FINAL TECHNICAL REPORT

ON

BLUE RIVER MARBLE DEPOSIT

Prepared for
Financial Assistance for Mineral Exploration Program
Province of British Columbia
Mineral Exploration Ref. No. 10962E-37

By:

Blue River Mines Ltd.
and
Ekaton Industries Inc.
Calgary, Alberta, Canada

January 1987

INTRODUCTION

The following is a compilation of seven reports dealing with work completed on the Blue River Marble Project (under Mineral Exploration Grant # 10962E-37).

The location, size of property, and access are described in the Introduction of the "Reconnaissance Sampling" report.

The compilation consists of:

A. Letter from Miles Industrial Mineral Research evaluating the chemistry, mineralogy and intrinsic physical properties of a sample of Blue River Marble; January 1986.

B. A report on the Reconnaissance Sampling of the Blue River Deposit, by Pilsum P. Master, P. Geol. of Ekaton Industries Inc.; July 1986.

C. Summary Report on Preliminary Sieve Analysis, Blue River Marble Deposit, by Pilsum P. Master, P. Geol. of Ekaton Industries Inc., September 1986.

D. A report on the line cutting, grid location and survey by Douglas Long of Blue River Mines Ltd.

E. A report on the Geology & Geochemistry of Blue River Marble Deposit by Pilsum P. Master, P. Geol. of Ekaton Industries Inc., September 1986.

F. A report on Blasting, Bulk Sampling at the Blue River Marble Deposit; October 1986.

G. A report on Market Surveys conducted by Blue River Mines Ltd.

STATEMENT OF AUTHORS' FIELD SUPERVISORS' QUALIFICATIONS

I, Pilsum P. Master, am employed as the Chief Geologist for Ekaton Industries Inc. of 1760 - 540 5th Avenue S.W. in Calgary, Alberta.

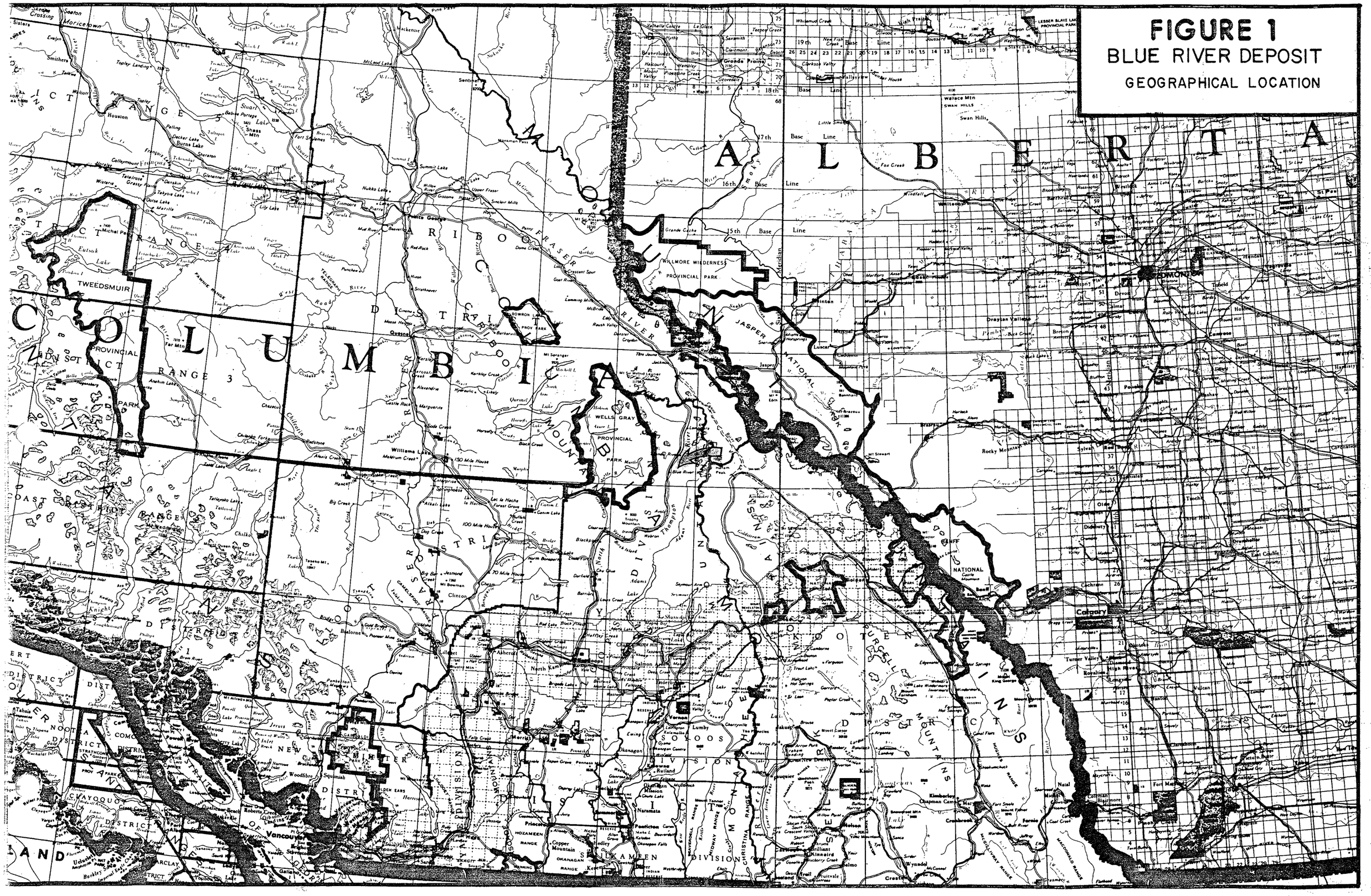
I have practised my profession as a geologist since 1967. I have a B.Sc. degree in Geology/Chemistry, a M.Sc. degree in Geology and a M.S. degree in Geology/Mineralogy.

I am a registered Professional Geologist in the Province of Alberta, a Fellow of the Geological Association of Canada, and a member of the Society of Mining Engineers of the U.S.A.

Jan 21 87
Date

Pilsum P. Master, P.Geol.

FIGURE 1
BLUE RIVER DEPOSIT
GEOGRAPHICAL LOCATION



A

MILES INDUSTRIAL MINERAL RESEARCH
12940 West 16th Drive
Golden, Colorado 80401

(303) 233-4794
TWX 910 320 0766

January 28, 1986

Mr. Pilsum P. Master
Manager, Exploration & Development
Ekaton Energy Ltd.
1760, 540-5th Avenue SW
Calgary, Alberta T2P OM2
Canada

Dear Mr. Pilsum:

The sample of Blue River Marble that you sent has been evaluated for chemistry, mineralogy and intrinsic physical properties. As an indication of some of the properties of commercial products, a portion was ground to less than 325 mesh and evaluated. Other properties that you requested were not evaluated since they are extremely dependent on the grind of the product and commercial grinding and particle sizing cannot be carried out adequately in the laboratory.

In summary, the Blue River marble appears to have chemical purity and physical properties that are typical of a complete range of commercial products. The sample analyzed was a surface outcrop sample with detrital material and staining covering the ore. The ore was washed to remove as much of this material as possible; however some surface coating and staining remained. Both chemical and brightness analysis of the marble are expected to give improved results for material taken within the ore body that is not subjected to surface exposure and weathering. Even with the weathered marble, chemical purity and physical properties appear adequate for a wide range of commercial calcite products.

INTRINSIC PHYSICAL & CHEMICAL PROPERTIES:

X-ray diffraction Mineralogy

The mineralogy of the Blue River Marble was determined by X-ray diffraction analysis of powdered samples. Results indicate that the marble is composed of a high purity calcite, containing a trace of quartz (less than 1% based on chemical analysis). No traces of dolomite, magnesite, or other impurities were detected. The X-ray diffraction pattern is attached for your reference.

PETROGRAPHIC MICROSCOPY:

The pulverized calcite was seived to produce a 100 to 200 mesh sample for optimum particle size for microscopic examination.

The pulverized calcite displayed typical extreme birefringence, symmetrical extinction, and rhombohedral cleavage. The particles are uniaxial negative in classification. Due to the cleavage tendency, the lowest index of refraction ray was not measurable; but an intermediate ϵ' value could be measured at 1.570. The higher index of refraction value of 1.660 was measurable. Both the ϵ' and ω indices of refraction are in agreement with text book values for calcite.

No quartz or other mineral phase was detectable; however at concentrations of less than 1% other mineral phases would be difficult to detect.

SPECIFIC GRAVITY, WEIGHT PER GALLON, BULKING VALUE:

The specific gravity of the calcite was determined by the Le Chatelier method for the calcite crushed to 200 to 325 mesh in particle sizing. The calcite was added to a flask containing kerosene in which its solubility is not significant. Based on the volume displaced by 50.00 grams of sample, a specific gravity of 2.706 was calculated; in good agreement with literature values for commercial calite deposits of 2.70 to 2.72.

The weight per gallon of solid has been calculated from the specific gravity for both USA and Imperial gallons. The bulking value, which is the inverse of the weight per gallon has also been calculated from the specific gravity.

pH OF THE CALCITE:

Since a procedure had not been specified, a typical pH evaluation was carried out at 5% solids. The slurry was allowed to equilibrate in deionized water for 2 hours prior to pH measurement. Since there are very few ions dissolved in the aqueous phase, the pH appears to drift slowly in the vicinity of 8.7.

PROPERTIES OF LESS THAN 325 MESH CALCITE:

Many of the evaluations requested for the Blue River calcite are dependant on the particle sizing and distribution of the pulverized calcite. Since most industrial applications require that calcite be ground to less than 325 mesh, a portion

was pulverized and seived to less than 325 mesh (45 microns). The properties of loose bulk density, oil absorption by two ASTM methods, and the GE brightness was measured for the less than 45 micron powder as an estimate of properties. These properties will change with decreasing particle sizing: the GE brightness and oil absorption values will increase while the loose bulk density will decrease.

The particle size distribution, mean particle size (D50 point), and Hegman grind values are directly related to the grind of the material. These were not carried out for the laboratory ground sample since the results would not represent a commercial product.

The GE brightness is lower than expected, based on the results of the chemical analysis of the material. Because of this, a commercial calcite product of 98.7 brightness has been submitted to CSMRI for determination of their machine calibration. When the results are available, they will be reported as soon as possible.

CHEMICAL ANALYSIS:

The sample was crushed and split into a representative sample for chemical analysis. This sample was further ground to less than 325 mesh prior to chemical analysis.

In addition to the analyses requested, carbon dioxide analysis was also carried out by the Chittick method. The results indicate that carbon dioxide accounts for all of the weight loss on ignition at 1000°C. Therefore results have been reported as carbon dioxide instead of loss on ignition.

Even with the surface staining of the ore, the chemical results indicate that the calcite is over 98% in purity; with less than 1.8% magnesite and less than 1.2% silica. These are typical commerical purity values for higher added value products. Therefore with further processing development, a full range of commericial products are anticipated from the Blue River marble deposit.

The iron content of 0.19% is expected to decrease for ore that is not stained by surface exposure, allowing its use in almost all calcite applications.

Dr. William J. Miles

MILES INDUSTRIAL MINERAL RESEARCH
12940 West 16th Drive
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January 27, 1986

EKATON ENERGY LTD.

BLUE RIVER MARBLE

Intrinsic Physical Properties

Mineral Form		Calcite
Refractive Indices		ω = 1.660 ε = 1.570
Hardness	Semi Hard	3
pH at 5% solids, 20°C		8.7
Specific Gravity		2.703
Weight per Gallon		27.1 lb/Imp gal 22.5 lb/US gal
Bulking Value		0.0369 Imp gal/lb 0.0444 US gal/lb

Properties of less than 325 mesh powders:

Loose bulk density	50.1 lb/ft^3
Oil Absorption - ASTM-D-281	18.8 lb/100 lb
- ASTM-D-1483	22.2 lb/100 lb
GE Brightness - Photovolt Reflectance	84.5 (blue) 87.5 (green) 87.5 (amber)

EKATON ENERGY LTD.

BLUE RIVER MARBLE

Chemical Analysis

CaO	55.0%
MgO	0.85%
CO_2	43.3%
SiO_2	0.86%
Al_2O_3	0.19%
MnO	0.01%
Fe_2O_3	0.19%
TiO_2	0.17%
Moisture (weight loss at 105°C)	0.04%
Loss on ignition @ 1000°C	(43.2% due to CO_2)
total	100.6%

The marble sample is a surface sample with obvious staining and contamination. The ore was scrubbed prior to analysis to remove as much detrital material and staining as possible. Although the marble is of high purity, future results for core samples should exhibit greater purity.

COMPOUND COMPOSITION

$CaCO_3$	98.0%
$MgCO_3$	1.8%
SiO_2	0.86%
TiO_2	0.17%
other	0.38%
	101.2%

B

RECONNAISSANCE SAMPLING
OF
THE BLUE RIVER MARBLE DEPOSIT
Blue River, British Columbia

For
Blue River Mines Ltd.,
Calgary, Alberta, Canada

By
Ekaton Industries Inc.,
Calgary, Alberta, Canada

July 1986.

1. INTRODUCTION:

The marble deposit is on a knoll at the northern edge of the town of Blue River, B.C. The hill is on the western flank of the Thompson River Valley overlooking the Yellowhead Highway. Access to the 300m. hill top is by road to the town dump and then up an old logging road. Portions of the hill, the eastern and northern flanks, have been exposed by clear-cutting.

Nine mineral claims (over 223 hectares) cover the deposit. These claims are valid till September 1987 (by work filed for assessment). In addition, the property is covered by a License of Occupation of 225 hectares under the jurisdiction of the B.C. Ministry of Lands, Parks and Housing. Both these cover the same area and allow for exploration and development.

On June 17, 1986 the property was examined by the author of this report, in the company of Mr. D. Long, President of Blue River Mines Ltd. Several grab samples were taken and plotted on the 1 inch to 400 feet geology map of G.R. Guillet (Figure 2-1). In addition a base station was established near the M1 drill hole collar and a base line cut for approximately 60 meters to the north (true) and 30 meters to the south. Portion of the first grid line was also started from the base station. A large sample of approximately 35 Kg. was collected from outcrops at the southern rim of the main marble zone (near drill collar M1).

2. SAMPLE DESCRIPTIONS:

The numbers referred to in this section are shown in red in the accompanying figure 2-1.

Sample 86-6-3: Outcrop of dark to white marble, calcitic with some mica.

Sample 86-6-3B: Outcrop of brownish-white calcitic marble with secondary calcite on weathered surfaces. Some mica on fractures, and FeOx ochre staining.

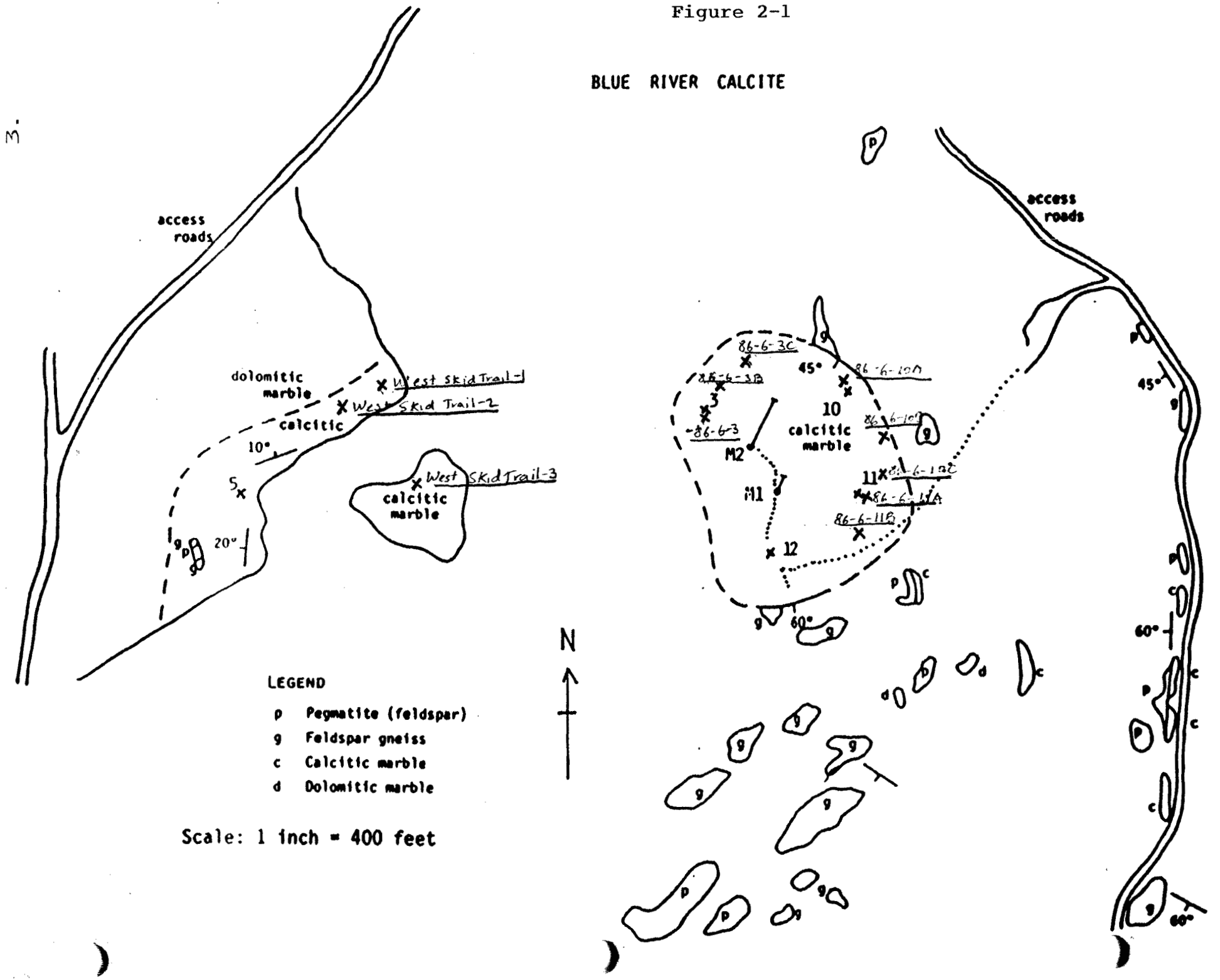
Sample 86-6-3B: Outcrop of fairly uniform (colour, texture) white calcitic marble, with <5% mica.
Sample 86-6-10A: Small inlier of white calcitic marble in gneiss.
Sample 86-6-10B: Sub-outcrop(?) of contact zone between gneiss and white calcitic marble with variable secondary calcite and mica content.
Sample 86-6-10C: Sub-outcrop of good white calcitic marble with <5% mica and <2% hematite.
Sample 86-6-11A: Outcrop and sub-outcrop of white calcitic marble with <2% mica and some ochre FeOx on fractures.
Sample 86-6-11B: Sub-outcrop of white calcitic marble with ochre FeOx staining on weathered surfaces, and little or no mica.
Sample WEST SKID TRAIL-1: Very good white marble with ochre stains on fractures. Mapped by Guillet as calcitic.
Sample WEST SKID TRAIL-2: White dolomitic(?) marble, with ochre FeOx stain on weatheres surfaces, secondary calcite.
Sample WEST SKID TRAIL-3: Outcrop, white to grey calcitic marble.

The attached analytical report by Terramin Research Labs Ltd. lists the major element analysis, L.O.I. and Ba for each of the above samples. All samples except West Skid Trail 1 and 2 are high purity calcium with Trail 1 and 2 representing the dolomitic marble represented in figure 2-1. However, the Mg content is not high enough to designate these two samples as dolomitic. The term "magnesian limestone" or "magnesian marble" is more appropiate.

Although sample 1986-6-10C has a higher silica and alumina (and acid insoluble), it is still well within the range of specifications for calcium carbonate fillers (Table 2-2). The iron content of the samples is attributed mainly to the mica content of the rock. Removal of mica, e.g. by floatation, will reduce iron to the range specified in Table 2-2.

Figure 2-1

BLUE RIVER CALCITE



TERRAMIN RESEARCH LABS LTD.

ANALYTICAL REPORT

Job # 86-204 Blue River Mines Date July 21, 1986

Client Project Page 1/1

Sample No.	SiO_2 %	Al_2O_3 %	CaO %	MgO %	Na_2O %	K_2O %
1986-6-3	0.24	0.06	54.6	.938	.011	.004
3 B	0.26	0.02	53.4	1.28	.005	.001
3 C	0.21	0.02	53.6	1.43	.008	.004
10 A	0.30	0.06	52.7	1.25	.008	.008
10 B	0.41	0.09	54.3	.734	.011	.010
10 C	2.37	0.64	52.3	1.00	.144	.100
11 A	0.21	0.04	53.6	1.24	.001	.002
11 B	1.69	0.13	54.4	.323	.026	.034
West Skid Trail 86-6-1	0.26	0.06	33.0	19.1	.004	.008
2	0.51	0.08	32.3	18.9	.008	.005
3	0.77	0.06	54.4	.262	.001	.004

	Fe_2O_3 %	MnO %	TiO_2 %	Ba ppm	L.O.I. %	Acid Insoluble %
1986-6-3	.109	.014	0.02	1100	43.4	0.83
3 B	.102	.014	0.02	700	43.9	0.87
3 C	.073	.010	0.02	200	44.0	0.71
10 A	.109	.018	0.02	200	44.8	1.25
10 B	.143	.013	0.02	100	43.	1.53
10 C	.174	.022	0.02	100	42.6	4.12
11 A	.104	.013	0.02	100	43.8	0.97
11 B	.143	.017	0.02	50	42.8	2.25
West Skid Trail 86-6-1	.356	.036	0.02	50	46.9	1.07
2	.729	.052	0.02	50	46.9	1.06
3	.080	.018	0.02	300	43.5	1.31

14, 2235 - 30th Avenue N.E., Calgary, Alberta T2E 7C7
(403) 276-8668 Telex 03-821172 CGY

TABLE 2-2

Grade Designations and Typical Properties of Calcium Carbonate Fillers

GRADE (ASTM-D-1199)	GRADE I	GRADE I	GRADE II	GRADE II	GRADE II	GRADE III	GRADE III	GRADE IV
PARTICLE SIZE ANALYSIS								
%Retained on 325 Mesh Sieve	0.005	0.01	0.02	0.02	0.0	1.0	1.0	22.0
Particle Size Range (Microns)	0.5-15.0	0.5-31.0	0.5-36.0	1.0-50.0	0.5	8.0	8.0	40.0
Mean Particle Size (Microns)	3.0	6.5	7.0	12.5	13.0	17.5	17.5	36.0
Hegman Grind	6-6¼	5-5¼	4-4¼	3				
PHYSICAL PROPERTIES								
Oil Absorption, ASTM-D-281 (lbs/100 lbs)	14.0-16.0	13.0-15.0	12.0-14.0	10.0-12.5				
Oil Absorption, ASTM-D-1483 (lbs/100 lbs)	15.0-17.0	13.5-15.0	13.0-15.0	11.0-13.0				
Loose Bulk Density (lbs/cu ft)	49.0	59.0	62.0	63.5	64.0	69.5	69.5	74.0
Bulking Value (gal/lbs)	0.0443	0.0443	0.0443	0.0443	0.0443	0.0443	0.0443	0.0443
Specific Gravity	2.71	2.71	2.71	2.71	2.71	2.71	2.71	2.71
Specific Resistance (ohms)	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000
pH	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4
Hardness (Mohs)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Refractive Index (mean)	1.59	1.59	1.59	1.59	1.59	1.59	1.59	1.59
Dry Brightness (minimum)	96.0	96.0	94.0	93.0	93.0	85.0	93.0	90.0
CHEMICAL COMPOSITION								
%Calcium Carbonate ($CaCo_3$)	98.00%	98.00%	98.00%	98.00%	95.00(min)	95.00(min)	95.00(min)	95.00(min)
%Magnesium Carbonate ($MgCo_3$)	0.60	0.60	0.60	0.60	3.00(max)	3.00(max)	3.00(max)	3.00(max)
%Silica (SiO_2)	0.50	0.50	0.50	0.50	1.00	1.00	1.00	1.00
%Iron Oxide (Fe_2O_3)	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
%Alumina (Al_2O_3)	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36
%Moisture (H_2O)	0.02	0.02	0.02	0.02	0.02	0.15	0.15	0.15

3. CONCLUSIONS:

A high purity calcitic marble deposit is present in the main eastern outcrop area. The West Skid Trail area has a higher magnesian content but has also low percentage of acid insolubles. The iron content is probably all due to the mica which rarely exceeds 5% by volume (visual estimate). The FeOx stains on weathered surfaces is most likely secondary in origin and The calcitic and magnesian marbles are in contact with gneiss. The contact is locally very irregular (interfingering). Detailed mapping and drilling will be required for delineating minable reserves of marble. Strict grade control will probably be required in mining, or mining of contact areas should be avoided.

A grid based on east-west lines (N-S strike in figure 2-1) is recommended prior to a program of more detailed mapping is started. Sampling of outcrops and sub-outcrops on the grid (every 30m atleast) is recommended. These samples should be analysed atleast for major elements and acid insolubles determined. This program will delineate areas for drilling. A drillin ..g program, should be based partly on the results of the mapping and sampling and partly on the grid. The gneiss-marble contact(s) can then be mapped in three dimensions. Based on these results a prelimnary reserve calculation will be possible.

Suggested Program for 1986:

6 to 8 Km of line cutting, survey.....	$ 2,000
Geological Mapping,Maps, Reports.....	$13,000
Sampling, Analysis.....	$40,000
Trenching, Bulk Sampling.....	$ 6,000
Sub-total	$61,000

Follow-up:

Drilling: approx. 3,000 meters..... $270,000

Process Testing.....will depend on market study
(type and range of products)

Submitted by:

July 28, 86

DATE

Pilsum P. Master P.Geol.
Chief Geologist,
Ekaton Industries Inc.

SUMMARY REPORT

ON

PRELIMINARY SIEVE ANALYSIS

BLUE RIVER MARBLE DEPOSIT

BLUE RIVER, BRITISH COLUMBIA

FOR

BLUE RIVER MINES LTD.

CALGARY, ALBERTA

BY

EKATON INDUSTRIES INC.

CALGARY, ALBERTA

SEPTEMBER, 1986

A sample of crushed and pulverised core # M2-5 from the 1984 drilling (100 mesh size) was delivered to Ekaton by J. Morton & Associates in 1984. The sample was taken over 18 feet, and the whole rock geochemistry as reported by J. Morton & Associates (Company files) is as follows:-

	Reported %	Calculated % CaC03	%MgC03
Si02	1.71	97.45	3.18
Al_2O_3	0.13		
CaO	54.6		
MgO	1.52		
Na20	<0.01		
K20	<0.01		
Fe_2O_3	0.11		
MnO	<0.01		
TiO_2	<0.01		
P_2O_5	0.04		
L.O.I.	41.8		

This puts the rock in the range of CALCITIC LIMESTONE OR MARBLE.

In August, 1986, the pulverised fraction was sent to Chemex Labs. (Alberta) Ltd. in Calgary. Under the instructions of the undersigned, a weighed fraction of the sample , as is, was passed through 270 mesh and 325 mesh screens. The weight in grams of the +270 mesh, the -270 + 325 mesh and - 325 mesh are reported in the following table:-

Sample M2-5

+270 mesh	428 gm
-270 +325 mesh	37 gm
-325 mesh	544 gm

The -325 mesh fraction was lighter in colour than the +270 mesh fraction and comprises more than 50% of the pulverised sample. The former was sent to Terramin Research Labs. Ltd. of Calgary for analysis. The analysis of the -325 mesh is as follows:-

	Reported	Calculated	
	%	%CaC03	%MgC03
Si02	0.86	96.20	2.80
Al203	0.15		
Ca0	53.9		
Mg0	1.34		
Na20	0.004		
K20	0.020		
Fe203	0.386		
Mn0	0.023		
Ti02	0.02		
L.O.I.	43.2		

One of the objectives of this exercise was to determine if there was any concentration of and insolubles after preliminary crushing and grinding in the finer fractions. The difference in the analysis as reported by J. Morton & Associ ates for the whole rock and as reported by Terramin for the -325 mesh indicates little change in the % ofCa0 and Mg0 (and, therefore, $CaC0_3$ and $MgC0_3$).

The decrease in Si02 and $Al20_3$ and increase in Fe_20_3 and $Ti0_2$ may be due to metal fragments from the lab circuit.

Submitted by

Pilsum P. Master, P. Geol.
Chief Geologist,
Ekaton Industries Inc.
1760, 540-5th Ave.S.W.,
CALGARY, Alberta. T2P OM2

September 16,1986.

BLUE RIVER CALCITE FIELD TRIP

AUGUST 11 - 14, 1986

LINE CUTTING, STATION MARKING, SURVEYING

DOUGLAS H. LONG, P.ENG.

August 15, 1986

TABLE OF CONTENTS

INTRODUCTION

This report covers a field trip made to the Blue River Calcite deposit commencing August 11, 1986 and ending August 14, 1986. During that time period a grid was established over the deposit and the base line and tie line surveyed in for elevation and location. The survey report will arrive under separate cover.

OBSERVATIONS

Errors were introduced by virtue of the relief over the deposit and the heavy cover reducing the accuracy of compass bearings. There were arbitrary adjustments made for elevation changes in an effort to approximate true 60 m horizontal intervals. Only the base line and tie line are exact and surveyed in.

The largest degree of error will occur in the Northwest quadrant. Stations were staked in that quadrant using fiberglass tape and degree of error was compounded over the entire 600 interval. there was no way to bring the stations back to "on line" as at that time the west portion of the tie line had not been surveyed in.

The eastern portion of the grid as well as the Southwest quadrant were staked using a "hip chain". The effect of this type of measurement is the reduction of error due to elevation differences. The hip chain does not follow ground contours to the extent that the fiberglass tape does.

The Southwest quadrant is the most accurately staked of all the stations. Only two stations were staked prior to coming back on to the "true line".

RECOMMENDATIONS

The surveyors did not lop limbs off fallen trees. A slasher should be brought in to clean up their work in order to avoid possible conflict with the Ministry of Forests in Clearwater. This should be done prior to the onset of winter.

MILEAGE FROM BLUE RIVER

North and East	km	Miles
Valemount	90	56
Junction of Highway 16 & Mt. Robson	110 130	70 80
Jasper	210	130
Hinton	305	190
Edson	370	230
Edmonton	605	380
South and West		
Clearwater	105	67
Kamloops	230	150
Vernon	350	220
Kelowna	390	245
Penticton	470	295
Hope	520	324
Vancouver	670	420

DAILY LOG SHEET

DATE	TIME*	DESCRIPTION
86-08-11	06:00 12:30	Leave Sylvan Lake and drive to Sandman Inn, Blue River and meet with Surveyors, drive to site of deposit, just west of garbage dump.
	12:30 17:30	Surveyed in base line from 500 N to 800 N using theodolite and EDM equipment, line of site was established through the bush using a chain saw, returned to Venture Lodge, Blue River.
	17:30	Contacted all slashers referred to by Forestry manager at Clearwater, all either working or not interested. Contacted professional slasher/ staker as recommended by campsite owner.
86-08-12	06:30 07:30	Morning meeting with surveyors and slasher laying out day's projected work.
	08:00 18:00	Surveyors establishing west leg of the line. Station staking of 560 N, 620 N and 680 N west to the road (road location is not exactly as illustrated on the map) using Eslen survey tape and Silva Ranger compass.
86-08-13	06:00 18:00	Remainder of stations staked using hip chain and Silva Ranger compass. Surveyors completed west leg of tie line and south leg of base line.
	19:00 20:30	Discuss report presentation, confirm hourly rates, review remaining survey requirements (to ties to legal claim post and tie in to legal markers).
86-08-14	04:00 12:30	Leave Blue River and drive to Calgary.

*All time reported as local.

CONTACTS

Government

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P.O. Box 6201
R.R. #2
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604-674-2265

Surveyors

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McWilliam, Whyte, Gable & Assoc.
#204, 153 Seymour Street
Kamloops, British Columbia V2C 2C7
604-372-8835

Slashers/Stakers

Mel Chambers
Melvin A. Chambers Enterprises
Box 53
Blue River, British Columbia VOE 1NO
604-673-8437

Alternate Slasher

Alan Birnell
Clearwater
604-587-6280

BASE LINE AND TIE LINE SURVEY

Base line and Tie line stations are surveyed in for elevation with true North and West headings on 60 m intervals.

The stations are marked with flagging. The station numbers are written directly onto flagging which is attached to 1/4 rebar and occasionally a wooden stake. The pin marking the surveyed point of the station is located within a one metre radius of the rebar marking the station. The rebar is intended to permanently mark each station.

The tie line and base line are easily identified by the establishment of line of sight required by the survey instrument. This necessitated the falling of the occasional tree.

LINE AND STATION STAKING

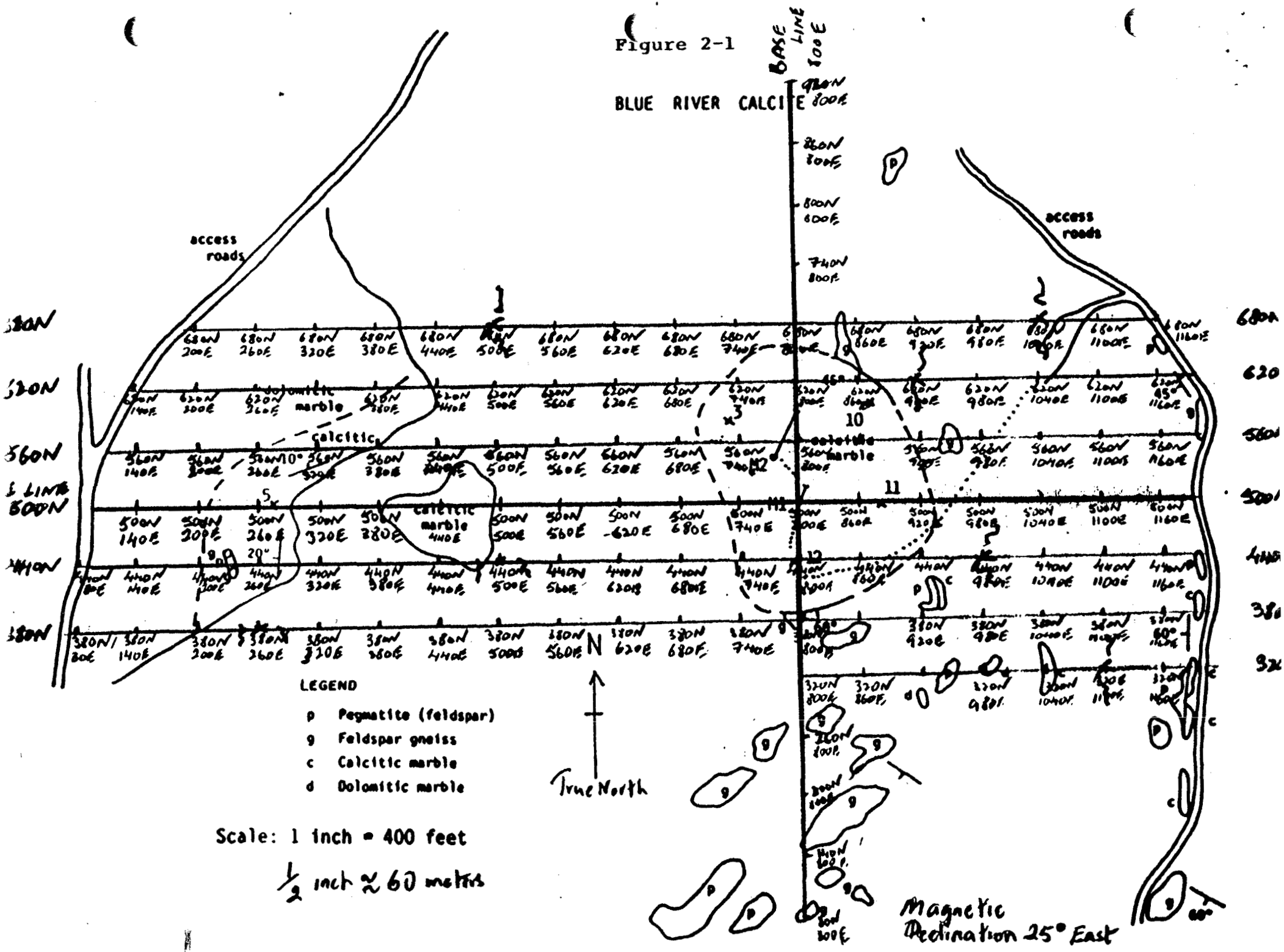
The Northwest, Northeast and Southeast quadrants of the grid were staked in an east/west direction. The blazing occurs on the east and west side of the trees. As well, flagging marking eacch station runs on a North/South axis with each station lying between the flagged trees.

The Southwest quadrant of the grid was staked in a south direction off the tie line. Trees are blazed on the North and South side of each tree. Flagging marking each station runs on an east/west axis with each station lying between the flags.

All stations are marked by a wooden lathe tied with orange flagging upon which the station number has been recorded. Stations were staked to the road on the North, East and West side of the deposit.

PLEASE NOTE: 440 N, 320 E and 380 N, 320 E have been recorded on the station stake as 440 N 380 E 380 N, 380 E. 440 N 380 E and 380 N 380 E have been recorded as 440 N 38 AE, 380 N 38 AE.

Figure 2-1


BLUE RIVER CALCITE
BASE LINE 100 E
access roads
access roads
dolomitic marble
calcitic
calcitic marble
calcitic marble
LEGEND
p Pegmatite (feldspar)
g Feldspar gneiss
c Calcitic marble
d Dolomitic marble
N
True North
Scale: 1 inch = 400 feet
½ inch ≈ 60 metres
Magnetic Declination 25° East

GEOLOGY AND GEOCHEMISTRY

BLUE RIVER MARBLE DEPOSIT
Blue River, British Columbia

For
BLUE RIVER MINES LTD.
Calgary, Alberta

By
EKATON INDUSTRIES INC.
Calgary, Alberta

SEPTEMBER 1986

CONTENTS:

TABLES:

FIGURES

1. INTRODUCTION:

The Blue River Marble deposit is located in the valley of the North Thompson River, just west of the town of Blue River, British Columbia. The deposit is easily accessible by road off the Yellowhead Highway. See Figures 1-1 and 1-2 for location.

The deposit was originally acquired by John Morton et al, who staked a nine unit mineral claim (SNO - record #4644(8)). The same area of 223 hectares is also covered by a License of Occupation under the jurisdiction of B.C. Ministry of Lands, Parks and Housing.

1.1 Previous Work:

In 1984, J. Morton And Associates completed a program of diamond drilling (62 meters), surface sampling, analysis of surface and drill core samples, and brightness tests. Some of this work was reported for assessment credit in September 1984, and assessment was accepted to September 1987. The license of Occupation is for a period of six months, and is renewable.

In 1985, the property was optioned to Ekaton Industries Inc., which began a program of market research on lime and limestone products. In 1986, Ekaton entered into a joint venture agreement with Blue River Mines Ltd. of Calgary.

In June 1986, Ekaton and Blue River Mines conducted a reconnaissance sampling program of the main surface outcrops. The analysis of these samples indicated similar favorable grades as reported by J. Morton, and a more detailed program was planned for the summer of 1986.

A program of line cutting and surveying was completed by Blue River Mines on the property in August 1986. The grid was used in the mapping and sampling of the deposit.

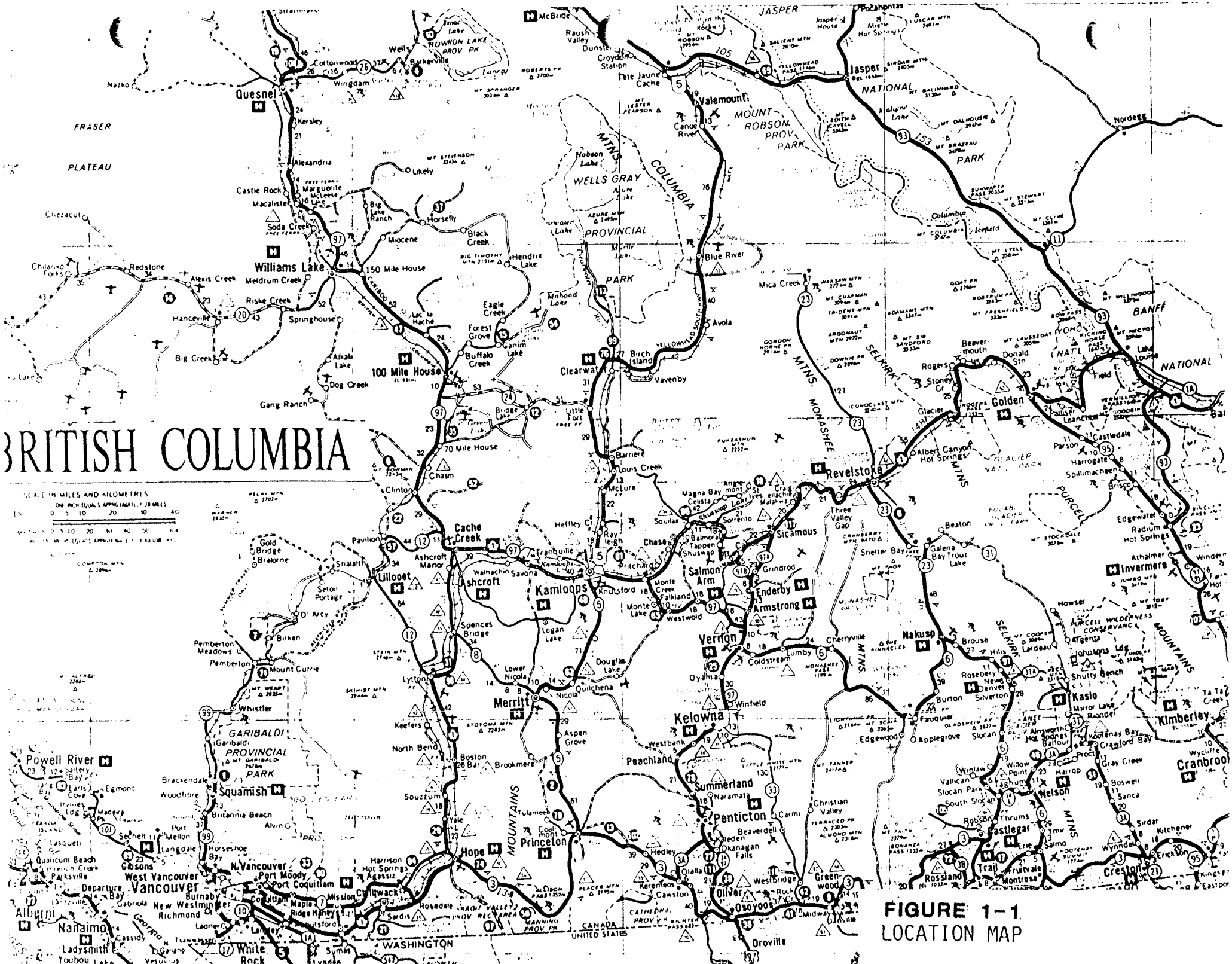


FIGURE 1-1
LOCATION MAP

2. GEOLOGY:

2.1: General Geology and Line Grid:

According to Campbell (1968), the deposit is part of the Shuswap Meta- morphic Complex (Proterozoic, Windermere Age). Guillet (1984) indicates that J. Morton And Associates interest in the area was "occasioned by the discovery of Carbonatite-like Pegmatite...". The pegmatite could be a source of feldspar and the carbontite could host rare earths.

Subsequent investigations, however, indicated the presence of three large outcrop areas of high purity marble, which then became the prime target for exploration.

The property is underlain by quartzo-feldspathic gneiss (quite biotitic), quartz pegmatite (relatively little potassic or sericitic alteration), and white to grey marble. The marble is probably more resistant to erosion and tends to form prominent knolls, while the gneiss is usually more weathered and exposed along the flanks of these knolls or in between. Valley floors tend to contain alluvium and/or glacial deposits.

In August 1986, a line grid was established over part of the property, the portion found to be underlain by the main outcrops of marble in June, 1986. The baseline was established by a professional surveyor from Kamloops, and is true north. In addition, an east-west tie line was also surveyed. The remainder of the grid was established by east-west lines 60 meters apart from approximately 80E to 1160E, one line (320N) runs only from the baseline (800E) to 1160E.

In all, 1860 meters of baseline and tieline have been well established with stations every 60 meters tied to planimetry and elevation.

---

* Campbell, R.B., 1968, Geology, Canoe River, G.S.C. Map 15-1967

In addition, an east-west grid of lines totalling approximately 5,060 meters is cut with stations every 60 meters (chained). Portions of these lines appear to be poorly established with flagging only. Most of the stations are marked on pickets only a foot above ground, and these will not survive the winter and the spring run-off. 1,320 meters of additional lines were "cut" by flagging mainly, but in a south direction every 60 meters from stations on line 500N (tieline).

2.2: Detail Geology:

Mapping was done on 1:1,000 scale. Outcrop areas were differentiated from areas of "rubble" containing a mixture of rounded and angular fragments of more than one rock type - but with one type predominant.

Areas of overburden were left blank. These represent glacial till and valley alluvium. Also, distinct breaks in slope were also noted. These were used in the field, and later, to interpret geology, particularly extensions of outcrops and suboutcrops.

The predominant outcrop and rubble areas were of white to grey marble. The marble is very crystalline and homogenous except for: (a) flakes of biotite - variable in volume%, and (b) secondary calcite growth - mainly along irregular fractures and along weathered surfaces.

A 10% HCl solution could not differentiate between calcitic and dolomitic marble, but subsequent correlation with analytical data indicates that the dolomitic marbles (40% MgO) are distinctly light charcoal grey in colour.

The marble tends to be more resistant to erosion and outcrops tend to form the typical knolls in the area, while the gneiss tends to be exposed along the flanks of these knolls, and near the valley bottoms. The gneiss is generally quite weathered (FeOx), and rarely occurs as distinct

outcrop ledges. Most exposures of the gneiss are as "rubble" or as "boulders". A quartz-feldspar porphyry occurs mixed with gneiss "boulders" in the eastern third of the grid area. Only one distinct outcrop of porphyry is recognised in this zone, but several large outcrops occur in road cuts just north of the present grid. The porphyry is relatively unaltered and shows little signs of potassic or sericitic alteration.

Figure 2.2-2 is a geology map of the line grid reduced to 1:2,500 scale. It shows three distinct areas of marble. The MAIN ZONE is centred at 500N, 800E and if the areas of "rubble" and "boulders" are included, it covers an area of approximately 180 by 120 meters. The DOLOMIC ZONE is located between 260E and 440E at 620N and occupies an area of 180 by 30 meters. A third area, designated as WEST RIDGE is exposed as a prominent north-south ridge at 440E between 440N and 560N. This WEST RIDGE appears to extend west beneath overburden to suboutcrop ("rubble") between 500N, 200E and 560N, 380E.

A fourth, relatively small zone of marble is identified in the southeast corner of the grid as the ROAD CUT ZONE. It occurs in road cuts between 380N, 1160E and 320N, 1130E. In addition, there is an area of suboutcrop at 320N, 980E.

Figure 2.2-1 is a topography map of the line grid area on 1:2,500 scale. It is based on the surveyed baseline and tieline, and contours are projected on the basis of a 12,400 enlargement of a 1:50,000 topo map of the area. The topographic map was used in drawing cross-sections - Figure 2.2-3. The cross sections cannot determine the structure and/or stratigraphy because of a lack of data in the third dimension. Only one drill hole (1984-M2) intersected the bottom contact of the MAIN ZONE. This is projected in cross section 500E of Figure 2.2-3. However, it is not clear whether the MAIN ZONE represents the updip extension of the WEST RIDGE and DOLOMITIC ZONES, or represnets a separate bed of marble separated from the other two by a layer of gneiss. Stripping and trenching may provide some clues, but it is more likely that the answer will be available on completion of the 1987 drilling program.

Surface zonation of the marble based on the CaO: Mgo proportions is described in detail in the section on Geochemistry.

3. GEOCHEMISTRY:

After the completion of the geologic mapping in August 1986, twenty six rock samples were taken from marble outcrops, and "rubble" areas (only if outcrops were not available). The samples were numbered according to their approximate location on the grid.

Figure 3-1 shows the location of the sample. The samples were analysed for major elements and loss on ignition (L.O.I.) by Terramin Research Labs Ltd. of Calgary. The analyses are in Table 3-1. Note that in the table additional listing is made on the % calculated calcium carbonate, and % calculated magnesian carbonate. The calculation was done as follows using conversion factors:

$$Ca = \frac{CaO}{1.399}, \quad CaCO_3 = Ca * 2,497$$

$$Mg = \frac{MgO}{1,658}, \quad MgCO_3 = Mg * 3,468$$

Figure 3-1 is also a plot of the % $CaCO_3$ / % $MgCO_3$ as calculated above.
The marble areas are then divided into three Geochemical zones:
(a) CALCITE MARBLE: containing at least 96% ~~CaO~~ $CaCO_3$
(b) MAGNESIAN MARBLE: containing between 4 and 38% ~~MgO~~ $MgCO_3$
(c) DOLOMITIC MARBLE: containing 39% ~~MgO~~ $MgCO_3$

It should be noted that in all the three grades the total % $CaCO_3$ + % $MgCO_3$ exceeds 98% in 15 out of 26 samples in Table 3-1, and exceeds 97% in 21 out of 26 samples. That

TERRAMIN RESEARCH LABS LTD.

Ekaton Industries

Pilsum Master

JOB # 86-318

	Client No.	SiO_2 %	Al_2O_3 %	CaO %	MgO %	Na_2O %	K_2O %	Fe_2O_3 %	MnO %	TiO_2 %	L.O.I. %				
1	320 N 980 E	9.6	3.97	43.5	2.69	1.14	.363	.343	.010	.03	37.9				
2	1140	1.3	0.04	55.3	.418	-.001	.004	.172	.009	.02	42.6				
3	360 N 1150 E	2.1	0.64	53.6	.753	-.001	.192	.529	.010	.05	41.9				
4	440 N 450 E	3.2	0.51	32.2	18.4	.035	.166	.543	.036	.02	44.0				
5	495 N 855 E	0.2	0.02	53.7	1.99	-.001	.006	.386	.021	.02	43.3				
6	500 N 440 E	1.9	0.02	50.3	4.03	-.001	.006	.429	.036	.02	43.0				
7	830	0.4	0.04	55.0	1.28	-.001	.007	.229	.009	.02	43.1				
8	510 N 815 E	0.6	0.19	54.7	.882	.001	.070	.329	.022	.02	42.8				
9	850	0.4	0.02	54.8	.814	-.001	.004	.272	.009	.02	43.5				
10	560 N 275 E	1.1	0.08	54.4	.335	-.001	.007	.315	.034	.02	43.1				
1	305	1.3	0.08	54.7	.244	-.001	.016	.172	.010	.02	43.0				
2	330	1.9	0.06	53.0	1.66	.003	.002	.358	.023	.02	42.9				
3	350	1.1	0.02	54.6	.262	-.001	-.001	.215	.019	.02	42.9				
4	440	1.3	0.02	55.3	.207	-.001	.002	.186	.013	.02	42.1				
5	800	0.4	0.02	55.0	.983	-.001	.005	.186	.009	.02	42.4				
6	860	0.4	0.02	55.3	1.21	-.001	.002	.229	.006	.02	42.3				
7	570 N 740 E	0.2	0.02	55.4	.325	-.001	.002	.157	.005	.02	42.1				
8	590 N 755 E	0.9	0.08	49.8	4.15	-.001	.020	.343	.017	.02	43.9				
9	800	0.4	0.02	54.7	.337	-.001	.006	.157	.005	.02	42.8				
20	610 N 790 E	0.4	0.02	54.0	1.59	-.001	.005	.200	.008	.02	43.3				

TERRAMIN RESEARCH LABS LTD.

JOB # 86-318

Page 2/2

	Client No.	SiO_2 %	Al_2O_3 %	CaO %	MgO %	Na_2O %	K_2O %	Fe_2O_3 %	MnO %	TiO_2 %	L.O.I. %	$CaCO_3$ %	$MgCO_3$ %	$Ca(MgC)_3$ %	
21	620 N 260 E	1.5	0.08	30.4	20.2	-.001	.006	.615	.050	.02	46.0	54.3	42.25	96.55	
2	290	4.9	0.17	29.8	20.6	-.001	.025	.429	.026	.02	43.2	53.2	43.09	96.29	
3	310	4.3	0.09	30.5	18.6	-.001	.008	.486	.023	.02	44.3	54.4	38.91	93.31	
4	320	0.6	0.06	31.9	19.7	-.001	.008	.458	.031	.02	46.3	56.9	41.21	98.11	
5	380	0.4	0.06	55.1	.376	-.001	.008	.157	.006	.02	43.4	98.4	0.79	99.19	
26	440	0.2	0.04	30.9	20.6	-.001	.007	.429	.022	.02	46.2	55.2	43.09	98.29	
7															
8															
9															
0															
1															
2															
3															
4															
5															
6															
7															
8															
9															
0															

4. CONCLUSIONS AND RECOMMENDATIONS:

1. The MAIN ZONE has the best potential for a relatively uniform grade high purity CALCITIC MARBLE.

2. The best location with respect to grade and access for a bulk sample is in the MAIN ZONE at 500N, 830E. Another sample for DOLMITIC MARBLE grade may be collected from the vicinity of 620N, 260E.

3. The MAIN ZONE and the DOLMITIC ZONE should be drilled on at least 30 meter centres to determine continuity of lithology and grade in the third dimension.

4. Drilling on 60 meter centres should be extended between the MAIN ZONE AND THE road cut zone. A similar program on one line can be extended between the MAIN ZONE and the WEST RIDGE ZONE.

5. Petrographic studies should be completed on some, if not all, of the samples collected during the geochemical sampling in August. Determine, for example, if most of the acid insolubles can be accounted for by the biotite present in some of the samples.

6. Redo lines 380N and 440N to run east-west as originally planned, and map the area to the southwest by extending the grid in spring of 1987.

7. Sample and analyse the Porphyry north of the present grid. Analyse for rare earths, and determine type and mode of occurance of the feldspar and the proportion of the quartz.

is, the acid insolubles are negligible in most of the samples. It is interesting to note that the total % carbonates is lower in the DOLOMITIC MARBLE samples. It is possible that sample 320N, 980E was contaminated by gneissic material. The 26 samples are composite chip samples collected by a chip sampling within a 2 meter radius of the sample site. At each sample site a representative hand specimen was also taken for petrographic examination.

Submitted by:

Pilsum P. Master, P. Geol.
Chief Geologist,
Ekaton Industries Inc.
1760, 540 5th Ave. SW.,
Calgary, Alberta. T2P 0M2

September 16, 1986.

A Summary Report

On

Blasting & Bulk Sampling

@

Blue River Marble Deposit

By

Blue River Mines Ltd.

Ekaton Industries Inc.

October, 1986

INTRODUCTION:

The marble deposit is on a knoll at the northern edge of the town of Blue River, B.C. The hill is on the western flank of the Thompson River Valley overlooking the Yellowhead Highway. Access to the 300m hill top is by road to the town dump and then up an old logging road. Portions of the hill's, eastern and northern flanks, have been exposed by clear-cutting.

Nine mineral claims (over 223 hectares) cover the deposit. These claims are valid till September 1987 (by work filed for assessment). In addition, the property is covered by a License of Occupation of 225 hectares under the jurisdiction of the B.C. Ministry of Lands, Parks and Housing. Both these cover the same area and allow for exploration and development.

On the 16th of October, 1986 two pits were excavated by Phoenix Blasting Ltd. of Kamloops, B.C. under contract to Blue River Mines Ltd., and under the supervision of Douglas Long, P.Eng. and Pilsum P. Master, P. Geol.

These two pits are located at 870E, 490N and were designed to test and sample the calcitic marble. Another pit at approximately 630N, 740E was attempted to sample dolomitic material. (see figure 2.2-2)

RESULTS:

Figure 2.2-2 shows the locations of the pits at 870E, 490N. About 20-30 tonnes of high quality calcitic marble were obtained. This material was subsequently brought down to a site in Blue River (to be crushed over the winter) by Hanna Services of Blue River, B.C.

A sample of this calcitic material was sent for major and minor element whole rock analysis after pulverising to 150 mesh (sample Blue Mix-150). Another sample (Blue Trem-1) was also analysed. The results are in the enclosed table.

Not enough sample was obtained from the pit at 630N, 740E and no analytical work was done on this dolomitic material.

Blue Mix-150 shows that the material is a high grade calcitic material with no significant impurities. Blue Trem-1 was material from a fracture filling containing some tremolite (?). These

fractures are only 1-2 cm wide and highly irregular and discontinuous. The tremolite does not effect the overall grade because Blue Mix-150 is a larger sample that includes this fracture filling material and contains low MgO, SiO_2 and Al_2O_3.

Dec 24.86

DATE

Pilsum P. Master, P.Geol.

TERRAMIN RESEARCH LABS LTD.

Ekaton Industries

JOB # 86-375

	Client No.	SiO_2 %	Al_2O_3 %	CaO %	MgO %	Na_2O %	K_2O %	Fe_2O_3 %	MnO %	TiO_2 %	P_2O_5 %	L.O.I. %		Ag ppm	
1	Blue Mix-150	0.2	0.02	53.9	0.98	0.004	0.001	0.10	0.008	0.02	0.025	43.4		-0.1	
2	Blue Trem 1	2.6	0.06	51.9	1.77	0.015	0.005	0.21	0.015	0.02	0.066	42.5		-0.1	
3															
4															
5															
6															
7															
8															
9		Ba ppm	Sr ppm	Rb ppm	Be ppm	Cr ppm	Li ppm	V ppm	Cd ppm	Co ppm	Cu ppm	Pb ppm	Mo ppm	Ni ppm	Zn ppm
0															
1	Blue Mix-150	410	2500	3	0.4	1	17	-5	-0.1	-1	4	1	-1	-1	2
2	Blue Trem-1	360	1580	3	0.4	11	15	-5	-0.1	-1	8	2	1	2	16
3															
4															
5															
6															
7															
8															
9															
0															

Blue River Calcite

Value Added Markets

Blue River Mines Ltd.

January, 1987

TABLE OF CONTENTS

INTRODUCTION

The Blue River Marble deposit contains high purity calcite marble suitable for uses as a filler and extender. The market penetration for this product, given its quality, is directly dependent upon its location with respect to potential customers.

This report covers results obtained from market research on $CaCO_3$ and uses relevant to the Blue River deposit. References are cited, however most published literature dealt with generalities and growth trends for the Canadian and American markets as opposed to specific markets.

Data concerning product demand in Alberta and Saskatchewan was acquired through direct user contact. Users in British Columbia were not approached as the proximity of Imasco to these markets should preclude the Blue River deposit from significantly disturbing the Imasco position.

CONCLUSIONS

The Blue River deposit is strategically located to capture market share of the North/Central Alberta and Saskatchewan filler-extender markets. The Blue River deposit has the advantage of being closer to these markets than those suppliers currently providing product. Grinding down to micron and sub-micron size is not required to meet specifications and whiteness and chemical constraints are not as rigid for these markets as for the paint, paper and plastic industries.

POTENTIAL MARKETS SPECIFIC

ALBERTA

PAINT		±	700 tpa
PLASTIC		±	100 tpa
TAPE JOINT COMPOUNDS	EDMONTON	±	10,000 tpa *
	CALGARY	±	6,000 tpa
INSULATION BOARD		±	10,000 tpa *
CULTURED MARBLE	EDMONTON	±	600 tpa *
	CALGARY	±	400 tpa

SASKATCHEWAN

PAINT		±	400 tpa
CULTURED MARBLE		±	400 tpa

* INDICATES MARKET WHERE BLUE RIVE WOULD BE CLOSEST SUPPLIER.

SUPPLIERS

PROVINCE	COMPANY	LOCATION	CAPACITY (kilotonnes)	
B.C.	Imasco	Creston	30	All products sold as far east as Winnipeg
B.C.	Mighty White Dolomite	Rock Creek	?	Crushed dolomite for Cultured Marble Industry, decorative stone
Alberta	Summit Lime Works	Hazell	10	Carpet backing, general industrial filler, not white enough to seriously compete with Imasco
Saskatchewan	There are no $CaCO_3$ suppliers in Saskatchewan.			
Manitoba	There are no $CaCO_3$ suppliers in Manitoba.			

COMPETITION

1) Imasco Limited is outlining reserves of white limestone near Bonanza Lake in the Port McNeil area of Vancouver Island. A milling facility has been erected and is currently on production or about to go into production at Delta, B.C. Details on the size of its facility at Delta are unknown. Production capacity at Creston is 25,000 tpa.

2) Summit Lime Works of Hazell, Alberta is a commodity producer attempting to break into filler markets where whiteness is not important (carpet backing, feed and glass). The physical properties of the Summit Lime Works product, its limited capacity (10,000 tpa), and location put it behind Imasco in terms of market penetration.

3) Mighty White Dolomite of Rock Creek, B.C., produces a white crushed dolomite for use in the cultured marble and decorative stone market.

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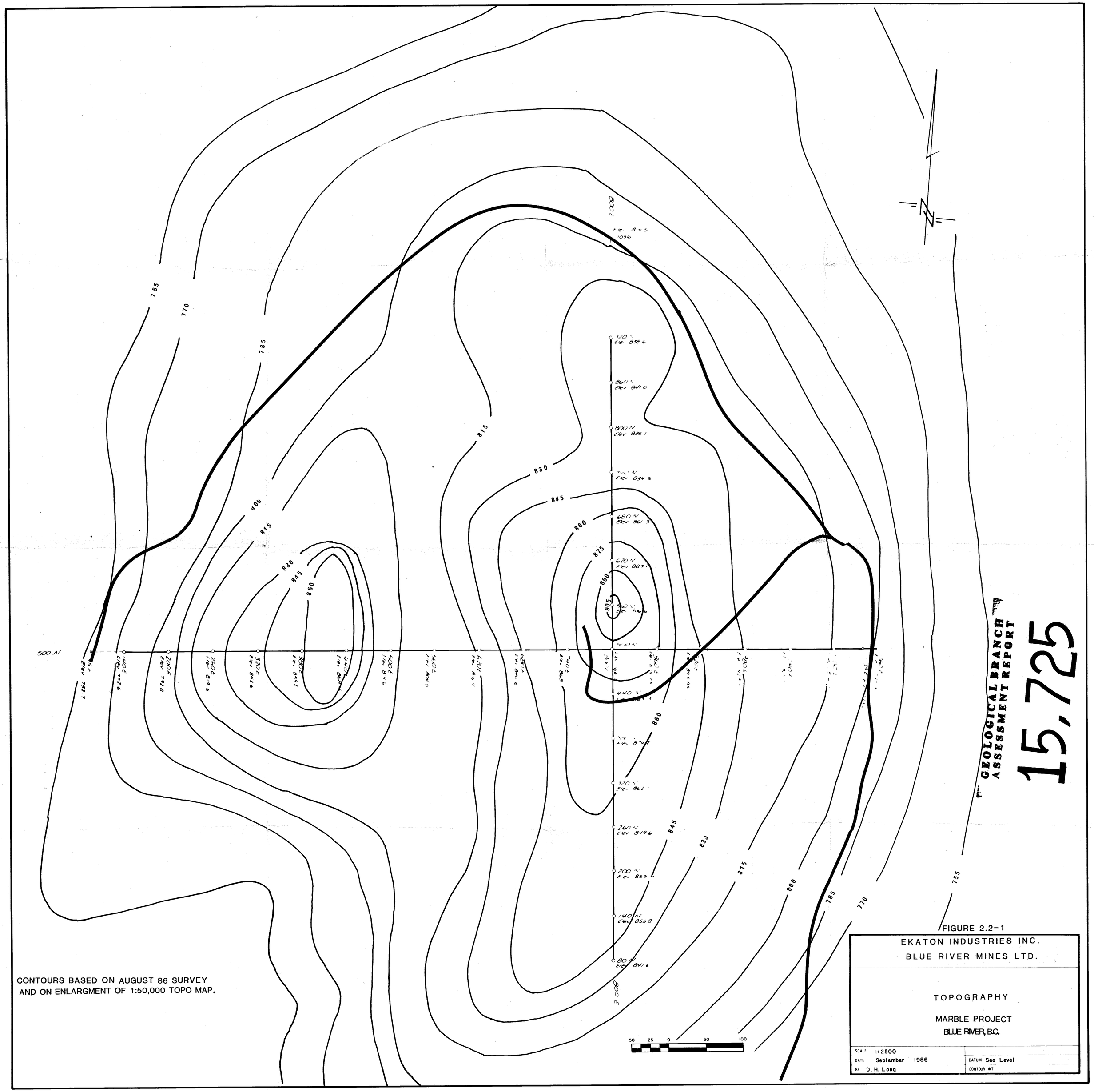

755
770
785
800
815
830
845
860
875
890
905
500 N
CONTOURS BASED ON AUGUST 86 SURVEY
AND ON ENLARGMENT OF 1:50,000 TOPO MAP.
50 25 0 50 100
GEOLOGICAL BRANCH
ASSESSMENT REPORT
15,725
FIGURE 2.2-1
EKATON INDUSTRIES INC.
BLUE RIVER MINES LTD.
TOPOGRAPHY
MARBLE PROJECT
BLUE RIVER, B.C.
SCALE 1:2500
DATE September 1986
BY D. H. Long
DATUM Sea Level
CONTOUR INT

Plan Showing Location of SNO Mineral Claim and Grid Lines in District Lot 2486 Kamloops Division Yale District

D.L. 2487

D.L. 2627

D.L. 2486

Grid Line 85° 53'

Grid Line 175° 53'

¢ Road

¢ Road

¢ Road

920 N
860 N
800 N
740 N
680 N
620 N
560 N
500 N
440 N
380 N
320 N
260 N
200 N
140 N
80 N

140 E
200 E
260 E
320 E
380 E
440 E
500 E
560 E
620 E
680 E
740 E
800 E
860 E
920 E
980 E
1040 E
1100 E
1160 E

Mineral Claim
SNO

Record Nº 4644
Located Aug. 5, 1983

547.4 Ft.

Legal Corner Post SNO

White River

D.L. 3284

D.L. 3286

D.L. 3285

Blue River

North Thompson Highway

Block B

Bench Mark

Murtle Lake Rd.

D.L. 3277

Cedar St.

BLUE RIVER

100 50 0 100 200
Metres

The survey was completed on the 14th day of August, 1986

o denotes spike marking station point, and referenced with 3/8 inch by 5 foot long rebar.

Elevations are geodetic.

Bench Mark: Geodetic Survey of Canada, brass cap # 79C 648
Elevation 683.833
Located on the S.E. bridge abutment on the bridge crossing the Blue River.

GEOLOGICAL BRANCH
ASSESSMENT REPORT

15,725

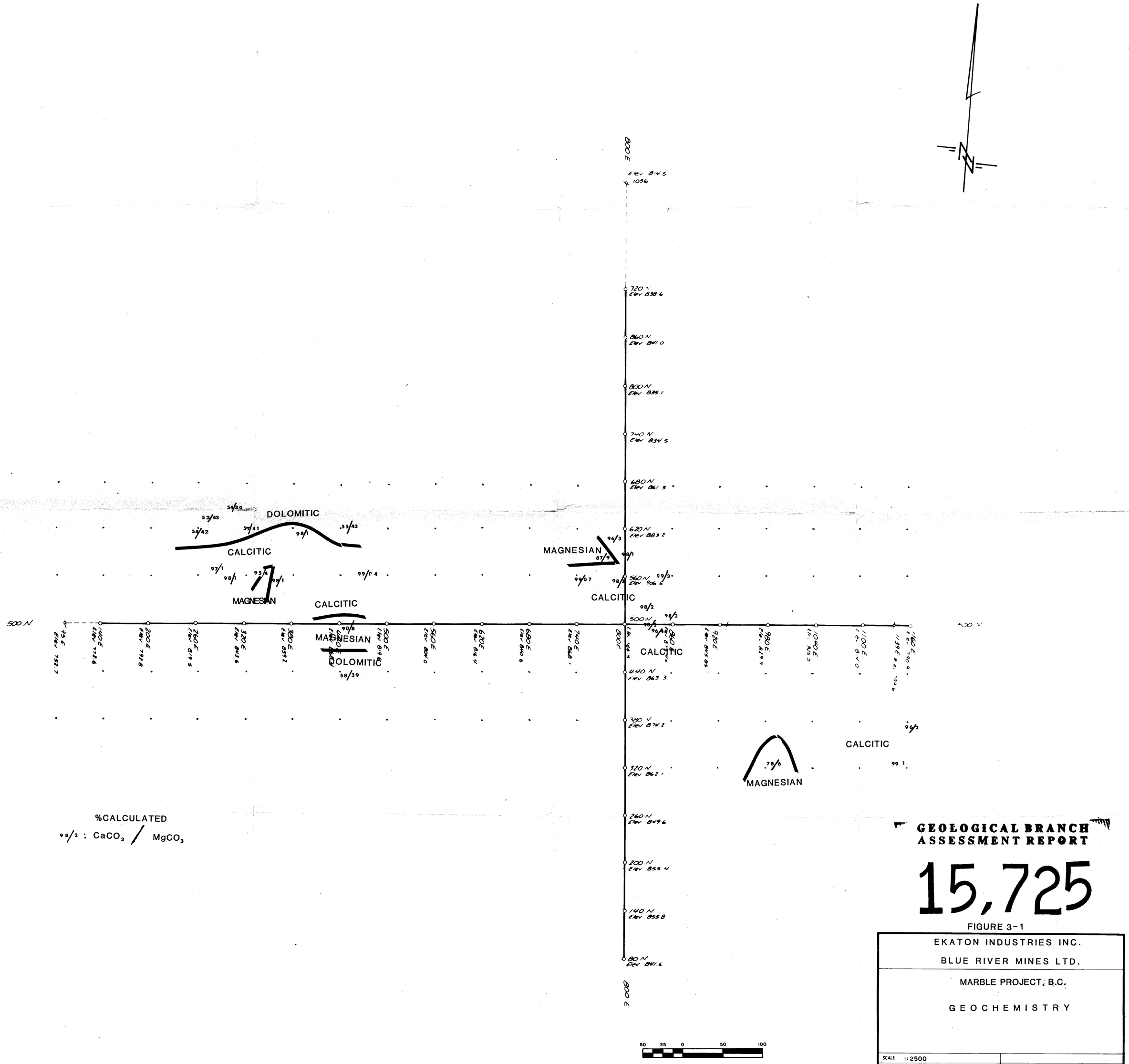
FIGURE 1-2

EKATON INDUSTRIES INC.
BLUE RIVER MINES LTD.

MARBLE DEPOSIT

Grid-Claim Relationship

SCALE 1:5000	
DATE Sept. 8, 1986	DATUM
BY D.H. Long	CONTOUR INT.



%CALCULATED

$^{98}/_{2}$: $CaCO_3$ / $MgCO_3$

GEOLOGICAL BRANCH
ASSESSMENT REPORT

15,725

FIGURE 3-1

EKATON INDUSTRIES INC.

BLUE RIVER MINES LTD.

MARBLE PROJECT, B.C.

GEOCHEMISTRY

SCALE 1:2500	
DATE September 1986	DATUM Sea Level
	CONTOUR INT

DOLOMITIC ZONE

WEST RIDGE ZONE

MAIN ZONE

ROAD CUT ZONE

BASELINE

TIE LINE

LEGEND

outcrop

outcrop & angular fragments - same rock type - very close to outcrop

angular fragments - same rock type

rounded fragments - boulders and angular fragments, partly mixed, but one rock type predominant

extensions hidden under overburden and/or not examined

position approximate based on neighbouring outcrops and topographic features

topographic break in slope - based on mapping

road

line grid - partly cut and chained

GEOLOGICAL CONTACTS:

observed

probable extension or location

possible extension or location

rock sample location

1 MARBLE

1a calcitic

1b other - undifferentiated

1c

2 GNEISS

PORPHYRY 3 GNEISS & PORPHYRY - UNDIFFERENTIATED

FIGURE 2.2-2

EXATON INDUSTRIES INC.
& BLUE RIVER MINES LTD.
MARBLE PROJECT
Blue River British Columbia

GEOLOGY

Pilsum P. Master P. Geol. Sept. 1986

Scale 1:2500 1cm=25 m

DOLOMITIC ZONE

WEST RIDGE ZONE

MAIN ZONE

ROAD CUT ZONE

BASELINE

TIE LINE

740N

680N

620N

560N

500N TIE LINE

440N

380N

320N

260N

200N

140N

80N

80E 140E 200E 260E 320E 380E 440E 500E 560E 620E 680E 740E 800E 860E 920E 980E 1040E 1100E 1160E

LEGEND

- outcrop
- outcrop & angular fragments - same rocktype - very close to outcrop
- angular fragments - same rock type
- rounded fragments - boulders and angular fragments, partly mixed, but one rock type predominant
- extensions hidden under overburden and/or not examined
- position approximate based on neighbouring outcrops and topographic features
- topographic break in slope - based on mapping
- road
- line grid - partly cut and chained

GEOLOGICAL CONTACTS:

- observed
- probable extension or location
- possible extension or location

- rock sample location

MARBLE:

- calcitic
- other - undifferentiated

GNEISS PORPHYRY GNEISS & PORPHYRY UNDIFFERENTIATED

Pit @ 870E, 490N

Pit @ 630N, 740E

0 10 50m

GEOLOGICAL BRANCH
ASSESSMENT REPORT

15,725

FIGURE 2.2-2

SKATON INDUSTRIES INC.
& BLUE RIVER MINES LTD.

MARBLE PROJECT

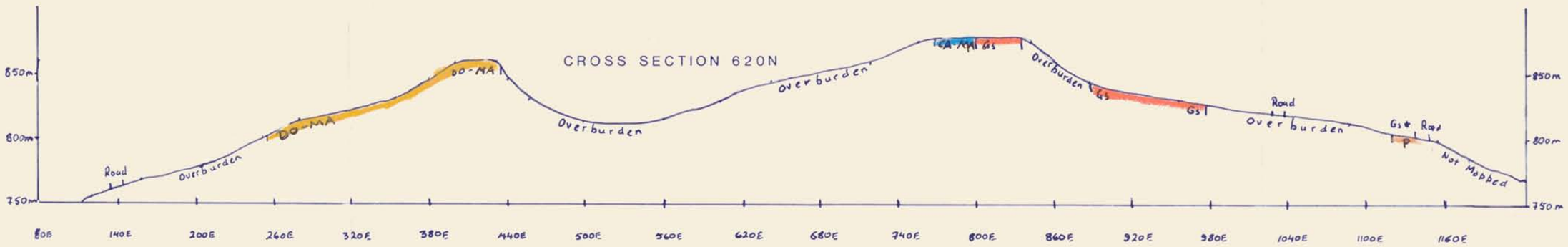
Blue River, British Columbia

GEOLOGY

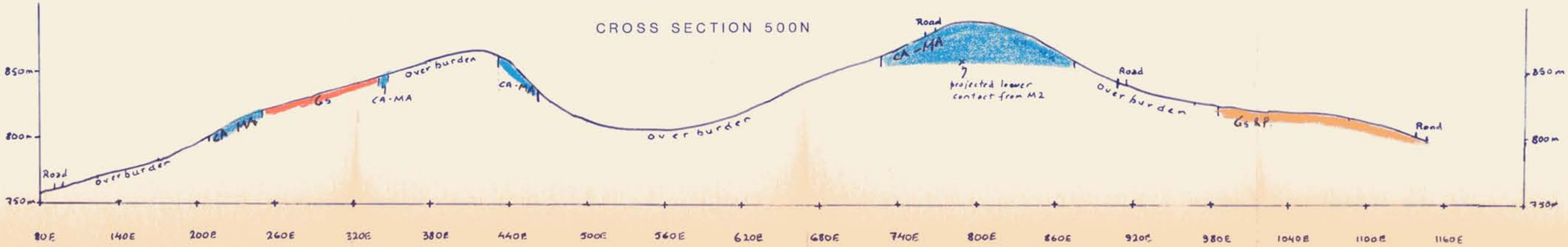
Pilgrim P. Master P.Geol. Sept 1988

Scale 1:2500 1cm=25 m

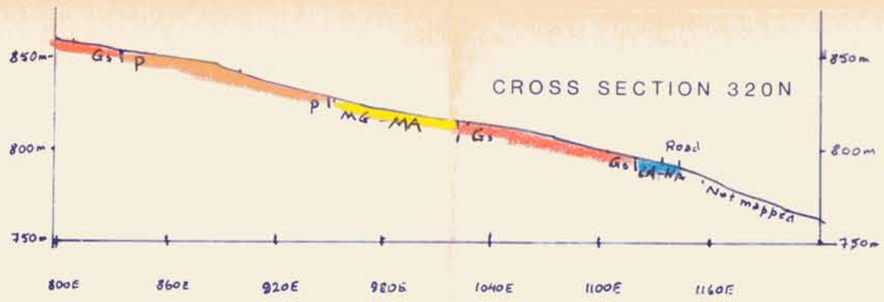
CROSS SECTION 620N



CROSS SECTION 500N



CROSS SECTION 320N



LEGEND:

- CA-MA CALCITIC MARBLE
- DO-MA DOLOMITIC MARBLE
- MG-MA MAGNESIAN MARBLE
- Gs GNEISS
- P PORPHYRY

FIGURE 2.2-3

EKATON INDUSTRIES INC.
BLUE RIVER MINES LTD

MARBLE PROJECT
Blue River, B.C.

CROSS SECTIONS
LOOKING NORTH

PILSUM P. MASTER P.GEOL. SEPT 1986

SCALE 1:2500