

114-P-2

PRELIMINARY
REPORT

ON

MELBERN (TARR INLET)

MOLYBDENITE

1965

ATLIN

MINING DIVISION

J.J. McDougall
Geologist

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Vancouver, B. C.
March 31, 1966

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PRELIMINARY REPORT ON
MELBERN (TARR INLET) MOLYBDENITE

1965

This short report covers results of a few days' prospecting safari made to learn more about the occurrence of molybdenite float found near Tarr Inlet during the Alsek project in 1959 and 1960. Included is a report and photos submitted by prospector, Bob Christensen. The writer did not visit the locality during 1965.

NAME

Melbern Molybdenite (same as Tarr Inlet Molybdenite).

PROPERTY

No claims have been staked.

LOCATION & ACCESS

The locality (elevation 2000'-4000') is situated in an ice-bound environment west of Melbern Glacier in extreme northwest B. C. It is 8-1/2 miles northwest of Tarr Inlet, 34 miles west of the Haines Highway and 44 miles southeast of the Windy-Craggy copper property. (See Map MG 1/65, enclosed, and General Prospecting Map GP 1/65.) Access to date has been by company helicopter only. A nearby lake, once large enough to land a plane on (1957-58) has since shrunk in size and is now of doubtful value. A road route through to the Yukon from salt water at Tarr Inlet has been often discussed but will require far brighter economics on the skyline to warrant its construction than is now evident.

Following an unscheduled "landing" on Grand Pacific Glacier during 1965 the writer had a first-hand chance to note that the ice front had advanced a mile since last seen (1960) and there was now no salt water

within a half mile of Canadian soil. Being ice covered in the not-too-distant past (est. 30 years) there is not a tree and hardly a shrub in sight between Tarr Inlet and the head of Basement Creek, a few miles north of the float locality.

HISTORY

During helicopter reconnaissance of the Alsek region in 1959, the writer and Stan Bridcut picked up gold plus molybdenite-bearing float along wide morainal deposits east of Melbern Glacier. Helicopter reconnaissance and local ground traverses employed to search for the source were unsuccessful despite the fact that the rock type, especially the "augen" volcanics in which the gold occurred, was unique to the district. It was concluded that the source must have been under Melbern Glacier itself. However, the molybdenum-bearing rock was not as conspicuous, and it was thought that, with recently renewed interest in molybdenite, and being in the area anyway, a further check was in order. The plotting of individual occurrences was expected to produce a possibly useful pattern and this was done. Christensen and Kimball, prospectors, were put in for a few days late in August; a map and short report prepared by them is included.

A marauding grizzly bear left little of the camp or of a heavy-duty Coleman stove which he thought tasted almost as good as the stew that was on it. As is usually the case when either of these two men are in the area, there was fresh meat for breakfast. (Earlier in the year a smaller bear tackled Bob Nickle and also ended up on the table, thanks to the fact that prospectors are still allowed to carry firearms due largely to the support of the B.C. Chamber of Mines in opposing attempts by refugees from Scotland Yard to ban them so as to conform with "dear old blighty.")

GENERAL GEOLOGY

As shown on the writer's regional geological and prospect location recce Maps #59A and 59B (the area has not yet been geologized by the government), the float in question occurs in a morainal area believed close to a contact between acid granitic rocks to the east and older metamorphic types (gneisses and schists), to the west. A lineal northwest trending volcanic (Tats greenstone ?) band is believed, judging from exposures several miles to the north, to underly Melbern Glacier and as such would thus separate the granitic from the metamorphic rocks. Minor amounts of limestone occur in the immediate area.

ORE

Molybdenite; minor copper and gold.

DESCRIPTION OF OCCURRENCE

Molybdenite-bearing float occurs scattered along a 2-3 mile long, 1/4 mile wide morainal remnant within a wider plain of glacial debris and ice remnants. Ice-shrouded mountains of granitic rock rise sharply to the east while to the west the country slopes more gradually toward Melbern and the merging Grand Pacific Glaciers. Relatively coarse molybdenite is visible in several rock types, mainly quartz monzonite, gneissic diorite with hornfelsic inclusions, amphibolites and amphibolite schists, and various skarnified intrusive types. All are more or less silicified and quartz veinlets up to 8" wide are common in the 60 odd mineralized samples collected. No definite breccia has been clearly recognized such as that occurring in a somewhat similar environment at Muir Inlet, some 34 miles to the southeast.

The float of interest is relatively coarse and angular as is most in this locality so that this feature is of little value. It is not

present or concentrated in such amounts as to indicate that the source may be near although geological evidence - i.e. float rock type plus projected regional contacts - suggests such to be the case. The plotting of occurrences shows a north-south trending zone, which, without resorting to undecipherable but possible glacial complications, evidently represents a side moraine essentially of Melbern Glacier itself - this rather than moraines from "feeding" glaciers (i.e. Pender, Diorite or Earls Bear), cross-over from Grand Pacific, talus from above (such is possible from below in this instance) etc. Close work could show either to be the case, however.

ASSAYS & RESERVES

Although numerous amounts of lesser grade material were available (i.e. 50-60 pieces collected), the samples taken were relatively large specimen types representative of the quartz-rich rocks including granite or quartz monzonite (?), amphibolite schist, diorite gneiss, gneissic granite, and skarn. Five such assayed in MoS₂ as follows: 0.43%, 0.30%, 1.72%, 2.87%, 2.14%. In addition, the fourth specimen, a five-inch quartz vein in granitic (?) rock, ran 0.44 oz gold and 0.2 oz silver. Two chalcopyrite-bearing samples of "skarnified" granitic rock containing quartz veins but without visible MoS₂ ran 0.02 gold, 2.9 silver, 5.27 copper and 0.02 gold, 0.48 copper. Earlier (1959) work on the quartz-volcanic float area immediately northwest of the 1965 test area had returned assays as high as 1 oz. gold, but little if any molybdenite was evident despite abundant quartz.

SUMMARY & CONCLUSIONS

Somewhere within the vicinity of Melbern Glacier there are deposits of unknown size from which float specimens at least have ore grade

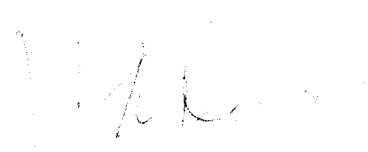
values in molybdenum and gold. The odds are that we will have to await further ice recession to find these. However, work to date has been of a rushed nature and opportunities still exist that by scraping off a foot of gravel someplace, something of interest may be found in place. It is doubtful if there are applicable geochemical or geophysical methods of value. The area is remote and rugged but access, given proper encouragement, is not impossible. The one thing certain is that no small deposit is of value.

RECOMMENDATIONS

Should we participate in any way with a few exploratory, breccia-searching test holes on the Muir Inlet molybdenite deposit, which is a possibility, then some helicopter recce work is still in order between that locale and Melbern Glacier. We had (wrongly) assumed that this area (where access to the sea, although ice-cluttered, is near at hand) had been well prospected in the past by such as Southwest Potash. Given a decent base camp with supplies (such as Muir Inlet) a two-man, occasionally helicopter supported, prospecting team could give a good account of themselves, as they could following up 1965 work from at least two more camps along Melbern Glacier.

It should not be assumed that because a few float specimens assayed well in molybdenum that an exciting deposit is near at hand; observations along "live" moraines or gravel trains clearly show the complex loopholes or alternates possible.

Vancouver, B. C.
March 31, 1966


J. J. McDougall
Geologist

REFERENCES:

1. 1959 Northern Prospecting Report - J.J.McDougall
Includes Map 59A and 59B on file
2. 1960 Prospecting Report - J. J McDougall on file
3. Monthly Reports - J. J. McDougall - August, 1965
September, 1965
October, 1965 on file

MG.1/65 (114-P/3)

MELBERN GLACIER

AREA OF MoS_2 FLOAT FOUND 1-3 SEPT. 1965 SHOWN THUS:

TO ACCOMPANY REPORT BY K.H. CHRISTENSEN

* OVERLAY MAP OF AIR PHOTO # A12856-338

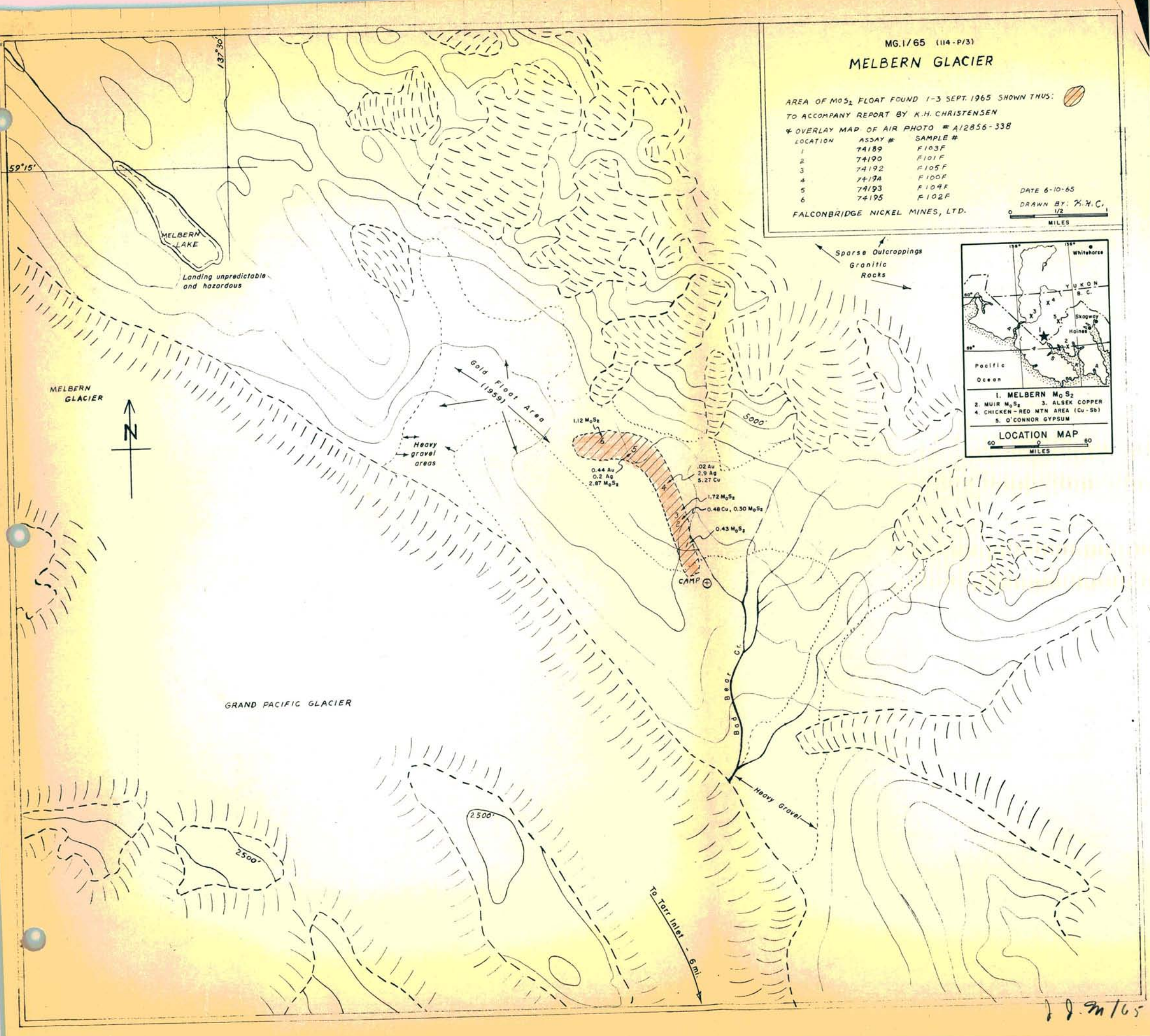
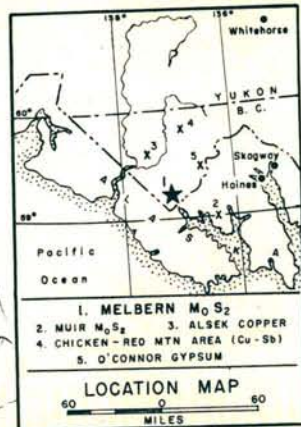
LOCATION	ASSAY #	SAMPLE #
1	74189	F103F
2	74190	F101F
3	74192	F105F
4	74194	F100F
5	74193	F104F
6	74195	F102F

FALCONBRIDGE NICKEL MINES, LTD.

DATE 6-10-65

DRAWN BY: K.H.C.

0 1/2 1
MILES



18.9m/65

23 January, 1966

A SUBJECT : PROSPECTING, Tarr Inlet Area

TO : JAMES J. HODOUGALL
504-1112 West Pender St.
Vancouver, British Columbia

This area interesting to prospect because of its granitic intrusions, large areas of exposed outcrop, and lack of previous exploration.

The presence of molybdenum, copper, silver and gold values in the glacial float add to its attractiveness.

The mineralized float found lies on an inert remnant of a valley glacier. This remnant is resting on a low divide, part of which drains locally to the N.W., and part to the S.W. The mineralized float is present on both slopes.

Glacial terraces and moraines indicate major ice movements in both a N.W. and S.E. direction. Ice movement down Tarr Inlet could have been blocked by the many other large glaciers feeding into this narrow channel to the south, when the general ice level was at a much higher horizon. If so, ice in the area where the float was found could have been flowing down the Melbern glacier toward the Tatchenshini River. Elevation where float was found is approximately 1000 ft. above present ~~of~~ divide between Grand Pacific and Melbern glaciers.

As this float could have originated almost anywhere in the area that lies at a higher altitude, I believe that a more extensive exploration program is in order. Other minerals may also be found.

Kim.
D. G. Kimball
Chevelah, Wash.

REPORT ON
TARR INLET MOLYBDENITE FLOAT

K. H. Christensen

1965

REPORT ON
TARR INLET MOLYBDENITE FLOAT
K.H. CHRISTENSEN
1965

Due to unfavourable flying weather delaying our arrival at the Tarr Inlet area as scheduled, only three days, Sept. 1st to Sept. 3rd inclusive were available for what proved to be an unsuccessful attempt to locate the source of previously discovered molybdenite float.

As a possible aid to further exploration of the area the following is a brief resume of our observations.

Geographically, referring to Map #1114P and larger scale map titled "Melbern Glacier", the location is nine miles northwesterly from the head of Tarr Inlet, at an elevation of from 3000' to 3500' and about one mile N.E. of the Grand Pacific Glacier near its junction with the Melbern Glacier.

With reference to the Melbern Glacier map, rock found in place consisted of medium grained grey granite at C and K, and sedimentary formations at D and at E where a considerable limestone outcrop was noted.

The approximate areas defined by fine dots on this map represent icefields covered by glacial drift of shallow depth. The exact outline is rather indistinct.

The alpine glaciers such as B, G and H appear to be advancing at present and are in marked contrast to the near-dormant icefield.

The shaded area or more precisely the four encircled areas lettered A, B, C and DE on the overlay of airphoto #A12856-338 are where approximately 50 specimens containing appreciable molybdenum mineralization were found. A possible equal number showing copper stain were also noted. Probably the band of mineralized float is continuous beneath the snow covering the areas between these discoveries and is shown as such on the map for reason of simplicity.

Assays of samples from the locations numbered 1 to 6 would, because of their nature as scattered float, in all probability not have any relation to their original location.

The molybdenite was mostly associated with quartz stringers and veins of up to 8" in width. A few pieces of the mineralized float were a fine grained rusty granite. The remainder consisted of thin molybdenite coatings on surfaces of rocks of darker minerals as shown in Photo 10-4. These three rock types of angular shattered appearance were characteristic of only the shaded area. A predominance of rusty colouring is noticeable, and is in marked contrast to rusty coloured slaty sedimentary drift S.W. of the shaded area, its origin also undetermined.

A certain amount of local grey granite was also in these areas but a search of mountainside C showed no indication of other rock types found as drift on the icefield.

1. There is the possibility of the float coming from under the icefield at the foot of mountain C. Clues to this could be altering of the granite near a contact, the reddish zone to the extreme left of Photo 8-4, although dissimilar to the general float area. Also,

one specimen only was found at the highest point 5, and was in a quartz stringer on a medium grain grey granite.

2. Other possibilities are indicated by the appearance of glacial terraces sloping between points B and A, clearly shown on Photo 8-4, and indicating previous levels of the glacier B. This leads to the possibility of the molybdenite float area being a remnant of a moraine of such a glacier which covered all of valley area D and partially flowed in a northwesterly direction.

3. If glaciers in valley J, especially glacier H, built up higher than those in valley D, the glacial movement could have been in a southerly direction. Terraces in this valley are rather indistinct.

4. It is also possible but rather unlikely that when the Grand Pacific Glacier was of far greater size it could have carried from far to the west.

I would suggest that if examination and assays of the specimens collected prove this general area worthy of further exploration, valley J be considered as a camp area and a check be made of the more easily accessible surroundings between glacier H and the Melbern Lake area. The services of a helicopter most of the time would be necessary.

It would be interesting to position markers on the area of molybdenite float to refer to at a later date in checking direction and speed of ice movement.

Vancouver, B. C.
December 8, 1965.

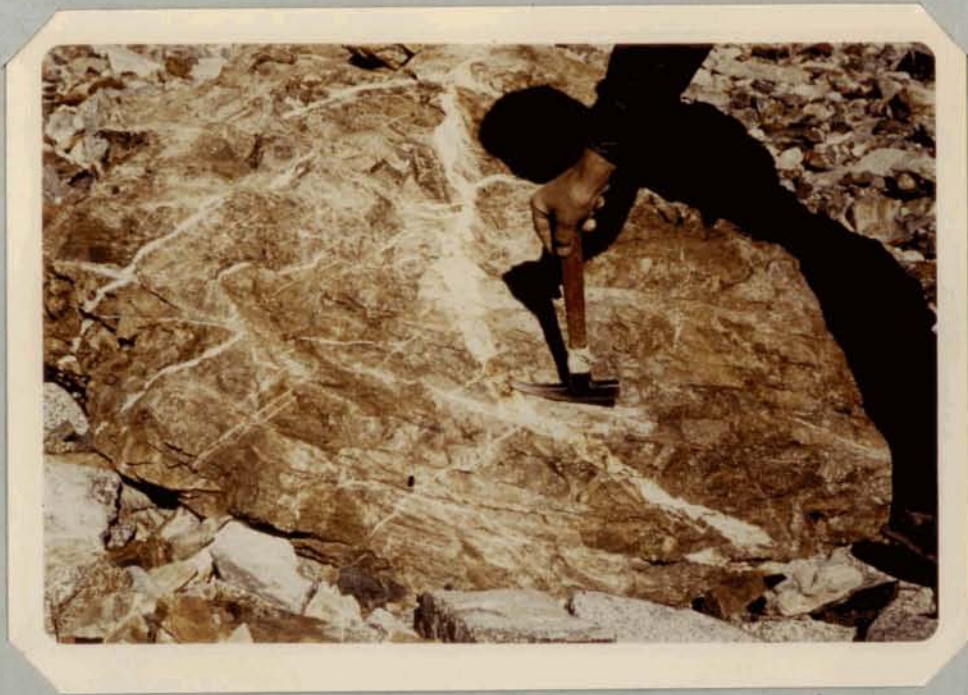
K. H. Christensen.

Karl H. Christensen



8 - 4
Taken from Area F
Terraces between Points A & B
(Melbern Glacier Map)





11 - 4
Molybdenum Sulphide



13 - 4
Area "J" taken from Area "E"
(Melbern Glacier Map)



16 - 4
Glacier H from Area 6
(Melbern Glacier Map)



7 - 4
Glacier B from Area F
(Melbern Glacier Map)

MG.1/65 (114-P/3)

MELBERN GLACIER

AREA OF MnO_2 FLOAT FOUND 1-3 SEPT. 1965 SHOWN THUS:
TO ACCOMPANY REPORT BY K.H. CHRISTENSEN

OVERLAY MAP OF AIR PHOTO # A12856-338

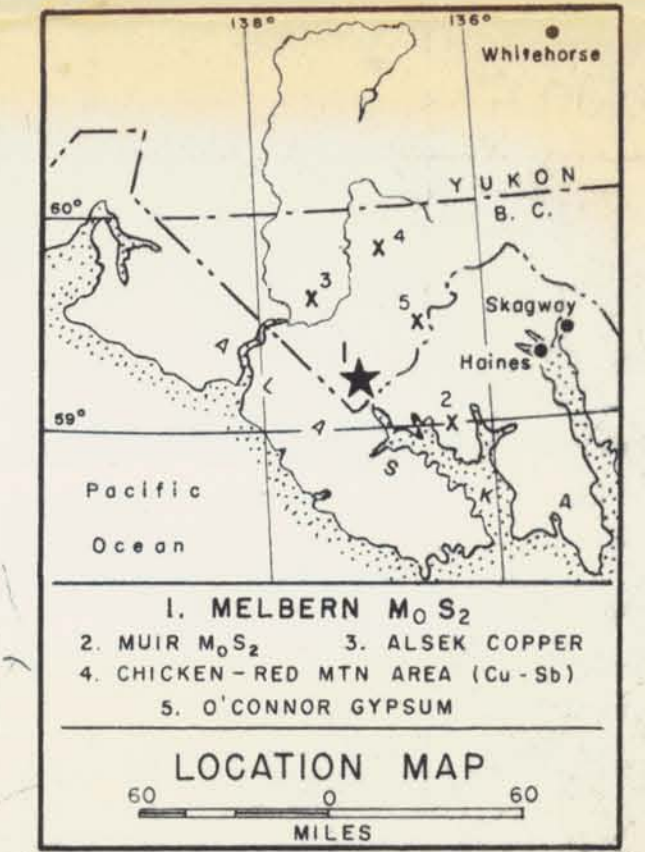
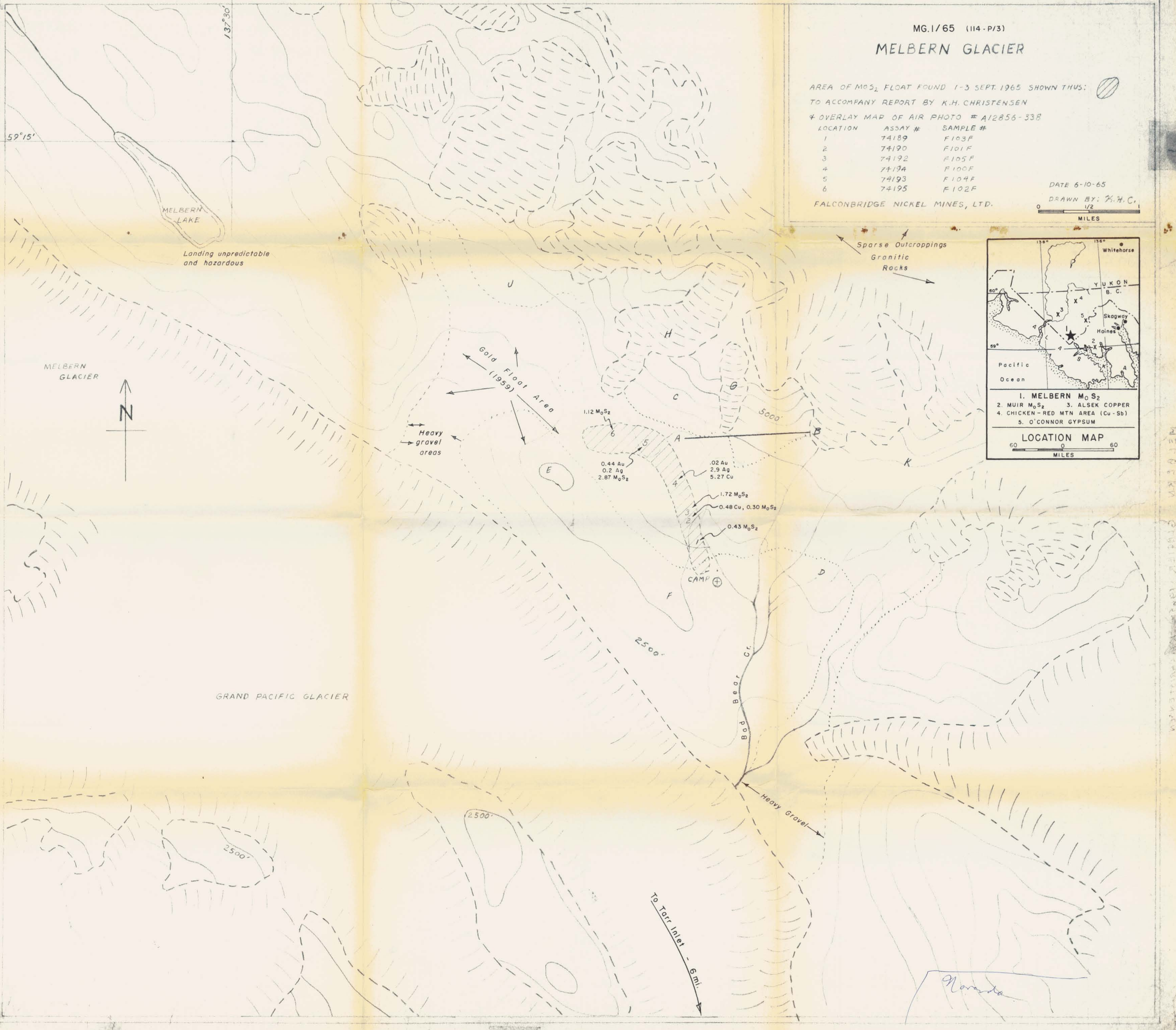
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6	74195	F102F

DATE 6-10-65

DRAWN BY: K.H.C.
1/2

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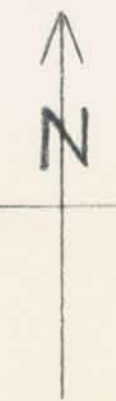
59°15'

137°30'

MELBERN LAKE

Landing unpredictable and hazardous

MELBERN GLACIER



GRAND PACIFIC GLACIER

2500'

2500'

2500'

Bad Bear Cr.

Heavy Gravel

To Torr Inlet - 6 mi.

Novada

MELBERN GLACIER STUDY AREA