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by the knowledge and consequent interpretation of the E.Z. Geologists involved.

6.4. Geochemistry

Geochemical techniques utilised during the early stage of the Joint Venture have been continuations of those employed previously on the Mt. Black EL. The major emphasis has been soil sampling using a hand auger to obtain samples from a maximum depth. The samples collected have been termed 'C' horizon' but it has long been recognised that the soil profiles vary rapidly and thus this method of sampling is producing samples from horizons varying from A₁ to C.

The -80 mesh fraction has been analysed for Cu, Pb, Zn, Ag and Fe following total extraction in acid solutions (Perchloric/Nitric currently). Sample interval has been 20m. Following a study by N.J. Marshall & Associates during 1979 it was decided to analyse for Mn instead of Ag. (Refer to Appendix III)

Pre Joint Venture stream sediment sampling mainly dates from 1970/71 using analyses of the -80 mesh fraction following total extraction. At least some of this sampling is invalid and thus all the stream sediment samples collected during this period must be treated with scepticism.

A consultant geochemist, Dr. N.J. Marshall of N.J. Marshall & Associates was retained by both Mt. Lyell-Getty and E.Z.-Getty to report to the application of geochemistry to the exploration programmes being conducted by both Joint Ventures. His report entitled "Geochemical Exploration for Base Metals, West Coast Tasmania" consisted of two sections, viz

- i) "Part I - General Text"
- ii) "Part II - Orientation studies carried out for Electrolytic Zinc Exploration".

(Refer to Appendix III)

The report covers all facets of geochemical exploration possibly applicable to the Joint Venture. The following recommendations by Marshall are currently under investigation:

- i) Stream sediment sampling: In addition to the previously used -80 mesh conventional sampling, the collection of Fe and Mn