

→ E. D.

VISIT BY S. YUNGUL 27/28 Apr. 78M454

Use of Atmag: The powerline is at a marginal good/bad orientation for the main showing and may be better or worse for the northern areas. We need more bedding info. and this may be available in June. In any case, late summer (driest period) is best for survey.

A check w/ Glen White indicates a first estimate of costs between \$280 per mile and \$400 per mile, for the 2 cases of 1.5 and 1.0 miles per day. This includes an allowance of \$80 per day for instrumentation costs (adaptation to powerline output). Taking the higher figure, and S.Y.'s recommendation of a 2 mi by 1 mi area for initial try, with 400' line spacing, yields a cost of about \$10,000., much more reasonable than I would have suspected. A further 50% must be added to this for new line-cutting. Provided bedding orientations do not turn out to be completely unfavourable, I would endorse his recommendation for Atmag. It is possibly

The only depth penetrator we may be able to use, is a reasonable cost, and has the advantage of "joining-up" the response from close but separated mineral lenses (more so than most EM methods).

One other, hitherto unconsidered, complication is the other powerline in the Harrison District, the one along the W. shore of Harrison Lake, although it is 5 miles from the area of interest, and is much smaller (36 kv, as opposed to 500 kv)

#### Use of S.P.

S.Y. suggests that this is an unfairly neglected method, and certainly feels we should give it a try (again towards the end of the drier weather - for low water table). He feels that purchase of an S.P. unit would be a worthwhile investment. Again, I tend to agree, certainly on the trial, and possibly on the purchase.

#### M411

We spent a very useful hour going over the geophysical maps. The result is negative, but clear.

Alteration effects (principally clay) show up more clearly in the apparant resistivity response over highly resistive terrain, and this is the case at Chehalis. Allowing for some quite reasonable fault offsets, we have a fairly clear correlation of low-resistivity band, with anomalous Pb-Zn, with alteration as intersected in D.H. 2. All this tends to confirm that our surface anomalies outline a lightly mineralized fault or fracture zone, which places us almost back at square one. Thin-section work, but way of showing clay alteration, will probably confirm this.

S.Y. is not confident of <sup>the value of</sup> a magnetic interpretations over volcanics, but we may nevertheless re-run the control lines (B.L.+roads) on the rather poorly corrected mag. map that Stokes provided us with. This will be a cost of approx \$250. total, provided we can borrow a vert. field mag somewhere.

In summary, for the present, the onus on discovery for Chehalis is almost entirely back on geological interpretation. Possibly new conceptual thoughts from Seneca may help.

D.A.

The narrow associated polarization highs may be explained by EM coupling effect.