

84-#744 - 12789

9/85

*Drilling*  
REPORT

ON

SNO MINERAL CLAIM

#4644(8) Kamloops MD

9 UNITS

83 D 3

52\*07' N.LATITUDE

119\*18'W.LONGITUDE

OWNER: J.MORTON

OPERATOR: J.MORTON & ASSOCIATES

CONSULTANT: G.R.GUILLET P.ENG.

SEPT 13, 1984

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**12,789**

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## INTRODUCTION

The Sno mineral claim, 9 units #4644(8) Kamloops M.D. is situated one kilometre North of the Town of Blue River on the West side of Highway 5, adjacent to the T.N.R.D. refuse dump.

The claim lies within the Shuswap Metamorphic Complex and is underlain by biotitic, quartzo-feldspathic gneiss, amphibolite, pegmatite and marble. It is within the Sillimanite zone of regional metamorphism.

Interest in the deposit was occasioned by the discovery of Carbonatite-like Pegmatite with interspersed Marble in road cuts near the summit of the logged knoll in the centre of the claim. It was believed that these Pegmatites could be a source of Feldspar for the glass and ceramic industry as well as a potential indicator of Carbonatite hosted Rare Earths, Tantalites or Niobium.

Subsequent investigations revealed beds of high purity Marble, and this potential was protected by application for a quarry lease under the relevant Act.

A drilling program this year was undertaken to analyse the potential of the deposit as both a mineral claim (Feldspar, Niobium) and/or an industrial mineral claim (Marble, Calcite).

## DRILLING REPORT

## BLUE RIVER CALCITE

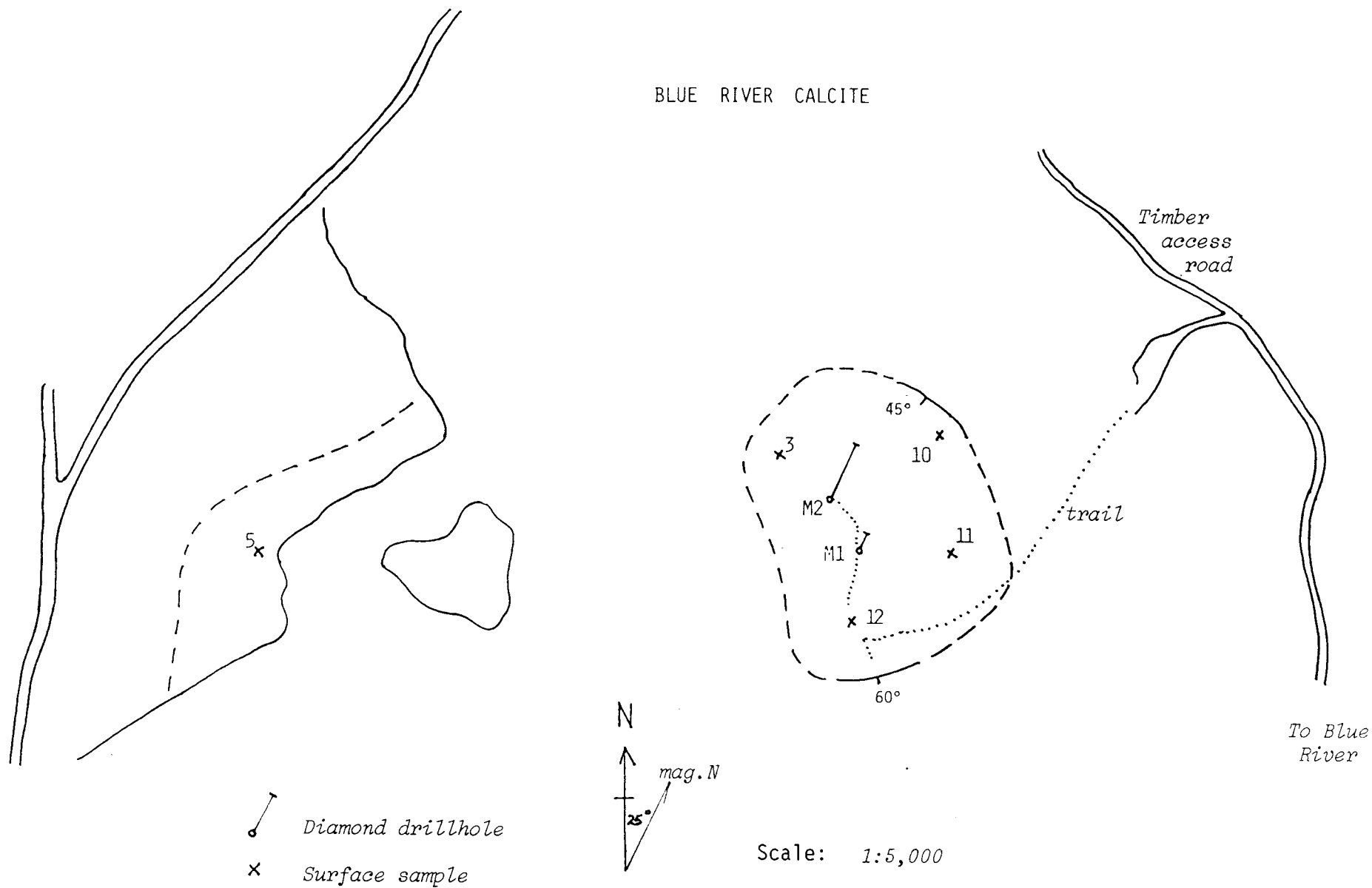
THIS IS A NEW DEPOSIT OF WHITE MARBLE NOT PREVIOUSLY REPORTED OR EXPLORED. IT OCCURS ON THE NORTHERN FRINGE OF THE TOWN OF BLUE RIVER, B.C. ONE KILOMETRE WEST OF THE YELLOWHEAD SOUTH HIGHWAY ( HIGHWAY 5 ) THE CANADIAN NATIONAL RAILWAY, AND THE BLUE RIVER AIRSTRIP. BLUE RIVER IS APPROXIMATELY MIDWAY BETWEEN EDMONTON AND VANCOUVER.

THE DEPOSIT IS SECURED BY A CLAIM GROUP COMPRISING 9 UNITS COVERING AN AREA OF ABOUT 225 HECTARES. AN APPLICATION FOR A QUARRY LEASE COVERING THE SAME GROUND HAS BEEN MADE. THERE ARE THREE MAJOR OUTCROP AREAS OF WHITE MARBLE, ONE OF WHICH WAS TESTED BY DIAMOND DRILLING AND SURFACE SAMPLING. SEVERAL SURFACE SAMPLES WERE ALSO TESTED FROM A SECOND AREA.

THE DRILLED AREA FORMS THE CAP OF A HILL 260 M. ABOVE THE NORTH THOMPSON RIVER VALLEY IN WHICH THE HIGHWAY, RAILWAY AND THE TOWN OF BLUE RIVER ARE LOCATED. ACCESS IS EASY VIA TIMBER ROADS AND PORTIONS OF THE DEPOSIT HAVE BEEN RECENTLY EXPOSED BY CLEAR- CUTTING.

THE DRILLED AREA HAS A MINIMUM SURFACE EXPOSURE OF 243 M. BY 140 M. DRILLHOLE M2 INTERSECTED MORE THAN 33 M. OF HIGH PURITY CALCITIC MARBLE, INDICATING A RESERVE POTENTIAL OF AT LEAST 2 MILLION TONNES.

BLUE RIVER CALCITE



DRILL SITE PLAN - MAP 1

## DIAMOND DRILLHOLE LOG

DIAMOND DRILLHOLE LOG				COMPANY Guillet-Kriens-Morton		PROPERTY NAME Blue River Calcite			HOLE NO. 84-M2	PAGE 1			
DRILLING COMPANY Phil's Diamond Drilling Ltd.		COLLAR ELEV.	BEARING OF HOLE 030°T	TOTAL DEPTH 56 M.		LOCATION OF HOLE 33 M north of M1; West central part of deposit; 933 m northwest of LCP.			PROJECT NO.				
DATE STARTED		DATE COMPLETED May 1984	DATE LOGGED June 18/84	DIP OF HOLE AT COLLAR 45°		JAT			LOGGED BY G.R. Guillet				
DEPTH From To		VISUAL QUALITY	DESCRIPTION			Sample Number	Sample From	Interval To	Sample Length	Raw analyses			
										SiO <sub>2</sub> %	MgO %	Al <sub>2</sub> O <sub>3</sub> %	Fe <sub>2</sub> O <sub>3</sub> %
M.	M.		Gneiss: Mixed and broken medium grained biotite gneiss and white calcitic marble. Foliation 80° to core axis. of lost core.				M.	M.	M.				
0.0	3-												
3	4.8	Good	Marble: Uniform, white with patches of diffuse pale grey cloudiness, coarse grained, calcitic. Trace of white mica at . Massive bedded.			M2-1	3	4.8	1.8	2.97	9.68	0.14	0.18
4.8	5.2		Gneiss: Pale grey, fine grained, biotite-pyrite-quartz gneiss. Foliation is 30° to core axis.										
5.2	6.6	Fair	Marble: Uniform, pale blue-grey, coarse grained, dolomitic.			M2-2	5.2	6.6	1.4	13.8	17.2	0.42	0.43
6.6	11.4	Excellent	Marble: Mostly white, coarse grained, calcitic; with rarely a trace of white mica and very slight yellow staining on some fracture surfaces. Occasional faintly grey patches. All without obvious accessory minerals. Last half of core badly broken by drilling problems, and more or less stained and spattered by grease and oil.			M2-3	6.6	11.4	4.8	1.26	1.68	0.04	0.05
11.4	16.7	Good	Marble: Uniform as above, but slightly greyish with rare specks of pyrite. Core badly broken and stained by the drillers.			M2-4	11.4	16.7	5.3	1.63	1.73	0.03	0.12
16.7	22.9	Excellent	Marble: Uniform, white, coarse grained, massive bedded, calcitic marble with only the slightest trace of fine white mica and pyrite. Core is less broken and stained.			M2-5	16.7	22.9	6.2	1.71	1.52	0.13	0.11

# DIAMOND DRILLHOLE LOG

DIAMOND DRILLHOLE LOG				COMPANY			PROPERTY NAME			HOLE NO.	PAGE	
DRILLING COMPANY				COLLAR ELEV.	BEARING OF HOLE	TOTAL DEPTH	LOCATION OF HOLE			84-M2	2	
DATE STARTED		DATE COMPLETED		DATE LOGGED	DIP OF HOLE AT COLLAR	AT				PROJECT NO.		
										LOGGED BY		
DEPTH		VISUAL QUALITY	DESCRIPTION	Sample Number	Sample Interval		Sample Length	Raw analyses				
From	To				From	To		colour	SiO <sub>2</sub>	MgO	Al <sub>2</sub> O <sub>3</sub>	Fe <sub>2</sub> O <sub>3</sub>
M-22.9	M-28	Good	Marble: Uniform, grey-blue, coarse grained, calcitic, massive bedded, with only rarely disseminated white mica.	M2-6	M-22.9	M-28	M-5.1		3.54	2.76	0.55	0.06
28	37.2	Excellent	Marble: Uniform, white with occasional patches of pale grey, coarse grained calcitic marble with rarely disseminated flakes of white mica and pyrite. Massive bedded. Core is less broken and less oil stained.	M2-7 M2-8	28 32.7	32.7 37.2	4.7 4.5		3.52 1.21	2.14 1.46	0.48 0.02	0.09 0.09
37.2	40.3	Poor	Marble: Grey-white, medium grained, uniform, dolomitic with relatively common disseminated pyrite and mica, and a little talc on fractures.	M2-9	37.2	40.3	3.1		1.83	19.8	0.05	0.36
40.3	45.5	Good	Marble: Coarse grained white and pale blue-grey calcitic marble with traces of white mica and pyrite.	M2-10	40.3	45.5	5.8		2.69	1.29	0.29	0.07
45.5	46.1	Poor	Marble: White, medium grained siliceous marble with disseminated mica and pyrite.									
46.1	47.3	Good	Marble: Massive bedded, coarse grained, grey-white, calcitic.	M2-11	46.1	47.3	1.2		4.84	1.39	0.43	0.11
47.3	50	Poor	Marble: Rather impure, coarse grained, cream-white-grey, siliceous (?) marble.									
50	56		Gneiss: Green and grey banded, quartz-biotite-garnet gneiss, with foliation varying from 60° to 90° to core axis.									
56			End of hole.									

*Robert Guillet*

# DIAMOND DRILLHOLE LOG

DIAMOND DRILLHOLE LOG				COMPANY Guillet-Kriens-Morton		PROPERTY NAME Blue River Calcite			HOLE NO. 84-M1	PAGE 1
DRILLING COMPANY Phil's Diamond Drilling Ltd.		COLLAR ELEV.	BEARING OF HOLE 030°T	TOTAL DEPTH 11.1M		LOCATION OF HOLE On bush trail in south central part of deposit, 900 m northwest of LCP.			PROJECT NO.	
DATE STARTED		DATE COMPLETED May 1984	DATE LOGGED June 18/84	DIP OF HOLE AT COLLAR 45°	LAT		LOGGED BY G.R. Guillet			
DEPTH From To		VISUAL QUALITY	DESCRIPTION	Sample Number	Sample From	Interval To	Sample Length			
0	4.2M		Mixed: Two feet of excellent coarse grained white calcitic marble followed by 1 foot of broken white pegmatite. Remainder lost.		M.	M-	M.			
4.2	9	Fair	Marble: Grey-white, medium grained, calcitic marble with disseminated white mica and pyrite. Faint foliation is about 60° to core axis.	M1-1	4.2	9	4.8			
9	11		Pegmatite: Coarse white, rather rusty stained quartz-feldspar pegmatite. Badly broken core.							
11M			End of hole. Hole terminated because of drilling difficulties.							

*G.R. Guillet*



SAMPLE	Core length Metres	SI02	AL203	CAO	MGO	NA2O	K2O	FE2O3	MNO	TI02	P2O5	LOI	SUM
M-2-1	1.5	2.97	0.14	43.7	9.68	<0.01	<0.01	0.18	0.02	<0.01	0.02	42.9	99.7
M-2-2	.3	13.8	0.42	31.3	17.2	<0.01	0.12	0.43	0.02	<0.01	0.02	36.8	100.1
M-2-3	4.8	1.26	0.04	54.3	1.68	<0.01	<0.01	0.05	<0.01	<0.01	0.04	41.8	99.5
M-2-4	5.2	1.63	0.03	53.8	1.73	<0.01	<0.01	0.12	<0.01	<0.01	0.03	42.2	99.8
M-2-5	6.2	1.71	0.13	54.6	1.52	<0.01	<0.01	0.11	<0.01	<0.01	0.04	41.8	100.1
M-2-6	5.2	3.54	0.55	51.8	2.76	<0.01	0.02	0.06	<0.01	<0.01	0.04	40.7	99.7
M-2-7	4.5	3.52	0.48	52.3	2.14	0.03	0.09	0.09	<0.01	<0.01	0.04	41.2	100.1
M-2-8	4.5	1.21	0.02	53.9	1.46	<0.01	<0.01	0.09	<0.01	<0.01	0.04	42.2	99.2
M-2-9	3.1	1.83	0.05	33.0	19.8	<0.01	<0.01	0.36	0.04	<0.01	0.02	45.2	100.4
M-2-10	5.2	2.69	0.29	54.2	1.29	<0.01	0.04	0.07	<0.01	<0.01	0.04	41.6	100.5
M-2-11	1.2	4.84	0.43	52.2	1.39	<0.01	0.03	0.11	<0.01	<0.01	0.03	40.8	100.1

28-2

16-3

24-2

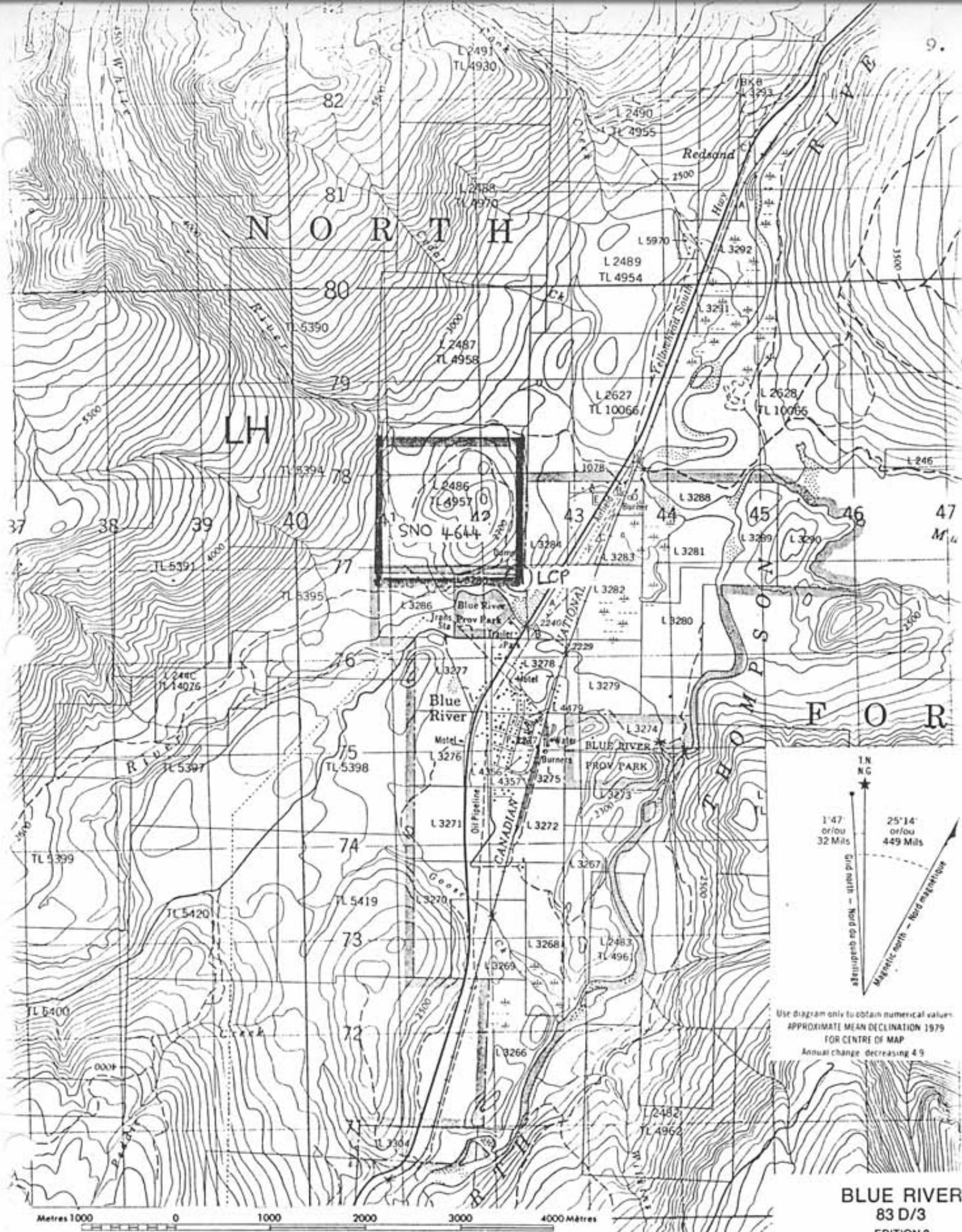
SAMPLE	CR	RB	SR	Y	ZR	NB
M-2-1	<10	10	330	<10	<10	30
M-2-2	<10	20	380	<10	<10	40
M-2-3	<10	<10	2320	<10	<10	30
M-2-4	<10	<10	2620	<10	10	30
M-2-5	<10	<10	2210	<10	<10	30
M-2-6	<10	10	2300	<10	10	30
M-2-7	<10	10	1980	<10	<10	30
M-2-8	<10	10	1940	<10	10	30
M-2-9	<10	10	370	<10	<10	40
M-2-10	<10	10	2080	<10	10	40
M-2-11	<10	<10	2080	<10	<10	30

# BLUE RIVER CALCITE

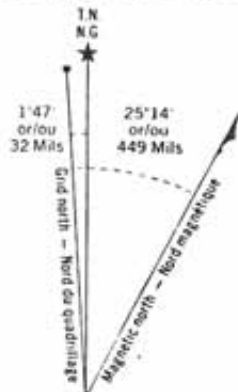
## WEIGHTED AVERAGE DRILLCORE ANALYSES

	TOP 16 M. ( 6.5 M. - 22 M. )	LOWER 24 M. ( 22 M. - 47 M. )
	%	%
SiO <sub>2</sub>	1.55	2.89
Al <sub>2</sub> O <sub>3</sub>	0.07	0.35
CaO	54.3	53.0
MgO	1.63	1.89
Na <sub>2</sub> O	0.01	0.01
K <sub>2</sub> O	0.01	0.04
Fe <sub>2</sub> O <sub>3</sub>	0.10	0.08
MnO	0.01	0.01
TiO <sub>2</sub>	0.01	0.01
P <sub>2</sub> O <sub>5</sub>	0.04	0.04
L.O.I.	41.9	41.4
	<u>99.6</u>	<u>99.7</u>

\* Minus 3M. dolomite; 37.2 M. - 40 M  
and .5 M. siliceous marble; 45.5 M. - 46.1 M.



SNO 4644



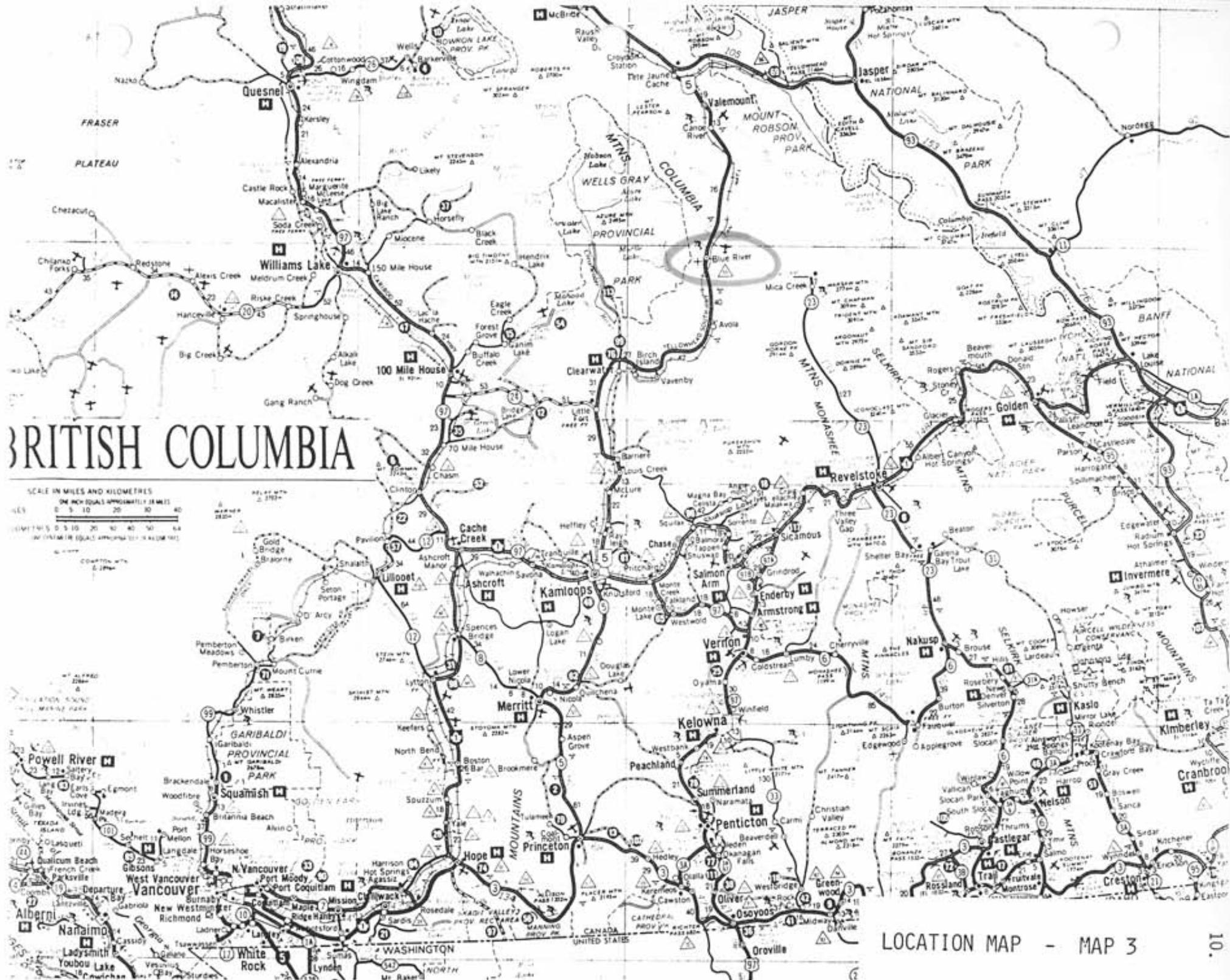
Use diagram only to obtain numerical values  
 APPROXIMATE MEAN DECLINATION 1979  
 FOR CENTRE OF MAP  
 Annual change decreasing 4.9

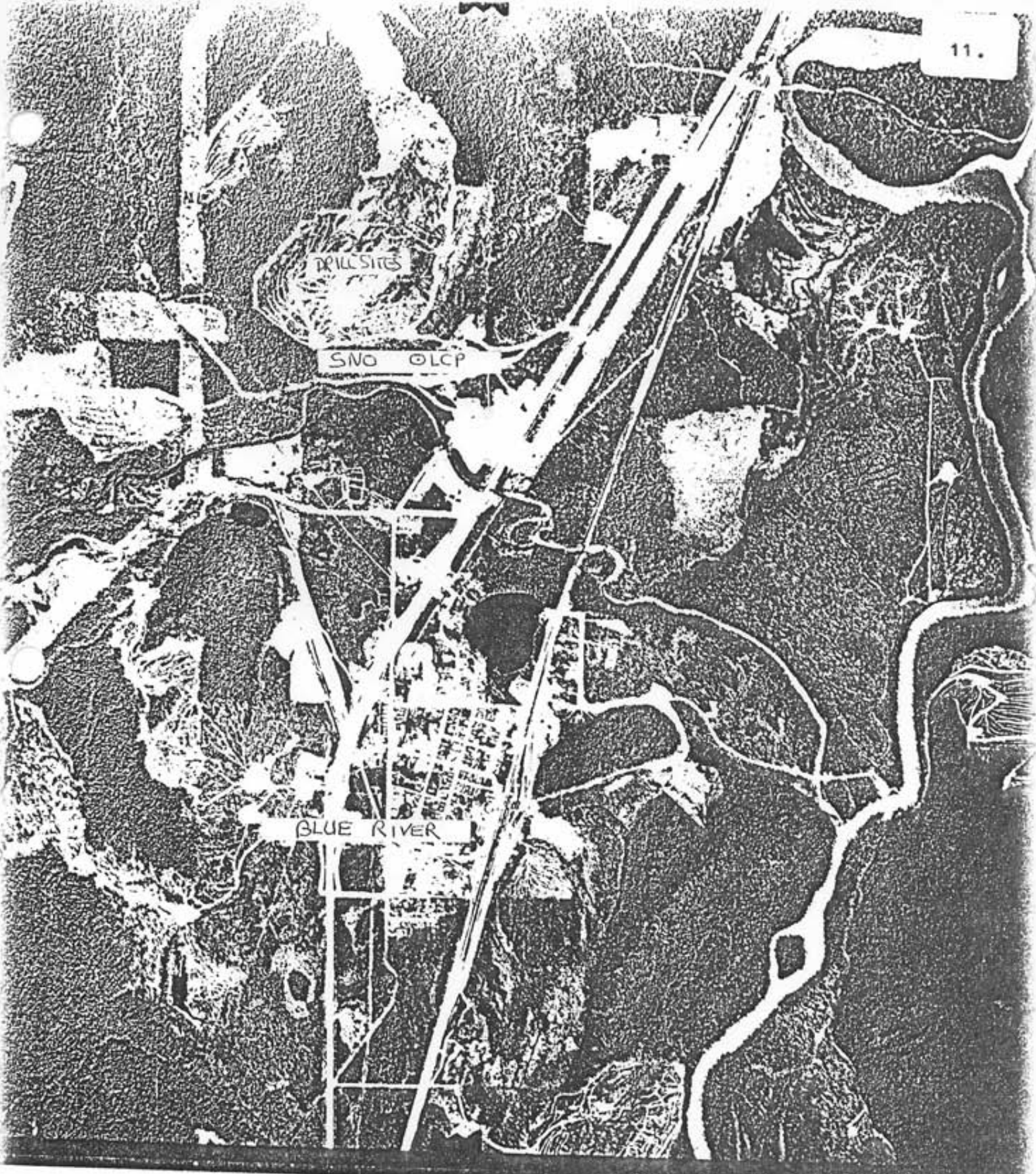
Metres 1000 0 1000 2000 3000 4000 Metres

1:50,000

BLUE RIVER  
 83 D/3  
 EDITION 2

CLAIM LOCATION MAP - MAP 2





Scale : 1:20,000

AIR PHOTO - MAP 4

## ITEMIZED COST STATEMENT

1. PHILS DIAMOND DRILLING		
Hole #1 10 M. @ \$56.00 M.		560.00
Hole #2 52.18 M. @ \$56.00 M.		2922.50
5 Cat Hours @ \$45.00		225.00
2. MEALS & LODGEING		
1 Man x \$75.00 Day x 5 Days		375.00
3. TRANSPORTAT ION		
4 x 4 @ 20¢ Km x 1900 Km		380.00
Gas & Oil		105.00
	TOTAL	\$4567.50

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**G. ROBERT GUILLET**

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**Specialist, Industrial Minerals**

### Profile

Mr. Guillet has specialized in the Industrial Minerals field for more than 25 years. He has conducted exploration and drilling programs, product evaluation and marketing studies, on a wide variety of mineral commodities used by the construction, ceramic, and chemical industries. His positions with the Ontario Division of Mines and the Ontario Securities Commission have given him an appreciation of the special problems related to resource development and financing. He is the author of several dozen technical reports and papers, and has lectured on industrial minerals at McMaster University. He has been designated a specialist in industrial minerals by the Ontario Association of Professional Engineers.

### Experience

1950-1954	B.A., University of Toronto-Geological Sciences
1954-1961	Geologist-American Nepheline Limited (Indusmin Ltd.)
1962	M.A., University of Toronto-Geology
1961-1967	Ontario Department of Mines-Industrial Mineral Geologist
1967-1972	Ontario Department of Mines-Resident Geologist- Southern Ontario
1969-1972	Ontario Department of Mines-Chief Resident Geologist
1970-1972	Ontario Department of Mines-Executive Assistant to Deputy Minister
1971-1976	Commissioner, Ontario Securities Commission
1972-1973	Ministry of Natural Resources-Director, Mineral Resources Branch
1973-1980	Vice-President, Gartner Lee Associates Limited
1980	Specialist in Private Practice

### Affiliations

• Association of Professional Engineers of Ontario • Canadian  
Institute of Mining and Metallurgy •

