

CONFIDENTIAL

REPORT ON
GEOPHYSICAL INVESTIGATION ON THE "WADE" NO. 1 MINERAL
CLAIM OF THE "WADE" GROUP OF CLAIMS, QUILL CREEK AREA,
YUKON TERRITORY

BY
A. ALLAN

VANCOUVER, B. C.
December 30, 1955.

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REPORT ON
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YUKON TERRITORY

INTRODUCTION:

A self-potential survey was carried out over the "Wade" No. 1 mineral claim during 1955. The purpose of the survey was to determine whether disseminated pyrite-pyrrhotite mineralization near the north-east corner of the claims could be traced by the self-potential survey method.

SUMMARY & CONCLUSIONS:

The self-potential readings were taken at 50-ft. intervals along north-south and east-west lines established on 400-ft. grid survey lines. The self-potential survey, like many other types of geophysical surveys attempted in the area, proved very erratic. The polarity of the self-potential current was constantly changing and the readings varied considerably from point to point.

A single area of interest, although of difficult interpretation, was picked out near the northeast corner of the claim. Currents with a potential as high as 397 milli volts were obtained near the mouth of a steep walled canyon. The nature of the terrain prevented the taking of intermediate readings along the canyon to establish a zero volt station directly over any mineralization that might have been present.

A contact between the andesite volcanics and a gabbro dyke occurs not far from the anomalous reading. The high voltage readings may be due to a limited concentration of mineralization, coupled with ground water circulation of high acidity.

In conclusion, while the self-potential survey proved of very little use in outlining possible orebodies, the value of the claims should not be underestimated.

The proximity of the claims to the Hudson Bay Mining & Smelting Company's Quill Creek nickel mine, coupled with the knowledge that ultra-basic intrusives do occur on the "Wade" claims, is of considerable importance.

Many of the known geophysical methods have been tried in the area by other companies -- airborne magnetometer, airborne resistivity, E.M.F. self-potential and surface magnetometer surveys have been attempted during the past several seasons. Little or no interpretation of the surveys carried out has been possible. In several instances, where anomalies have occurred, drilling has failed to indicate the presence of mineralization.

LOCATION and ACCESS:

The claims are located about four and one-half miles southwest from the confluence of Maple and Quill creeks. Access to the group is by means of the Alaska Highway to the Hudson Bay road, thence to the junction of Maple and Quill creeks. A good packhorse trail on an easy grade continues up Maple Creek to the campsite on a small tributary of Maple Creek.

TOPOGRAPHY:

The area bounded by the claims is one of moderate relief and readily accessible. Fairly thick timber exists along the rather swampy valley bottoms. To the southwest of the claims the glacier covered St. Elias Mountains exhibit extremely rugged topography. Fairly sharp, barren ridges are found along the north boundary of the claims.

GENERAL GEOLOGY:

In general, the claims are underlain by Paleozoic lavas, andesites, tuffs, etc., with thin interbeds of limestone and schist. The flaws and sediments strike generally east-west with moderately steep dips to the south. Sparse disseminated pyritic mineralization occurs in rusty weathering volcanics near the gabbro intrusive at the northeast corner of the "Wade" No. 1 mineral claim. Overburden covers the claims except along the upper reaches of the small creeks, where narrow canyons have been incised into the underlying rocks.

GENERAL:

The survey was carried out by a crew of four men in a period of one month. This included the time spent in packing supplies to the campsite and setting up the camp. Mr. S. H. Davis was engineer in charge of the field work under the direct supervision of Mr. A. Allan.

RECOMMENDATIONS:

- (1) That the claims be retained on the value of their location with relation to the Quill Creek nickel deposit.
- (2) That further geophysical work in the area is superfluous unless an applied potential survey method will work in the area. Teck Explorations used this method in 1955. No results of their work are available.

- (3) That rather than spend considerable money on routine assessment work, some consideration be given to a drill program.
- (4) A drill program at this stage would be essentially a prospecting venture. There is not enough information at hand to plan a systematic drill program.
- (5) Sufficient work has been recorded on the claims to maintain their standing until 1957.
- (6) Unless the Company plans to spend considerable money on a purely exploratory drill program, the claims should be allowed to lapse, or, if the location is of sufficient merit, complete the necessary assessment work from year to year as economically as possible.

Respectfully submitted,

EXPLORATION SERVICES LIMITED,



A. ALLAN,
Geologist.

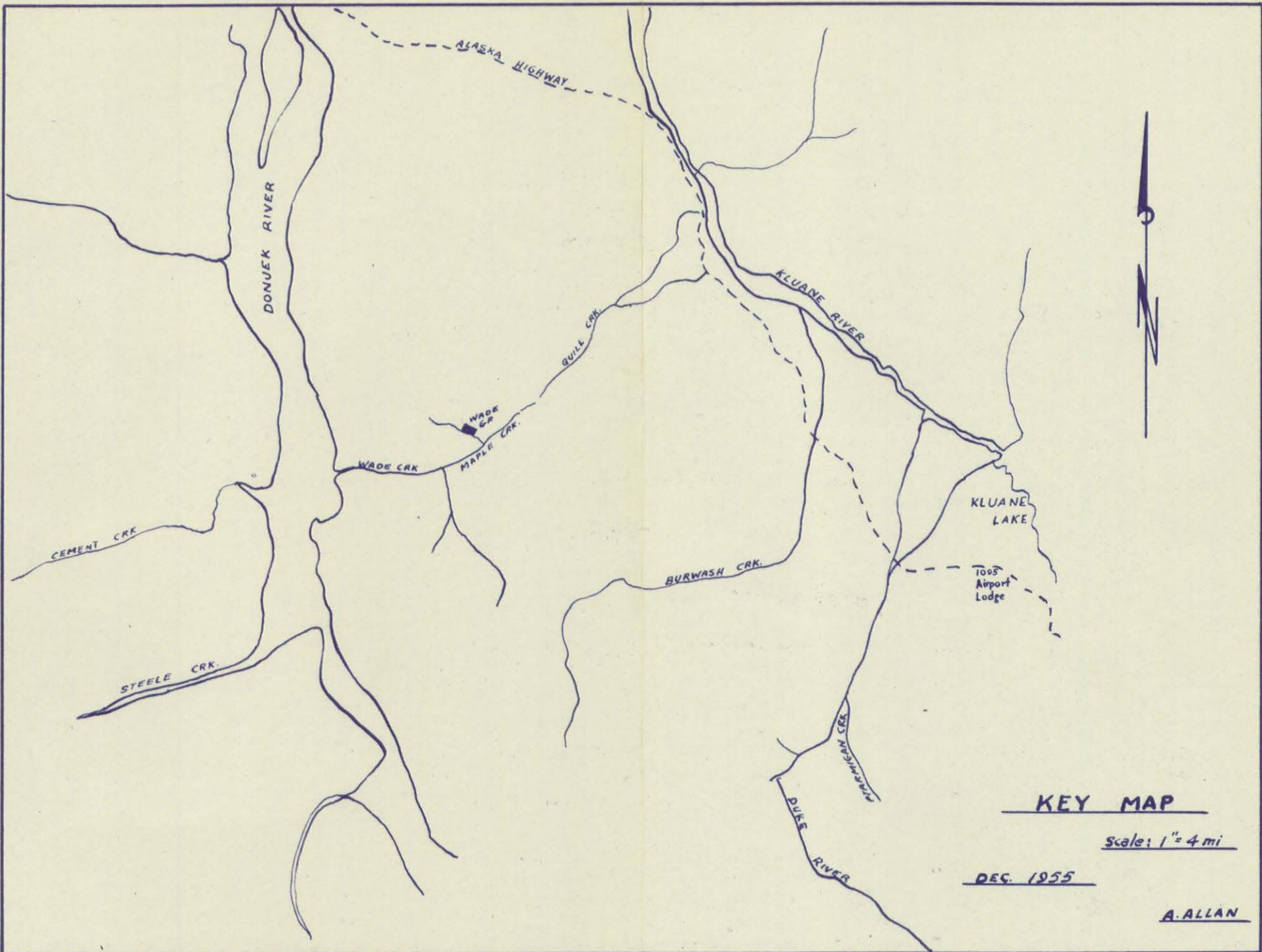
AA/hc.
December 30, 1955.

PERSONNEL:

| | | |
|-----------------------|---------------------------|---------------|
| Party Chief | S. H. Davis, Eng. | \$ 500.00/mo. |
| Labour | C. McCaffery | \$ 10.00/day |
| Labour | A. Rivers | \$ 12.00/day |
| Labour | B. Barrett | \$ 10.00/day |
| Supervision. | A. Allan | \$ 20.00/day |

COST SUMMARY:

| | | |
|---|----------------------------|--------------------------|
| Line-cutting | 32,600 feet | \$ 500.00 |
| Survey Stations | 50-ft. Intervals | \$ 500.00 |
| Transportation - Truck | | \$ 180.00 |
| Transportation - Horses. | | \$ 150.00 |
| Food Supplies | | \$ 400.00 |
| Instrument Rental | \$100.00/month | \$ 100.00 |
| ^{Supervision} Preparation of Maps and Report | | <u>\$ 200.00</u> |
| TOTAL | | <u><u>\$ 2030.00</u></u> |

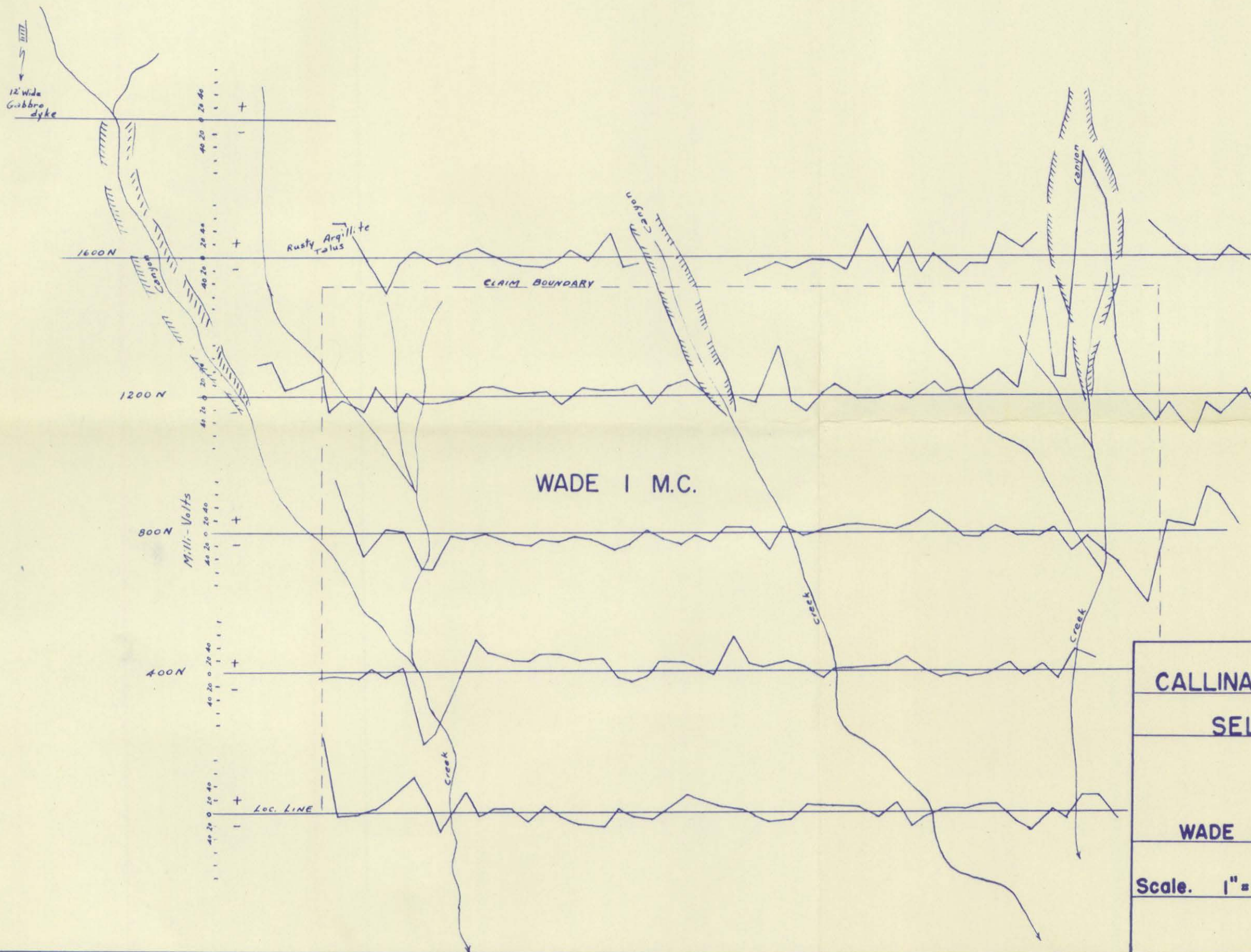


KEY MAP

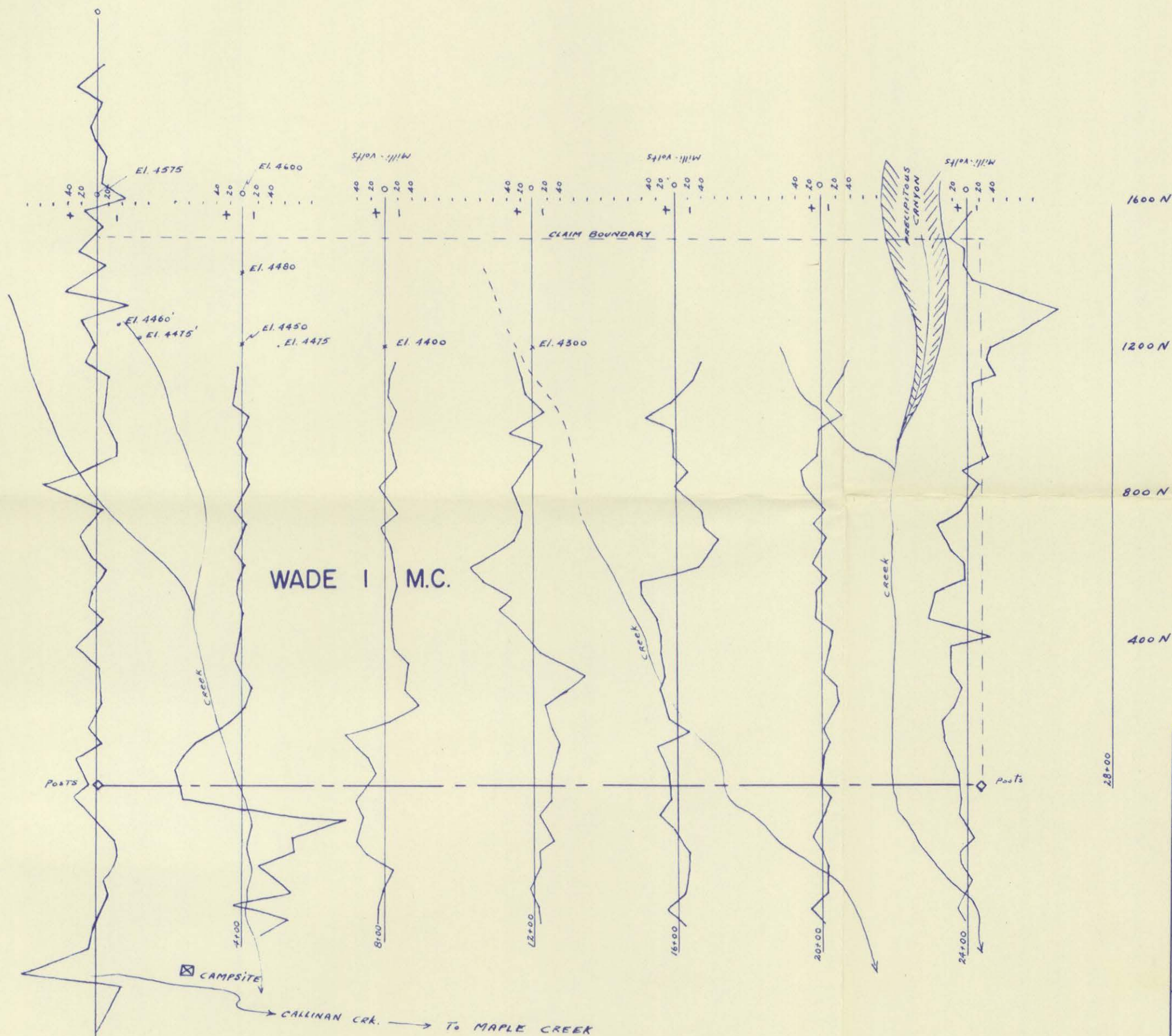
Scale: 1" = 4 mi

DEC. 1955

A. ALLAN



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|------------------------------|-----------|
| CALLINAN FLIN FLON MINES LTD | |
| SELF-POTENTIAL SURVEY | |
| PROFILE SECTIONS | |
| WADE GROUP, QUILL CREEK AREA | |
| Y.T. | |
| Scale. 1" = 300' | DEC. 1955 |
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