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## Report for Bravo Camp 5.

COLIN P. HARIVEL

July 27 1969.

sub title: "Here we go round with The Magma Bag".

To accompany: map and field notes - Camp Bravo 5.

General: The camp was situated as indicated on 'air photo' overlay BC 2055: ~~506~~<sup>506</sup> on the bank of Rottacker Creek. Silt samples in the main were taken by J. N. ORR and geology was investigated by C. Harivel.

Stream Sediments: There are many small creeks in the area which flow only short distances. These ~~are~~<sup>were</sup> sampled when crossed by a traverse. Large creeks which drain the work area from the north and south are few, and those gullies which, from air photos, indicate the possibility of a creek, are often expressions of jointing in the country rock.

Geology: Many rock types in the area were encountered. However, the main two rock types are mapped and their contacts indicated and inferred on the accompanying map. The red represents a very coarse- to coarse-gr. K-feldspar granodiorite porphyry which is generally quartz-rich (i.e. Qtz > 25%). The orange represents a coarse but generally, medium-grain granodiorite which is generally grey in fresh hand-specimen whereas the porphyry is generally pink in hand specimen. The colour index for the porphyry is generally less than 30 whereas that for the other is greater than 30.

Both rock types are cut by a number of dikes. These include, aplite, qtz-feldspar, feldspar-hornblende porphyry, <sup>dikes</sup> and a lamprophyre dike. The latter two are represented by samples CH69-7-19-3 & CH69-7-23-2 resp.

CH69-7-23-1

CH69-7-22-2

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Alteration: Alteration in the work area is mainly brought about by introduction of hydrothermal fluids along fractures. The products are epidote and K-feldspar. Otherwise, there are local occurrences of pervasive saussuritization but these is uncommon when surficial alteration is excluded.

An area in which hydrothermal activity, together with a high degree of fracturing <sup>occurs</sup> is that compassed by the traverse of July 27<sup>th</sup>. In this area fracturing is consistent and is higher than any area of comparable size so far encountered in the Hogan Batholith.

Structure: Jointing in the area is in three main directions; 180-20°, 50-70°, 90-140°. In all these directions foliation in the country rock was seen to coincide with fracturing and from this shearing is inferred. ~~Joint~~ Jointing is responsible for many of the lineations indicated by blue lines on the accompanying map.

The major valley in the work area is probable an expression of the east-west jointing direction.

Mineralization: Pyrite, which occurs as small disseminated grains, is often found in both rock types but mainly in the grey granodiorite. It is always a minor constituent. Chalcopyrite is occasionally found in similar occurrence to that of pyrite and on some occasions found in larger grains in epidote veins. It, too, is always a minor constituent.

Conclusion: The area warrants no further work as a result of work interpreted to this date. The results of silt sampling may give cause for further investigation.

Signed: Colin P. Harivel, party chief.  
Rottacker Creek, July 27 1969.