

82M100-07

004960

PROPERTY FILE

PROJECT #223
REPORT
ON
SOUTHERN AND CENTRAL
BRITISH COLUMBIA
PROSPECTING
=====
SUMMER ACTIVITIES
1956
~~XXXXXXXXXX~~
F. T. Russell
~~XXXXXXXXXX~~

82M/16E

82M100-07

SUITE 401-5
402 WEST PENDER STREET
VANCOUVER 3, B.C.

April 22/58

Str.

Re. Hinbasket

① We picked up radioactivity a place far in Hinbasket Lake + had Russell go in to check.

② Sodalite, staurolite, pyroxene, nepheline syenite, pyrochlore, fluorite all identified positively in creek panning (X Ray, thin section)

③ Only meagre prospecting carried out.

④ Russell's rept enclosed.

⑤ Rio Tinto got wind of this (from us??) and sent a couple in to investigate it the following year. You could probably get some dope from Dr. Ross, now a Geology prof. at U.B.C., as he went in. My talks with him have been limited but he did find pods containing sodalite in place.

Niobium assays:

0.01% 0.09%

J.M.

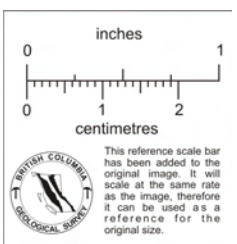
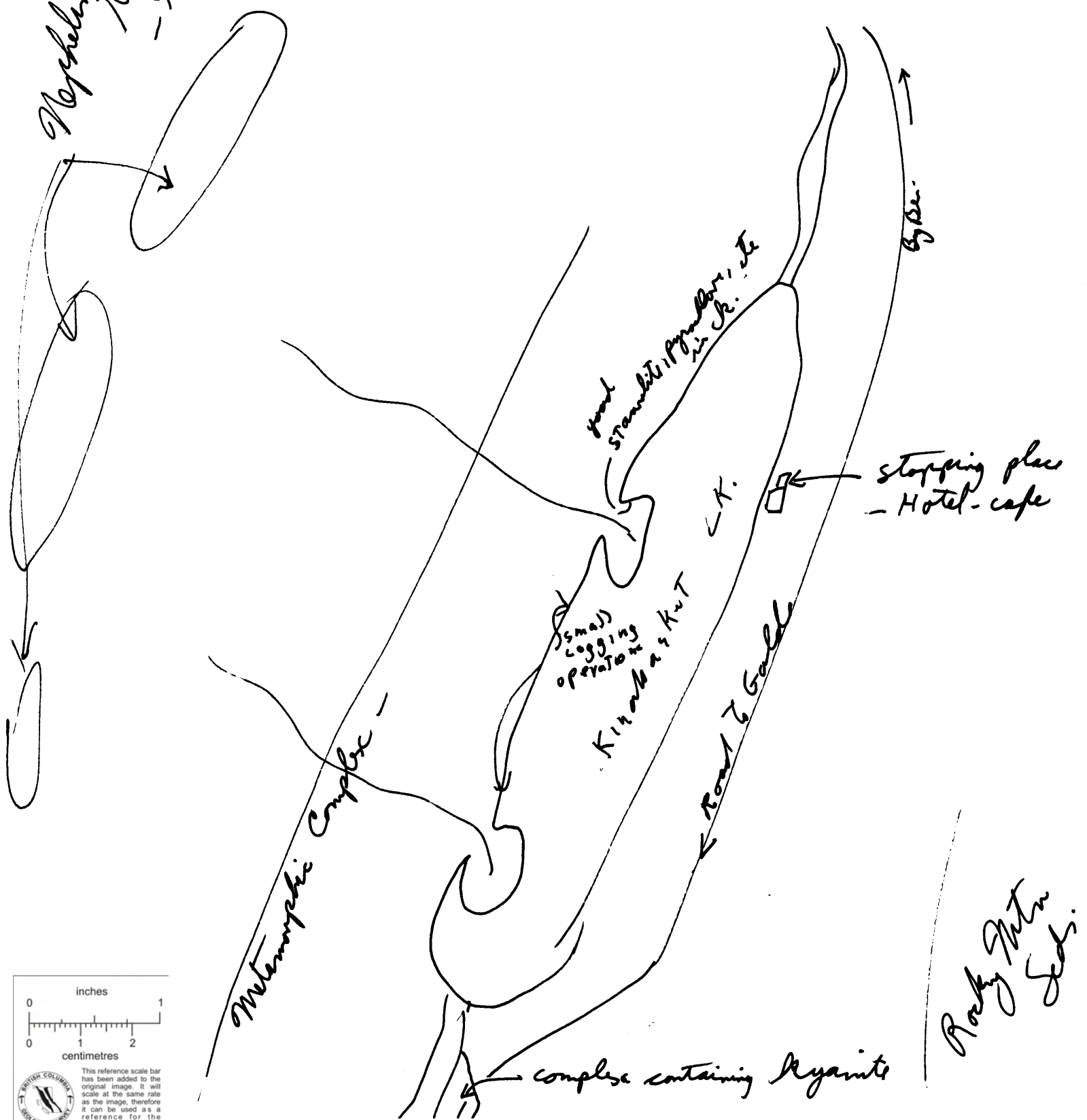
PROPERTY FILE

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SUITE 401-5
402 WEST PENDER STREET
VANCOUVER 3, B.C.

General Layout

Nepheline Syenite
Tuffaceous
- top of range



Rocky Mtn
Seds.

Jan. 18th, 1957.

PROPERTY FILE

Mr. L.J. Lichty,
Quebec Metallurgical Industries,
#602 - 88 Metcalfe St.,
OTTAWA, ONTARIO.

Dear Mr. Lichty:-

Re Q.M.I. 223 Prospecting 1956

Attached is a copy of a report by F.P. Russell, covering the season's work. The principal projects were:-

1. Barriere Lake. The results of the work at Barriere were reported earlier, by Russell, who forwarded a map and samples from the field. Enclosed are copies of the assay results covering these samples submitted. These show that although the grade of the concentrate recovered was of interest, the amount of concentrate was so small that the area did not show much promise as a source of placer.
2. Nitki Mountain (Fraser Lake). Here diamond drilling of the principal discovery by Pioneer Gold Mines showed that the values in the rhyolite were too erratic to be of interest. Pioneer subsequently dropped the property. Our airborne anomalies on the extension of the zone were found by our ground prospectors to be due to outcropping ridges or radioactive granite. Unless advised otherwise we will allow these claims to lapse.
3. Deer River (Liard River area). Allan Archer, student geologist, has submitted a report covering our work on these Tufa deposits. Large samples have been sent to Q.M.I. labs for testing but the results are not known at this time. Unless these samples show something of merit we have reached the conclusion that the Tufa is not sufficiently radioactive to be economical. We should test

the possibility of recovering Uranium and Radium salts from the highly radioactive waters of these springs. These springs have a flow of several hundred gallons per minute.

4. Kinbasket Lake. As reported by Russell we have located the Nepheline Syenite body lying in the Purcell Mountains west of Kinbasket Lake. The streams draining this area showed a good concentrate of Columbium minerals. We have not determined whether these come from the Nepheline Syenite or not. Further prospecting is warranted in the vicinity of this Nepheline Syenite stock for lode deposits of Columbium.

Yours sincerely,



Alex Smith

AS/dc
Enc.

R E P O R T

on

#223 PROSPECTING

1956

INTRODUCTION:

The winter months were spent recording and examining last years creek panning samples using chemical tests, microscope, etc. The summer field work is represented by the following report.

NORTH BARRIERE LAKE PLACER:

Three weeks were spent sampling and prospecting the North Barriere Lake placer sands and flying scintillometer in the surrounding area. The scintillometer was flown across the radioactive granite body which is the source of the U, Th, Pb, Bi, Po, minerals in the sands. Two high anomalies were picked up but not investigated on the ground as we had pressing work further north at this time.

Sampling of the North Barriere Lake beach sands was carried out and panning concentrates and natural sand were sent to Q.M.I. for analysis. Results are not yet available. Unusually high lake water prevented the use of the Stephan concentrator as had been planned at this time.

FRANCOIS LAKE ANOMALIES: (Nithi Group)

Three weeks were spent travelling and prospecting west of Prince George in the Francois Lake area on a radioactive anomaly. Nothing of value turned up there and we continued on to Watson Lake.

DEER R. HOT SPRING:

A packer and horses were hired at Muncho Lake and a short trip made to examine radioactive material found on Deer River the previous year.

A trail was followed down the north side of the Liard River for 10-15 miles and then Deer River followed for 8 miles. A 5 mile trail was cut along the latter. These claims were staked last year by #224 prospectors on and around a hot spring which has and is still building up a large area of radioactive tufa. We sampled by pack-sack drilling, blasting and surface pitting. The tufa, about 30 feet thick, covers about 30 acres and has pushed Deer River slightly to the west. No assay results have been received on samples at this time. The radioactivity of the drill core did not increase at depth, but certain layers of tufa are slightly more active than others. The hot spring water varies between 60 and 120 degrees with a fairly large flow, the water being radioactive as well. Two years assessment work was recorded on these claims.

From the Deer River claims we left for the Kinbasket Lake area to trace the Nepheline syenite float found in Trident Creek the year before. Refer to the Nepheline Syenite-Kinbasket Lake in this report for details. Limited time spent on actual prospecting in 1956 has been short compared to proceeding years, much time being spent on assessment work.

KINBASKET LAKE NEPHELINE SYENITE

INTRODUCTION:

The last two weeks of August were spent prospecting, locating and cutting trail to the source of Nepheline Syenite gravel float discovered the previous year in Trident creek. A short report on this work follows.

LOCATION AND ACCESSIBILITY:

Trident Creek flows into Kinbasket Lake from the west approximately at the centre of the Lake. The 3 mile long creek has its source in Trident Glaciers. Windy Creek is the largest creek on the west side and flows in at the top end of Kinbasket Lake south of Trident Creek. North of Trident on the west side is a small unnamed creek which also carries a little Nepheline syenite float. Kinbasket Lake is a widening of the Columbia River and lies in the Rocky Mountain Trench along the Big Bend Highway approximately 70 miles north of Golden, B.C. It is within Hamber Provincial Park. The altitude of Kinbasket Lake is 2,235 ft. and may be 200 ft. higher when and if the Mica Creek dam is built. The headwaters of the creek north of Trident are on the north side of Trident Peak. The possibility of an easier approach to the Nepheline up this creek was not investigated on foot but by the air photos it looks like a better roadgrade. The latter has less slide area to cross and the grade is less.

PHYSICAL FEATURES AND CLIMATE:

The deposit of Nepheline is at an altitude of 8,500 to 10,000 ft. and can only be expected to be free of snow for five months of the

year. Summits of 8,000 ft. elevation plus are typical of the rugged Purcell Range. Tree line on the steep slopes is about 8,000 ft.

REGIONAL GEOLOGY AND DESCRIPTION OF NEPHELINE SYENITE:

The rock from immediately west of Kinbasket Lake to Trident Glacier is a Metromorphosed Sedimentary with bedding striking N 10° - 20° W, and dipping steeply to the west. Trident Peak itself, as well as a good sized area to the south west, and probably to the northwest, is composed of banded Nepheline Syenite. Because of the difficult terrain and a snowstorm at the time we were not able to sample the Nepheline in place.

Trident Glacier is protecting much of the Nepheline at present. The weathering is chiefly from frost action and some of this broken nepheline is dropping into the glacier crevasses to be ground.

The light colored nepheline syenite intrusive stands out well against the darker metromorphosed sediments. Refer to the enclosed photograph. The contact of the syenite on the right is well defined and to the left of photo a distance of a quarter mile a lense or sill 15 ft. plus thick was seen.

The mineral Staurolite, both twinned and untwinned varieties, is abundant in certain beds of the sediments on the west side of Kinbasket Lake and also around a syenite intrusive body on the east side of Kinbasket Lake and 4 miles south of the Lake Lodge. Kyanite is also present in float but was not prospected for at this time.

MAP:

Showing trail up Trident Creek and location of Nepheline Syenite intrusive body.

ASSAY:

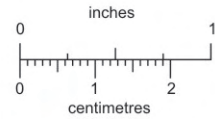
Chip samples were taken from Nepheline boulder float below Trident Glacier. X-ray spectrograph showed 0.001% Uranium but no Cb, Ta, Zr, or Cu, in significant quantities. Panning samples from Trident Creek assayed 0.18Nb, .036 $U_{38}O_8$, .15 ThO_2 . Up to this time it is not known where these minerals are coming from, but we suspect the source is in and around the Nepheline Syenite body.

CONCLUSION AND RECOMMENDATION:

We are at this time not able to estimate any tonnage of Nepheline Syenite as we were not able to reach the deposit before the first winter snowfall. Looking at it from a quarter mile distance I would guess that there is a very good possibility of a large body. Should anyone be interested in Nepheline syenite, Kyanite, or Staurolite the area should be prospected next summer no later than the 1st. of August. The possibility of finding vein type deposits of Cb, Ta, is of interest because the Ice River Nepheline Syenite complex 90 miles south in the Rocky Mountains, has Cb, Ta, in possible commercial quantities. These deposits are in a National Park where prospecting is forbidden. Trident Peak Nepheline is not hampered in this way. However it is a rugged area and plans should be carefully made if interest exists. We have checked less than 10% of the favorable area to date.

Vancouver, B.C.
January 16th, 1957.

F.T. Russell.



This reference scale bar has been added to the original image. It will scale at the same rate as the image, therefore it can be used as a reference for the original size.

Maps showing the approximate location of mineral claims and placer-mining good standing are available from the Department of Mines, Victoria, B.C. They correspond in size to the departmental reference maps and mineral reference maps by the Department of Lands. A charge of \$1.00, plus social services tax, is made for these maps. Inquirers are requested to state specifically the area they require.

40 M. = 1"



Cariboo and Quesne Mining Divisions now amalgamated, to be known as Cariboo Mining Division

Stlocan and Ainsworth Mining Divisions now amalgamated, to be known as Stlocan Mining Division

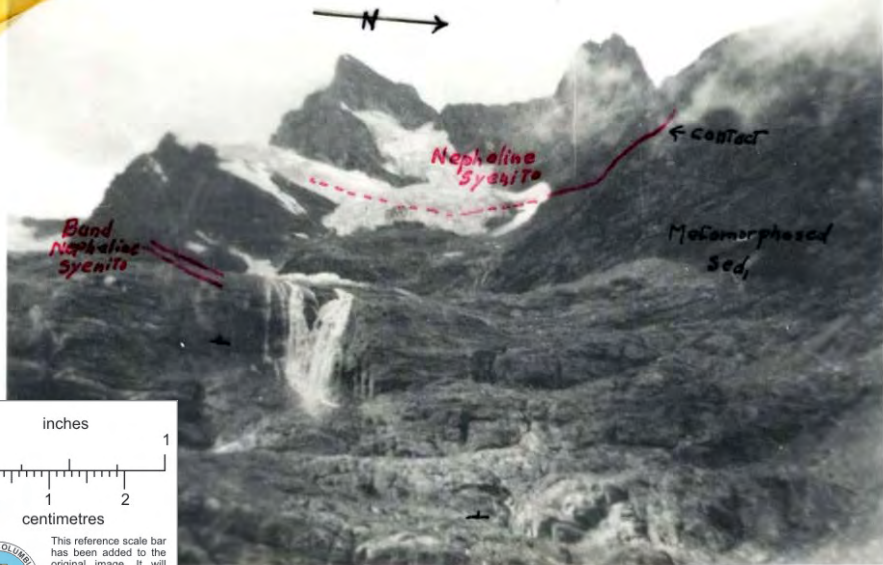
Known Nepheline Deposit

N. Barriere 4480 Placer

Wapetina

5000 ft

U. S.



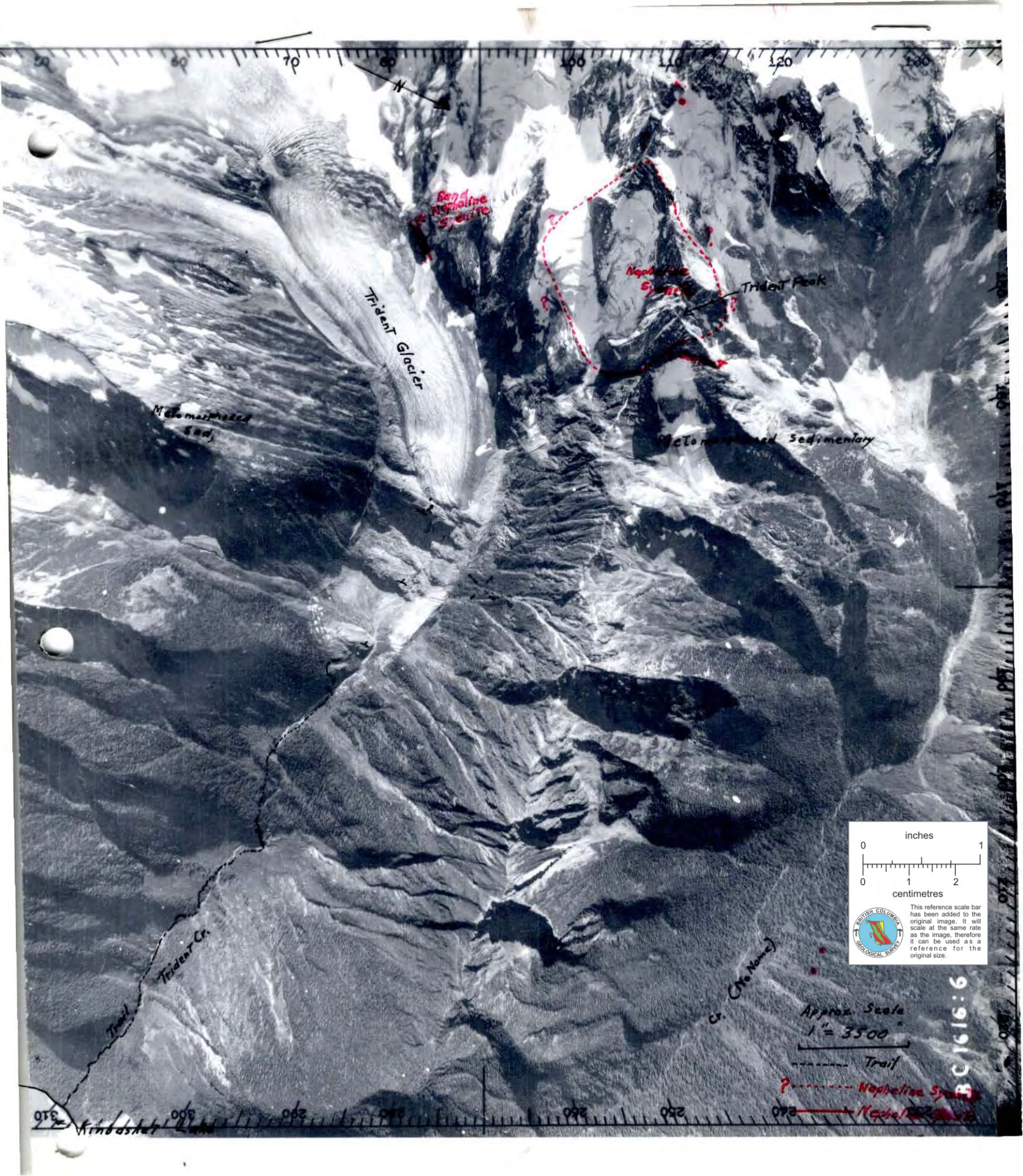
inches



centimetres



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60 70 80 90 100 110 120 130

Trident Glacier

Metamorphosed Sed.

Nepalite Syenite

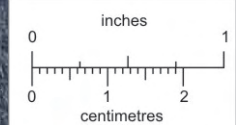
Nepalite Syenite

Trident Peak

Metamorphosed Sedimentary

Trident Cr.

Cr. (No Name)



BRITISH COLUMBIA GEOLOGICAL SURVEY
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Approx. Scale
1" = 3500'

Trail

Nepalite Syenite
Nepalite Syenite

BC 1616:6

075 080 085 090 095 100 105 110 115 120 125 130

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Obtain reports & tech data from
Air Division
U. S. DEPT. OF LANDS & FORESTS Victoria, B.C.