

003 THE ULTRABASIC BELTS CONTD.

basic rock complex as opposed to ultrabasic intrusives along major faults.

- (c) Within the three "exposed" belts, extreme variability of petrological character is evident.
- (d) Regarding the origin of the magnetic anomalies, it is significant that the only predominant magnetic mineral so far discovered is Chromite. This has been found at Spero River and in a creek draining north into Gravelly Beach, Macquarie Harbour. A further valuable comparison is provided by the serpentinite belt at Adamsfield (see Part B) where very fine grained, 1/16th inch sized octahedral crystals of chromite are reported by P.B. Nye to be abundant; the magnetic highs here are of the order of 1700 gammas and chromite is the only magnetic mineral present.
- (e) It is suggested that the variations in magnetic intensity, producing in some instances isolated peaks within the ultrabasic belts, could well be caused by variations of chromite content, although the possibility of variations in magnetic susceptibility of chromite cannot be eliminated entirely.

As yet no necessary relationship has been established between change in chromite content, as reflected in magnetic pattern, and distinctive change in rock type.

- (f) Economic mineralization, if present, is likely to occur in either of two modes:-
- (i) On the basis of other known occurrences in Tasmania economic deposits are found either at the actual contact between ultrabasics and country rock or within the adjoining country rock, i.e. not within ultrabasic rocks, compare Renison Bell.
- (ii) Due to magmatic segregation, concentration of a potentially economic mineral, notably chromite, could develop within ultrabasics.
- (g) With this, i.e. (f ii) in view, a narrow band with a large magnetic intensity maximum such as that south of PP.123, should be checked, this one having a peak of more than 2500 gammas, above background. 10/4.

Although the magnitude of the magnetic peaks is not necessarily suggestive of magnetic mineral concentrations of economic value, especially as the magnetic susceptibility of the chromite is not known for the area and