

CHAPTER 8

CONCLUSIONS

The semi-detailed geochemical data obtained from stream sediments and soils on the ultramafic terrain have been processed to provide satisfaction in defining high potential mineralization areas. The results of the geochemical investigation are summarized as follows:

1. The probability graphical method described by Lepeltier (1969) and Sinclair (1974) has the great advantage of being quick and easy for use in analysis of geochemical data. The results obtained can be concluded that :

a. Geochemical analyses for Cr and Ni show bimodal distribution. The data are divided into three groups, an upper group of predominantly anomalous values, a lower group of predominantly background values, and an intermediate group containing both anomalous and background values.

b. Cumulative percentile frequency distributions for Co and Cu show lognormal distributions. The threshold values are selected at an ordinate level corresponding to the mean plus two standard deviations.

c. Anomalies for Cr, Ni and Co of stream sediment sampling are coincident with anomalous of soil sampling. These anomalies are related to the ultramafic rocks. Cu in stream sediments and soils shows no significant anomaly within the area sampled and also shows no relationship with other elements.

d Concentration of metal content in soil samples are normally higher than those of the stream sediment.

2. The results obtained from trend surface analysis can be concluded that, first order or linear trend surfaces of Cr and Ni are in the direction of NW-SE, whereas linear trend surfaces of Co and Cu are in the direction of NE-SW. The second order or quadratic trend surface of these elements are elliptical surfaces in the direction of NW-SE. In this investigation, the residual map derived from trend surface analysis are related to ultramafic rocks.

3. Geoffroy's method for cell sizes selection has proved to be suitable method for moving average or rolling mean analysis. The residual obtained from this technique consist of high positive and negative values. They indicate sharp contact of background and anomalous values.

4. Residual map obtained from moving average and trend surface analysis are consistent with discrete map made by probability graphical method. These main anomalies pattern of Cr, Ni, and Co distribution are related to ultramafic rocks.

5. Anomalous area for Cr, Ni and Co obtained by various technique deserve top priority attention for further investigation.