105-K-10

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MEMORANDUM

TO: M. O. Hampton

FROM: J. Gondi

DATE: April 23, 1971

SUBJECT: A DISCUSSION OF GEOLOGY, GEOPHYSICS AND GEOCHEMISTRY OF RAM AND TED GROUPS OF CLAIMS AND RECOMMENDATIONS FOR FURTHER WORK

RAM GROUP

The RAM group consisting of 28 mineral claims is located approximately 8 miles NW of Faro No. 1 orebody. Physiographically lies north of Anvil Creek situated in a narrow valley surrounded by precipitous mountains standing at altitudes in excess of 5500 feet and the highest peak reaching 6600 feet to the southeast. This valley is cut by a tributary of Anvil Creek and other small creeks interconnecting various lakes draining SW ly to join Anvil Creek.

The southern part of the intermontane valley is occupied by Lower Cambrian Phyllites while the northern part is covered with Middle Cambrian Phyllitic Siltstones and the contact approximately bisects the claim group. The higher altitudes and the peaks are covered with Pennsylvanian Andesitic volcanics - banded, amygdoloidal and form the west and northwest contacts with the claim group. Thus this L.C. belt occuring north of Mt. Mye Batholith is sandwiched in a narrow belt that continues westerly. The general trend is NW dipping 30° SE ly.

Geophysically, this area is covered by aerial mag, EM and ground mag and IP surveys. The aerial mag anomaly is quite broad with a NW - SE trending axis mainly centered on the west slope adjacent to the centrally located lake. The electro-magnetic survey has indicated one conductivity zone towards the northeastern boundary of claim group.

The ground surveys that were conducted on this claim group include magnetometer survey, induced polarization survey and geochemical soil sampling. The above geophysical surveys were carried on the same grid and cover the centrally located mineral claims whilst the Geochem survey covers the entire group.

PRESENTATION OF RESULTS

DISCUSSION AND CONCLUSIONS:

This particular group of mineral claims is located on the northern slope of Anvil Range and comprise favourable Lower Cambrian Phyllites in the southern part of the group. To date no orebodies have been discovered on these slopes. As more data is made available on Anvil Range, the evidence suggests that all the Sulphide orebodies discovered to date have been formed syngenetically and hence there is no reason why such type of orebodies could not exist on the northern side of Anvil Range provided the host rocks of Lower Cambrian. Such a belt located north of Faro orebodies and Mount Mye yielded favourable geophysical and geochemical results explored by a group of exploration geologists and yet needs to be tested by diamond drilling. It is the consensus that this group of claims though situated in a different geographic location offers as much potential as any other claim group in Anvil Range, geologically.

The airborne magnetometer survey outlined a broad anomaly on the west slope adjacent to the lake with a relief of 300 gammas (Fig. 1). This anomaly is at least 4000 feet long and 2200 feet wide trending NW - SE and is situated in Lower Cambrian Phyllites. Also noteworthy of the feature is its location in a narrow valley in a precipitous terrain, the altitudes standing well over 5500 feet. Hence in the light of above data, the Phyllites appear to carry magnetic minerals probably Pyrrhotite and associated with it could occur economic Sulphides.

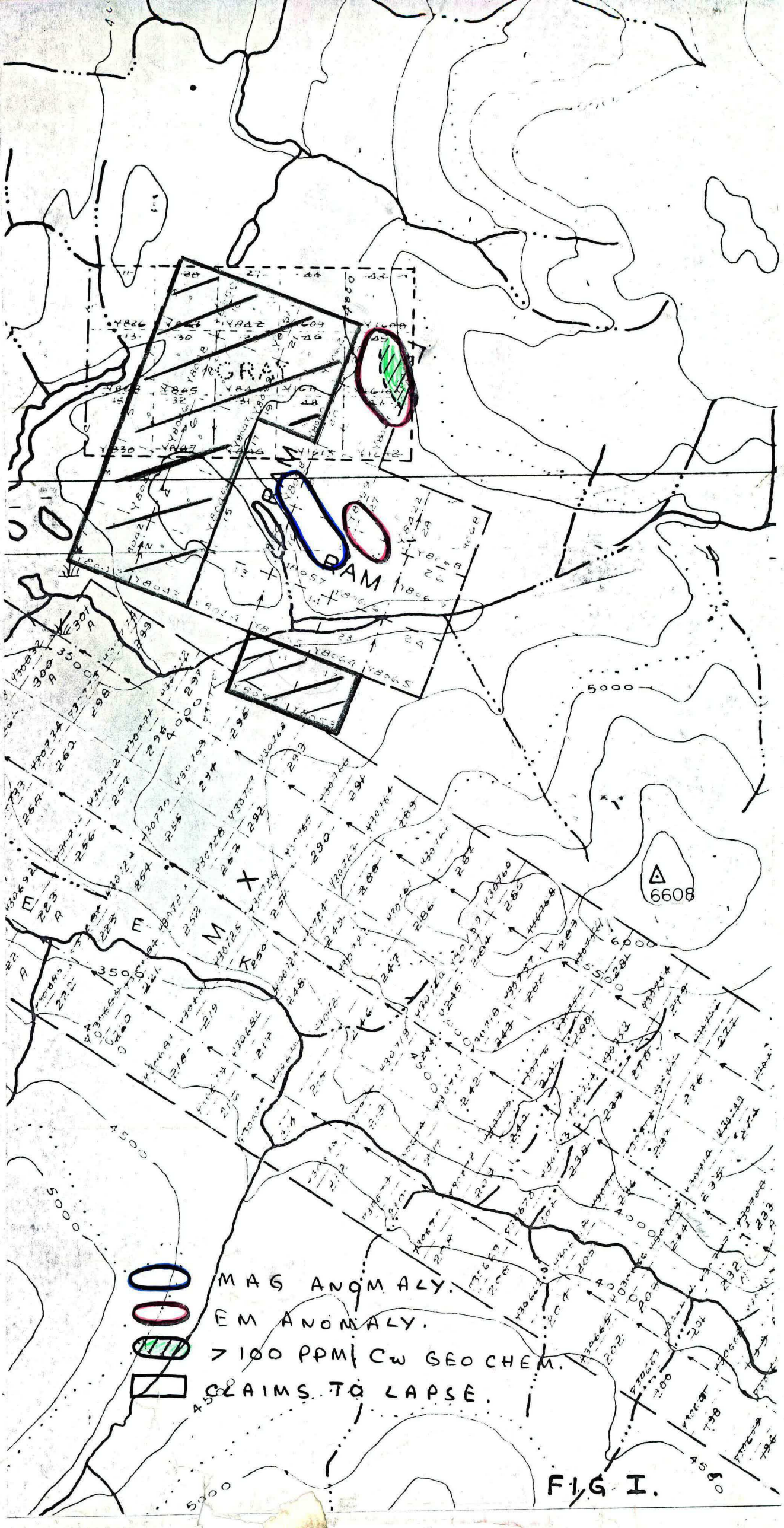
The aerial electromagnetic anomaly is isolated and occurs on the north eastern boundary of the claim group approximately located on Mineral claim # 22. There is no apparent coincidence between aerial mag and EM anomalies and however, this is not peculiar to the Sulphide masses in Anvil Range which have responded little to aerial EM, particularly Faro No. 1 orebody. Another conductor occurs adjacent to aerial mag anomaly on the mineral claims 25 and 28 (Fig. 1).

Ground magnetometer survey has added very little and reproduced the aerial mag anomaly with a relief of 300 gammas. However, a small isolated anomaly is outlined on line 0 between 100N and 300N. This probably reflects a near surface greenstone plug.

An I.P. survey conducted over the same mag grid responded very good over southern part of the claims. The above survey indicated five isolated anomalous zones. Of these, the 'A' anomaly approximately coincides with a conductive zone and 'E' anomaly, the largest of all, falls within the aerial mag anomaly. The 'E' anomaly is open to the north and 'A' to the south and southeast.

The geochem results show high erratic copper values and one consistent zone on Mineral claim 22 coincides with an EM anomaly.

In that this group of claims located in a favourable geology has a good mag and IP response and geochem to a lesser extent. Though the copper values are erratic, are generally higher than most parts of the Anvil Range. The 'A' anomaly of IP survey has indicated that the the casuative body lies within 25 feet from the surface and this area should be mapped in detail assisted by trenching. For a better understanding of the above geophysical data, the geological information is a prerequisite and emphasis be laid on such a study. The southern part of the claims should be mapped in detail for suitable structures and metamorphism possibly assisted by a D-8 cat equipped with a ripper. The narrow Phyllitic belt intruded by Cretaceous Granite to the south and covered by Pennsylvanian Volcanics to the north should have had undergone enough metamorphism to reconstitute any economic Sulphides from the metasediment in an enriched form in a suitable structure. This group of claims offers a good bet for a copper orebody (refer Geochem map) which is not unlikely to occur in such a geological environment. However, should lapsing of this group of claims become mandatory for exploration budget reasons, it is recommended to drop the northwesterly located claims Vlz. Ram mineral claims: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 and 11, 12, 19 and 21.


MAG ANOMALY.
EM ANOMALY.
> 100 PPM Cu GEOCHEM.
CLAIMS TO LAPSE.
6608
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4500

FIG I.

TED GROUP

The TED group consisting of 22 mineral claims is situated near the confluence of Teddy Creek with Tay River occupying a small hill that stands at an altitude of 3500 feet and is approximately 28 miles NE of Faro group of orebodies. Various gossans and mineral float occur in this area and investigation by Prospectors Airways Limited through two shallow packsack drill holes indicated Pyrrhotite mineralization with little zinc.

Subsequently, the aerial work done by Dynasty Explorations Limited concurrently with the work in Anvil Range outlined an aerial mag anomaly with no aerial EM response. Further ground Geological, Geophysical and Geochemical surveys were done by Anvil exploration personnel that led to lapsing of eastern claims retaining the present 22 mineral claims.

Geologically, this claim group is underlain by NW trending, NE dipping Late Late Precambrian, Proterozoic sediments that include three distinct rock units. The youngest unit is interbedded Silt stone Quartzite and chert conglomerate underlain by grey and white cherts with a thickness of 4500'. The bottom of the section is occupied by Silt stones of approximately 500 feet in thickness. The entire Stratigraphic succession stands up as an inlier surrounded by younger Tertiary Volcanics and Palaeozoic sediments and thus indicates a deeper erosion process that exposed older Preterozoic strata. Also, a study of geological map indicates a broad synclinal structure, the trough occupied by cherts that plunge southeasterly. An interesting observation is that the cherts forming ridges and the narrow anticlines occupied by silt stones forming slopes and valleys. This reflects on the competant characteristics of cherty unit that reversed the normal geomorphologic process.

The geochem survey on the present holdings did not indicate any meaningful anomalous zones except for erratic highs scattered over. However, some concentrated values in excess of 60 PPM of CU occur in an elliptical zone on claims 37 and 14.

An IP survey conducted over the geochem grid outlined a conductive zone trending roughly SE and broadens farther easterly on line 40E. This anomaly is situated over silt stones and hence gains considerable support on presence of conductive particles.

In conclusion, further work should include a detailed geological mapping of silt stone-grey chert units to ascertain the cause of IP anomaly or alternatively drill a hole to a depth of 200 feet on line 8E - 2400 N. At present to fit in the exploration budget, the following claims may be lapsed - TED mineral claims: 39, 40, 42, 44, 45, 46, 47, and 48

Respectfully submitted by:

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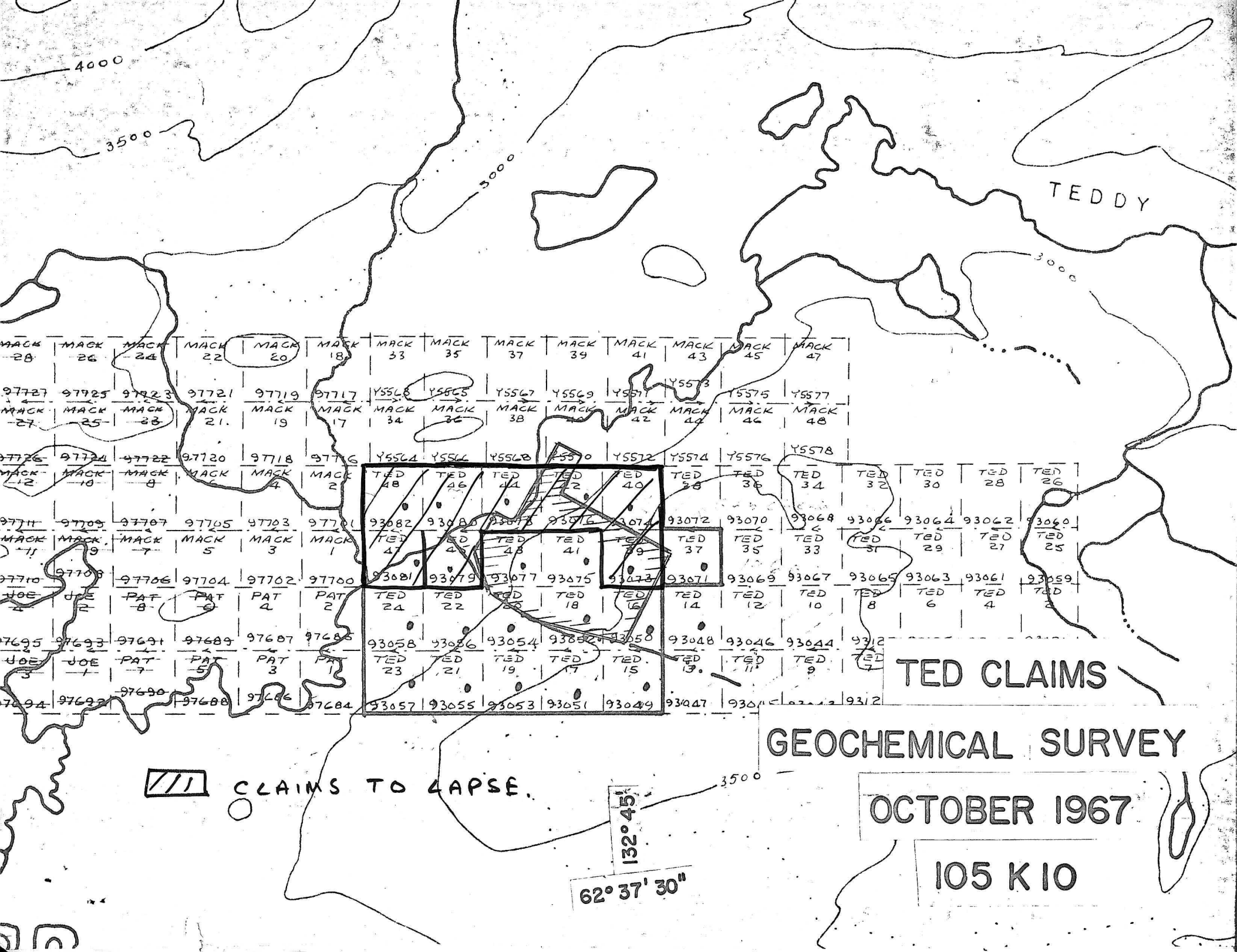
Sr. Geologist

JG/mm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3500
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TEDDY
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TED CLAIMS
GEOCHEMICAL SURVEY
OCTOBER 1967
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CLAIMS TO LAPSE.
3500
132° 45'
62° 37' 30"