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INDUSTRIAL MINERAL ASSESSMENT REPORT

on the

MARBLE PROJECT

**(Marble 1-7, Renfrew 1-6, and Gordon River #1 Mineral Claims)
PORT RENFREW AREA**

N.T.S. 92C068, Lat. 48°37'/Long. 124° 26'
92C09W **VICTORIA M.D.**

for

VAN CITY MARBLE
(A Division of Van City Cultured Marble Products Ltd.)
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V6X 2P7

Prepared by

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May 15, 1995

23,939

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

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SUMMARY

The Marble Project is located approximately 130 km west of Vancouver and 7 km (4.5 miles) northwest of the community of Port Renfrew. The claims are accessible by all-weather paved road.

The claims are 100% owned or under option by Van City Marble Ltd. and were acquired to cover zones of high-whiteness calcium carbonate (marble) for in-house filler applications for a wide range of cultured marble products and for the wider emerging markets in the pulp and paper industries. The possibility of suitable green "granite" and marble varieties for slab and block demension stone applications will also be investigated concurrently.

The claims are underlain by massive recrystallized Upper Triassic Quatsino Formation marble intruded by chloritized hornblende diorite. The Lorimer Creek carbonate unit is, at one point, over 120 m wide intercalated with schistose lapilli tuff and argillite of the Early Jurassic Bonanza Group.

Evaluation of mineral filler deposits depends on a proper application of the market requirements coupled with an accurate assessment of processing possibilities. Often such projects are very sensitive to bulk transportation costs. Barge access to Port San Juan requires further investigation. Demension stone applications require a variety of physical characteristics such as being able to take a good polish and be uniform low porosity, colour and texture.

Important specifications in the CaCO_3 filler markets include: (1) brightness, (2) paricle size distribution, (3) abrasion, (4) opacity, (5) oil absorption, (6) viscosity, (7) particle shape, (8) surface properties, (9) density, (10) gloss, (11) mineralogy, (12) porosity - fracture pattern, (13) chemical composition.

The amount of potentially suitable high-whiteness CaCO_3 on the Marble Project appears to be very large. The Lorimer Creek section is 120 m (400 ft.) wide, is known to occur along a strike length of 1,500m (4,500 ft.) and is exposed over a vertical height of 400m (1,200 ft.). The 500-meter length of the marble unit on CG Lot 147 and Lot 148 has the potential to accommodate approximately 4 million tonnes. The geological potential on the claims of the Lorimer Creek unit with respect to total carbonate rock would appear to be in the order of 10 million tonnes. However, detailed sampling and diamond-drilling is required to define the amount of this section of the marble unit that might be suitable for the filler market. The extent of altered diorite (green "granite") within the large areas underlain by intrusive requires defining by further mapping and sampling.

Respectfully submitted,



J.T. Shearer, M.Sc., P.Geo.

INTRODUCTION

This Industrial Mineral Report on the Marble Project was commissioned by George Stathis, President and Chief Executive Officer, Van City Cultured Marble Products Ltd., manufacturer of quality cultured marble products. As consumers of crushed calcium carbonate (CaCO_3) in the creation of various cultured marble products since 1974, Van City Marble has initiated a program to evaluate the markets for all types of CaCO_3 and specifically the resource potential of the Marble, Renfrew and Gordon River claims to contain high-grade CaCO_3 reserves. Concurrently, the possibility of defining green "granite" demension stone reserves will also be investigated.

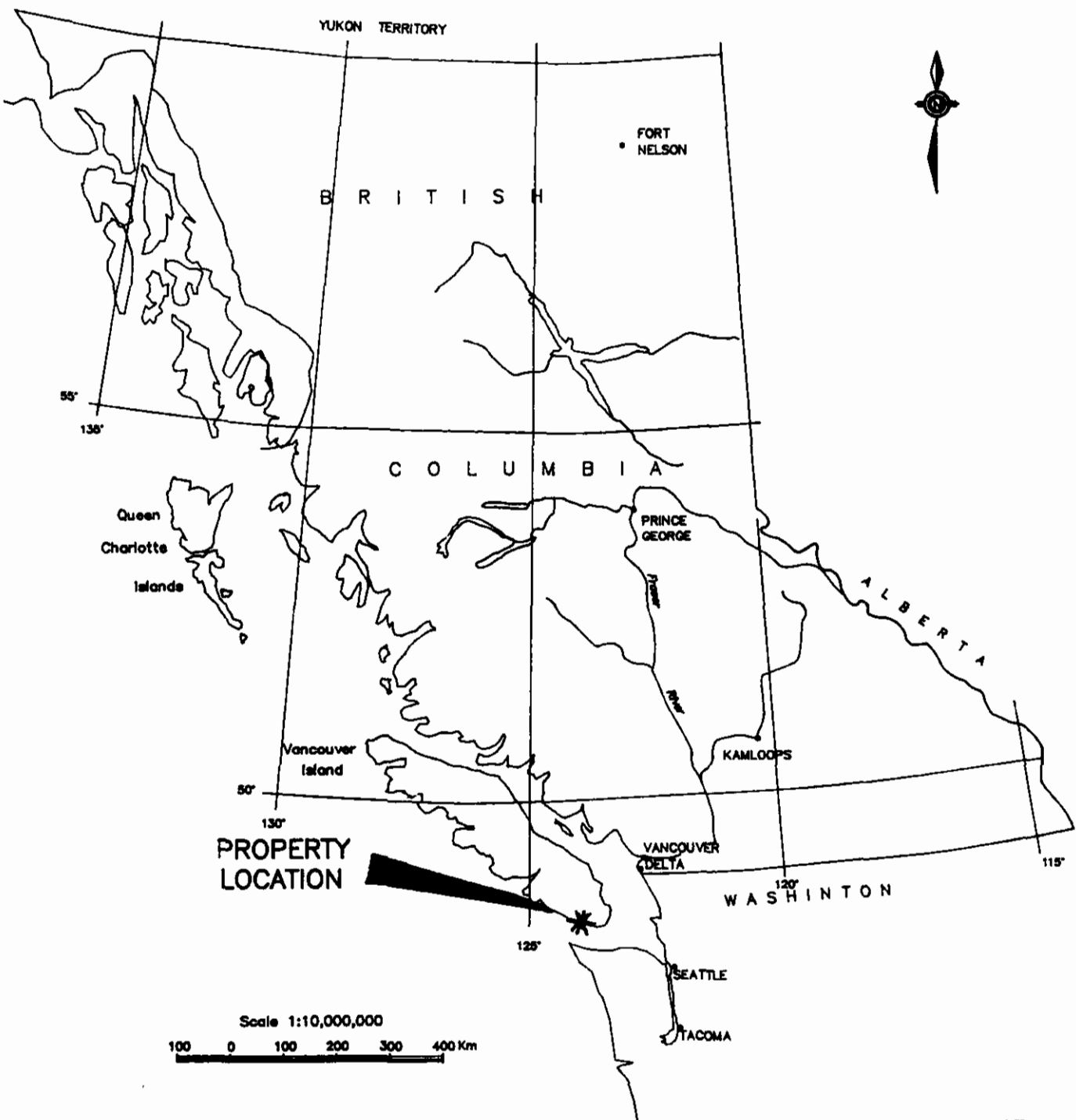
Cultured (or synthetic) marble and onyx are manufactured by combining the powder of the natural stone with specific resins, catalysts and pigments to create unique veining and colouring. Synthetic marble was first introduced in the 1950s and over the past 20 years has experienced a 20-fold increase in growth. Industry analyst predict a healthy growth pattern for the future as synthetic marble and other cultured products gain an increased share in world markets. Van City Marble has diversified its product line and intends to match overall market performance. Products include counter tops, bathtubs, shower receptors, wall coverings, furniture tops, decorative items and accessories.

Van City's existing manufacturing capacity can easily handle projected sales growth. In September 1990, Van City celebrated the opening of a 32,000-square-foot, state-of-the-art manufacturing facility and showroom in Richmond, BC. The facility includes 23,000 square feet of assembly production line and 9,000 square feet of showroom display and storage space. New equipment enables Van City to produce its products in greater volume and at lower cost than previously. Current production is handled by about 25 employees.

Emerging markets for high brightness, pure CaCO_3 are mainly fillers for paints and paper products. Presently the only producers of high-grade CaCO_3 in British Columbia are (1) IMASCO operating a quarry at Benson Lake on northern Vancouver Island and processing plant in Surrey and (2) Holnam from their mainly cement rock limestone quarry on Texada Island who ship a limited amount of white CaCO_3 to J.A. Jack & Sons in Seattle, Washington.

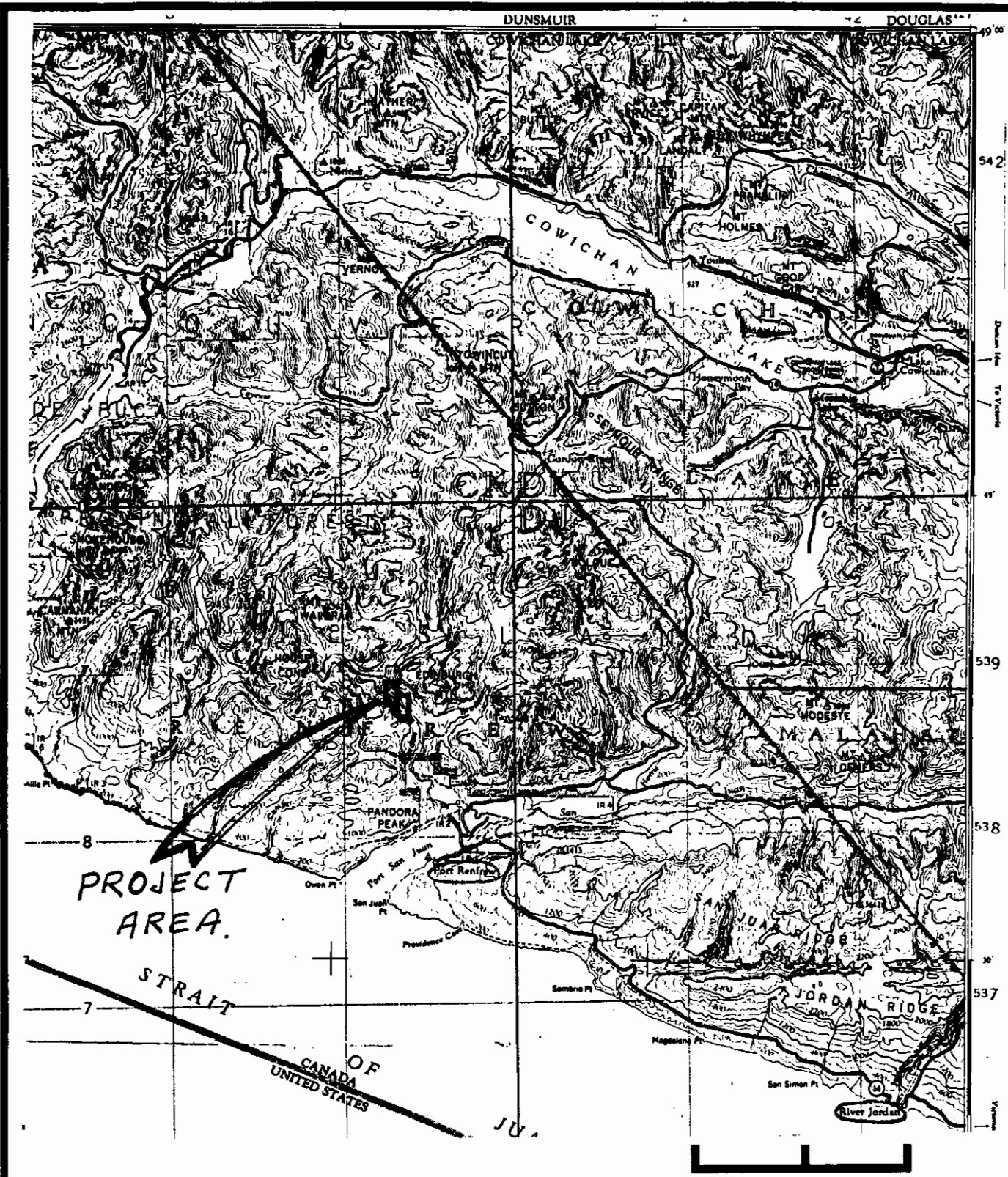
In Washington State, the majority of ground calcium carbonate (GCC) used in the paper industry is obtained from the Columbia River Carbonates Inc. quarry near Wauconda in Okanogan County, which is shipped by rail for processing at Woodland, northwest of Portland.

Evaluation of mineral filler deposits depends on a proper application of the market requirements and the processing possibilities and limitations. Most of the significant properties are physical rather than chemical, and it is especially important that the testing schedule accurately reproduces the actual tests used by the consuming industries such as paper, paint and plastics. Similarly, the demension stone industry is driven by the exacting specification of sophisticated end users who require uniform, high quality, attractive products.



VAN CITY MARBLE LTD			
MARBLE PROJECT			
LOCATION MAP			
SCALE as shown	DATE June '93	N.T.S. 92L/3W	Figure: 1

The field evaluation of the Marble, Renfrew and Gordon River claims is in the initial stages. In view of the preliminary favourable results, success-contingent phases are proposed in this report to more fully evaluate the claims.



PROJECT
AREA.

STRAIT
OF
JUAN DE FUCA
CANADA
UNITED STATES

VAN CITY MARBLE

DETAIL
Location Map
Marble Project

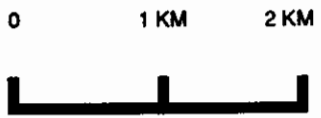
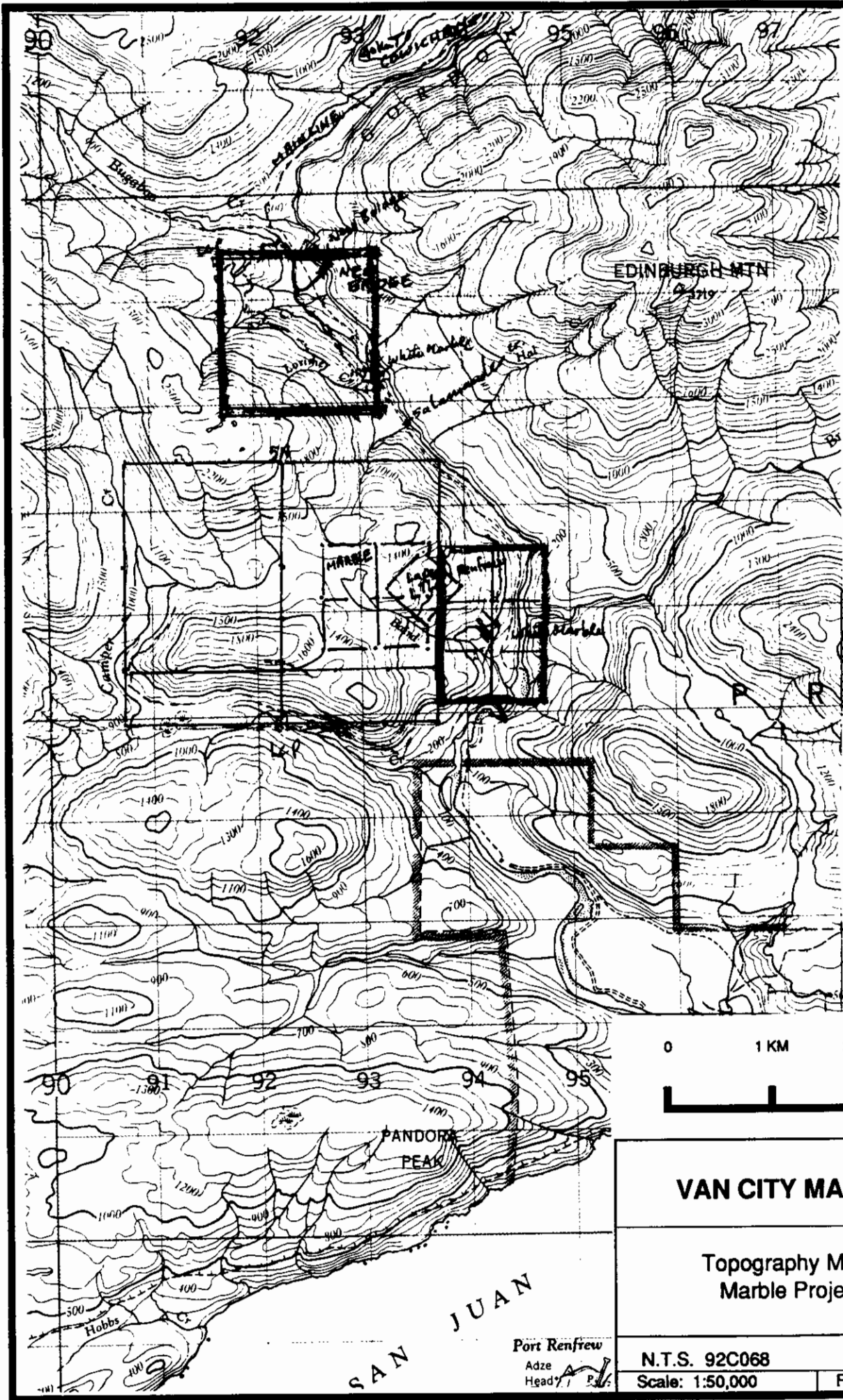
N.T.S. 92C068
Scale: 1:250,000 Figure: 1A

LOCATION AND ACCESS

The Van City Marble property is located on the southwest coast of Vancouver Island, approximately 7 km north of the community of Port Renfrew. Port Renfrew is located along the south shore of Port San Juan Inlet. The property is situated on the west side of Gordon River, which flows southward and empties into the north side of Port San Juan opposite Port Renfrew. The area is shown on topographic map sheet 92C-9W, Figures 1 and 1a.

Access to the property is via a good paved road that follows the southwest coast-line of Vancouver Island from Victoria to Port Renfrew, a distance of 92 km. From Port Renfrew, a paved logging road continues eastward along the south shore of Port San Juan for approximately 2 km. The road turns north and crosses the mouth of the San Juan River and then continues north-northwest along the east bank of Gordon River. The road is paved right to the property. The logging road crosses to the west side of Gordon River in the immediate vicinity of the initial posts for the Renfrew 1 and 2 claims. Active logging in the area provides a network of access roads throughout the three claim blocks. The main logging road (well maintained) continues northward on the west side of Gordon River towards Cowichan Lake, Figure 2. Active logging, yarding and hauling of logs was occurring on CG Lot 147 in February, March and April 1994 and some field mapping access was restricted during the initial work program.

At Port Renfrew, a small government wharf is available for small sea vessels. A larger docking and product storage area would be needed if ocean-going barges were to be used to haul raw materials to processing centres.



VAN CITY MARBLE

Topography Map
Marble Project

N.T.S. 92C068

Scale: 1:50,000

Figure: 2

Port Renfrew
Adze
Head P.

SAN JUAN

Hobbs

PANDORA
PEAK

EDINBURGH MTN
2170

MARBLE

NE BRIDGE

90

90

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CLAIM STATUS

The property owned or under option to Van City Marble is listed in Table 1, as shown in Figure 3.

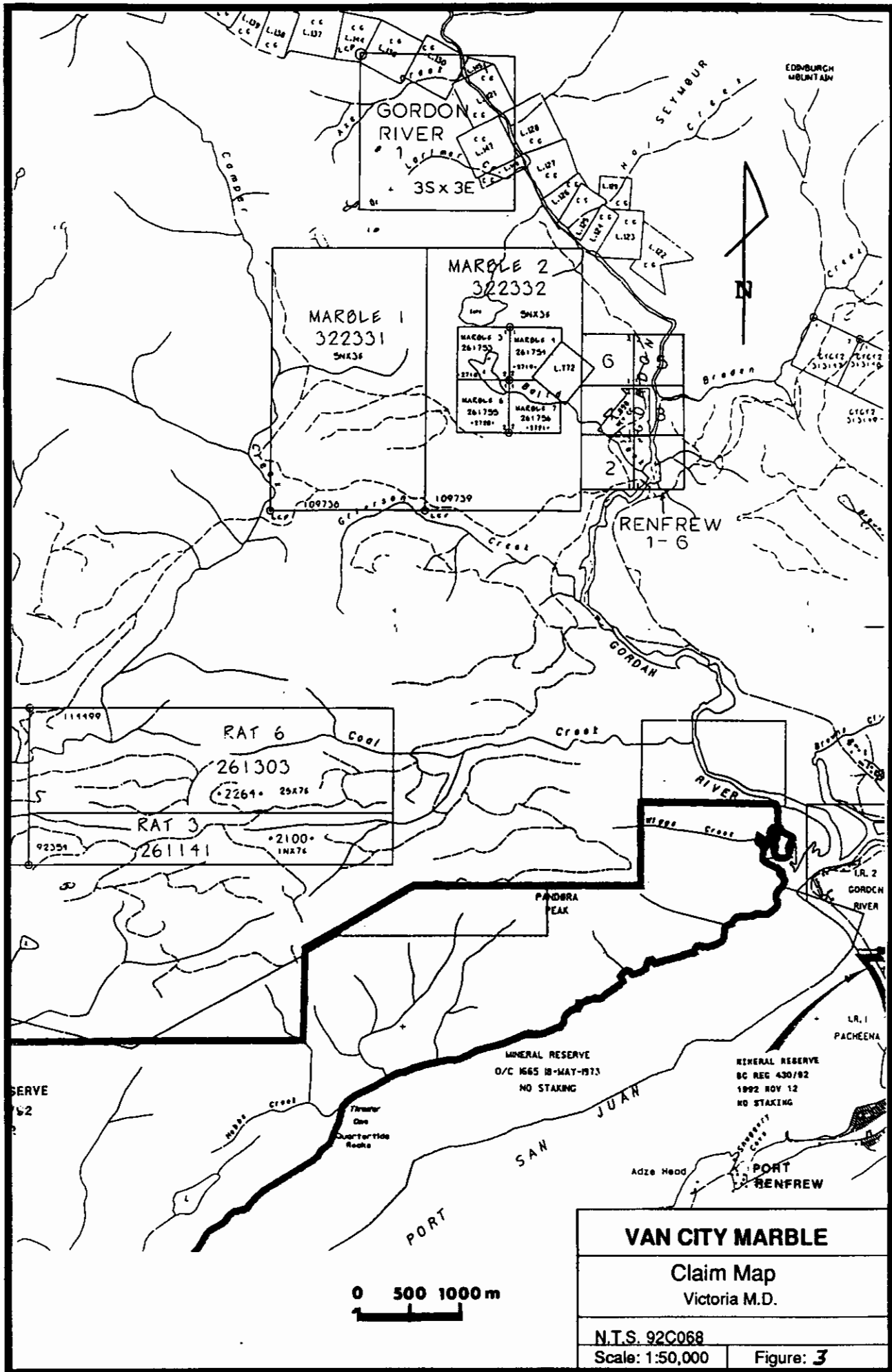
TABLE 1					
LIST OF CLAIMS					
Name	Registered Owner	Current Expiry Date *	Number of Units	Size	Tenure Number
Gordon River 1	P. Stathis	March 30, 1996	9	3S3E	324265
Marble 1	L. Sawyer	May 20, 1996	1	2 post	261753
Marble 3	L. Sawyer	May 20, 1996	1	2 post	261754
Marble 6	L. Sawyer	May 20, 1996	1	2 post	261755
Marble 7	L. Sawyer	May 20, 1996	1	2 post	261756
Renfrew 1	P. Stathis	March 29, 1996	1	2 post	324259
Renfrew 2	P. Stathis	March 29, 1996	1	2 post	324260
Renfrew 3	P. Stathis	March 29, 1996	1	2 post	324261
Renfrew 4	P. Stathis	March 29, 1996	1	2 post	324262
Renfrew 5	P. Stathis	March 29, 1996	1	2 post	324263
Renfrew 6	P. Stathis	March 29, 1996	1	2 post	324234
			19 Units Total		

* with assessment credit documented in this report

Under the present status of mineral claims in British Columbia, the consideration of industrial minerals requires careful designation of the product's end use. An industrial mineral is a rock or naturally occurring substance that can be mined and processed for its unique qualities and used for industrial purposes (as defined in the *Mineral Tenure Act*). It does not include "Quarry Resources". Quarry Resources includes earth, soil, marl, peat, sand and gravel, and rock, rip-rap and stone products that are used for construction purposes (as defined in the *Land Act*).

Construction means the use of rock or other natural substances for roads, buildings, berms, breakwaters, runways, rip-rap and fills and includes crushed rock. Dimension stone means any rock or stone product that is cut or split on two or more sides, but does not include crushed rock.

The expected end use of the CaCO₃ resource from the Marble Project of Van City Marble comes within the Industrial Use definition and therefore can be considered under the *Mineral Tenure Act*. Claims require \$100 of assessment work per unit (or cash-in-lieu) each of the first three years and \$200 per unit each year after.



VAN CITY MARBLE

Claim Map
Victoria M.D.

N.T.S. 92C068

Scale: 1:50,000

Figure: 3

Discussions toward an option agreement have been initiated with the owners of CG Lots 147 and 148 north of Lorimer Creek. However, these Crowngrant claims were in danger of being cancelled but recently been paid up to date. Further discussions toward an option agreement are recommended. Although the marble horizon was observed to extend at least 1,000 m west of the boundary of Lot 147, the thickest section (and probably the lowest mining cost) is along the main road on Lot 148. The uppermost logging road (Branch GOR 3200) is approximately 500 m west of the boundary of Lot 147.

HISTORY

During the early 1890s, placer gold was noted in small quantities in the streams draining into San Juan Harbour. Limited prospecting located quartz veins between McDonald and Floodwood Creeks, which flow into the San Juan River. Some quartz veins were also found near the headwaters of the Gordon River. Limestone and granitic rocks were the most common rock types identified in the area. "Iron ore"(magnetite) was discovered along the Gordon River a few miles upstream from its confluence with the San Juan Harbour. During the early 1900s, large bodies of magnetite were found to occur along the contact of the "Nitinat" limestone (Quatsino?) and dioritic intrusive rocks. The magnetite contained low values of phosphorus and high values of sulphur. The main deposits were found along the Gordon River valley and its tributary, Bugaboo Creek (just north of Lorimer Creek). A minor amount of limestone was used for smelter flux as well as in the manufacture of lime and cement.

Mineralized shear zones were discovered in the Gordon River area and are best developed near the contacts between the metavolcanics-limestone and the dioritic intrusive rocks. The Alfreda claim, staked prior to 1912, was located on the east bank of the Gordon River, approximately three miles upstream from its confluence with San Juan Harbour. A 25-foot-wide shear in dioritic rocks striking N50°W was found to carry copper, minor gold and up to 5 oz./ton silver. The zones tend to be small and none has yielded commercial quantities to date.

Since 1913 to the present, only sporadic exploration and minor development work has been carried out on these iron and copper showings found along contacts with limestone and within shear zones. The limestone units in the claim area have not been explored in any significant way to date. The crystalline "Nitinat" limestones are noted for their purity and might supply excellent material for the manufacture of lime, cement, flux and newly developed products in the paper and ceramics industries.

The first detailed exploration and analysis of these carbonate units found in the Gordon River area were carried out during April to June 1994 by Van City Marble.

GEOLOGY

Reconnaissance geological mapping of the region is available at a scale of 1 inch = 8 miles by the Geological Survey of Canada, and is referred to as Geological Sketch Map of Vancouver Island by J.E. Muller, 1967, Figure 4.

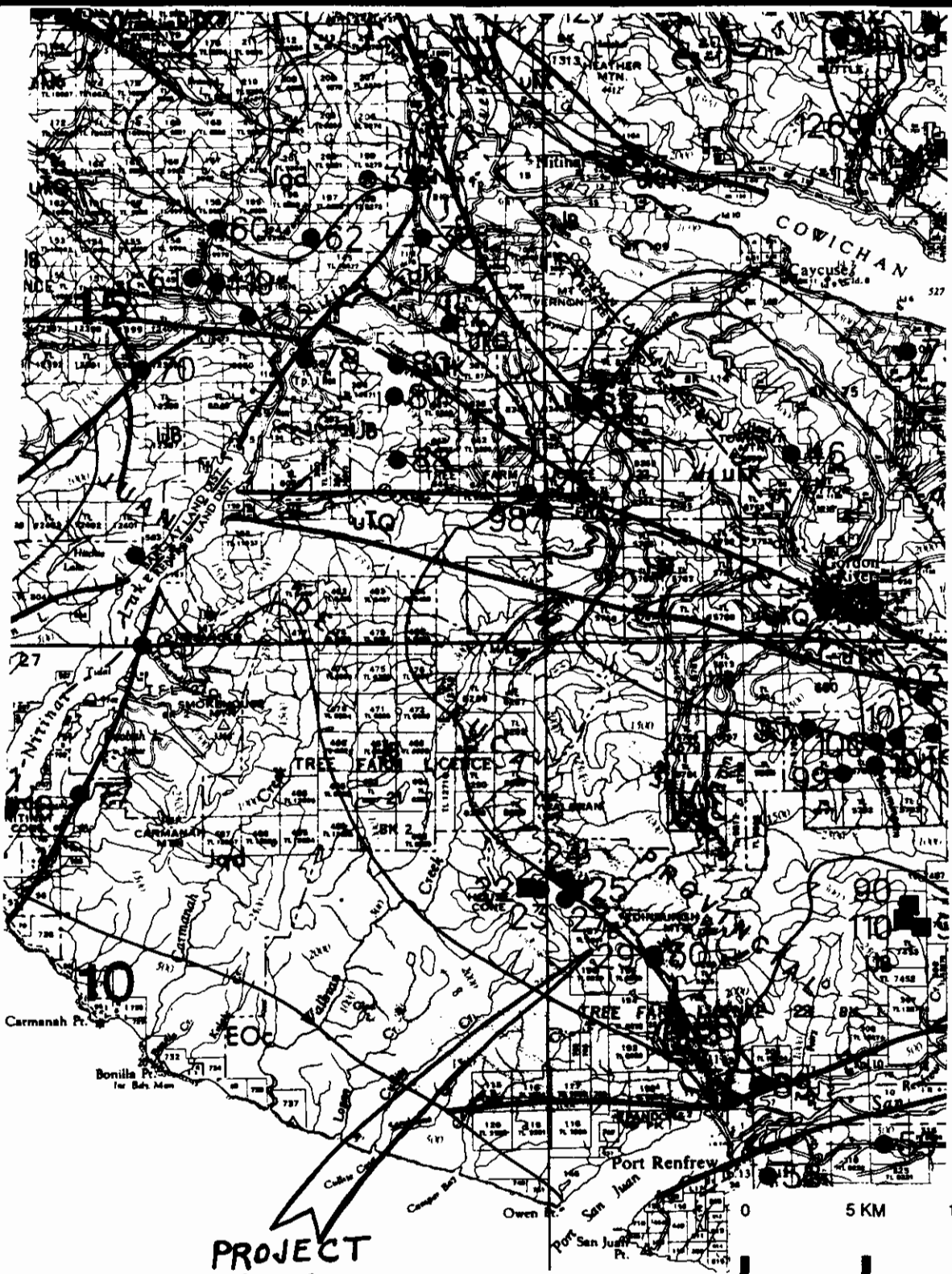
This map indicates the Marble Project is underlain by Middle Pennsylvanian clastic sediments in the south, in fault contact with units of the Island Intrusions of Middle Jurassic age in the north, and older metamorphosed rocks to the west. These latter have been mapped as gneiss, migmatitic and metadiorite. The fault separating the Pennsylvanian sediments from the older units trends east-west through the northeast corner of Port San Juan.

More recent mapping has allowed a reinterpretation of the area and has shown recrystalline zones of highly altered limestone in contact with intrusives altered to metadiorite and chloritic schists. The carbonate units are correlated with the Upper Triassic Quatsino Formation structurally below the Early to Middle Jurassic Bonanza Group. Immediately to the north in the Cowichan Lake map-area, at the headwaters of the Gordon River, the Quatsino Formation is characterized by massive, thickly bedded micritic limestone. It is fine-grained, dark grey in colour and often cut by a dense network of white sparry calcite veins. The formation is estimated to be not more than 75 m thick, averaging 25 to 40 m (Massey and Friday, 1987). On the Renfrew and Gordon River claims, the carbonate unit has been recrystallized into a coarsely crystalline white marble, occasionally cut by andesitic dykes and skarn zones. Trace amounts of calc-silicates were observed on some fracture surfaces. The surface exposures are characterized by smooth fractures. Banding is usually limited to indistinct light grey layers.

Immediately above the carbonate units is a sequence of intercalated altered lapilli and crystal tuffs and epiclastic sandstone and argillite. To the north and south, the Quatsino Formation is intruded by dioritic Island Intrusives which have garnet-actinolite skarn zones and extensive bleaching. The intrusives are commonly intensely chloritized and shattered. Regional structures are dominated by syncline-anticline pairs plunging to the northwest.

The location of the two main carbonate occurrences are shown on Figure 5. Sample sites are illustrated on Figures 6 and 7.

The Baird Creek, Figure 6, unit is well exposed on the main logging road a short distance northeast of the Baird Creek bridge. The pure carbonate horizon is approximately 25 m wide, dipping an average of 65° to the southwest. Intrusive rocks are highly fractured. To the northwest, along strike a distance of 1,000 m, Figure 8, the carbonate unit is less recrystallized and much darker in colour. Chemical analyses (Appendix 1, Sample 2) shows that the magnesium content is high.



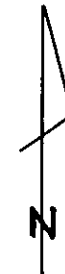
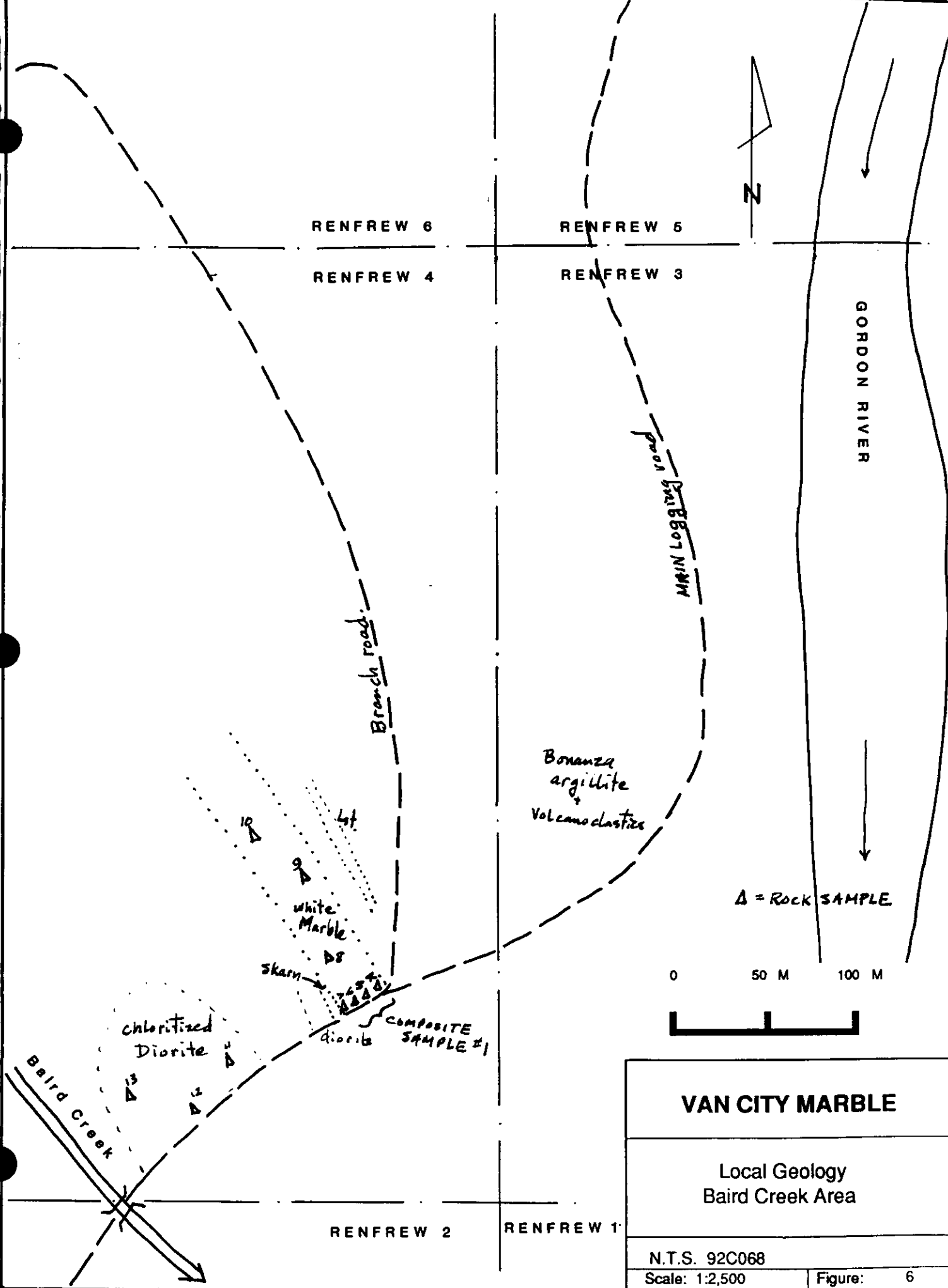
PROJECT AREA.

LEGEND

- Jgd - Middle to Upper Jurassic
Island Intrusions - Altered Diorite
- iJB - Lower Jurassic - Bonanza
Volcaniclastic
- uTRQu - Upper Triassic - Quatsino
Limestone

VAN CITY MARBLE	
Regional Geology Marble Project	
N.T.S. 92C068	
Scale: 1:250,000	Figure: 4

The Lorimer Creek carbonate unit, Figure 7, is more than 120 m wide, dipping steeply to the southwest. The increased thickness appears to be due to isoclinal folding since on the middle logging road the width has reduced to less than 30 m. The potential quantity of white calcium carbonate appears to be very large. The lower area alone with minimum dimensions of 120m wide by 500m long by 30m deep suggests the potential for about 4 million tonnes. However, more detailed sampling and diamond-drilling is required to define the suitability of this section to meet the filler market specifications. Total geological potential of the Lorimer carbonate unit might be in the order of over 10 million tonnes but the percentage of filler quality CaCO_3 is presently unknown.



Δ = Rock SAMPLE

0 50 M 100 M



VAN CITY MARBLE	
Local Geology Baird Creek Area	
N.T.S. 92C068	
Scale: 1:2,500	Figure: 6

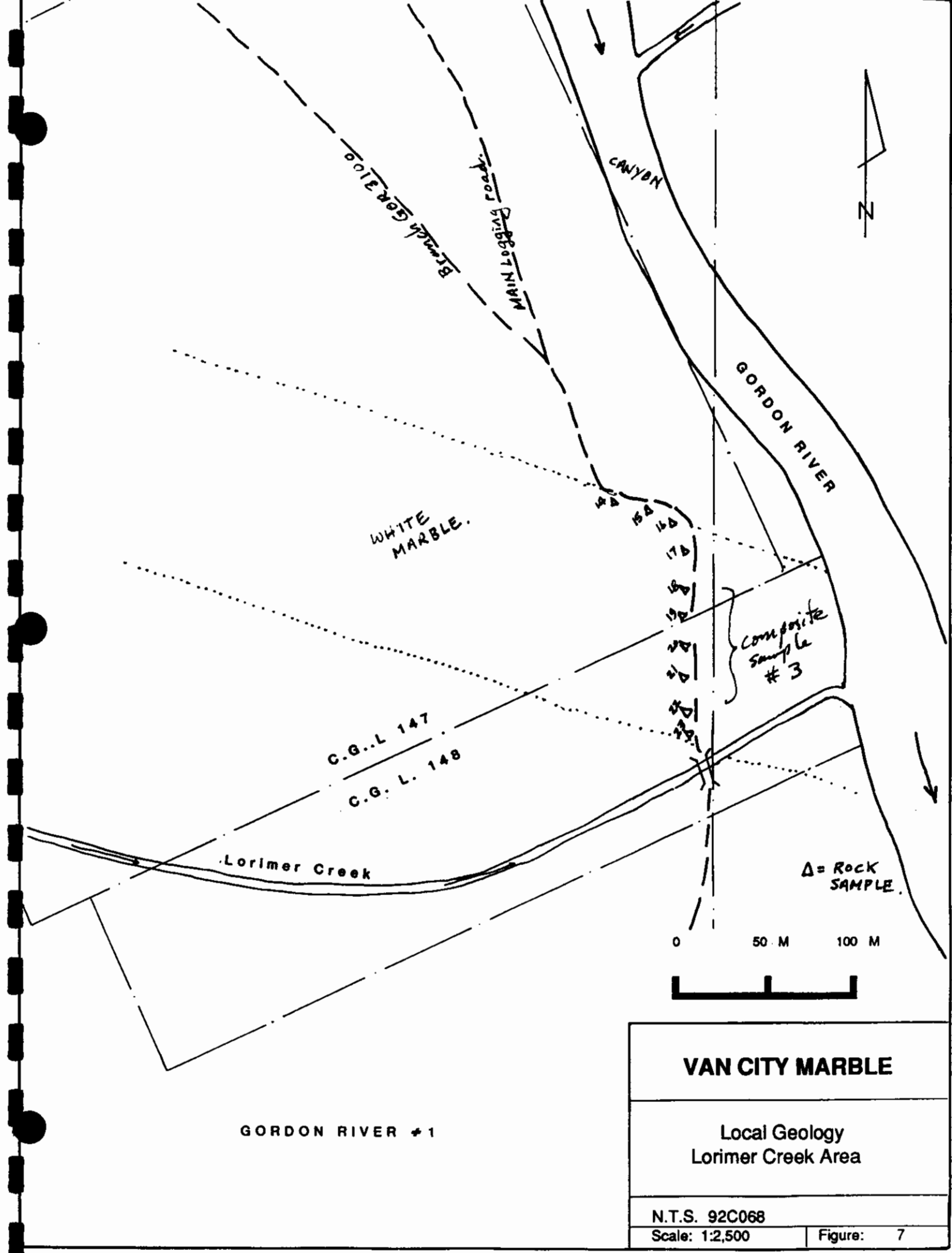
TRANSPORTATION AND LOADING FACILITIES

Port Renfrew is a largely logging-based community situated on the central southeastern shore of Port San Juan. The community has been in existence since the turn of the century. However, in recent years, the transportation of raw logs has shifted from the estuary of the Gordon and San Juan Rivers to being trucked north to Cowichan Lake. The former booming grounds in the Gordon River has recently been converted to a marina and RV park. The logging camp at the mouth of Browns Creek has been moved north to Gordon River Camp and Cowichan.

Although the present government wharf could be used with permission to ship a bulk sample, a separate site with a major stockpile and conveyor system would have to be developed if large quantities of CaCO_3 were to be shipped out of Port San Juan.

Discussions with Seaspan, the largest tug-barge operator on the northwest Pacific coast, suggest that shelter from the swells could be a problem in a large operation. A breakwater has been built north of Snuggery Cove, the use of which requires investigation.

The successful white CaCO_3 quarry operated by IMASCO near Benson Lake on northern Vancouver Island is located about 10 km east of Port Alice and up to 1993 the crushed product was trucked to a barge-loading facility at Port McNeil, a distance of 35 km. In late 1993, new loading facilities were planned for the Port Alice area; however, the barging costs will increase significantly.



VAN CITY MARBLE	
Local Geology Lorimer Creek Area	
N.T.S. 92C068	
Scale: 1:2,500	Figure: 7

GORDON RIVER #1

MARKETS AND SPECIFICATIONS

In industrial minerals, the relationship between mine and market is extremely close. Geological evaluations must be carried out according to parameters set by the market. In a very real sense, a market evaluation can be recognized as the initial exploration phase.

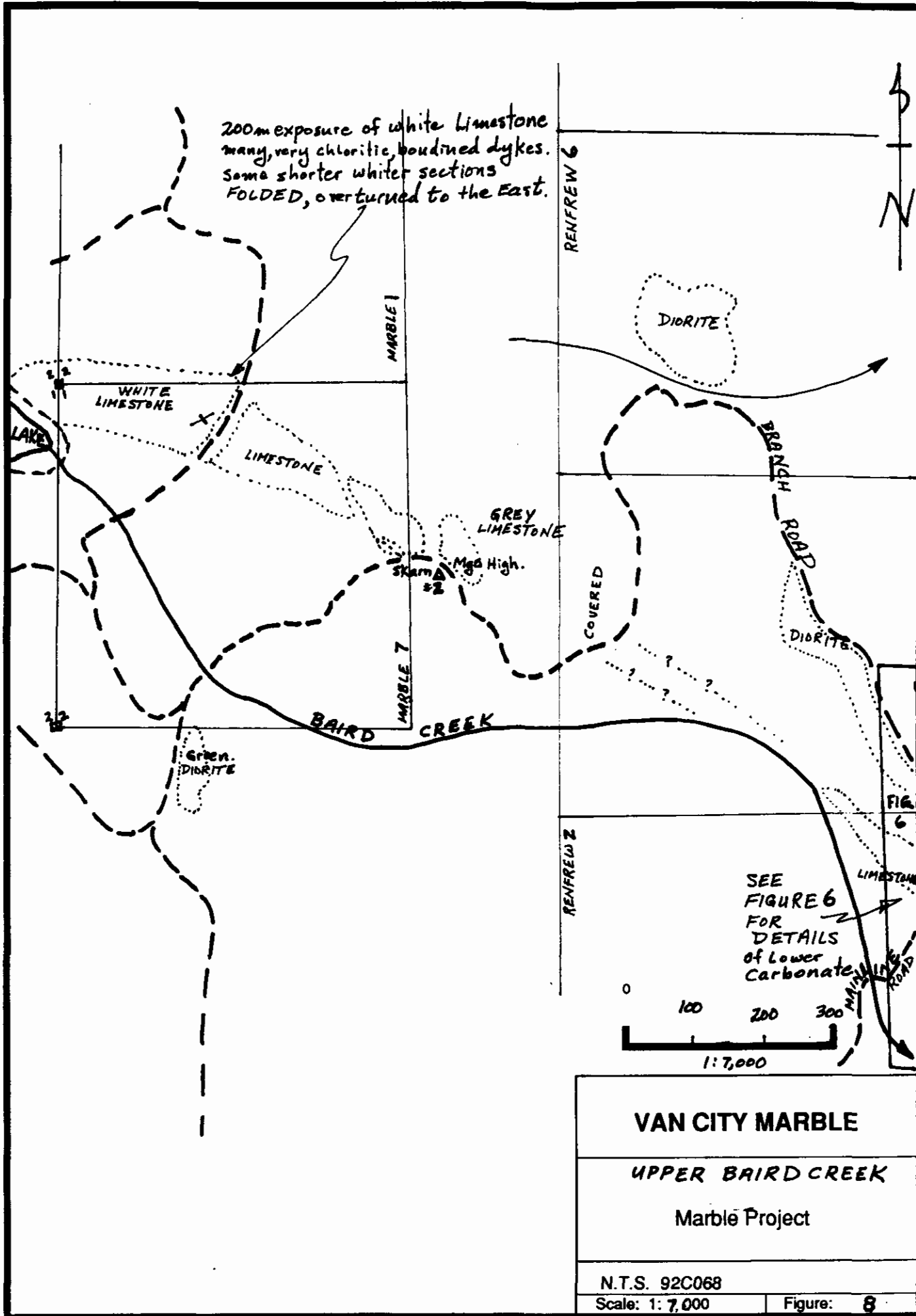
General specifications for the four main filler markets are listed in Table 2.

PRINCIPAL PROPERTIES FOR CaCO₃ FILLER APPLICATIONS				
Property	Filler for Paper	Mineral Pigment for Paint	Filler for Plastics Feedstocks	Coating Pigment
Brightness	Whiteness (80-82)	Whiteness (83+)	Whiteness	85-93
Particle size distribution	<10 μ , 75-80% <2 μ		Engineering properties surface finish	Even Surface
Abrasion	Low abrasion			Low abrasion
Opacity	High			
Oil absorption		Controls amount of filler which can be loaded into paint		
Viscosity		Controls stability settling resistance thixotropy		Flowing slurry
Particle shape		Controls density packing		
Surface properties			Ability to bond with plastic	
Low density			To reduce light	
Gloss				High gloss

As one of their desirable physical properties, extender pigments possess bulking value, or the property of possessing volume. The colour of extender pigments is commonly designated by their brightness, which usually ranges from 70 to 98 per cent (smoked MgO = 100%). The presence of residual impurities imparts colour to the extender and tends to lower the brightness. These residual impurities pass through high-speed dispersion equipment, imparting to any white paint a distinct grey tone. There is little orderly arrangement of pigment particles in a cured paint film and the three predominant shapes of extender pigments are: rounded (nodular), needles (acicular) and plates (lamellar). The shape of the pigment particle will influence the physical properties of both the wet paint and the dry film where it is used.

CaCO₃ deposits are usually processed on the site. Three basic operations are usually involved:

1. crushing and grinding;
2. classification;
3. surface treatment.



Selected rock is crushed and then ground in suitable mills by either wet or dry processes. Extender pigments prepared from natural rock by crushing and dry grinding tend to have particles which range in size from 5 to 100 microns and have jagged edges and sharp corners. Water grinding tends to produce more rounded particles than dry grinding, as well as a lower soluble salt content. The product is classified to remove excessive fines and coarse particles and the latter are recycled for further grinding. Infrequently, the surface of the pigment is coated with a resinous fatty acid, calcium stearate or other suitable material to aid in the dispersion of the pigment. Plastic products based on surface-coated fillers have a smoother surface in addition, there is less equipment wear. For very fine particle sizes, the fines are 'jet milled' or 'micronized'.

Ground CaCO_3 products compete against precipitated CaCO_3 products in some paper applications. Precipitated extenders involve complex chemical processes in which the particle size of an extender may be closely controlled but in consequence are relatively high-priced.

As a fundamental property, each extender possesses an oil absorption value; this is the minimum amount of oil required to wet and hold together 100g of dispersed extender pigment. The oil absorption of a particular pigment is directly proportional to the surface area of the pigment and is also affected by the nature of the pigment surface. By using an extender pigment with a low oil absorption value, there will be more free binder available for resistance to cracking.

In plastics applications, a high-absorption filler is more expensive in terms of plasticizer absorption and product quality. In processing, a high-absorption filler will absorb expensive plasticizer from the resin system and cause brittleness and cracking of the finished product. Absence of plasticizer will also cause degradation of the polymer in the processing operation. It is equally important that a filler have low absorption in the finished-product stage; otherwise, the plasticizer will migrate to filler particles and the resultant product will become brittle.

Van City Marble has received interest from other parties regarding the suitability of the Port Renfrew claims containing material for the manufacture of decorative tiles or general dimension stone market both for the white marble and the greenish altered diorite. Samples have been cut and polished with encouraging results. Diorite exposures near the carbonate units tend to be relatively highly fractured on surface and in road cuts. However, the colour, a dark to light speckled green, is very desirable and perhaps could command a premium price if suitable tiles can be produced. Large areas of the Marble Project are underlain by intrusive rocks, the amount of chloritized diorite requires definition by detailed mapping and sampling.

The recent popularity of dimension stone is primarily for thin slabs and veneers, which are used for interior and exterior wall facing and flooring. In these applications, granite is mainly used for exterior cladding while marble remains the primary stone for interior use. Recent technological developments and automated fabrication facilities have allowed stone slabs to be produced at prices competitive with many other materials. In addition to a large demand for face-finished slabs, a rapidly growing market has developed in the use of stone tiles.

Dimension stone must satisfy a variety of physical requirements. Stone used for external cladding must normally meet the standards set by the American Society of Testing and Materials.

In addition, the demension stone industry requires that stone must normally take a good polish, contain little biotite or sulphides, and have a low porosity to prevent staining and water absorption. The market requires that granites be uniform in colour, texture and pattern. Natural features such as mafic knots, veining, schlieren structures and inclusions are usually unacceptable (Page, 1989).

Significant market potential exists for premium quality granites such as fine-grained black granites, and medium-grained mahogany, dark red, gold, green and blue-coloured granites. These stones command premium prices and enjoy large international markets. However, the higher prices often reflect higher production costs and waste factors which do not translate into higher profit margins unless a quarry site with ideal conditions is developed.

Normal requirements for demension stone suitable for decorative tiles are listed in Table 3.

TABLE 3		
MARKETABLE CHARACTERISTICS OF DIMENSION STONE		
(after Page, 1989)		
Exterior Applications	Marble	Granite
(1) minimum density	2,595 kg/m ³	2,560
(2) maximum absorption by weight	0.75%	0.40%
(3) minimum compressive strength	52 MPa (x10 ⁶)	131 MPa (x10 ⁶)
(4) minimum transverses strength	7.00 MPa (x10 ⁶)	10.34 MPa (x10 ⁶)
Marble and Granite		
Strength depends on: mineralogy, texture, grain size foliation, cement types and presence of microfractures.		
Porosity: absorbed water when frozen causes fracturing and physical deterioration. Also porosity is an indication of susceptibility to staining.		
(5) polish well	contain a minimum of flaky minerals which create pits in the polish	
(6) free from sulfides	in exterior applications will cause rusty stains	
(7) low waste factor	uniform bulk texture	
(8) low quarry development costs	accessibility and ease of transportation	

Initial sample results for the Marble Project, referred to in Appendix I, suggest that suitable high-brightness (92.54%), low silica (0.83% SiO₂), low magnesium (0.82% MgO) calcium carbonate is present on the claims. Systematic sampling at 15-metre intervals along the main road exposure and along strike ave been submitted for similar analysis. The hand specimen characteristics of these samples are very similar to the initial composites that returned encouraging results.

CONCLUSIONS

The Marble Project is composed of a 40-unit group of claims located a short distance from tidewater at Port Renfrew on southern Vancouver Island. Access is by paved, all weather roads, a two hour drive from Victoria, BC. Thick sections of very white, recrystallized Quatsino Formation marble are exposed in the mainline road cuts. The potential to define large tonnages of white marble is considered to be good with zones in excess of 4 million tonnes (of undefined quality) contained on a single claim unit. Initial samples give results in regard to standard brightness and major element chemistry for filler applications. The Lorimer Creek carbonate unit has an initial brightness result of 92.54% with low SiO₂ and MgO content. Further detailed systematic sample series have been submitted for analysis.

Van City Marble is a local, long-successful manufacturer of quality cultured marble and onyx products and consumes, among several raw materials, 30-mesh CaCO₃. Emerging markets for high-brightness, pure CaCO₃ are as fillers for paints and new-paper coatings and paper contents. The pulp and paper industry in the Pacific Northwest is currently starting an anticipated restructuring and expected pulp shortages.

Since the evaluation of mineral filler deposits depends on a proper application of the market requirements to processing techniques and transportation costs, the proposed work programs on the Marble claims must systematically reproduce the tests used by the consuming industries.

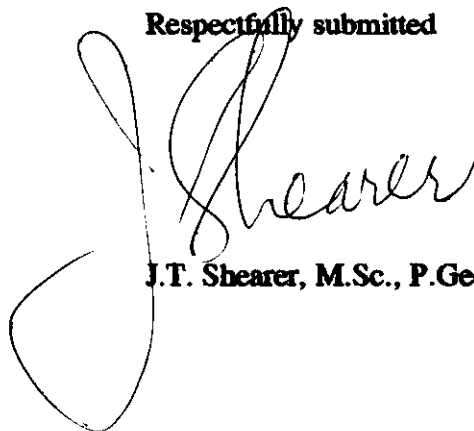
Concurrent work programs to investigate the suitability chloritized diorite (green "granite") for general demension stone markets are warranted. Initial samples have been polished with encouraging results. Demension stone production could benefit an overall filler product operation.

RECOMMENDATIONS

The following program is recommended to systematically evaluate the Marble Project in the summer of 1994:

1. Visit Port Renfrew area with marine transportation expert, i.e., Wayne Poole, Seaspan Ltd. Check all possible loading sites.
2. Contact First Nations for concerns and future plans.
3. Continue sampling carbonate horizon at Lorimer Creek and conduct abrasion index, silica size distribution, oil absorption, ;H, specific gravity, meralogy and major element chemistry.
4. Negotiate option on Lots 147 and 148.
5. Diamond-drill 2,000-foot program in shallow holes.
6. Geologically map entire property.
7. Detail sample Intrusive outcrops, geological map, polish green granite specimens.

Respectfully submitted



J.T. Shearer, M.Sc., P.Geo.

ESTIMATED COSTS of FUTURE WORK

Phase I

Review of transportation options	\$ 3,000
Diamond drilling, 2,000 feet @ \$35 per foot (all-in cost) including GST	70,000
Analytical major element chemistry	6,000
Geological control	5,000
Environmental Initial Report	5,000
Polishing and physical testing	10,000
Drafting	2,000
Report preparation, word processing and reproduction	<u>4,000</u>
Subtotal	105,000
10% contingency	10,000
Refundable Exploration Bond	<u>2,500</u>

Phase I Grand Total **\$ 117,500**

Phase II

Bulk sample, 5,000 tons	
Mining, including mobilization and crushing to 1" minus	\$ 80,000
Permit application and follow-up	10,000
Environmental Second Stage Report	12,000
Prospectus preparation	25,000
Barge transportation, loading and unloading	40,000
Analytical and physical testing	25,000
Market analysis	15,000
10% contingency	<u>20,000</u>

Phase II Grand Total **\$ 227,000**

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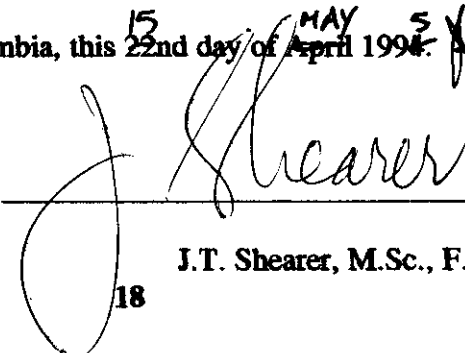
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STATEMENT OF QUALIFICATIONS

I, JOHAN T. SHEARER, of 1817 Greenmount Avenue, in the City of Port Coquitlam, in the Province of British Columbia, do hereby certify:

1. I am a graduate of the University of British Columbia (B.Sc., 1973) in Honours Geology, and the University of London, Imperial College (M.Sc., 1977).
2. I have over 20 years experience in exploration for base and precious metals and industrial mineral commodities in the Cordillera of Western North America with such companies as McIntyre Mines Ltd., J.C. Stephen Explorations Ltd., Carolin Mines Ltd. and TRM Engineering Ltd.
3. I am a fellow in good standing of the Geological Association of Canada (Fellow No.F439) and I am a member in good standing with the Association of Professional Engineers and Geoscientists of British Columbia (Member No. 19,279).
4. I am an independent consulting geologist employed since December 1986 by New Global Resources Ltd. at #5-2330 Tyner St., Port Coquitlam, B.C.
5. I am the author of a report entitled "Industrial Mineral Report on the Marble Project (Marble 1-7, Renfrew 1-6 and Gordon River #1 Mineral Claims), Port Renfrew Area, Victoria M.D., dated ~~April 22~~ ^{MAY 25} 1994.
6. I have visited the property on March 3, 29 and 30 1994. I have examined the surface exposures of the limestone and collected systematic surface samples. I am familiar with the regional geology and geology of nearby properties. I have become familiar with previous work conducted in the Marble claim area by examining in detail the available reports, plans and sections and have discussed previous work with persons knowledgeable of the area. I have recently completed a marble industrial mineral property project (Serpentine Project) and have successfully obtained a Mine Development Certificate for an industrial mineral project (Monteith Bay) for early 1994. *and July 22-23/94, October 5+6/94 and April 8+9/95*
7. I do not own or expect to receive any interest (direct, indirect or contingent) in the property described herein and nor in the securities of Van City Marble or its affiliates in respect to services rendered in preparation of this report.
8. I consent to authorize the use of the attached report and my name in the company's Statement of Material Facts or other public document.

Dated at Port Coquitlam, British Columbia, this ¹⁵22nd day of ^{MAY}April 1994. *S*



18

J.T. Shearer, M.Sc., F.G.A.C., P.Geo.

APPENDIX I

STATEMENT OF COSTS

May 15, 1995

Appendix I

**STATEMENT OF COSTS
PORT RENFREW PROJECT**

	Total	Marble	Renfrew	Gordon River
Wages and Benefits				
J.T. Shearer 6 days @ \$300 Jul. 22-23, Oct. 5&6, Apr. 8&9	1,800.00	750.00	450.00	600.00
S.E. Angus, 2 days @ \$220 (Prospector) July 22&23	440.00	110.00	110.00	220.00
 Transportation				
Truck Rental 4 days @ \$53.90	214.00	50.00	50.00	114.00
Gas	125.00	25.00	25.00	75.00
Ferry	53.00	12.00	12.00	29.00
Hotel & Meals	185.00	50.00	50.00	85.00
Analytical (Assay, Brightness)	1,000.00	25.00	100.00	875.00
Report Preparation	600.00	100.00	100.00	400.00
Word Processing & Reproduction	100.00	25.00	25.00	50.25
 TOTAL	 4,507.00	 1,137.00	 922.00	 2,448.00

19 Units = \$1,900.00
 Gordon River #1 = \$2,448.00
 Renfrew 1-6 = \$ 922.00
 Marble 3,4,6,7 = \$1,137.00
 \$4,507.00

APPENDIX II

ANALYTICAL CERTIFICATE

May 15, 1995



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

NEW GLOBAL RESOURCES

548 BEATTY ST.
VANCOUVER, BC
V6B 2L3

A9412996

Comments: ATTN: JOE SHEARER

CERTIFICATE

A9412996

NEW GLOBAL RESOURCES

Project: MARBLE
P.O. #:

Samples submitted to our lab in Vancouver, BC.
This report was printed on 21-MAR-94.

SAMPLE PREPARATION

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION
248	3	Geochem Zr ring approx 150 mesh
274	3	0-15 lb crush and split
200	3	Whole rock fusion

ANALYTICAL PROCEDURES

CHEMEX CODE	NUMBER SAMPLES	DESCRIPTION	METHOD	DETECTION LIMIT	UPPER LIMIT
594	3	Al2O3 %: Whole rock	ICP-AES	0.01	99.99
588	3	CaO %: Whole rock	ICP-AES	0.01	99.99
590	3	Cr2O3 %: Whole Rock	ICP-AES	0.01	100.00
586	3	Fe2O3(total) %: Whole rock	ICP-AES	0.01	100.00
821	3	K2O %: Whole rock	ICP-AES	0.01	99.99
593	3	MgO %: Whole rock	ICP-AES	0.01	99.99
596	3	MnO %: Whole rock	ICP-AES	0.01	99.99
599	3	Na2O %: Whole rock	ICP-AES	0.01	99.99
597	3	P2O5 %: Whole rock	ICP-AES	0.01	99.99
592	3	SiO2 %: Whole rock	ICP-AES	0.01	99.99
595	3	TiO2 %: Whole rock	ICP-AES	0.01	99.99
475	3	L.O.I. %: Loss on ignition	FURNACE	0.01	99.99
540	3	Total %	CALCULATION	0.01	105.00
820	3			0.01	100.00



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

Client: NEW GLOBAL RESOURCES

548 BEATTY ST.
VANCOUVER, BC
V6B 2L3

Project: MARBLE
Comments: ATTN: JOE SHEARER

Page Number: 1
Total Pages: 1
Certificate Date: 21-MAR-94
Invoice No.: 19412996
P.O. Number:
Account: EIJ

CERTIFICATE OF ANALYSIS A9412996

SAMPLE	PREP CODE	Al2O3 %	CaO %	Cr2O3 %	Fe2O3 %	K2O %	MgO %	MnO %	Na2O %	P2O5 %	SiO2 %	TiO2 %	LOI %	TOTAL %	BRIGHTNESS %
#1	248 274	0.08	51.00	< 0.01	0.14	0.01	3.12	0.06	0.01	< 0.01	0.24	< 0.01	43.41	98.10	85.93
#2	248 274	0.21	40.00	< 0.01	0.19	0.01	11.86	< 0.01	0.04	< 0.01	1.88	< 0.01	43.50	97.73	68.20
#3	248 274	0.06	53.50	< 0.01	0.07	0.01	0.82	< 0.01	0.03	< 0.01	0.83	< 0.01	42.50	97.86	92.54
<i>Refer to Figures 6+7 for locations</i>															

CERTIFICATION: *Jhai D'Ma*

XRF - Whole Rock Analysis

From : Cominco Lab. Job no. X94-216 Reported 08-18-1994
 To : IMASCO
 Client's I.D. no. : #P0#29418

Page 1

Field number	CaO	K2O	P2O5	SiO2	Al2O3	MgO	Na2O	Fe2O3	TiO2	MnO	LOI	Total	ppm
1 #1786	49.23	0.01	0.01	0.11	0.06	5.53	0.01	0.12	0.01	0.01	44.74	99.84	6
2 #1787	50.22	0.01	0.01	0.11	0.11	4.44	0.01	0.21	0.01	0.02	44.40	99.56	6
3 #1788	53.07	0.01	0.01	0.11	0.11	2.24	0.04	0.11	0.01	0.02	44.09	99.93	6
4 #1789	55.65	0.01	0.01	0.46	0.11	0.46	0.02	0.06	0.01	0.01	43.07	99.87	6
5 #1790	53.70	0.01	0.01	0.57	0.11	1.70	0.02	0.17	0.01	0.01	43.34	99.65	6
6 #1791	53.89	0.01	0.01	0.45	0.11	1.70	0.02	0.16	0.01	0.01	43.17	99.54	6
7 #1792	55.79	0.01	0.01	0.46	0.11	0.46	0.02	0.07	0.01	0.01	42.93	99.88	6
8 #1793	53.84	0.01	0.01	0.79	0.11	1.47	0.02	0.11	0.01	0.01	43.55	99.93	6
9 #1794	53.86	0.01	0.01	0.56	0.11	1.35	0.03	0.12	0.01	0.01	43.90	99.97	6
10 #1795	53.76	0.01	0.01	0.45	0.11	1.47	0.02	0.15	0.01	0.01	43.52	99.82	6

Boind #	CaCO3	MgCO3	Acid Insolubles	Brightness	Yellow
1	87.87	11.57	0.56	85.3	1.3
2	89.64	9.29	1.07	83.2	1.1
3	94.73	4.90	0.37	81.8	1.4
Primes #4	99.33	0.96	— (0.70)	89.4	0.9
#2 5	95.85	3.56	0.59	84.1	1.0
#3 6	96.19	3.56	0.25	81.5	1.4
#4 7	99.58	0.96	— (0.70)	83.6	1.2
#5 8	96.10	3.08	0.82	87.0	1.3
#6 9	96.14	2.83	1.03	83.2	1.1
#7 10	95.96	3.08	0.96	81.8	1.4

08/15/94 13:41
AUG-15-1994 13:03

604 684 9959

SPECIALTY MINERALS INC.

002/002

619 248 6707 P.01

604 684 9959

TO: Marshal Ferris
 From: P. A. Van Alstine

Following is the data on the samples you
 sent from Vancouver Island

VI-1 - Baird Creek Section
 VI-2 - Lorimer Mainline - North End
 VI-3 - Lorimer Mainline - Middle Area

	CaCO ₃ (calculated)	Insol	Fe ₂ O ₃	MgO	Brightness
VI-1	97.8	1.46	.011	.34	89.7
VI-2	98.2	1.26	.01	.26	79.5
VI-3	96.0	1.33	.04	1.32	90.7

VI-2 - ground to -100 mesh 83.5

Sample VI-2 had a blue tinge and a result-
 ing low brightness. All were good chemically.
 I'll get back to you on our next step
 as soon as I get some time, hopefully
 within a few weeks.

P. A. Van Alstine

APPENDIX III

BRIGHTNESS TESTS

May 15, 1995

J.M. HUBER CORPORATION
CALCIUM CARBONATE DIVISION - LABORATORY DATA SYSTEMS

ANALYTICAL REPORT - LAB DATA SYSTEMS CODE GO-15812

TEST RESULTS

Product or
Sample I.D.: LIMESTONE/LORIMER CK/MAINLINE COMP
Corporation Name: VAN CITY MARBLE
Corporation Number: 695
Plant Zip Code:
Date Received: 07/28/94
Date Completed: 07/28/94
Sample Via:
Report To: TOM NEWMAN *TN*

Hunter X As Rec'd: 85.4 AMBER FILTER
Hunter Y As Rec'd: 87.2 GREEN FILTER
Hunter Z As Rec'd: 99.7 BLUE FILTER
Hunter L As Rec'd: 93.4 LIGHTNESS VALUE
Hunter a As Rec'd: 0.1 RED=(+)/GREEN=(-)
Hunter b As Rec'd: 2.0 YELLOW=(+)/BLUE=
CaCO3: 94.70 %
MgCO3: 3.51 %

FAX NO. 2172241140

SAMPLING LOCATION OF GO-15812

Company: MARSHALL FARRIS
Address: 900 WEST HAISTINGS
City: VANCOUVER
County:
State: BC
Zip:
Country: V6C 1E5 CANADA
Contact: MARSHALL FRANCIS
Phone: 604-684-4246

Report Date: 08/10/94

THIS REPORT USED BY HUBER EMPLOYEES IN S.P.Q.C./R.D.
DO NOT USE EXTERNALLY WITHOUT MANAGERS SIGNED APPROVAL

Manager's Approval: _____

Post-It Fax Note	7871	Date	8-10	# of pages	1
To	MARSHALL FARRIS	From	TOM NEWMAN		
Co./Dept.		Co.	J.M. HUBER-CO.		
Phone #		Phone #	224-1100		
Fax #	604-684-9659	Fax #			

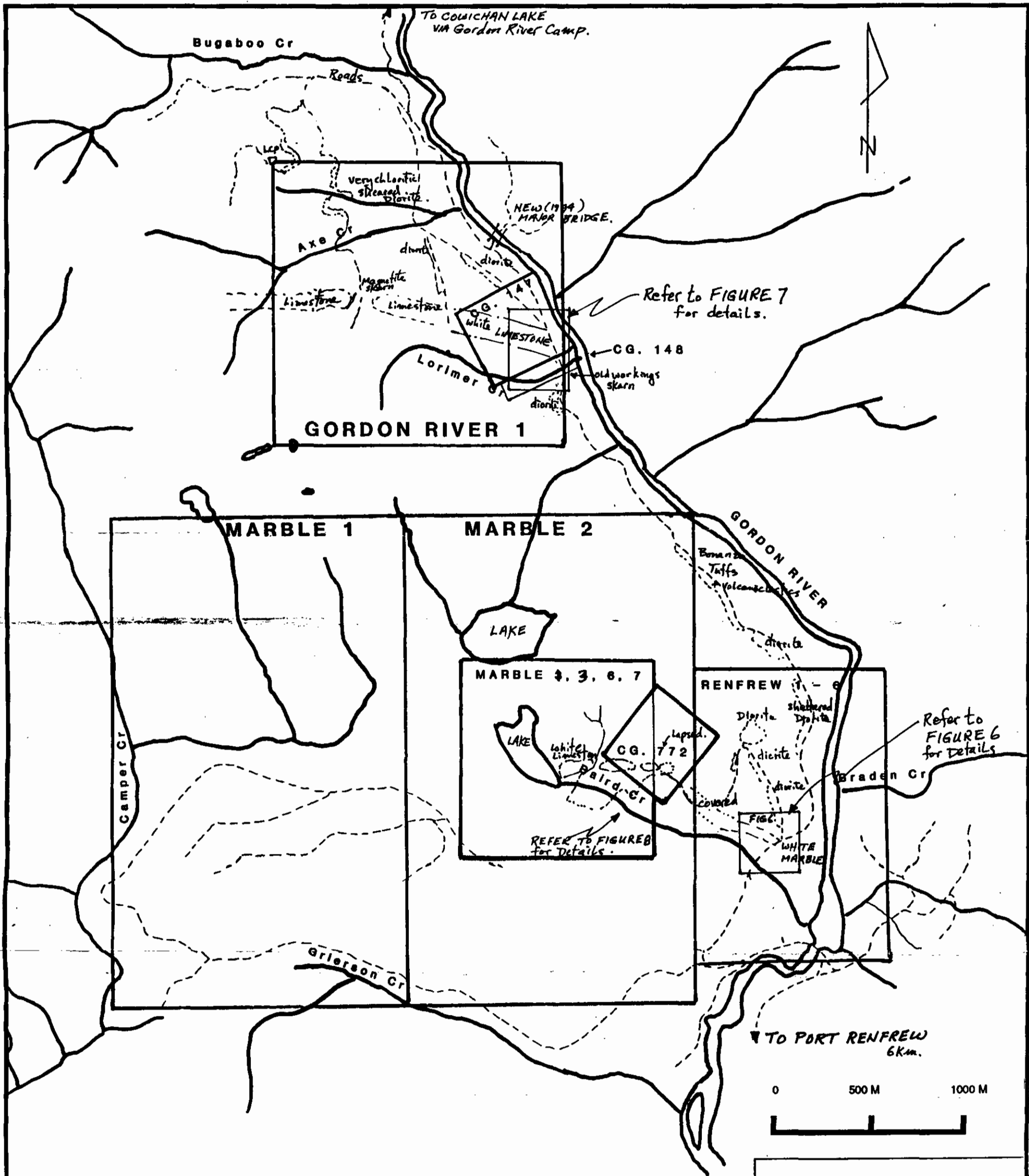
25-Aug-94
 Report # _____

GEOLOGY DEPARTMENT

CHEMICAL ANALYSIS

BRIGHTNESS

<u>LAB #</u>	<u>SAMPLE ID</u>	<u>% CaCO3</u>	<u>% MgCO3</u>	<u>Insols</u>	<u>XRD</u>	<u>Finesness</u>	<u>Rx</u>	<u>Ry</u>	<u>Rz</u>	<u>Tappi</u>	<u>Index</u>
	BRITISH COLUMBIA										
94.0942	Lorimer Creek Deposit	97.12	1.91	0.96	X	-270	89.73	89.59	87.91	88.47	2.33



To accompany Assessment Report
 on the Marble, Renfrew + Gordon River #1
 Claims, dated May 15 1995.
 by J. T. Shearer, M.Sc., P. Geo.

VAN CITY MARBLE	
Local Geology Marble Project	
N.T.S. 92C068	
Scale 1:20,000	FIGURE 5