

5.7.5. CONCLUSIONS

The geology of the Mt. Murchison area, being composed largely of granite and sub-aerial ignimbrites, does not present an encouraging environment for mineralisation of the Rosebery type. The eastern most sediment units, largely because of their position adjacent to the Pre-Cambrian block, may be the stratigraphic equivalents of the lowermost Cambrian, Success Creek Formation. However, sampling in this area failed to find any anomalies.

The anomalous samples recorded in the survey are difficult to explain in view of the underlying geology. Manganese oxide scavenging may have enhanced some samples but it is unlikely to explain them all. The most likely source of base metal anomalies in a predominantly granitic terrain would be small mineralised shears and small late stage vein concentrations.

The Mt. Murchison area represents the most comprehensive collection of manganese oxide coated pebbles available to date and affords some assessment of their effectiveness. As mentioned in 5.7.4. above, the correlation between pebbles and -80 mesh stream sediments is not good. Conventional bulk stream sediments are a well tried and tested method of drainage sampling. If it can be assumed that the -80 mesh stream sediments are an effective means of sampling in this area, then the manganese oxide pebble samples would appear to be ineffective. Another drawback which limits the effectiveness of pebble samples is that although it is possible to collect a bulk stream sediment in almost every situation, in many sample sites suitable pebbles do not occur due to lack of the necessary conditions for the formation of the manganese oxide coatings. The principal benefit claimed for manganese pebble