

005043

PRELIMINARY REPORT

PROPERTY FILE

MARJE CLAIMS 1 TO 4

082 M 183

119°18' 51°02'

82 M/3W

ONYX (MANSON) CREEK,
SHUSWAP LAKE AREA, B. C.

CLAIM OWNER - OMAR PAQUETTE

CHASE, B. C.

82 M 183 (3W)

BRITISH COLUMBIA DEPARTMENT MINES
MINERAL RESOURCES BRANCH
DISTRICT GEOLOGIST, KAMLOOPS, B. C.

June 28, 1974



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INTRODUCTION

On June 24, 1974, accompanied by Mr. Omar Paquette of Chase, claim owner, a visit was made to the Marje 1 to 4 claims 10 miles north of Magna Bay on Shuswap Lake.

The purpose of the examination was to make an economic appraisal of the marble on the claims as a building stone material or other.

Overburden is ubiquitous and rock outcrops were seen mostly along road cuts and on the few steep faces on the south part of the showing.

The assumed magnetic declination in the area is $N23^{\circ}E$. Total time on the claims would have been about $3\frac{1}{2}$ hours.

LOCATION AND ACCESSIBILITY

The claims are located near the height of land (5000') on the southwest flank of Crowfoot Mountain and on a south flowing tributary of Onyx (Manson) Creek. ($119^{\circ}18'$, $51^{\circ}02'$)

The property is accessible by 4 - wheel drive vehicle from Magna Bay, along Line 17 road for a quarter of a mile, then turning north on the Bichoff Road. The Bichoff Road leads to the Bichoff Farm and the Farm yard has to be entered in order to get on to the logging road on the other side. Sections of this latter road are subject to washout about 4000' to 4500' because of the phyllitic nature of the country rock.

CLIMATE

Snowfall at this elevation would be from 10 to 20 feet based on logging blazes made in January. Snowslides would be a problem along the access road.

The summers are typical of the Adams Plateau type of environment with $60^{\circ}F$ to $90^{\circ}F$ noon temperatures and frequent rain storms.

TOPOGRAPHY AND VEGETATION

Topography on the property is gentle rolling hills near the height of land to 60 foot vertical cliffs to the south.

Vegetation consists of stands of spruce and balsam with occasional hemlock and Douglas fir trees. There are other grasses and shrubs as well as alders near the creeks.

GEOLOGY

A hypothetical stratigraphic column will be described but a more accurate section would require more time particularly as far as thicknesses are concerned.

Assuming the beds are not overturned as no top determinations were made, from the top down:

<u>ROCK</u>	<u>DESCRIPTION</u>	<u>ESTIMATED WIDTH</u>
phyllite	Green, fissile, fractured, secondary white-quartz veins; elevation approximately 5100'; probable bedding 105°, 47° N.	unknown
limestone	Re-crystallized, white to greyish white, white weathering, 1 to 2 mm equigranular, twinned, calcite and dolomite grains. Grey in sections caused by mudstone and/or graphite; graphite was identified at one locality. Near the contact zone the dolomitic limestone is criss-crossed with opaque, white quartz forming an open lattice to near box-work effect of quartz which comprises 50 percent of the rock in places. Outcrops are sparse but there is a boulder train and one pit was made to find bedrock. The limestone is fractured in sections with average 1 inch spacing; there is one principal direction but as a rule fracturing is sinuous. Secondary	estimated 150'

calcite encrustations occur along some fractures.

Other impurities in the limestone are irregular, sharply contacted seams and patches up to several inches to several feet of a buff coloured rock consisting mostly of argillaceous material with some silica.

Near the probable base of this unit lamprophyric dikes of at least 5 feet in width occur. These are dark matrixed rocks with 2 inch average spaced pyroxene phenocrysts and with secondary zeolites white to pink in colour. These rocks are near vesicular on occasion and give the impression of being very near surface at time of emplacement. Only one outcrop was seen of this rock type.

Near the top of this unit a DDH was drilled through a reported 50 or 60 feet of limestone. The core is questionably not available.

Recorded bedding attitudes in this section from top to bottom are, 80° , 36° N; 90° , 36° N.

covered		estimated 40'
phyllite	green, fissile, bedding attitude at outcrop locality, 45° - 45° NW.	estimated 100'
quartzite	white, massive, hard; attitude unknown; contains 1 inch red sandstone breccia dike of 1 foot length; other white quartz veins up to 1 inch wide.	estimated 40'
covered		60'?
dacite?	Probable sill rock, crystalline grey, relatively hard; exposed concordant phyllite contact.	50'?
LS & phyllite	Phyllite grey with minor inter-bedded 6" to 1' limestone beds; some beds 2" to 4" --grading downward into phyllite; this section also contains beds of impure, green quartzite. --intrusive--extrusive material occurs here as dikes--"cool" but sharply contacted	70"?

Impurities of silica, mudstone or argillite with silica exist in the upper sections. These areas would have to be designated by closely spaced holes across the formation drilled south minus 45 degrees.

The first step with any industrial mineral is to determine whether a market exists for the product at what price, at what locality and in what quantity. Assuming that a mineable or quarriable tonnage of building stone material were blocked out by closely spaced diamond drill holes, then in the case of building stone material, this becomes a matter of sales promotion and the establishment of a market.

The drilling, quarrying, transportation, sales and promotion costs of this material are not considered worth the risk for such a highly selective, low volume consumption, specialty, market.

The value of the limestone as a cement material and for other is deemed to be uneconomic with the variable composition of the material, particularly at this elevation.

Tungsten was checked for by the use of a fluoroscope.

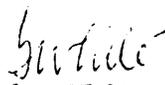
CONCLUSIONS AND RECOMMENDATIONS

A rather unusual white weathering limestone occurs in a bedded sequence of rocks in large tonnages but of questionable quality consistency. At this elevation, for a specialized market, the exploration, sales cost along with a low volume potential market, would not justify the expense.

The limestone is considered not suitable for agricultural use or cement making.

No work is recommended on the Marje claims at this time.

Yours truly,


Gordon White, P. Eng.
District Geologist

Appendix I to Section 4.

APR 15 1985

MOUNTAIN MINERALS CO. LTD.

82N001

SILICA OPERATION

Mountain Minerals Co. Ltd. is a privately-owned Canadian company involved in industrial minerals mining and processing.

The Company owns a very large, high-grade silica deposit and a crushing/washing/screening plant near the town of Golden, B.C. (maps enclosed). The majority of this deposit is composed of a hard, dense quartzite, while the remainder constitutes a friable sandstone.

Attached is a brief history of the Company. Also a copy of the glass sand analyses.

Ore reserves - currently estimated at 10 million tonnes of sand and 50 million tonnes of quartzite.

April 11, 1985

(Some of this is probably part of previous Assessment Reports)

MOUNTAIN MINERALS CO. LTD.

(& DILLON EXPLORATION, INC.)

The Company was incorporated August 18, 1945, by Ralph A. Thrall, Sr. as a private company in the Province of Alberta. The Company is also registered in the Province of British Columbia.

In 1977, the Company was re-organized and to-day is owned 50% by Ralph A. Thrall, Jr., through Thrall Holdings Ltd. and 50% by G. Robert Manson through G. Robert Manson & Associates Ltd. This latter Company also manages Mountain Minerals Co. Ltd.

Shortly after the re-organization referred to above, Mountain formed a wholly-owned U.S. subsidiary, Dillon Exploration, Inc., which is incorporated in the States of Montana and Utah.

Mountain Minerals has, since 1943 (i.e. even prior to its incorporation as a company), been continuously involved in mining and processing barite and has, for the period 1947 to present, been one of the two or three suppliers of barite for heavy-weight drilling mud to the western Canadian petroleum industry. The Company expects to remain a principal supplier of barite for many years to come.

Recently Mountain constructed a silica sand processing plant near Golden, B.C. and began sales of "flint" grade silica sand to a variety of customers in western Canada and the United States. A very large proportion of the Company's silica deposit is a hard, dense quartzite considered ideal for use in the silicometal and ferrosilicon industries. The deposit is considered to be the largest high-grade deposit of silica in western Canada and/or in the U.S. northwest.

Dillon Exploration, Inc. has at present two principal mineral holdings in the U.S. In Montana, some 14,000 acres are held under option near Dillon, Montana, where, over the four years since this land has been acquired, the Company has discovered two significant talc deposits. Several other attractive talc prospects have been identified. The Company proposes to commence discussions shortly with a few serious companies respecting the possibility of establishing a joint venture arrangement with one of them.

.....

The Company recently acquired an option in southwestern Montana, South of Lima, Montana, and very close to the Montana/Idaho boundary - on a calcium carbonate deposit. Preliminary test results and analyses are quite encouraging respecting its use as a filler and whiting agent.

In Utah, Dillon holds twenty-eight perlite claims under option which lie some 4 miles north and 10 miles east of Milford, Utah. Milford is a divisional point on the main line of the Union Pacific Railroad. The road from Dillon's perlite deposit to Murdock Siding, some 4 miles north of Milford, is an excellent all-weather gravel road. Total road haul would be approximately 13½ miles. Dillon has a lease agreement with Union Pacific covering the approximately 1,000 to 1,300 foot long "Murdock" Siding.

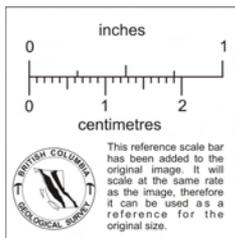
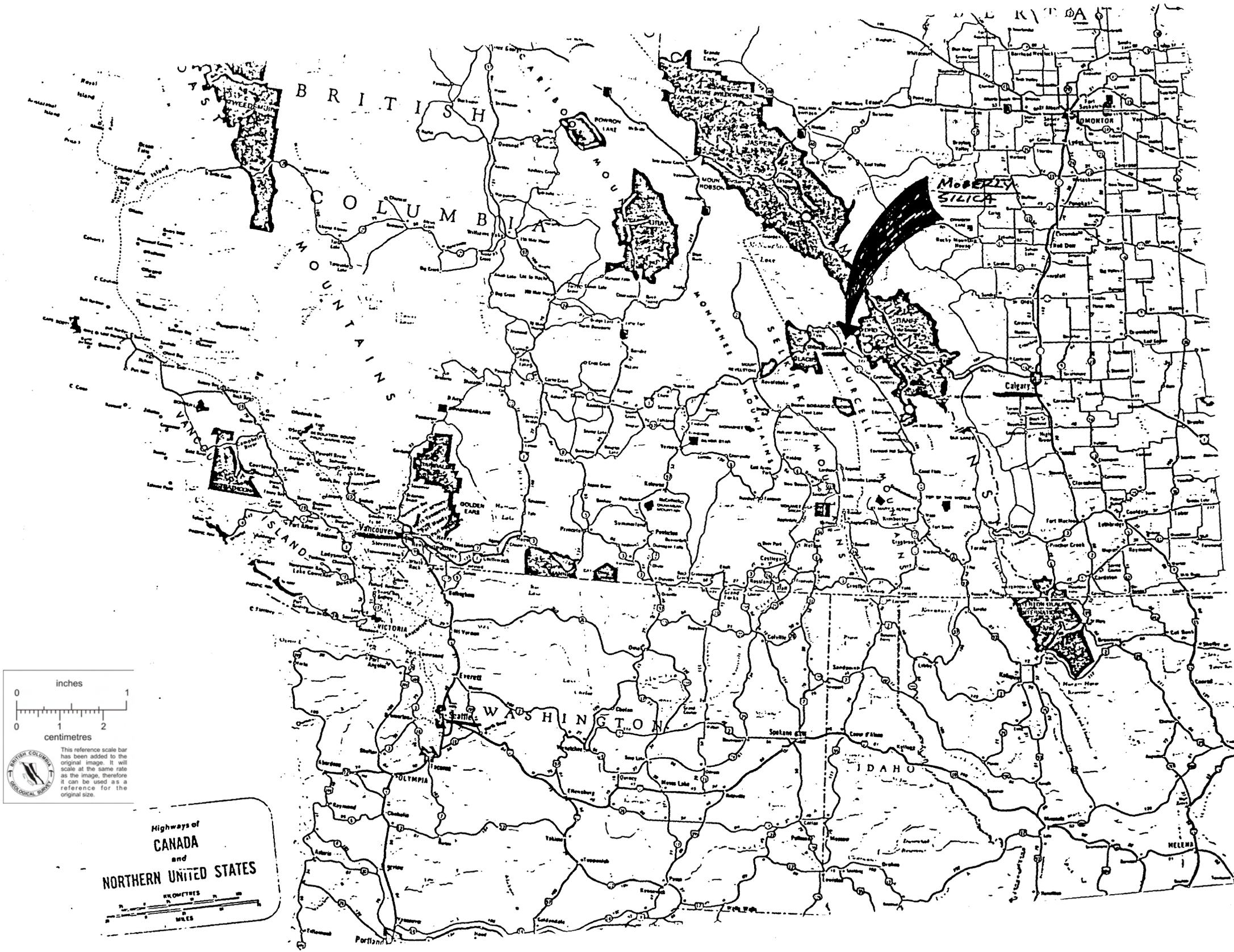
The perlite lies on surface and would require stripping of the top 2 to 3 feet of calcareous intercalated perlite to prepare for open-pit mining. Reserves in the approximately two-thirds of the aerial extent diamond drilled to date are conservatively estimated at 13 million metric tonnes. All testing conducted to date indicates a very good quality perlite.

Dillon became involved in this situation some three years and more than \$500,000 U.S. ago, based upon the firm belief that there is a place for a third significant North American perlite producer, beyond the two main producers, Manville and Grefco. The Company continues to believe this to be true. It recognizes that it is a much smaller company than either of the above-mentioned corporations, but it also knows that it is not faced with what it firmly believes to be the direct conflict of interest faced by Manville and Grefco - particularly in the end use areas of:

- insulation (i.e. perlite vs. fibreglass) - Manville
- filter aid (i.e. perlite vs. diatomite) - Grefco

At this time, the Company's greatest asset is its employees. It has managed to bring together a group of people who are technically competent, dedicated, hard working and loyal. Their efforts have had a decided bearing on the Company's success to date.

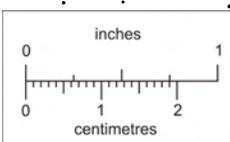
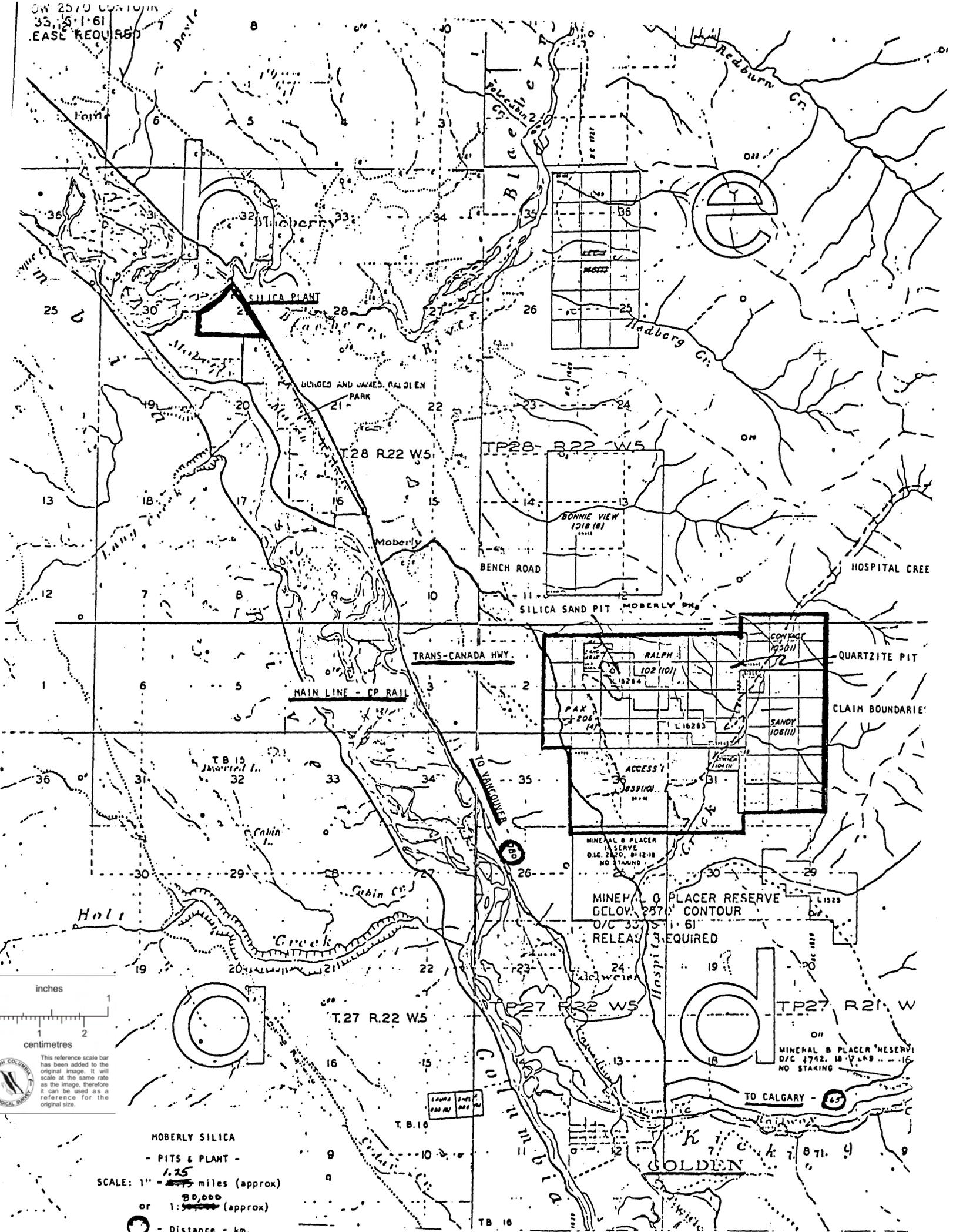
January, 1981



Highways of
CANADA
 and
NORTHERN UNITED STATES

KILOMETRES
 MILES

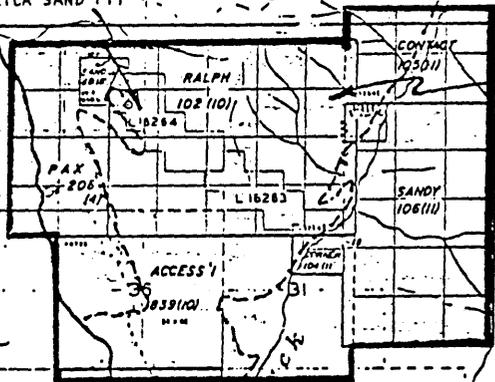
SW 25/0 CONTIN
35, 18, 1, 61
EASE REQUIRED



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.



MOBERLY SILICA
- PITS & PLANT -
SCALE: 1" = 1.25 miles (approx)
or 1:150,000 (approx)
- Distance - km.



MINE & PLACER RESERVE
D/C 2720, 812-18
NO STAKING

MINE & PLACER RESERVE
D/C 2570, 61-61
RELEASE REQUIRED

MINERAL & PLACER RESERVE
D/C 1742, 18-17-69
NO STAKING

GOLDEN

WASHED SILICA SAND

CHEMICAL ANALYSES

<u>CHEMICALS</u>	<u>%</u>
SiO ₂	99.67
Fe ₂ O ₃	0.02
Al ₂ O ₃	0.06
CaO	0.06
MgO	0.02
Na ₂ O	0.01
K ₂ O	0.02
TiO	0.01
L.O.I.	0.12

Analyses by Consumers Glass

April 11, 1985

PHYSICAL PROPERTIES

<u>USS</u>	<u>% RETAINED</u>
40	6
50	25
60	12
70	26
100	21
140	7
200	2
-200	<u>1</u>
	100
L.O.I. @ 1800°F	0.10
B Sintering Point	2950°F
Ph	8.5 - 8.8
Grain Durability (9420 psi)	44%

March 14, 1984

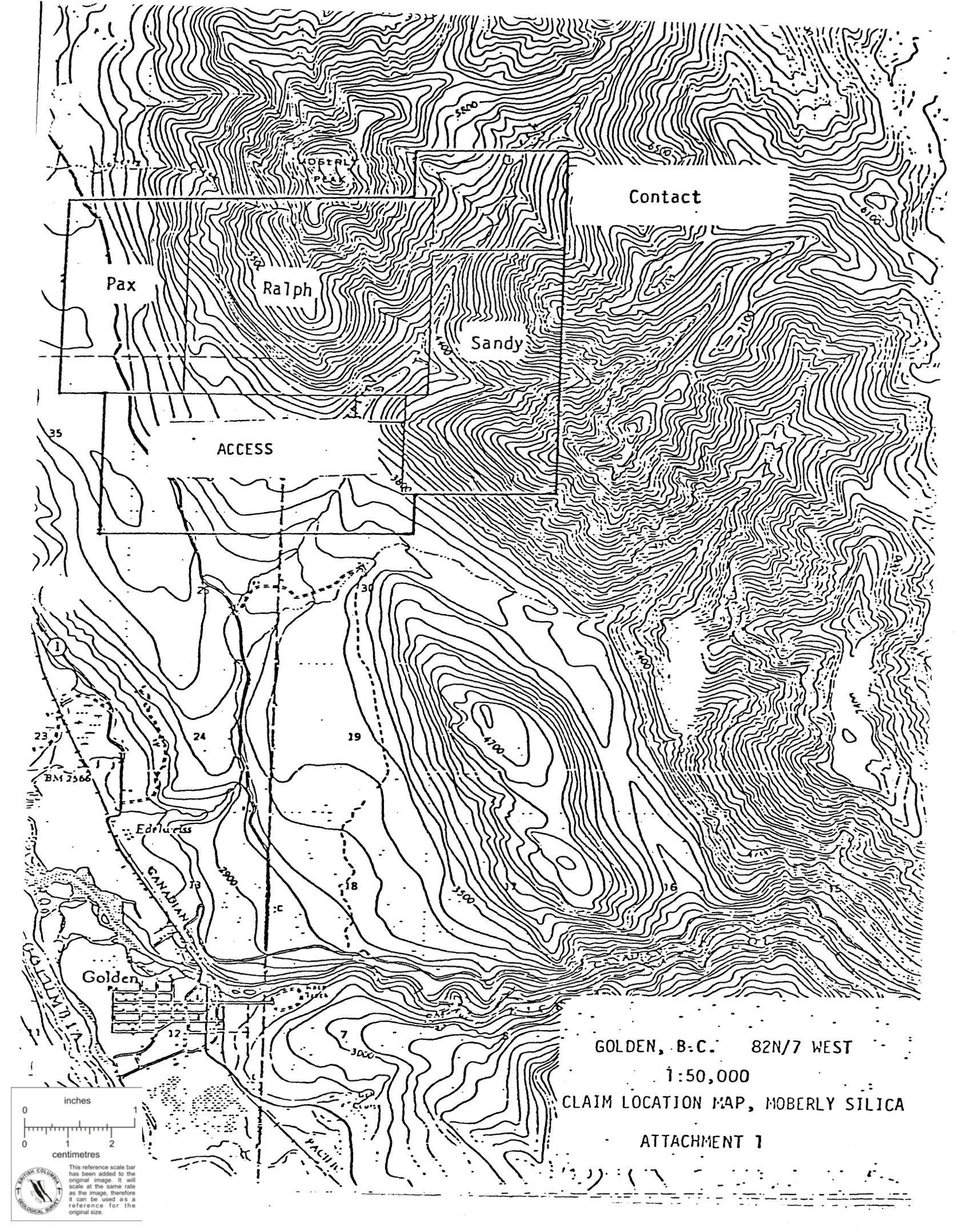
MOBERLY SILICA

GEOLOGY:

The silica is located in the Mt. Wilson (Wonah) Quartzite, a well-known Ordovician formation found over a considerable area south and east of Moberly Mountain. In most places the Mt. Wilson formation is a hard, dense, compact, medium-grained, white to pinkish quartzite, but in a few scattered locations, the rock consists of buff, friable sandstone. The company's property is located on one of the largest showings of the friable material and the only one known that is readily accessible. In the sandy zone, the proportion of friable material is quite variable. Much of the rock is such that upon being rubbed between the fingers it breaks down into individual grains of quartz. Scattered through the friable sand are streaks and patches, less than 2.5 cm to 60 cm long, of firm quartzite lying parallel to the bedding. Towards the edges of the sandy zone, the rock is mainly hard quartzite with streaks and round spots of friable sand.

The sand is pale buff to almost white with scattered brown spots. Microscopic examination reveals that the compact quartzite consists of well-rounded quartz grains with quartz outgrowths which have completely filled the spaces between individual grains and have cemented them firmly together. The friable material consists of rounded grains which have quartz outgrowths, but apparently insufficient silica was available for these outgrowths to grow enough to fill the interstices, as in the compact quartzite, with the result that the rock is highly porous and only loosely cemented. Quartz makes up almost 100 per cent of the rock. In thin sections examined, the grains are in two distinct sizes, one group averaging 0.5 mm in diameter and the other group averaging 0.15 to 0.25 mm in diameter, with minor amounts outside these ranges.

Two quartzite bands are found on the company's property. The more northerly band, higher up Moberly Mountain, has an average indicated true thickness of some 790 meters and a strike length on the property of approximately 1.9 km. The lower quartzite band varies in approximate true thickness from about 455 meters to some 700 meters and has a strike length on the property of some 4 km. The friable sand zone is located parallel and close to the southern limit of the more southerly quartzite band. It has a thickness of some 90 to 120 meters and is believed to extend for a distance of at least 1.5 km. The two quartzite bands are separated by a band of limestone and colomitic limestone, having a width of approximately 610 meters. The two quartzite bands bear approximately N50°W and dip to the northeast at from 74° to vertical.



Contact

Pax

Ralph

Sandy

ACCESS

35

1

23

BM 2566

24

19

1700

Edwards

CANADIAN PACIFIC

2000

18

3500

16

Golden

12

7

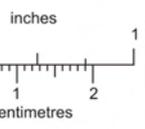
3000

GOLDEN, B.C. 82N/7 WEST

1:50,000

CLAIM LOCATION MAP, MOBERLY SILICA

ATTACHMENT 1



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.

MOBERLY SILICA

- Drill Core and Surface Sample Analyses -

The following is an extract from a letter received from the company which tested the surface samples collected over an area approximately 365 x 525 meters on Moberly Mountain:

"Ten drill core samples, in fifty foot sections, and nineteen surface samples were taken to the lab at the at, for chemical analyses. The results are enclosed with this letter. The drill core sample analyses appear on Sheets 7022, 7023 and 7024. The surface samples; the odd numbered samples were analysed and the even numbered samples were submitted to a muffle furnace test to determine the rate of breakdown under thermal stress. The odd numbered surface sample analyses appear on Sheet 7027 and 7028." "Only three muffle furnace tests are available at this time of writing and they are listed below:

- #2 - "No break at 1300^oC"
- #4 - "No break at 1300^oC"
- #18 - "No break at 1300^oC".

"As you will note, all analyses and tests, with the possible exception of #6 core-sample, fall within 's specification for Silicon-grade rock."

From H.C. Hospital Creek

BULLIS

SiO ₂	Fe ₂ O ₃	CaO	Al ₂ O ₃	IGN LOSS	
99.32	.05	.006	.18	.19	#1
99.50	.05	.005	.16	.10	#2
99.34	.05	.006	.19	.15	#3
99.42	.07	.005	.18	.14	#4

Drill Co
0-50
50-100
100-150
150-200

FORM 2

Analysis Report

Sample No. 7023
Date 10-3-77

Material SILICA ROCK

From H.C.

BULLIS

SiO ₂	Fe ₂ O ₃	CaO	Al ₂ O ₃	IGN LOSS	
99.61	.05	.006	.12	.07	#5
99.70	.11	.005	.08	.03	#6
99.68	.05	.006	.08	.06	#7
99.77	.05	.004	.07	.05	#8

200-250
250-300
300-350
350-400

FORM 2

Analysis Report

Sample No. 7024
Date 10-3-77

Material SILICA ROCK

From H.C.

BULLIS

SiO ₂	Fe ₂ O ₃	CaO	Al ₂ O ₃	IGN LOSS	
99.56	.05	.005	.10	.16	#9

See
next
sheet

From HOSPITAL CREEK

BULLIS

SiO ₂	Fe ₂ O ₃	CaO	Al ₂ O ₃	IGN LOSS	
99.73	.07	.004	.06	.09	#1
99.59	.06	.004	.06	.10	#3
99.68	.05	.004	.11	.05	#5
99.58	.05	.004	.06	.09	#7
99.59	.05	.004	.06	.12	#9

FORM 2

Surface
Sample
odd
numbers
only.

Analysis Report

Sample No. 7028

Date 10-3-77

Material SILICA ROCK

From HOSPITAL CREEK

BULLIS

SiO ₂	Fe ₂ O ₃	CaO	Al ₂ O ₃	IGN LOSS	
99.50	.04	.004	.13	.06	#11
99.59	.05	.004	.08	.13	#15
99.71	.05	.004	.05	.13	#17
99.76	.05	.004	.07	.02	#19

FORM 2

Note
13
not to

Overall Average:

99.64

0.052

0.004

0.08

0.09

Material SILICA ROCK

From H.C.

BULLIS

SiO ₂	Fe ₂ O ₃	CaO	Al ₂ O ₃	IGN LOSS	
99.56	.05	.005	.10	.16	#9
99.62	.05	.005	.10	.08	#10

FORM 2

Drill Core
400 - 450
450 - 500

99.55 0.06 0.0053 0.12 0.11
Overall Averages: ~~0.06~~
Excl. 0-50'

34 -
This is to confirm the chem. analysis I gave you over
the phone today. I have added the "specifications" of
for comparison.

Analysis Report

Sample No. 5550

Date 6-9-75

Material SILICA ROCK MOBERLY MTN.

From _____

SAMPLE HOSPITAL CREEK

Si O ₂	Fe ₂ O ₃	Co O	Al ₂ O ₃	IGN LOSS	
99.61	.07	.005	.13	.01	25652#1
99.64	.06	.005	.10	.02	25653#2
MIN.	MAX.	"	MAX.	MAX.	
99.5	0.10	NIL	0.25	0.2	

Results do not agree
with SKW test results (see
2 pages back) !??

FORM 2

Two analyses based upon 2 large bags of grab samples taken from hard, dense quartzite along Hospital Creek logging road and representative of a true thickness of approximately 255 meters.

Appendix II to Section 4

APR 16 1985

LUCIEER ENGINEERING

Mechanical Consultant.
Engineering, Management and Procurement Services.
Mining, Materials Handling, Terminals.
Construction Management.

#7-7357 Montecito Drive
Burnaby, B.C.
V5A 1R3

~~344 West 5th Street~~
~~North Vancouver, B.C. Canada V7M 1K3~~
~~Telephone (604) 985-8268~~
~~420-6198~~
~~Fax 604-332844~~

April 11, 1985

Mr. Wally Malkinson
Regional Director
Ministry of Small Business
Development
5th Floor
1405 Douglas Street
Victoria, B.C.
V8W 2G2

Dear Mr. Malkinson,

It was a pleasure to talk to you last week regarding Silica availability in British Columbia, and in particular, the Horse Creek deposit near Golden, B.C.

As per your request, I enclose a copy of the chemical analysis as done by Chemex Labs Ltd. of North Vancouver.

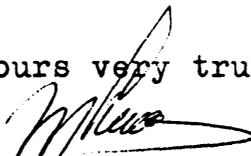
At the time, the analysis was done for E.P.C.M. Consulting Ltd. which does not exist anymore. At the moment, it is a partnership effort between Bert Miller of Golden, B.C. and my own company, Lucieer Engineering.

I am also enclosing a copy of a preliminary flowsheet of the proposed grinding plant, which will produce silica fines as per the glass industry's specifications.

A preliminary study is now being worked on, in order to arrive at some approximate capital cost, operating cost and maintenance cost figures.

At its completion, I would appreciate a meeting with yourself at your convenience.

Yours very truly,



Michael Lucieer, P.Eng.

ML/jl
Attach.(2)



CHEMEX LABS LTD.

212 BROOKSBANK AVE.
NORTH VANCOUVER, B.C.
CANADA V7J 2C1

TELEPHONE: (604) 984-0221
TELEX: 043-52597

• ANALYTICAL CHEMISTS

• GEOCHEMISTS

• REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

TO : ~~EPCM CONSULTING LIMITED~~

CERT. # : A8311346-001-
INVOICE # : 18311346
DATE : 1-JUN-83
P.O. # : NONE

~~1502 - 1166 ALBERNI STREET
VANCOUVER, B.C.
V6E 3Z3~~

ATTN: MIKE LUCIEER & JOHN HASLEM METALLIC IRON NOT AVAILA

Sample description	Prep code	AS ppm					
1 EPCM	208	4	--	--	--	--	--



MEMBER
CANADIAN TESTING
ASSOCIATION

Certified by

B. Swartz



CHEMEX LABS LTD.

212 BROOKSBANK AVE.
NORTH VANCOUVER, B.C.
CANADA V7J 2C1

TELEPHONE: (604) 984-0221
TELEX: 043-52597

• ANALYTICAL CHEMISTS

• GEOCHEMISTS

• REGISTERED ASSAYERS

CERTIFICATE OF ASSAY

TO : ~~EPCM CONSULTING LIMITED~~

~~1502 - 1166 ALBERNI STREET
VANCOUVER, B.C.
V6E 3Z3~~

CERT. # : A8311346-001
INVOICE # : I8311346
DATE : 1-JUN-83
P.O. # : NONE

ATTN: MIKE LUCIEER & JOHN HASLEM

METALLIC IRON NOT AVAILA

Sample description	Prep code	LOI (WRA) %	A1203 %				
1 EPCM	208	0.08	0.23	--	--	--	--

*(see next page.
for correct Al₂O₃ %*

.....
Registered Assayer, Province of British Columbia



CHEMEX LABS LTD.

212 BROOKSBANK AVE.
NORTH VANCOUVER, B.C.
CANADA V7J 2C1

TELEPHONE: (604) 984-0221
TELEX: 043-52597

• ANALYTICAL CHEMISTS

• GEOCHEMISTS

• REGISTERED ASSAYERS

CERTIFICATE OF ASSAY

TO : ~~EPCM CONSULTING LIMITED~~

~~1502 1166 ALBERNI STREET
VANCOUVER, B.C.
V6E 3Z3~~

CERT. # : A8311346-001
INVOICE # : I8311346
DATE : 1-JUN-83
P.O. # : NONE

ATTN: MIKE LUCIEER & JOHN HASLEM METALLIC IRON NOT AVAILA

Sample description	Prep code	TiO2 (WRA) %	MgO (WRA) %	CaO (WRA) %	Na2O (WRA) %	K2O (WRA) %	P2O5 (XRF) %
1 EPCM	208	0.02	0.02	0.04	0.02	0.02	0.02



MEMBER
CANADIAN TESTING
ASSOCIATION

.....
B. Swaiter
Registered Assayer, Province of British Columbia



CHEMEX LABS LTD.

212 BROOKSBANK AVE.
NORTH VANCOUVER, B.C.
CANADA V7J 2C1

TELEPHONE: (604) 984-0221
TELEX: 043-52597

• ANALYTICAL CHEMISTS

• GEOCHEMISTS

• REGISTERED ASSAYERS

CERTIFICATE OF ASSAY

TO : ~~EPCM CONSULTING LIMITED~~

CERT. # : A8311346-001-
INVOICE # : I8311346
DATE : 1-JUN-83
P.C. # : NONE

~~1502 - 1166 ALBERNI STREET
VANCOUVER, B.C.
V6E 3Z3~~

ATTN: MIKE LUCIEER & JOHN HASLEM

METALLIC IRON NOT AVAILA

Sample description	Prep code	SiO2 fus %	S %	+H2O %	-H2O %	Al2O3 (WRA) %	Fe2O3 (WRA) %
1 EPCM	208	99.00	0.005	0.03	0.03	0.02	0.15



.....
B. Swaites
Registered Assayer, Province of British Columbia

Appendix III
to Section 4

Names and addresses of suppliers of glass raw materials in
British Columbia:

- SILICA: G. R. Manson,
Director,
Mountain Minerals Co. Ltd.,
P.O. Box 700,
714-5th Avenue S.,
LETHBRIDGE, Alberta
T1J 3Z6

Telephone: (403) 329-0443
- LIMESTONE: D. R. Wilson,
Assistant General Manager,
Texada Lime Ltd.,
Suite 303, 535 Thurlow Street,
VANCOUVER, British Columbia
V6E 3L2

Telephone: (604) 681-7493
- DOLOMITE: D. F. Gunning,
Director,
International Marble & Stone Co. Ltd.,
190-10691 Shellbridge Way,
RICHMOND, British Columbia
V6X 2W8

Telephone: (604) 270-2730
- SODIUM SULPHATE: L. E. W. Hogg,
Chairman of the Board,
D.E.M. Resource Processors Ltd.,
400-1000 8th Avenue SW.,
CALGARY, Alberta
T2P 3M7

Telephone: (403) 233-8316

Appendix IV to Section 4.

CP Rail



H M Biden
General Manager
Marketing and Sales

G T Bates
Manager, Forest Products

M L Page
Manager, Marketing

C D Sissons
Manager, Coal

R L Provan
Manager, Sales
British Columbia

RE: PROPOSED GLASS PLANT - FRASER VALLEY

CP Rail is prepared to support the following rates to destinations Huntingdon/Sumas, Chilliwack and Langley.

1. Silica Sand - Origin Golden, B.C.

2250 cents per tonne minimum 90 percent of marked capacity of car, except when loaded to full visible capacity, actual weight but not less than 140,000 pounds will apply.

2. Soda Ash - Wyoming Origins

6414 cents per tonne minimum 190,000 lbs.

3. Dolomite - Origin Midway, B.C.

4232 cents per tonne minimum 190,000 pounds.

4. Limestone - Origin New Westminster or Vancouver, B.C.

970 tonne minimum 90 percent of marked capacity of car, except when loaded to full visible capacity, actual weight but not less than 140,000 lbs. This rate applicable only to Huntingdon/Sumas account CP Rail.