
| Al <sub>2</sub> O <sub>3</sub>   | 16.83              | 16.61              | 15.63              | 15.77              | 14.64              | 16.71              | 13.73              | 15.65              | 15.00              | 14.12              | 16.18      | 19.40      | 17.63      | 28.84   |
| Fe <sub>2</sub> O <sub>3</sub> * | 9.80               | 9.80               | 11.67              | 9.70               | 9.38               | 7.92               | 14.84              | 10.78              | 11.34              | 13.74              | 9.97       | 6.65       | 7.44       | 2.12    |
| MnO                              | 0.16               | 0.16               | 0.19               | 0.17               | 0.16               | 0.14               | 0.22               | 0.16               | 0.18               | 0.21               | 0.16       | 0.10       | 0.11       | 0.04    |
| MgO                              | 8.99               | 8.90               | 8.30               | 9.55               | 7.35               | 9.25               | 7.81               | 8.66               | 8.41               | 7.01               | 8.66       | 15.50      | 17.06      | 3.52    |
| CaO                              | 12.90              | 12.89              | 11.80              | 12.98              | 11.86              | 14.94              | 11.57              | 12.48              | 12.76              | 11.41              | 13.13      | 11.51      | 11.31      | 16.25   |
| Na <sub>2</sub> O                | 1.80               | 1.82               | 1.97               | 1.49               | 3.66               | 1.28               | 2.59               | 1.86               | 1.89               | 2.28               | 1.72       | 1.30       | 1.07       | 1.72    |
| K <sub>2</sub> O                 | 0.02               | 0.04               | 0.04               | 0.05               | 0.05               | 0.13               | 0.06               | 0.06               | 0.06               | 0.03               | 0.05       | 0.02       | 0.03       | 0.03    |
| P <sub>2</sub> O <sub>5</sub>    | 0.04               | 0.04               | 0.07               | 0.02               | 0.02               | 0.02               | 0.09               | 0.06               | 0.01               | 0.09               | 0.06       | 0.01       | 0.01       | 0.01    |
| LOI                              | 1.42               | 1.42               | 1.90               | 1.81               | 1.74               | 1.10               | 0.70               | 0.70               | 0.70               | 0.80               | 0.70       | 0.83       | 2.38       | 1.16    |
| Total                            | 100.16             | 99.84              | 100.49             | 100.18             | 101.22             | 99.99              | 100.92             | 99.82              | 99.95              | 99.84              | 100.22     | 100.44     | 100.65     | 100.06  |
| Trace elements (ppm)             |                    |                    |                    |                    |                    |                    |                    |                    |                    |                    |            |            |            |         |
| Ba                               | b.d.               | 5.5                | b.d.               | b.d.               | 14.9               | 12.0               | 11.1               | 9.0                | 6.0                | 8.0                | 2.9        | 2.8        | 2.0        | 4.4     |
| Cr                               | 434                | 439                | 248                | 429                | 341                | 322                | 93                 | 328                | 226                | 123                | 382        | 312        | 680        | 489     |
| Cs                               | 0.23               | 0.20               | 0.07               | 0.17               | 0.08               | 0.30               | 0.11               | 0.05               | 0.05               | 0.05               | 0.13       | 0.34       | 0.13       | 0.18    |
| Hf                               | 0.99               | 0.98               | 1.91               | 0.60               | 0.71               | 0.25               | 0.90               | 1.00               | 0.80               | 1.70               | 1.20       | 0.10       | 0.10       | b.d.    |
| Nb                               | 0.47               | 0.53               | 0.53               | 0.13               | 0.13               | 0.25               | 0.36               | 0.50               | 0.25               | 1.10               | 0.57       | b.d.       | b.d.       | b.d.    |
| Ni                               | 157                | 151                | 148                | 153                | 124                | 18                 | 55                 | 59                 | 45                 | 30                 | 124        | 538        | 598        | 122     |
| Pb                               | b.d.               | b.d.               | 0.66               | b.d.               | 1.02               | 1.60               | 3.10               | 0.60               | 2.00               | 0.40               | b.d.       | b.d.       | b.d.       | b.d.    |
| Rb                               | 0.28               | 0.78               | 0.26               | 1.10               | 0.53               | 2.90               | 0.47               | 0.80               | 1.10               | 0.25               | 0.17       | 0.33       | 0.17       | 0.42    |
| Sc                               | 37.1               | 36.2               | 39.4               | 38.7               | 31.1               | 39.0               | >50                | 35.0               | 41.0               | 40.0               | 31.6       | 12.6       | 15.0       | 9.2     |
| Sr                               | 68                 | 66                 | 69                 | 41                 | 156                | 113                | 119                | 73                 | 92                 | 96                 | 78         | 68         | 75         | 137     |
| Th                               | b.d.               | b.d.               | 0.05               | b.d.               | b.d.       | b.d.       | b.d.       | b.d.    |
| U                                | 0.01               | 0.02               | 0.02               | 0.01               | 0.02               | b.d.               | 0.01               | b.d.               | b.d.               | b.d.               | 0.02       | b.d.       | b.d.       | b.d.    |
| V                                | 219                | 225                | 291                | 233                | 190                | 177                | 396                | 297                | 347                | 392                | 246        | 57         | 56         | 37      |
| Y                                | 20.23              | 20.22              | 29.34              | 16.25              | 13.08              | 11.10              | 28.88              | 28.80              | 21.00              | 39.20              | 22.09      | 2.75       | 1.85       | 1.66    |
| Zr                               | 28.89              | 29.31              | 56.02              | 15.16              | 21.85              | 7.60               | 21.20              | 39.40              | 13.00              | 41.10              | 39.90      | 4.10       | b.d.       | b.d.    |
| La                               | 0.77               | 0.77               | 1.20               | 0.42               | 0.60               | 0.25               | 0.94               | 0.90               | 0.50               | 1.50               | 1.06       | 0.19       | 0.11       | 0.14    |
| Ce                               | 2.63               | 2.71               | 4.73               | 1.46               | 2.21               | 1.30               | 3.63               | 4.30               | 2.60               | 5.90               | 3.80       | 0.62       | 0.38       | 0.40    |
| Pr                               | 0.54               | 0.53               | 1.01               | 0.30               | 0.46               | 0.24               | 0.81               | 0.83               | 0.43               | 1.18               | 0.80       | 0.12       | 0.09       | 0.08    |
| Nd                               | 3.40               | 3.46               | 6.52               | 2.14               | 2.91               | 2.10               | 5.53               | 6.10               | 3.70               | 10.60              | 4.97       | 0.61       | 0.53       | 0.49    |
| Sm                               | 1.61               | 1.65               | 2.86               | 1.06               | 1.18               | 0.70               | 2.62               | 2.40               | 1.40               | 3.40               | 2.03       | 0.23       | 0.19       | 0.16    |
| Eu                               | 0.72               | 0.74               | 1.12               | 0.51               | 0.65               | 0.35               | 1.07               | 1.00               | 0.83               | 1.37               | 0.86       | 0.23       | 0.15       | 0.21    |
| Gd                               | 2.53               | 2.52               | 4.20               | 1.86               | 1.76               | 1.48               | 4.29               | 3.98               | 2.82               | 5.49               | 3.13       | 0.37       | 0.28       | 0.27    |
| Tb                               | 0.47               | 0.48               | 0.75               | 0.38               | 0.34               | 0.27               | 0.81               | 0.67               | 0.47               | 0.84               | 0.59       | 0.07       | 0.05       | 0.04    |
| Dy                               | 3.28               | 3.36               | 4.97               | 2.56               | 2.24               | 1.65               | 5.27               | 4.34               | 3.51               | 5.92               | 3.79       | 0.50       | 0.35       | 0.28    |
| Ho                               | 0.76               | 0.77               | 1.10               | 0.60               | 0.51               | 0.41               | 1.17               | 0.99               | 0.81               | 1.36               | 0.85       | 0.11       | 0.08       | 0.06    |
| Er                               | 2.17               | 2.23               | 3.34               | 1.75               | 1.52               | 1.09               | 3.35               | 2.77               | 2.42               | 3.84               | 2.50       | 0.30       | 0.27       | 0.19    |
| Tm                               | 0.33               | 0.34               | 0.52               | 0.28               | 0.22               | 0.17               | 0.49               | 0.39               | 0.34               | 0.61               | 0.36       | 0.05       | 0.04       | 0.03    |
| Yb                               | 2.12               | 2.10               | 3.16               | 1.75               | 1.46               | 1.18               | 2.89               | 2.90               | 1.95               | 3.75               | 2.38       | 0.31       | 0.22       | 0.19    |
| Lu                               | 0.31               | 0.31               | 0.50               | 0.27               | 0.22               | 0.15               | 0.47               | 0.39               | 0.26               | 0.57               | 0.37       | 0.04       | 0.04       | 0.03    |
| Mg#                              | 0.67               | 0.66               | 0.61               | 0.68               | 0.63               | 0.72               | 0.53               | 0.64               | 0.62               | 0.53               | 0.65       | 0.84       | 0.83       | 0.78    |

# Data Repository item 2005193

Table DR1 (continued)

| sample                           | 2J370b  | 2J335d  | 2J373   | 2J334c  | 2J380a  | 2J387   | 2J391   | 2J392   | 1J209a       | 2J393        | 2J411a       | 2J411b       | 1A112b  |
|----------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|--------------|--------------|--------------|--------------|---------|
| Ophiolite                        | SL           | SL           | SL           | SL           | KGIV    |
| Lithology                        | Gabbro  | Sheeted dyke | Sheeted dyke | Sheeted dyke | Sheeted dyke | Basalt  |
| UTM x                            | 485169  | 485742  | 483907  | 459859  | 488056  | 487361  | 489099  | 489240  | 492722       | 489991       | 492426       | 492426       | 437696  |
| UTM y                            | 5385153 | 5384684 | 5383239 | 5376247 | 5390420 | 5386304 | 5389582 | 5389567 | 5394620      | 5389428      | 5394801      | 5394801      | 5334147 |
| SiO <sub>2</sub>                 | 47.08   | 47.33   | 47.97   | 48.51   | 40.80   | 44.90   | 46.68   | 46.35   | 48.57        | 47.25        | 48.16        | 47.94        | 50.30   |
| TiO <sub>2</sub>                 | 0.24    | 0.20    | 0.29    | 0.15    | 1.24    | 0.14    | 0.14    | 0.12    | 1.16         | 0.97         | 1.24         | 1.079        | 0.93    |
| Al <sub>2</sub> O <sub>3</sub>   | 19.22   | 16.97   | 17.22   | 16.17   | 15.35   | 21.25   | 15.41   | 14.29   | 15.86        | 16.58        | 16.24        | 16.13        | 14.92   |
| Fe <sub>2</sub> O <sub>3</sub> * | 5.7     | 6.07    | 7.55    | 6.79    | 19.97   | 5.91    | 7.67    | 8.34    | 11.77        | 10.38        | 11.14        | 10.56        | 11.63   |
| MnO                              | 0.11    | 0.11    | 0.13    | 0.14    | 0.20    | 0.10    | 0.13    | 0.14    | 0.20         | 0.17         | 0.19         | 0.177        | 0.21    |
| MgO                              | 9.32    | 10.99   | 9.58    | 11.03   | 7.20    | 10.65   | 11.61   | 12.46   | 8.35         | 9.22         | 8.37         | 8.73         | 8.95    |
| CaO                              | 15.05   | 15.34   | 13.71   | 13.66   | 12.32   | 11.61   | 16.15   | 15.97   | 11.78        | 12.14        | 11.40        | 11.93        | 5.67    |
| Na <sub>2</sub> O                | 1.47    | 1.1     | 1.77    | 1.16    | 0.79    | 1.12    | 0.54    | 0.49    | 2.36         | 1.89         | 2.65         | 2.32         | 5.19    |
| K <sub>2</sub> O                 | 0.08    | 0.04    | 0.15    | 0.73    | 0.36    | 1.46    | 0.12    | 0.08    | 0.10         | 0.13         | 0.15         | 0.1          | 0.04    |
| P <sub>2</sub> O <sub>5</sub>    | 0.02    | 0.02    | 0.02    | 0.01    | 0.01    | 0.02    | 0.03    | 0.01    | 0.07         | 0.06         | 0.11         | 0.076        | 0.06    |
| LOI                              | 1.75    | 1.66    | 1.71    | 1.77    | 1.60    | 3.07    | 1.30    | 1.50    | 0.76         | 1.10         | 1.06         | 1.2          | 3.38    |
| Total                            | 100.11  | 99.9    | 100.19  | 100.17  | 99.85   | 100.31  | 99.88   | 99.87   | 100.97       | 99.96        | 100.78       | 100.33       | 101.28  |
| Trace elements (ppm)             |         |         |         |         |         |         |         |         |              |              |              |              |         |
| Ba                               | 11.2    | 6.3     | 17.5    | 213.4   | 58.0    | 276.1   | 39.0    | 28.0    | 10.4         | 16.0         | 18.9         | 14.5         | 22.6    |
| Cr                               | 310     | 279     | 465     | 227     | 7       | 364     | 547     | 650     | 304          | 294          | 290          | 347          | 369     |
| Cs                               | 0.28    | 0.18    | 0.28    | 0.32    | 0.80    | 1.61    | 0.30    | 0.10    | 0.12         | 0.05         | 0.12         | 0.082        | 0.36    |
| Hf                               | 0.30    | 0.30    | 0.30    | 0.20    | 0.25    | 0.10    | 0.25    | 0.25    | 1.78         | 1.40         | 1.80         | 1.6          | 1.36    |
| Nb                               | 0.12    | b.d.    | 0.15    | 0.11    | 0.25    | 0.14    | 0.25    | 0.25    | 0.87         | 0.60         | 1.66         | 0.8          | 0.68    |
| Ni                               | 133     | 137     | 143     | 89      | 0       | 292     | 95      | 163     | 118          | 53           | 133          | 144          | 170     |
| Pb                               | 0.60    | 0.60    | 0.90    | 2.20    | 0.80    | 3.20    | 1.60    | 1.50    | 0.42         | 0.70         | 0.50         | 0.60         | 0.50    |
| Rb                               | 1.84    | 0.70    | 3.93    | 21.54   | 15.70   | 76.28   | 3.50    | 2.40    | 0.76         | 2.30         | 0.76         | 0.58         | 0.44    |
| Sc                               | 32.2    | 39.5    | 33.7    | 48.5    | 49.0    | 18.0    | 45.0    | 48.0    | 43.2         | 35.0         | 42.7         | 39.8         | 40.8    |
| Sr                               | 110     | 71      | 111     | 114     | 130     | 131     | 102     | 89      | 111          | 116          | 134          | 95           | 83      |
| Th                               | b.d.    | b.d.    | 0.08    | 0.43    | b.d.    | 0.08    | b.d.    | b.d.    | 0.09         | b.d.         | 0.13         | 0.09         | 0.18    |
| U                                | 0.01    | 0.01    | 0.03    | 0.15    | b.d.    | 0.12    | b.d.    | b.d.    | 0.03         | b.d.         | b.d.         | 0.03         | 0.05    |
| V                                | 122     | 124     | 138     | 151     | 893     | 64      | 164     | 147     | 305          | 252          | 315          | 270          | 272     |
| Y                                | 6.51    | 7.38    | 7.77    | 3.83    | 4.20    | 3.26    | 3.20    | 2.80    | 27.40        | 19.80        | 27.36        | 24.64        | 20.68   |
| Zr                               | 8.30    | 7.90    | 8.00    | 5.20    | 3.10    | b.d.    | 1.40    | 1.40    | 58.30        | 33.40        | 59.70        | 47.9         | 41.98   |
| La                               | 0.28    | 0.45    | 0.56    | 0.88    | 0.50    | 0.62    | 0.25    | 0.25    | 1.61         | 0.80         | 2.28         | 1.42         | 1.62    |
| Ce                               | 1.05    | 1.45    | 1.46    | 1.26    | 0.90    | 1.04    | 0.50    | 0.25    | 5.67         | 3.20         | 7.28         | 4.94         | 4.95    |
| Pr                               | 0.22    | 0.31    | 0.29    | 0.15    | 0.10    | 0.12    | 0.05    | 0.04    | 1.09         | 0.67         | 1.33         | 1.03         | 0.92    |
| Nd                               | 1.32    | 1.56    | 1.69    | 0.76    | 0.80    | 0.68    | 0.20    | 0.20    | 6.50         | 4.40         | 7.62         | 5.89         | 4.98    |
| Sm                               | 0.60    | 0.78    | 0.70    | 0.24    | 0.30    | 0.27    | 0.30    | 0.20    | 2.51         | 1.90         | 2.90         | 2.43         | 1.90    |
| Eu                               | 0.35    | 0.35    | 0.42    | 0.17    | 0.31    | 0.26    | 0.21    | 0.13    | 1.08         | 0.92         | 1.07         | 1.01         | 0.68    |
| Gd                               | 0.89    | 1.10    | 1.14    | 0.51    | 0.40    | 0.49    | 0.32    | 0.43    | 3.73         | 3.14         | 4.08         | 3.7          | 2.77    |
| Tb                               | 0.18    | 0.20    | 0.21    | 0.09    | 0.11    | 0.09    | 0.09    | 0.06    | 0.68         | 0.51         | 0.71         | 0.67         | 0.54    |
| Dy                               | 1.12    | 1.40    | 1.35    | 0.67    | 0.75    | 0.56    | 0.71    | 0.59    | 4.73         | 3.59         | 4.60         | 4.31         | 3.55    |
| Ho                               | 0.27    | 0.32    | 0.29    | 0.15    | 0.15    | 0.13    | 0.13    | 0.13    | 1.04         | 0.63         | 1.02         | 0.98         | 0.81    |
| Er                               | 0.76    | 0.89    | 0.91    | 0.44    | 0.53    | 0.37    | 0.39    | 0.42    | 2.98         | 2.21         | 2.99         | 2.75         | 2.30    |
| Tm                               | 0.12    | 0.14    | 0.13    | 0.07    | 0.07    | 0.06    | 0.07    | 0.06    | 0.44         | 0.34         | 0.44         | 0.38         | 0.35    |
| Yb                               | 0.74    | 0.85    | 0.83    | 0.42    | 0.53    | 0.33    | 0.31    | 0.41    | 2.80         | 1.90         | 2.84         | 2.53         | 2.12    |
| Lu                               | 0.11    | 0.13    | 0.14    | 0.07    | 0.09    | 0.06    | 0.06    | 0.06    | 0.42         | 0.28         | 0.42         | 0.40         | 0.36    |
| Mg#                              | 0.78    | 0.80    | 0.73    | 0.78    | 0.44    | 0.80    | 0.77    | 0.77    | 0.61         | 0.66         | 0.62         | 0.62         | 0.63    |

# Data Repository item 2005193

Table DR1 (continued)

| sample                           | 2A010b         | 2A019          | 10081          |
|----------------------------------|----------------|----------------|----------------|
| Ophiolite                        | KGIV           | KGIV           | KGIV           |
| Lithology                        | Basalt         | Basalt         | Sheeted dyke   |
| UTM x                            | 439662         | 437979         | 440800         |
| <u>UTM y</u>                     | <u>5336422</u> | <u>5333899</u> | <u>5337911</u> |
| SiO <sub>2</sub>                 | 48.82          | 49.39          | 48.08          |
| TiO <sub>2</sub>                 | 0.98           | 1.43           | 0.70           |
| Al <sub>2</sub> O <sub>3</sub>   | 15.64          | 15.66          | 19.01          |
| Fe <sub>2</sub> O <sub>3</sub> * | 10.16          | 11.51          | 8.63           |
| MnO                              | 0.18           | 0.16           | 0.14           |
| MgO                              | 8.63           | 6.52           | 7.90           |
| CaO                              | 11.63          | 8.74           | 13.28          |
| Na <sub>2</sub> O                | 2.68           | 3.65           | 1.82           |
| K <sub>2</sub> O                 | 0.07           | 0.05           | 0.06           |
| P <sub>2</sub> O <sub>5</sub>    | 0.07           | 0.13           | 0.05           |
| LOI                              | 1.73           | 3.20           | 1.16           |
| Total                            | 100.67         | 100.52         | 100.83         |
| Trace elements (ppm)             |                |                |                |
| Ba                               | 21.2           | 17.6           | 12.2           |
| Cr                               | 366            | 250            | 308            |
| Cs                               | 0.66           | 0.82           | 0.09           |
| Hf                               | 1.50           | 2.90           | 1.06           |
| Nb                               | 0.51           | 1.17           | 0.47           |
| Ni                               | 143            | 106            | 128            |
| Pb                               | 0.70           | 1.70           | n.d.           |
| Rb                               | 0.95           | 0.84           | 0.62           |
| Sc                               | 41.7           | 41.8           | 32.1           |
| Sr                               | 153            | 172            | 98             |
| Th                               | 0.10           | 0.15           | 0.06           |
| U                                | 0.03           | 0.08           | 0.02           |
| V                                | 282            | 315            | 208            |
| Y                                | 25.08          | 44.94          | 17.87          |
| Zr                               | 49.40          | 93.00          | 32.30          |
| La                               | 1.24           | 2.32           | 0.96           |
| Ce                               | 4.60           | 8.50           | 3.39           |
| Pr                               | 0.89           | 1.69           | 0.65           |
| Nd                               | 5.48           | 10.35          | 3.99           |
| Sm                               | 2.37           | 4.10           | 1.51           |
| Eu                               | 0.84           | 1.45           | 0.71           |
| Gd                               | 3.31           | 6.08           | 2.35           |
| Tb                               | 0.62           | 1.17           | 0.44           |
| Dy                               | 4.33           | 7.43           | 3.13           |
| Ho                               | 0.92           | 1.71           | 0.69           |
| Er                               | 2.76           | 5.03           | 1.98           |
| Tm                               | 0.42           | 0.76           | 0.29           |
| Yb                               | 2.62           | 4.75           | 2.05           |
| Lu                               | 0.42           | 0.74           | 0.31           |
| Mg#                              | 0.65           | 0.55           | 0.67           |

Table DR2: Detection limits of various laboratories

|                                | Major elements (%) |        |      | Trace elements (ppm) |             |        |      |
|--------------------------------|--------------------|--------|------|----------------------|-------------|--------|------|
|                                | OGS                | McGill | ACME | OGS<br>2001          | OGS<br>2002 | McGill | ACME |
| SiO <sub>2</sub>               | 0.01               | 0.006  | 0.02 | Ba                   | 5           | 0.6    | n.a. |
| TiO <sub>2</sub>               | 0.01               | 0.004  | 0.01 | Cr                   | 1           | 8      | n.a. |
| Al <sub>2</sub> O <sub>3</sub> | 0.01               | 0.012  | 0.03 | Cs                   | 0.01        | 0.007  | n.a. |
| Fe <sub>2</sub> O <sub>3</sub> | 0.01               | 0.003  | 0.04 | Hf                   | 0.1         | 0.1    | n.a. |
| MnO                            | 0.01               | 0.003  | 0.01 | Nb                   | 0.08        | 0.09   | 1    |
| MgO                            | 0.01               | 0.01   | 0.01 | Ni                   | 5           | 0.8    | 3    |
| CaO                            | 0.01               | 0.002  | 0.01 | Pb                   | 0.1         | 0.4    | 1    |
| Na <sub>2</sub> O              | 0.01               | 0.008  | 0.01 | Rb                   | 0.2         | 0.05   | 1    |
| K <sub>2</sub> O               | 0.01               | 0.003  | 0.04 | Sc                   | 0.5         | 0.6    | 10   |
| P <sub>2</sub> O <sub>5</sub>  | 0.01               | 0.004  | 0.01 | Sr                   | 2           | 0.5    | n.a. |
| Cr <sub>2</sub> O <sub>3</sub> | n.a.               | 0.002  | 0    | Th                   | 0.05        | 0.06   | 1    |
|                                |                    |        |      | U                    | 0.01        | 0.007  | 0.1  |
|                                |                    |        |      | V                    | 4           | 1      | 10   |
|                                |                    |        |      | Y                    | 0.2         | 0.02   | 1    |
|                                |                    |        |      | Zr                   | 6           | 4      | 0.5  |
|                                |                    |        |      | La                   | 0.2         | 0.02   | n.a. |
|                                |                    |        |      | Ce                   | 0.3         | 0.07   | n.a. |
|                                |                    |        |      | Pr                   | 0.03        | 0.006  | n.a. |
|                                |                    |        |      | Nd                   | 0.2         | 0.03   | n.a. |
|                                |                    |        |      | Sm                   | 0.03        | 0.01   | n.a. |
|                                |                    |        |      | Eu                   | 0.004       | 0.005  | n.a. |
|                                |                    |        |      | Gd                   | 0.03        | 0.009  | n.a. |
|                                |                    |        |      | Tb                   | 0.001       | 0.003  | n.a. |
|                                |                    |        |      | Dy                   | 0.01        | 0.008  | n.a. |
|                                |                    |        |      | Ho                   | 0.002       | 0.003  | n.a. |
|                                |                    |        |      | Er                   | 0.006       | 0.008  | n.a. |
|                                |                    |        |      | Tm                   | 0.005       | 0.003  | n.a. |
|                                |                    |        |      | Yb                   | 0.01        | 0.01   | n.a. |
|                                |                    |        |      | Lu                   | 0.001       | 0.003  | 0.05 |

n.a.=not analysed

Table DR3: Modeled trace element compositions (ppm) of parental magmas of troctolites from AN and anomalous gabbros from SL

| Sample               | VL01J35c      |      |      | VL01J35b      |       |      | VL02J310a     |       |       | VL02J309b     |      |      | VL02J391  |       |       | VL02J392  |       |      |
|----------------------|---------------|------|------|---------------|-------|------|---------------|-------|-------|---------------|------|------|-----------|-------|-------|-----------|-------|------|
| Unit                 | Troctolite AN |      |      | Troctolite AN |       |      | Troctolite AN |       |       | Troctolite AN |      |      | Gabbro SL |       |       | Gabbro SL |       |      |
| TMF <sup>†</sup> (%) | 5             | 10   | 15   | 5             | 10    | 15   | 15            | 10    | 5     | 15            | 10   | 5    | 10        | 15    | 20    | 10        | 15    | 20   |
| K                    | 3918          | 2490 | 1825 | 17579         | 11800 | 8880 | 6339          | 8379  | 12354 | 1344          | 1811 | 2776 | 7783      | 5649  | 4434  | 5061      | 3676  | 2894 |
| P                    | b.d.          | b.d. | b.d. | b.d.          | b.d.  | b.d. | 336           | 459   | 722   | 455           | 633  | 1042 | 995       | 728   | 574   | 169       | 123   | 97   |
| Ti                   | 2976          | 1945 | 1445 | 1982          | 1349  | 1022 | 2895          | 4064  | 6819  | 1457          | 2052 | 3465 | 3756      | 3146  | 2706  | 3326      | 2797  | 2403 |
| Ba                   | 44            | 33   | 26   | 98            | 77    | 63   | 25            | 31    | 39    | 10            | 12   | 16   | 256       | 196   | 158   | 184       | 140   | 113  |
| Co                   | 59            | 57   | 55   | 50            | 48    | 46   | 41            | 39    | 37    | 50            | 48   | 47   | 53        | 54    | 55    | 42        | 41    | 40   |
| Cr                   | 467           | 572  | 739  | 92            | 113   | 145  | 737           | 819   | 920   | 645           | 686  | 733  | 174       | 181   | 188   | 214       | 227   | 239  |
| Cs                   | 8.2           | 4.8  | 3.4  | 17.4          | 10.5  | 7.6  | 2.31          | 3.20  | 5.21  | 2.27          | 3.18 | 5.30 | 2.5       | 1.8   | 1.4   | 0.8       | 0.6   | 0.4  |
| Cu                   | 247           | 235  | 224  | 70            | 67    | 65   | 87            | 90    | 94    | 86            | 90   | 94   | 186       | 177   | 169   | 213       | 202   | 192  |
| Ga                   | 7.6           | 7.6  | 7.6  | 7.7           | 7.7   | 8.87 | 8.80          | 8.73  | 6.28  | 6.22          | 6.16 | 9.3  | 9.3       | 10.1  | 10.2  | 10.2      |       |      |
| Hf                   | b.d.          | b.d. | b.d. | b.d.          | b.d.  | b.d. | b.d.          | b.d.  | b.d.  | b.d.          | b.d. | 1.55 | 1.20      | 0.98  | 1.58  | 1.22      | 1.00  |      |
| Nb                   | b.d.          | b.d. | b.d. | b.d.          | b.d.  | b.d. | b.d.          | b.d.  | b.d.  | b.d.          | b.d. | 2.40 | 1.62      | 1.23  | 2.39  | 1.62      | 1.23  |      |
| Ni                   | 327           | 306  | 288  | 298           | 276   | 260  | 126           | 113   | 102   | 152           | 144  | 137  | 37        | 39    | 41    | 39        | 38    | 38   |
| Pb                   | 2.2           | 1.9  | 1.7  | 3.2           | 2.9   | 2.7  | b.d.          | b.d.  | b.d.  | 2.7           | 3.0  | 3.4  | 6.1       | 5.2   | 4.6   | 6.0       | 5.1   | 4.5  |
| Rb                   | 34            | 18   | 12   | 152           | 82    | 56   | 43            | 62    | 113   | 5             | 7    | 12   | 32        | 22    | 17    | 21        | 14    | 11   |
| Sc                   | 16            | 22   | 35   | 3             | 4     | 6    | 27            | 35    | 48    | 19            | 23   | 30   | 15        | 16    | 16    | 18        | 18    | 19   |
| Sr                   | 138           | 136  | 134  | 170           | 168   | 167  | 98            | 98    | 98    | 88            | 88   | 89   | 151       | 146   | 142   | 147       | 142   | 137  |
| Ta                   | 2.70          | 1.42 | 0.97 | 2.66          | 1.41  | 0.96 | 0.70          | 1.01  | 1.84  | 0.74          | 1.07 | 1.89 | 0.45      | 0.31  | 0.24  | 0.42      | 0.30  | 0.23 |
| Th                   | b.d.          | b.d. | b.d. | 0.92          | 0.48  | 0.33 | b.d.          | b.d.  | b.d.  | b.d.          | b.d. | b.d. | b.d.      | b.d.  | b.d.  | b.d.      | b.d.  | b.d. |
| U                    | b.d.          | b.d. | b.d. | 0.33          | 0.18  | 0.13 | b.d.          | b.d.  | b.d.  | b.d.          | b.d. | b.d. | b.d.      | b.d.  | b.d.  | b.d.      | b.d.  | b.d. |
| V                    | 88            | 95   | 103  | 31            | 33    | 36   | 184           | 242   | 353   | 93            | 119  | 163  | 120       | 121   | 123   | 117       | 119   | 122  |
| Y                    | 10.36         | 6.71 | 4.96 | 3.91          | 2.64  | 1.99 | 8.66          | 12.38 | 21.65 | 3.97          | 5.67 | 9.92 | 13.97     | 11.76 | 10.15 | 12.82     | 10.73 | 9.22 |
| Zn                   | 78            | 70   | 63   | 79            | 64    | 54   | 55            | 58    | 62    | 67            | 69   | 71   | 28        | 26    | 24    | 26        | 25    | 24   |
| Zr                   | b.d.          | b.d. | b.d. | b.d.          | b.d.  | b.d. | b.d.          | b.d.  | b.d.  | b.d.          | b.d. | b.d. | 11.2      | 8.1   | 6.3   | 11.0      | 7.9   | 6.2  |
| La                   | b.d.          | b.d. | b.d. | b.d.          | b.d.  | b.d. | 0.39          | 0.49  | 0.66  | 0.34          | 0.44 | 0.62 | 1.58      | 1.22  | 0.99  | 1.66      | 1.26  | 1.02 |
| Ce                   | 4.17          | 2.94 | 2.27 | b.d.          | b.d.  | b.d. | 1.39          | 1.75  | 2.39  | 0.99          | 1.29 | 1.84 | 3.03      | 2.36  | 1.94  | 1.59      | 1.23  | 1.00 |
| Pr                   | 0.66          | 0.46 | 0.36 | 0.39          | 0.29  | 0.23 | 0.28          | 0.36  | 0.50  | 0.17          | 0.23 | 0.33 | 0.29      | 0.23  | 0.19  | 0.24      | 0.19  | 0.16 |
| Nd                   | 3.30          | 2.28 | 1.74 | 2.15          | 1.57  | 1.23 | 1.61          | 2.09  | 2.99  | 1.16          | 1.54 | 2.32 | 1.10      | 0.88  | 0.73  | 1.16      | 0.91  | 0.76 |
| Sm                   | 1.11          | 0.75 | 0.56 | 1.12          | 0.80  | 0.62 | 0.75          | 1.00  | 1.53  | 0.34          | 0.46 | 0.74 | 1.49      | 1.22  | 1.03  | 1.05      | 0.85  | 0.71 |
| Eu                   | 1.00          | 0.86 | 0.75 | 0.89          | 0.79  | 0.71 | 0.27          | 0.29  | 0.30  | 0.18          | 0.20 | 0.21 | 0.44      | 0.42  | 0.39  | 0.30      | 0.28  | 0.27 |
| Gd                   | 1.57          | 1.03 | 0.77 | 1.03          | 0.72  | 0.55 | 1.13          | 1.56  | 2.55  | 0.47          | 0.66 | 1.11 | 1.47      | 1.22  | 1.05  | 2.08      | 1.72  | 1.47 |
| Tb                   | 0.25          | 0.16 | 0.12 | 0.11          | 0.07  | 0.06 | 0.25          | 0.35  | 0.58  | 0.11          | 0.15 | 0.26 | 0.40      | 0.34  | 0.29  | 0.28      | 0.23  | 0.20 |
| Dy                   | 2.04          | 1.33 | 0.99 | 0.90          | 0.61  | 0.46 | 1.54          | 2.18  | 3.77  | 0.67          | 0.95 | 1.66 | 3.12      | 2.62  | 2.26  | 2.72      | 2.27  | 1.95 |
| Ho                   | 0.39          | 0.25 | 0.19 | 0.23          | 0.16  | 0.12 | 0.34          | 0.48  | 0.85  | 0.15          | 0.21 | 0.37 | 0.57      | 0.48  | 0.41  | 0.59      | 0.50  | 0.43 |
| Er                   | 1.32          | 0.85 | 0.63 | 0.72          | 0.48  | 0.36 | 0.97          | 1.39  | 2.49  | 0.49          | 0.70 | 1.24 | 1.71      | 1.44  | 1.24  | 1.92      | 1.61  | 1.38 |
| Tm                   | 0.13          | 0.09 | 0.06 | 0.12          | 0.08  | 0.06 | 0.15          | 0.22  | 0.39  | 0.08          | 0.11 | 0.20 | 0.31      | 0.26  | 0.22  | 0.28      | 0.23  | 0.20 |
| Yb                   | 1.48          | 0.94 | 0.69 | 0.76          | 0.49  | 0.37 | 0.82          | 1.18  | 2.14  | 0.61          | 0.87 | 1.53 | 1.39      | 1.16  | 1.00  | 1.90      | 1.59  | 1.36 |
| Lu                   | 0.20          | 0.13 | 0.09 | 0.13          | 0.08  | 0.06 | 0.15          | 0.22  | 0.40  | 0.09          | 0.12 | 0.21 | 0.27      | 0.23  | 0.20  | 0.28      | 0.23  | 0.20 |

<sup>†</sup>TMF = trapped melt fraction used in modeling; b.d.= below detection limit