

MINNOVA INC.

DATE: September 5th, 1989  
TO: Ian Pirie.  
COPIES TO: Alex Davidson.  
FROM: Dave Heberlein.  
SUBJECT: 1989 Drill Proposal - Biere Property.

823595

### Introduction:

The Biere property was optioned by Minnova Inc. from National Resource Explorations Ltd. in the Spring of 1989. The claims cover the contact between the Tshinakin Limestone and a structurally underlying sequence of mafic fragmentals and argillites that are interpreted to be equivalent to the rocks that host the Samatosum deposit, 10km to the south. In the immediate vicinity, there are two known mineral showings; the White Rock (Minfile #082M 066) and the Silver Minnow (Minfile# 082M 069). Both are Pb-Zn(-Ag) vein occurrences.

### Previous Results:

Prior to 1984 the area had seen little exploration activity. Noranda Exploration conducted an airborne DIGEM II survey over the claim area in 1984. This was followed up the same year by four reconnaissance grids over targets generated by the DIGEM survey. HLEM, mag, geological mapping and soil sampling were completed on each grid. No encouraging results were produced from this work and the claims were allowed to expire. In 1987, the ground was restaked by National Resource Explorations Ltd. On their behalf, Discovery Consultants Ltd conducted a program of fill-in soil geochem and geophysics on the Noranda grids and added an additional grid (Grid 6).

No mineral occurrences were produced by this work, however numerous HLEM conductors were defined. One of these was drilled by Discovery Consultants (DDH B87-1; Fig. 2) and explained as a graphitic argillite horizon.

### 1989 Results and Drill Targets:

Minnova's 1989 exploration program on the property consisted of detailed geological mapping and litho sampling on the gridded areas. The objective of the program was to evaluate the mineral potential of the property as a whole, to produce specific drill targets for a Fall drilling program and to determine if there is any similarity with the Samatosum area.

On the grid 6, the geological mapping program showed that all but one of the conductors identified by Discovery Consultants, lie within a moderately sericitized and ankeritized dacitic tuff unit (Unit 3; Fig. 3). The remaining conductor lies in an argillite unit. Disseminated galena, and chalcopyrite were found in an outcrop at 88+00mE, 119+96mN within the dacitic sequence. This material assayed 118 g/t Ag, 0.84% Cu, 1.19% Pb and 0.01% Zn.

Two drillholes are proposed to test the conductors in the altered dacitic tuffs. Collar A, located at 120+00mN, 89+00mE is designed to test three closely spaced conductors in the vicinity of the mineralized outcrop. A second hole, Collar B, will be drilled at 89+35mE, 116+00mN to test the most southerly and longest of the three conductors, 400m to the east.

Grid 1-C located at the north end of the property lies in an area of variable exposure. Two strong, southeast trending HLEM conductors closely follow the contacts of a 175m wide banded chert unit that occurs in a mafic tuff, limestone and argillite sequence. Soils over the chert unit are weakly anomalous for Pb-Zn-As-Ag(- Au).

Two drill holes are proposed to test these conductors. Collar C, at 137+00mN, 109+50mE, will test the most westerly of the parallel conductors. The second hole at Collar D (110+75mN, 133+00mE) will test the eastern conductor.

One drillhole is proposed for grid 1-B to test three, closely spaced, parallel conductors that lie at the southwest contact of a banded chert-argillite unit hosted by mafic and intermediate tuffs. Outcrop is limited in this vicinity and soil geochemistry is ineffective in seeing through the Quaternary till and sand deposits.

**SUMMARY OF PROPOSED DRILLHOLES**

GRID	COLLAR	NORTHING	EASTING	AZIMUTH	DIP	LENGTH
6	A	120+00mN	89+00mE	235°	-45	125m
6	B	116+00mN	89+35mE	235°	-45	100m
1-C	C	137+00mN	109+50mE	245°	-50	100m
1-C	D	133+00mE	110+75mN	245°	-50	75m
1-B	E	100+50mN	104+75mE	235°	-45	100m
TOTAL						500M

PROJECT COSTS

Direct Drilling Costs: 500m @ \$61.00/m	\$ 30,500.00
Geologist: 15 days @ \$300.00/day	\$ 4,500.00
Assistant: 7 days @ \$150.00/day	\$ 1,050.00
Assays: 30 @ \$40.00	\$ 1,200.00
Litho's: 50 @ \$23.00	\$ 1,150.00
Drill Road and Site Prep:	\$ 3,000.00
Water Truck and Tank Rental:	\$ 2,500.00
Room and Board: 22 mandays @ \$25/day	\$ 375.00
Truck Rental: 15 days @ \$50/day	\$ 750.00
Freight:	\$ 300.00
Data Entry:	\$ 250.00
Miscellaneous:	\$ 500.00
<b>TOTAL</b>	<b>\$ 46,075.00</b>

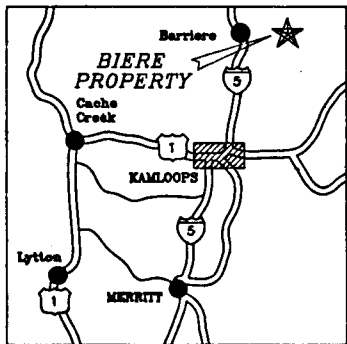
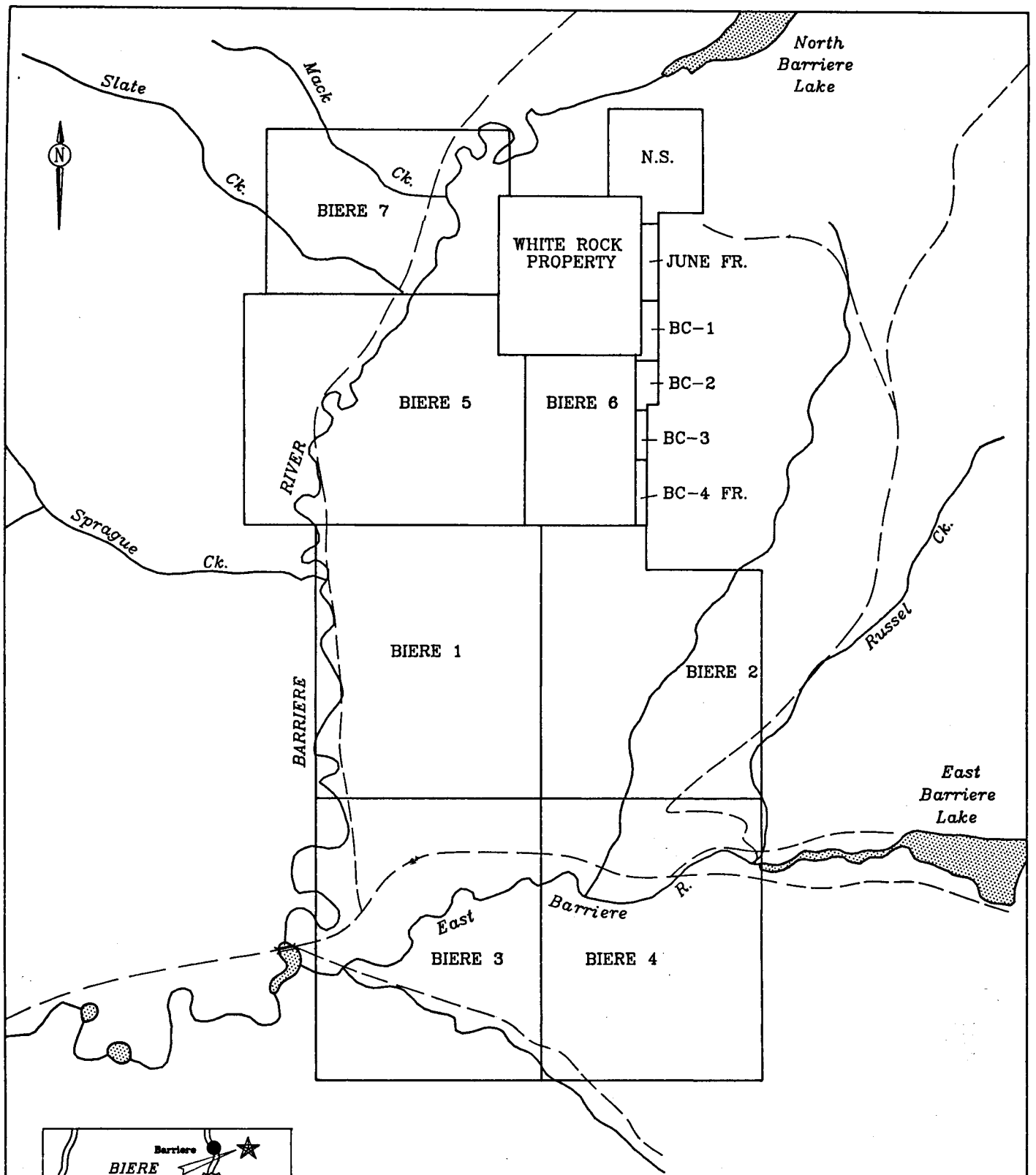
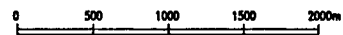


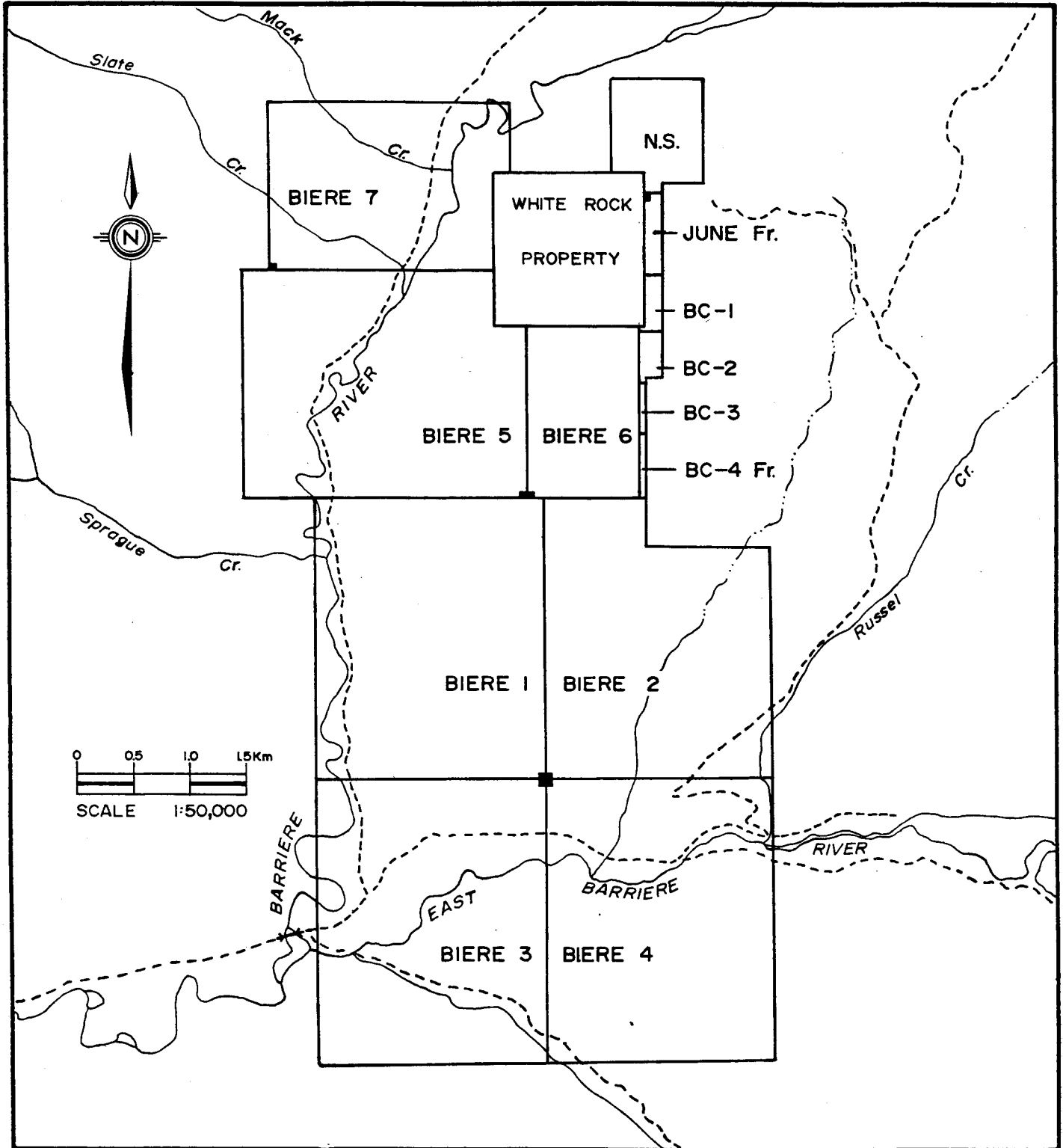
FIGURE 1



ADAMS/BARRIERE  
BIERE PROPERTY  
LOCATION MAP

DH/sg

SEPTEMBER 1989



**DISCOVERY**

Consultants

*National* Resource Explorations Ltd.

BIERE PROPERTY

CLAIM MAP

DATE: MAR./1989

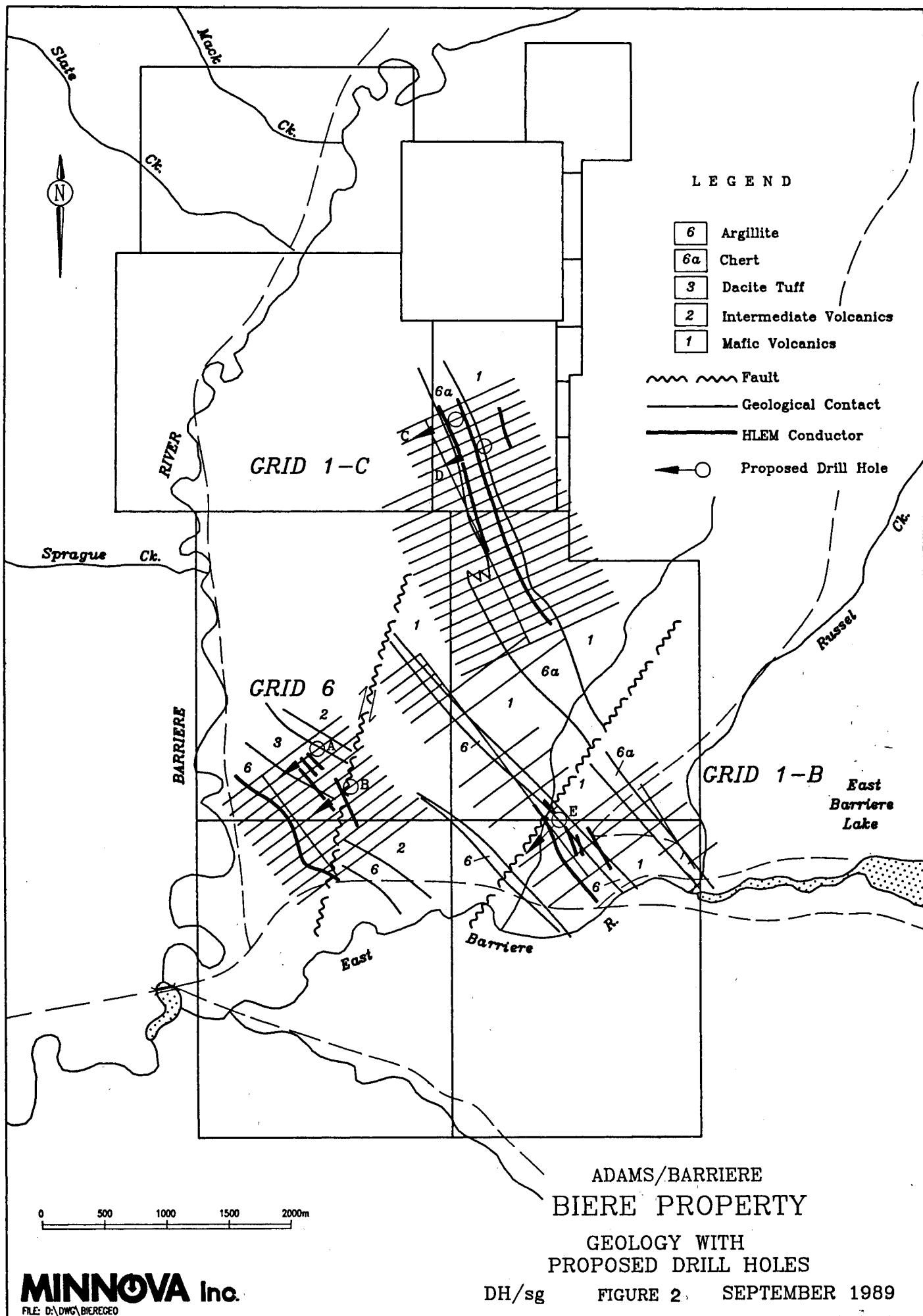
PROJECT: 262

SCALE: 1:50,000

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M.D. Kamloops

FIGURE: 2



LEGEND

- 6 Argillite
- 6a Chert
- 3 Dacite Tuff
- 2 Intermediate Volcanics
- 1 Mafic Volcanics

- ~~~~~ Fault
- Geological Contact
- HLEM Conductor
- Proposed Drill Hole

ADAMS/BARRIERE  
BIERE PROPERTY  
GEOLOGY WITH  
PROPOSED DRILL HOLES

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