

APPENDIX 7F

GEOLOGICAL SURVEY OF CANADA

Banks Island samples - LA-ICPMS rare earth element (REE) chemistry (ppm); CLINOPYROXENE (CPX)

| Sample # | Mount | EPMA # | ODM ID | EPMA ID | Note | Mg | Si | Ca | Sc | Ti_47 | Ti_49 | V | Cr_52 | Cr_53 | Mn | Co | Ni | Cu | Zn | Ga | Rb | Sr | Y | Zr | Nb | Ba | La | Ce | Pr | Nd | Sm | Eu | Gd | Tb | Dy | Ho | Er | Tm | Yb | Lu | Hf | Ta | Pb | Th | U |
|----------------------------|---------|-------------|-------------|---------|------------|--------|--------|--------|--------|--------|-------|------|-------|--------|-------|-------|-------|-------|-------|--------|--------|--------|-------|-------|--------|-------|-------|-------|--------|-------|-------|-------|-------|--------|-------|--------|--------|--------|-------|--------|--------|--------|--------|---------|---------|
| Diop15SU004row1grain3 - 1 | 2015_3 | 3-1_003 | low-CR_DC | cpx | | 115500 | 230000 | 146700 | 48.23 | 2930 | 123.6 | 7070 | 7020 | 606.7 | 34.04 | 317.3 | 2.91 | 23.07 | 2.343 | | | 100.99 | 2.093 | 4.88 | 0.07 | 0.45 | 1.235 | 4.155 | 0.636 | 3.03 | 0.754 | 0.23 | 0.661 | 0.077 | 0.477 | 0.089 | 0.178 | 0.0283 | 0.154 | 0.0279 | 0.223 | 0.0024 | 0.066 | 0.004 | 0.00057 |
| Diop15SU004row1grain3 - 2 | 2015_3 | 3-1_003_rpt | low-CR_DC | cpx | | 117490 | 210000 | 146040 | 45.1 | 2330 | 89.3 | 8405 | 8350 | 533.4 | 30.84 | 326 | 2.97 | 17.1 | 1.705 | 0.0099 | | 90.13 | 1.444 | 2.925 | 0.043 | 1.13 | 0.886 | 2.886 | 0.444 | 2.22 | 0.479 | 0.16 | 0.477 | 0.062 | 0.324 | 0.0502 | 0.121 | 0.0185 | 0.103 | 0.0182 | 0.158 | 0.001 | 0.096 | 0.0041 | 0.00027 |
| Diop15SU004row1grain4 - 1 | 2015_3 | 3-1_004 | low-CR_DC | cpx | | 119280 | 233500 | 147200 | 44.94 | 2391 | 112.9 | 8777 | 8676 | 618.3 | 34.98 | 375.5 | 8.08 | 23.08 | 1.691 | 0.0115 | | 83.35 | 1.487 | 3.23 | 0.0592 | 0.138 | 0.861 | 2.851 | 0.44 | 2.15 | 0.511 | 0.167 | 0.442 | 0.0593 | 0.381 | 0.0676 | 0.154 | 0.0171 | 0.129 | 0.0179 | 0.147 | 0.0022 | 0.0499 | 0.003 | 0.00015 |
| Diop15SU014row1grain1 - 1 | 2015_3 | 3-1_001 | Cr-diopside | cpx | | 119200 | 223000 | 148300 | 74.17 | 740.8 | 203 | 6490 | 6391 | 681.8 | 22.36 | 382.4 | 0.786 | 11.96 | 2.41 | | | 251.6 | 11.69 | 29.08 | 0.387 | 0.08 | 8.556 | 32.5 | 4.858 | 22.38 | 4.58 | 1.451 | 3.4 | 0.435 | 2.412 | 0.437 | 1.088 | 0.161 | 0.978 | 0.127 | 0.578 | 0.0292 | 0.779 | 0.323 | 0.0611 |
| Diop15SU014row1grain1 - 2 | 2015_3 | 3-1_001_rpt | Cr-diopside | cpx | | 116330 | 221300 | 147410 | 74.13 | 770.9 | 204.1 | 6520 | 6490 | 669.3 | 21.97 | 379.1 | 0.746 | 11.11 | 2.327 | | | 250.5 | 11.91 | 30.59 | 0.407 | 0.088 | 8.504 | 32.76 | 4.856 | 22.53 | 4.62 | 1.468 | 3.41 | 0.426 | 2.57 | 0.45 | 1.139 | 0.158 | 1.017 | 0.1361 | 0.703 | 0.0272 | 0.677 | 0.336 | 0.0643 |
| Diop15SU018row3grain2 - 1 | 2015_3 | 112 | Cr-diopside | cpx | | 80430 | 171000 | 179450 | 1.271 | 955 | 2.85 | 6.2 | 4.3 | 1597 | 4.82 | 0.787 | 0.087 | 9.04 | 6.24 | 0.102 | | 14.15 | 2.96 | 192.6 | 4.34 | 4.3 | 8.14 | 13.5 | 1.33 | 4.71 | 0.786 | 0.107 | 0.546 | 0.0867 | 0.573 | 0.123 | 0.33 | 0.0492 | 0.35 | 0.0534 | 4.62 | 0.23 | 1.35 | 5.8 | 0.542 |
| Diop15SU018row3grain2 - 2 | 2015_3 | 112 | Cr-diopside | cpx | | 50700 | 138000 | 178600 | 1.761 | 1370 | 4.22 | 7.9 | 5.89 | 1870 | 1.77 | 1.06 | 0.105 | 6.38 | 5.75 | 0.0307 | | 4.42 | 13.8 | 361 | 12.2 | 2.06 | 6.7 | 19 | 2.93 | 13.3 | 2.41 | 0.349 | 1.67 | 0.276 | 1.99 | 0.458 | 1.55 | 0.251 | 1.99 | 0.322 | 7.35 | 0.93 | 1.362 | 6.1 | 2.97 |
| Diop15SU019row3grain7 - 1 | Mount 3 | 162 | low-Cr diop | cpx | Has cracks | | | 1651 | | 31 | 9.61 | | | | | | 1.3 | | | | 0.183 | 0.11 | 80 | 0.26 | 15.47 | 0.087 | 1.958 | 0.32 | 6.65 | 0.032 | 0.875 | 0.11 | | | | | | | | | | | | | |
| Diop15SU019row3grain8 - 1 | Mount 3 | missing | low-CR_DC | missing | | | | 4970 | | 110 | 22.49 | | | | | | 0.39 | | | | 0.0578 | 0.033 | 4.08 | 0.031 | 2.21 | 0.033 | 0.515 | 0.12 | 2.06 | 0.013 | 0.239 | 0.06 | | | | | | | | | | | | | |
| Diop15SU019row3grain9 - 1 | Mount 3 | 163 | low-CR_DC | cpx | | | | 5370 | | 120 | 21.18 | | | | | | 0.4 | | | | 0.0664 | 0.11 | 3.84 | 0.031 | 2.16 | 0.036 | 0.533 | 0.1 | 2.067 | 0.017 | 0.246 | 0.059 | | | | | | | | | | | | | |
| Diop15SU021row1grain5 - 1 | 2015_3 | 3-1_005 | low-CR_DC | cpx | | 126400 | 226000 | 133400 | 108.08 | 3220 | 538.8 | 4216 | 4298 | 1422 | 50.8 | 318.1 | 2.86 | 36.6 | 6.96 | 1.54 | | 12.06 | 12.04 | 16.54 | 0.297 | 7.5 | 1.304 | 4.3 | 0.713 | 4.07 | 1.57 | 0.431 | 1.99 | 0.351 | 2.331 | 0.511 | 1.381 | 0.187 | 1.283 | 0.178 | 0.782 | 0.0203 | 0.269 | 0.148 | 0.0321 |
| Diop15SU021row1grain5 - 2 | 2015_3 | 3-1_005_rpt | low-CR_DC | cpx | | 119300 | 220000 | 134080 | 76.83 | 1788 | 357.7 | 7729 | 7884 | 1130.6 | 43.42 | 315.8 | 0.951 | 26.32 | 4.45 | | | 8.75 | 7.09 | 5.36 | 0.0181 | 0.036 | 0.446 | 1.94 | 0.381 | 2.21 | 0.899 | 0.243 | 1.26 | 0.192 | 1.357 | 0.279 | 0.75 | 0.1014 | 0.698 | 0.0977 | 0.273 | 0.0016 | 0.154 | 0.0122 | 0.0027 |
| Diop15SU021row1grain6 - 1 | 2015_3 | 3-1_006 | low-CR_DC | cpx | | 130570 | 227300 | 135510 | 83.64 | 1902 | 297.9 | 8976 | 8819 | 1237 | 45.91 | 330.6 | 2.44 | 28.69 | 4.9 | 0.29 | | 8.75 | 7.75 | 7.23 | 0.0288 | 0.165 | 0.488 | 2.019 | 0.379 | 2.354 | 0.994 | 0.289 | 1.236 | 0.204 | 1.471 | 0.302 | 0.924 | 0.123 | 0.823 | 0.112 | 0.337 | 0.083 | 0.0415 | 0.0028 | |
| Diop15SU024row1grain2 - 1 | 2015_3 | 3-1_002 | Cr-diopside | cpx | | 115710 | 229500 | 160300 | 29.99 | 530.3 | 99.55 | 4020 | 3982 | 1300 | 45.76 | 812.5 | 0.141 | 53.56 | 5.44 | 0.0268 | | 12.09 | 10.38 | 28.24 | 0.0298 | 1.22 | 15.2 | 55.64 | 6.761 | 22.71 | 3.33 | 1.115 | 2.026 | 0.312 | 1.99 | 0.368 | 1.085 | 0.155 | 1.066 | 0.15 | 0.91 | 0.0057 | 0.93 | 0.205 | 0.0577 |
| Diop15SU024row1grain2 - 2 | 2015_3 | 3-1_002_rpt | Cr-diopside | cpx | | 113030 | 223000 | 158900 | 29.68 | 489.1 | 97.15 | 4021 | 3972 | 1258.7 | 44.54 | 811.6 | 0.201 | 50.07 | 5.25 | | | 11.73 | 10.04 | 26.86 | 0.0258 | 0.029 | 14.24 | 52.4 | 6.379 | 21.73 | 3.11 | 1.065 | 1.855 | 0.299 | 1.842 | 0.373 | 1.086 | 0.168 | 0.995 | 0.148 | 0.815 | 0.0063 | 0.935 | 0.201 | 0.0491 |
| Diop15SU027row1grain7 - 1 | 2015_3 | 3-1_007 | low-CR_DC | cpx | | 110230 | 241100 | 152700 | 50.86 | 168.9 | 166.1 | 2851 | 2791 | 1614 | 44.12 | 556.5 | 0.098 | 58.99 | 5 | | | 8.11 | 41.6 | 21.45 | 0.0252 | 15.94 | 59.12 | 7.074 | 25.96 | 6.26 | 0.774 | 5.57 | 1.038 | 7.28 | 1.448 | 4.19 | 0.638 | 4.33 | 0.602 | 1.285 | 0.0086 | 0.853 | 0.203 | 0.348 | |
| Diop15SU027row1grain7 - 2 | 2015_3 | 3-1_007_rpt | low-CR_DC | cpx | | 110800 | 232000 | 153400 | 50.87 | 170.1 | 162.3 | 2842 | 2769 | 1612 | 44.48 | 556.9 | 0.146 | 57.5 | 4.92 | | | 7.9 | 43.13 | 21.52 | 0.0234 | 15.87 | 60.34 | 7.193 | 26.59 | 6.4 | 0.808 | 5.96 | 1.037 | 7.33 | 1.461 | 4.32 | 0.643 | 4.31 | 0.609 | 1.322 | 0.0141 | 0.864 | 0.206 | 0.339 | |
| Diop15SU028row1grain8 - 1 | 2015_3 | 3-1_008 | low-CR_DC | cpx | | 110440 | 201700 | 129130 | 95.64 | 2413 | 357.6 | 6452 | 6727 | 1023.4 | 40.62 | 306.6 | 2.75 | 23.86 | 5.5 | 0.05 | | 9.67 | 8.54 | 9.14 | 0.0327 | 0.122 | 0.482 | 2.024 | 3.97 | 2.56 | 1.047 | 0.348 | 1.482 | 0.25 | 1.763 | 0.338 | 0.946 | 0.124 | 0.825 | 0.1072 | 0.44 | 0.004 | 0.095 | 0.0185 | 0.00182 |
| Diop15SU028row1grain8 - 2 | 2015_3 | 3-1_008_rpt | low-CR_DC | cpx | | 134400 | 240000 | 128260 | 73.3 | 1751 | 263.4 | 5207 | 5057 | 1347 | 50.01 | 366.4 | 3.91 | 31.42 | 3.85 | 0.102 | | 7.14 | 6.2 | 4.91 | 0.024 | 0.206 | 0.302 | 1.29 | 0.256 | 1.71 | 0.724 | 0.229 | 0.991 | 0.166 | 1.289 | 0.255 | 0.653 | 0.101 | 0.666 | 0.091 | 0.242 | 0.0011 | 0.198 | 0.025 | 0.00198 |
| Diop15SU028row1grain9 - 1 | 2015_3 | 3-1_009 | low-CR_DC | cpx | | 118230 | 213800 | 134040 | 94.88 | 2495 | 351.1 | 7881 | 8130 | 1100.5 | 43.21 | 330.3 | 1.57 | 25.25 | 5.64 | | | 9.66 | 8.68 | 9.09 | 0.0272 | 0.489 | 1.97 | 0.392 | 2.58 | 1.025 | 0.352 | 1.369 | 0.242 | 1.754 | 0.364 | 0.975 | 0.1235 | 0.862 | 0.115 | 0.498 | 0.0029 | 0.0339 | 0.0146 | 0.00125 | |
| Diop15SU028row3grain10 - 1 | Mount 3 | 164 | low-CR_DC | cpx | Has cracks | | | 2504 | | 54 | 14.85 | | | | | | 0.2 | | | | 0.0372 | 0.03 | 0.78 | 0.01 | 0.772 | 0.02 | 0.242 | 0.085 | 1.035 | 0.012 | 0.118 | 0.036 | | | | | | | | | | | | | |
| Diop15SU032row2grain1 - 1 | 2015_3 | 3-2_001 | low-CR_DC | cpx | | 116670 | 232000 | 140040 | 82.29 | 1392.1 | 191.7 | 6446 | 6248 | 964 | 38.7 | 279.6 | 2.21 | 22.01 | 4.39 | 0.361 | | 7.85 | 4.673 | 3.083 | 0.0325 | 1.53 | 0.166 | 0.569 | 0.1126 | 0.773 | 0.404 | 0.189 | 0.66 | 0.1188 | 0.923 | 0.187 | 0.492 | 0.0715 | 0.436 | 0.0689 | 0.163 | 0.0043 | 0.361 | 0.005 | 0.00301 |
| Diop15SU032row2grain1 - 2 | 2015_3 | 3-2_001_rpt | low-CR_DC | cpx | | 116990 | 225000 | 139290 | 80.53 | 1732 | 215.1 | 5583 | 5415 | 990 | 41.6 | 277.5 | 0.392 | 21.89 | 4.83 | 0.52 | | 7.69 | 5.71 | 4.34 | 0.018 | 0.97 | 0.128 | 0.64 | 0.141 | 1.035 | 0.518 | 0.203 | 0.863 | 0.156 | 1.107 | 0.237 | 0.623 | 0.0893 | 0.561 | 0.0749 | 0.219 | 0.0153 | 0.0014 | 0.00065 | |
| Diop15SU032row2grain2 - 1 | 2015_3 | 3-2_002 | low-CR_DC | cpx | | 130530 | 244800 | 140370 | 67.47 | 1544 | 240.7 | 5981 | 5790 | 1119 | 44 | 316.4 | 0.65 | 25.89 | 3.5 | | | 9.21 | 5.65 | 4.23 | 0.0178 | 0.188 | 0.413 | 1.605 | 0.298 | 1.865 | 0.655 | 0.215 | 0.96 | 0.162 | 1.173 | 0.212 | 0.618 | 0.0835 | 0.601 | 0.0833 | 0.215 | 0.0435 | 0.0041 | 0.00222 | |
| Diop15SU032row2grain2 - 2 | 2015_3 | 3-2_002_rpt | low-CR_DC | cpx | | 121300 | 231000 | 140760 | 86 | 2064 | 315.1 | 8077 | 8020 | 1049 | 41.65 | 302.6 | 0.85 | 26.8 | 5.25 | 0.127 | | 11.21 | 7.58 | 7.3 | 0.0277 | 2.99 | 0.688 | 2.375 | 0.419 | 2.434 | 0.995 | 0.302 | 1.274 | 0.208 | 1.518 | 0.301 | 0.855 | | | | | | | | |