

Geology Report

Nee 1-4
Record Nos. 1462, 1463, 1464, 1465
Liard Mining Division
M 104B/10W
Lat. 56°34'N Long. 130°52'W

Claims owned by - - - - - Bull Moose Resources Ltd.
Operator - - - - - - - - - - Bull Moose Resources Ltd.

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

10,820

Author: N. W. Burmeister, P. Eng. November 30, 1981

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Introduction

Location and Access:

The Nee group is located approximately 95 kilometers northwest of Stewart, British Columbia and is within the Liard Mining Division. The property is situated within the rugged Boundary Range near the confluence of Snippaker Creek and the Iskut River. Elevations range from approximately 900 meters to over 2400 meters above sea level. Co-ordinates of the property are Lat. $56^{\circ} 34' N$, Long. $130^{\circ} 52' W$.

Access to the property is by helicopter from Stewart. A dirt airstrip is located along the bank of Snippaker Creek approximately 6 miles from the property. Supplies can be flown to this airstrip from either Stewart or Eddontenajon by fixed-wing aircraft and ferried to the property by helicopter.

Property and Ownership:

The property is comprised of the Nee 1-4 mineral claims and the group consists of a total of 8 units.

<u>Claim</u>	<u>No. of Units</u>	<u>Record No.</u>
Nee #1	1	1462
Nee #2	1	1463
Nee #3	3	1464
Nee #4	3	1465

The claim group is owned by Bull Moose Resources, Ltd., a British Columbia Company with offices at 716-525 Seymour Street, Vancouver, B.C. Bull Moose Resources Ltd. is also the operator of the property.

History:

Preliminary prospecting activities by two major mining companies during the early 1960's resulted in the discovery of numerous mineral occurrences in the general area of the Nee Property. None of these showings were explored in detail at that time. In 1965 a group of over 500 claims, covering the present Nee Property was staked by American Smelting and Refining Company and Silver Standard Mines Ltd. Prospecting was carried out to locate the source of silver-gold-lead-zinc mineralized float. Those claims were subsequently allowed to lapse. In 1971 Great Plains Development staked claims in the area which, in part, covered the present Nee Property. Geophysical, geological

and geochemical work was carried out on the claims in the period 1972-1975. These claims were also allowed to lapse. The Nee claims were located in 1980 as a result of re-newed interest in precious metals and high silver and gold prices.

Economic Assessment:

The Nee property is situated in a very remote and rugged part of the Province. The area is believed to have little economic potential other than mining. The property is in the preliminary exploration stage.

Summary of Work:

The work completed involved geological reconnaissance and mapping over an area of approximately 2 square kilometers at a scale of 1:5000 (1 cm= 50m). Mineralized float occurrences were carefully marked in the field and plotted in an attempt to extrapolate the bed-rocks source of this material.

Technical Data and Interpretation

Purpose and Scope of Geological Work:

The purpose of the geological reconnaissance and mapping program carried out on the Nee property was to locate the source of float, which occurs as morainal deposits and debris on the glacier immediately north of the property. The material is heavily mineralized with galena and sphalerite and contains significant silver and gold values. Although the existence of these float trains has been known for some time, efforts to locate the source have been stymied by the extreme terrain conditions which prevail in the suspected source area and which are characterized by a nearby vertical cirque headwall and numerous hanging glaciers.

The present program utilized a professional team of geologist-mountain climbers to examine and evaluate heretofore inaccessible portions of the claims. The three-man team of geologists employed technical climbing techniques to map the suspected source area at a scale of 1:5000. Altimeters in conjunction with government topographic maps and aerial photographs were utilized for control.

Geological Mapping Program:

The geological mapping program was carried out by G. W. Kitson, W.B. Viner and P.B. Kelemen of Dihedral Exploration, Star Route A, Anchorage, Alaska, under the supervision of N. W. Burmeister, P. Eng.

Regional Geology:

The Nee property is situated within the Intermontane Belt of northwestern British Columbia. The rocks of this belt are typically Paleozoic, Triassic, and Jurassic eugeosynclinal volcanics and clastics. The Intermontane Belt is bounded on the east by the Omineca Belt of rocks which is comprised of Paleozoic metamorphics. The Coast Crystalline Belt lies to the west and is comprised of metavolcanic rocks, gneisses and granitic intrusives of Jurassic and Tertiary age.

Structurally, the Intermontane Belt is transected by the Stikine Arch which is situated immediately to the north of the property, and the Skeena Arch, which is located approximately 200 kilometers to the southeast. Numerous stocks and batholiths, of acid to acid-intermediate composition, were intruded into the rocks of the Intermontane Belt during Jurassic and Tertiary times.

Faulting is complex in the area and is characterized by a strong northwesterly trend of right-lateral transverse faulting, localized high angle reverse and thrust faulting, and extensive normal faulting.

Local Geological Units:

Outcrops on the Nee claims have been divided into four bedrock map units, based on observations of hand specimens and field relationships, as follow:

- A. Undivided flows and volcanoclastics-
This unit is comprised of basaltic and andesitic flows exhibiting, in part, well preserved pillow structures. The andesites contain euhedral laths of plagioclase up to 1 cm. in length. The clastic members of the unit include agglomerates, breccias and pyroclastics of highly variable texture and composition.
- B. Felsic intrusive unit - This unit is comprised of orthoclase porphyry and rhyolite. These rocks are strongly sheared and altered where exposed on the property. Mafic minerals have been destroyed and limonite staining is intense and widespread. These rocks are believed to be part of or related to an altered stock of similar composition which is exposed to the north of the claims.

- C. Predominantly limestone and argillite unit - This map unit is comprised of silty black and grey limestone, calcareous argillites and siltstones which are occasionally interbedded with light brown calcarenites and marly shales. The limestone is schistose which quartz and calcite veins in structurally disturbed areas.
- D. Felsic dikes - Two quartz potassium feldspar dikes traverse the property with remarkable continuity. They appear to dip at shallow angles to the west and may be up to 12 meters in width. The upper dike continues for some miles beyond the boundaries of the claim group. It shows a narrow chill zone of tan, microcrystalline material followed by flow banding parallel to the contact; about one meter wide. The lower dike is a white to light green fine to medium grained intergrowth of quartz and feldspar. Biotite is present in minor amounts. The contact features are similar to the above described.

Alteration:

Propylitic alteration is extensive on the Nee claim group and is evidenced by the widespread occurrence of chlorite and epidote in both the volcanic

and sedimentary rocks exposed on the property. A zone of carbonate alteration is developed along a northeast-southwest trend. This zone appears to cut across lithologies but it is not known for certain if this is a zonation feature or if this zone of alteration is related to an unexposed structure in the area.

The intrusive rocks have been sericitized and bleached to a considerable degree in the area and on the claims. Argillic alteration is developed in these rocks along major and secondary fault structures. Hornfels is developed at and near the intrusive contacts.

Mineralization:

The mineralization of greatest potential economic interest occurs in well defined float trains in the lateral moraines immediately south of the claim group and as debris on the glacier in the southern portion of the group. The gangue rock is a schistose grey limestone which commonly contains numerous close spaced veinlets and knots of calcite and quartz. Coarse-grained brown sphalerite occurs with fine-grained galena as disseminations, knots and veinlets. Fine-grained pale yellow disseminated

pyrite is usually present in the pieces of mineralized float. Minor chalcopyrite and tetrahedrite has also been noted. The mineralized float occurs in close proximity of float pieces which exhibit strong carbonate alteration.

Disseminated pyrite is ubiquitous on the property. There is an increase in pyrite content of the intrusive rocks. Coarse grained brassy pyrite is present in the hornfelsic zones on the claims.

Several quartz veins are present on the property. A large vein, up to 7 meters wide, is present in the central portion of the group but does not contain any mineralization where it is exposed. Two other quartz veins are intermittently exposed on the northeast portion of the property. These veins average approximately one meter in width and are parallel and dip at moderate angles. These latter veins contain narrow sections of massive arsenopyrite which may occur along either the hanging wall or the foot wall of the vein. The wall rocks contain disseminated pyrite with minor sphalerite and galena for up to one meter from the contacts.

Disseminated sphalerite, galena and traces of chalcopyrite were observed at several localities on the claims. However, none of this mineralization is believed to be the equivalent of float in the valley.

Discussion and Conclusion


The geological mapping program was carried out under extremely difficult terrain conditions requiring the employment of technical climbing techniques in the area of greatest interest. Ice and rock falls added to the hazards of carrying out the program.

The total area in which the source of the mineralized float on the glacier may occur has been substantially reduced by the geologic program. Essentially all of the area under investigation that is not covered by ice or snow is outcrop. Sufficient coverage of the outcrop areas was made by the climbing geologist to virtually eliminate the possibility of the source area being exposed. It seems certain that the postulated mineralized zone is covered by glacial ice or permanent snow. The most likely location of this zone is believed to be in the northern portion of the Nee 4 claim under the southeast lobe of the hanging glacier in the area. Carbonate alteration, similar to the carbonate altered float rocks in close proximity to the sulfide mineralized float on the glacier, is exposed along the toe and edge of the glacier.

The alteration zone appears to cut across the sedimentary sequence in this area but, as outcrop exposure is limited due to glacial ice cover, it is unclear at this time whether the alteration is a zonation feature related perhaps to intrusive activity or is controlled by structure.

The position of the postulated float source zone has not as yet been sufficiently well targeted to consider physical investigation although the area has been substantially narrowed. Further work should include detailed petrographic studies of the rocks exposed at the toe and edge of the glacier to work out any zonation pattern which may aid in pinpointing the concealed target. Induced polarization investigations could be considered. Personnel skilled in technical ice climbing work have to be employed in carrying out such work.


Norman W. Burmeister, P.Eng.



Statement of CostsWages:

Dihedral Exploration*	\$10,440.00
N.W. Burmeister	
Aug. 11-15, 1981 \$120/day	480.00

Travel:

Trans Provincial Airlines	
Terrace-Snippaker Aug. 9, 1981	1,167.15
Snippaker-Terrace Aug. 24, 1981	568.18
Viking Helicopters	
Aug. 10, 11, 12, 15, 16, 1981	1,143.00
Aug. 23, 1981	296.35

Groceries:

438.85

Camp Equipment: (expended)

480.98

Total	<u>\$15,014.51</u>
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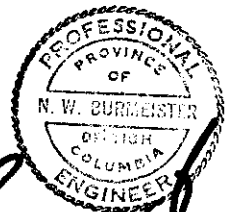
*Dihedral Exploration rates for climbing geologist crew

George Kitson
William Viner
Peter Kelemen

\$300.00 U.S. per day - travel, set up, standby, data comp.
July 29, 30, Aug. 8, 9, 10, 11, 19, 23, 24, 29, 30, 1981

\$450.00 U.S. per day - part day geology climbing
Aug. 22, 23, 1981

\$600.00 U.S. per day -
Aug. 11, 12, 13, 14, 16, 17, 18, 1981



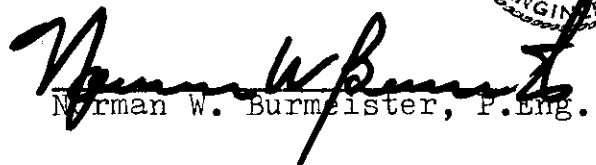
N.W. Burmeister

Author's Qualifications

I, Norman W. Burmeister of 4634 Woodgreen Drive,
West Vancouver, British Columbia do hereby certify
that:

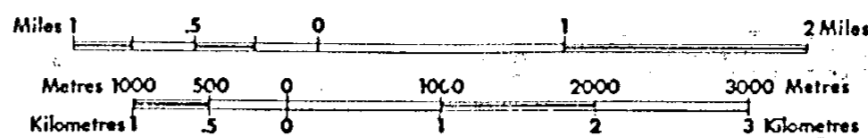
1. I am a registered Professional Engineer
of the Province of British Columbia,
Registration No. 6651
2. I have practised my profession for
21 years.
3. I am a graduate of the Colorado School
of Mines in Golden, Colorado (Geological
Engineering 1961)
4. This report is based on a personal
knowledge of the property described
herein and a compilation of geological
data accumulated by Dihedral Exploration
geologists under by direct supervision.




Norman W. Burmeister, P.Eng.

Province of British Columbia
Ministry of Energy, Mines and Petroleum Resources

LEGEND
CROWN-GRANTED MINERAL CLAIM
REVERTED C.G. MINERAL CLAIM
FORFEITED MINERAL CLAIM
VERIFIED LEGAL CORNER POST
LEGAL SURVEY
LEGAL CORNER POST & TAG NUMBER

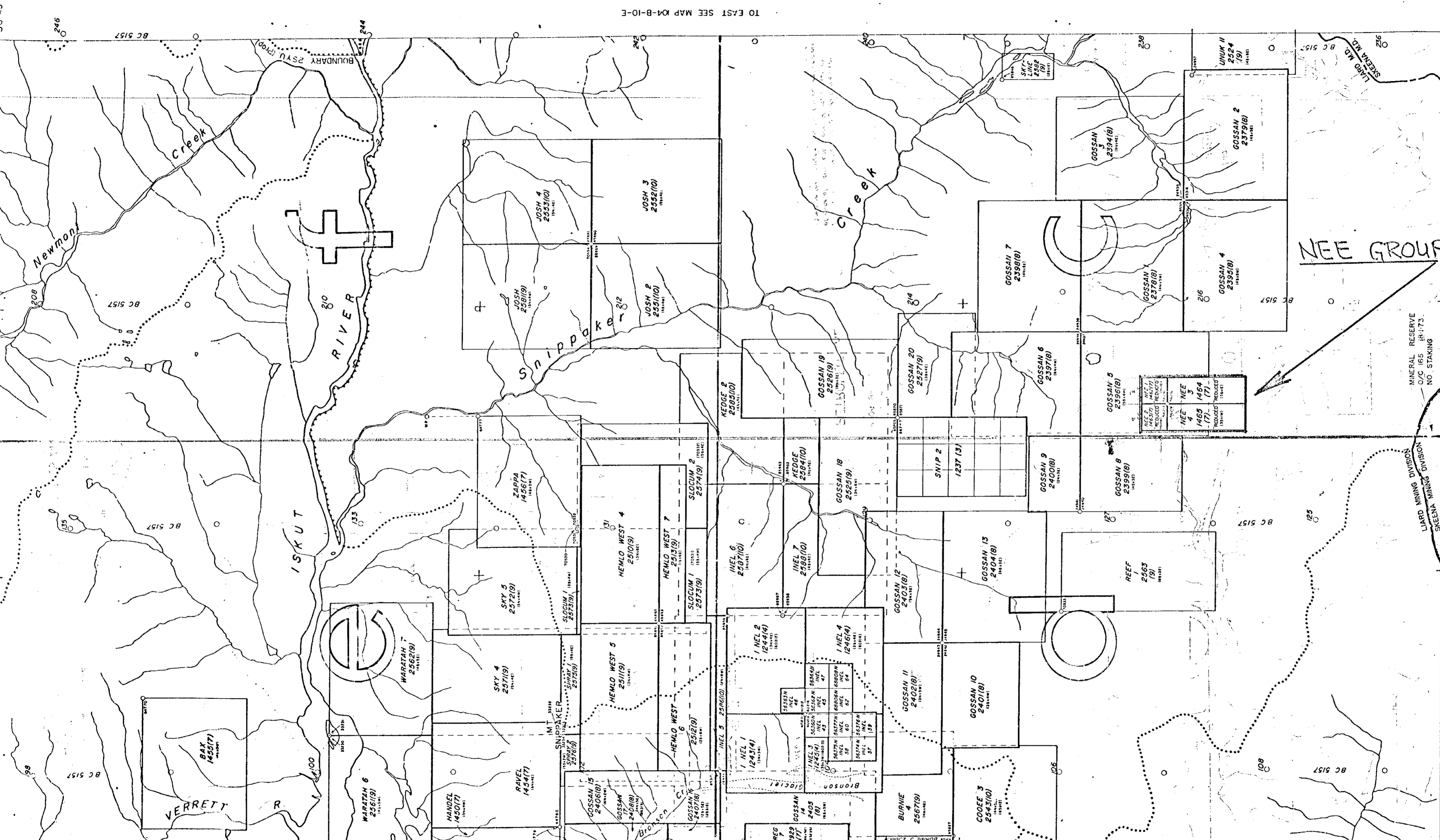


UNLESS VERIFIED OR SURVEYED, THE MAP POSITION OF A LEGAL CORNER POST IS BASED ON THE LOCATOR'S SKETCH. FOR FURTHER INFORMATION, APPLY TO THE OFFICE OF THE MINING DIVISION CONCERNED.

DATE OF MICROFILM: 82-10-28

TO EAST SEE MAP M04-B-10-E

56°30'
130°45'



This map is prepared only as a guide to the location of mineral claims and does not constitute a survey. It is shown on the locator's sketches. For further information, consultation should be made to the Mining Division.

DEPARTMENT OF MINES AND PETROLEUM RESOURCES

TO SOUTH SEE MAP M04-B-7-W

56°30'
131°00'

LIARD & SKEENA MINING DIVISIONS
International Boundary
Provincial Boundary
Mining Division Boundary
City or Municipal Boundary
Surveyed Boundary
Bridge
Tunnel
Power Transmission Line
Stream, seasonal
Stream, perennial

M 104B/10W

TRUE NORTH

TO WEST SEE MAP M04-B-11-E

GEOLOGICAL BRANCH
ASSESSMENT REPORT

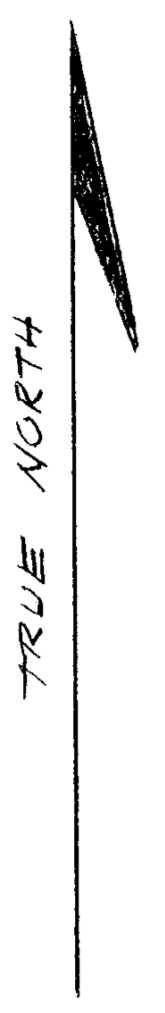
PLATE I
LOCATION MAP OF

10.820

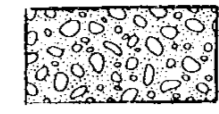


NEE GROUP
Liard Min. Division
Nov. 1982
N.W. BURMEISTER

TRUE NORTH



Legend



MORAINE



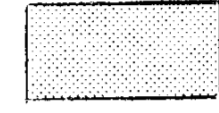
UNDIVIDED FLOWS AND VOLCANOCLASTIC UNIT



FELSIC INTRUSIVE UNIT



PREDOMINANTLY LIMESTONE AND ARGILLITE UNIT



FELSIC DIKES



SHEAR OR FAULT ZONE

CCC

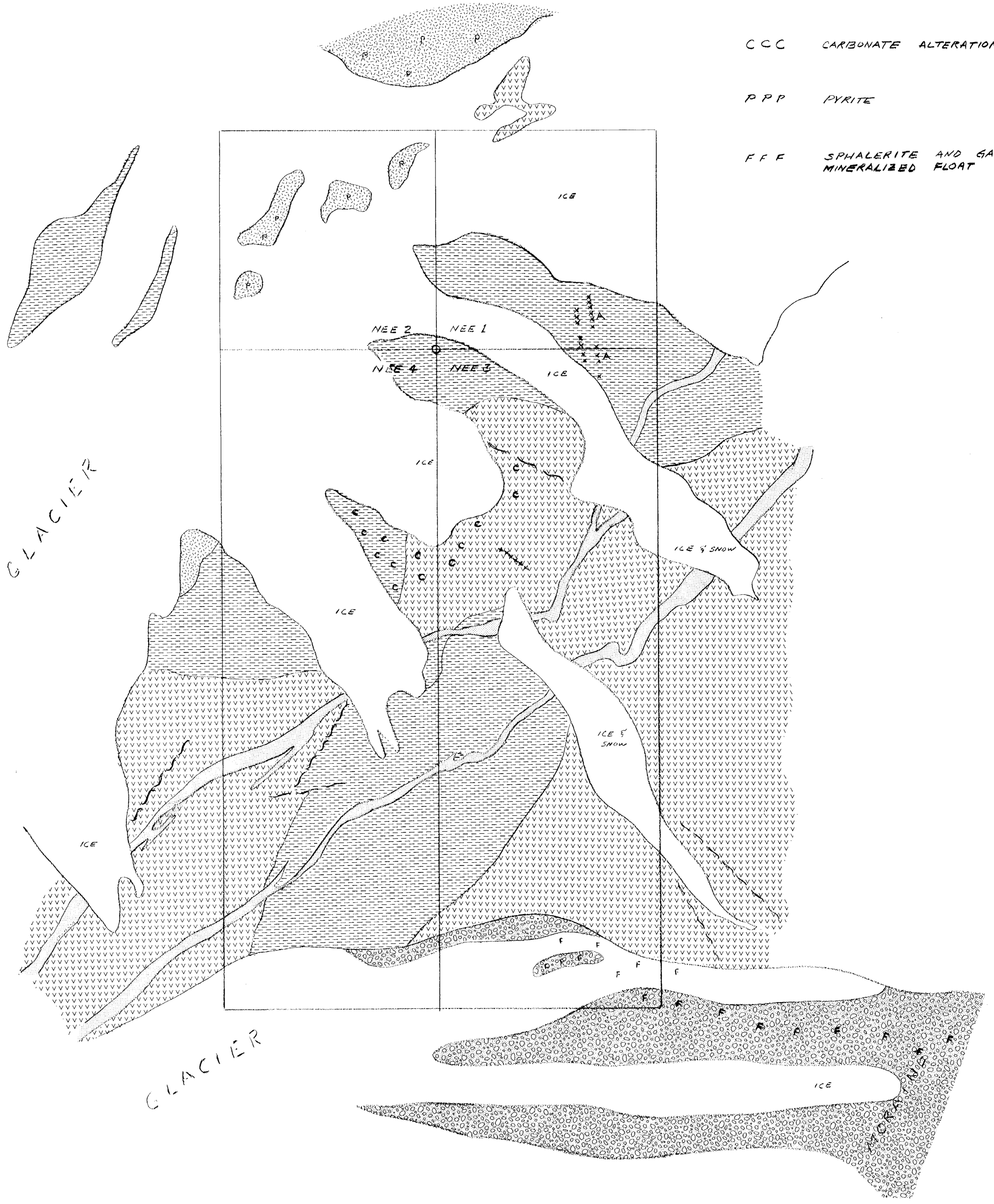
CARBONATE ALTERATION

PPP

PYRITE

FFF

SPHALERITE AND GALENA MINERALIZED FLOAT



GEOLOGICAL BRANCH
ASSESSMENT REPORT

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PLATE II
GEOLOGIC MAP OF NEE GP

Liard Min. Div.

Survey by air photo and topo. map

Scale 1:5000

Nov 1982

N.W. Burmeister P. Eng.



N.W. Burmeister
Geological Branch
N.W. Burmeister
Liard Min. Div.
1982