

APPENDIX D

Geochemical-symbol Maps

The maps shown on the following pages for the elements As1, Au1, Be2, Ce1, Cs1, Cu2, F9, P2, Pb2, Rb1, Ta1, Tb, U1, W1 and Zn2 are merely to facilitate the display of the raw data.

Symbol Classes

The symbols in these plots have been chosen to draw attention to the highest values; that is, those most likely to be related to bedrock enrichment, with the largest circles representing “anomalous” values, the medium symbols representing “elevated” values and the smallest circles representing “background” values. These terms are, however arbitrary, and have no proven relationship to mineralization.

Definition of Class Intervals

A method in common use at the GSNL involves the three classifications being respectively defined by cut-points of the 97.5- and 90-percentile, of a variously defined population of geochemical values. Newfoundland’s geology is diverse, with each rock type potentially associated with a different compositional range. There are, therefore, unlikely to be cut-points applicable to any dataset; on the other hand, it is impractical to establish cut-points for each of the hundreds of mapped rock types. A more practical compromise (though it is not a panacea) is to establish cut-points from the till samples whose locations are underlain by each of Newfoundland’s tectonic domains. Assigning cut-points to the Dead Wolf Pond dataset in this way is, however, complicated by the fact that the map area is underlain by rocks from three of these domains: the Gander Zone in the east; and the Exploits Subzone of the Dunnage Zone, and Late Intrusions, in the centre and west.

Cut-Points in the Current Study

A further compromise, consisting of calculating the arithmetic mean values of the three 90- and 97.5-percentile values of the populations representing all three of these domains, was found to be suitable for As1, Au1, Cu2, F9, P2, Pb2, W1 and Zn2. However, for most strongly lithophile elements this compromise results in apparently elevated and anomalous samples occupying most of the sampled area. This indicates the strong influence on till composition of the Middle Ridge granite that underlies the west-centre of the map area, and the dispersion from it. Therefore, for Be2, Ce1, Cs1, Rb1, Ta1 Tb1 and U1 the 90- and 97.5-percentiles for Late Intrusions, alone, have been used.

It is important to note that these computations are merely to facilitate the display of the data and the analyses in the attached database have not been modified. Interested users of the data may create maps using whatever interval definitions they choose.























