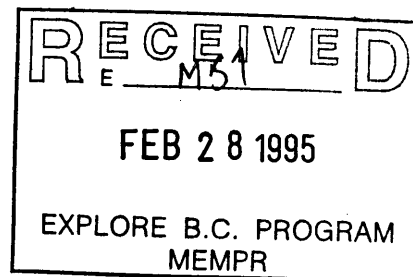


24607



REPORT

on the

KINGFISHER CLAIM GROUP

KINGFISHER CREEK AREA

VERNON MINING DIVISION
BRITISH COLUMBIA

N. Latitude 50° 44'

W. Longitude 118° 44'

NTS 82L/10 E & W

for

KINGFISHER MARBLE LTD.
620 Lake Ave.
Silverton, B. C.
VOG 2B0

FILMED

by

R. ENGLUND & ASSOCIATES

February 26, 1995

South Surrey, B. C.

TABLE OF CONTENTS

| | | |
|----|-------------------------------------|--------|
| | SUMMARY | Page 1 |
| 1. | INTRODUCTION | 2 |
| | 1.1 Terms of Reference | 2 |
| | 1.2 Location, Access, Physiography | 2 |
| | 1.3 Property | 3 |
| 2. | HISTORY | 4 |
| 3. | GEOLOGY | 5 |
| | 3.1 Regional Geology | 5 |
| | 3.2 Property Geology | 5 |
| 4. | 1994/95 EXPLORATION PROGRAM | 7 |
| | 4.1 Calcite Marble Zone | 7 |
| | 4.2 Pegmatite Granite Zone | 8 |
| | 4.3 Bulk Sampling/Quarry Operations | 9 |
| 5. | SAMPLING | 10 |
| 6. | DISCUSSION | 12 |
| 7. | CONCLUSIONS AND RECOMMENDATIONS | 14 |
| 8. | SELECTED REFERENCES | 15 |
| 9. | CERTIFICATE | 16 |

LIST OF FIGURES

| | | | |
|----------|---------------------------------------|--------------|---|
| Figure 1 | Location Map | follows page | 1 |
| Figure 2 | Claim Map | follows page | 4 |
| Figure 3 | Regional Geology | follows page | 5 |
| Figure 4 | Property Geology | follows page | 6 |
| Figure 5 | Local Geology - Outcrop Map | Appendix | 4 |
| Figure 6 | Bulk Sample/Quarry Site | Appendix | 4 |
| Figure 7 | Quarry Site/Excavation Cross Sections | Appendix | 4 |

LIST OF APPENDICES

| | | |
|----------|---|--|
| Appendix | 1 | Sample Descriptions and Chemical Analytical Certificates |
| Appendix | 2 | Physical Test Results (ASTM Standards) |
| Appendix | 3 | Petrographic Examination Report |
| Appendix | 4 | Maps - Figures 5 - 7 |

SUMMARY

Kingfisher Marble Ltd. holds title to 39 mineral claims covering about 1,309 hectares located in the Vernon Mining Division some 43 kilometres east of Enderby, British Columbia. Included in the property is a License of Occupation, under the Land Act, for quarrying, crushing and processing of the marble rock unit.

Field work to date has included the excavation of 24,000 tonnes of white marble of which some 4,000 tonnes has been processed as a minus 2 inch landscape rock. The rock is scheduled for bagging and market testing this spring. Present development strategy is to use a majority of the broken rock for cutting and splitting as split-face ashlar and architectural stone. Larger boulders removed prior to blasting are suitable for small block production. Initial market research has indicated an excellent potential for sales of these products.

Physical testing shows the marble meets or exceeds the minimum A.S.T.M. requirements as a dimension stone. Based on exploration work to date, a reserve estimate has been made for 2.5 million tonnes of white and decorative marble over a strike length of 900 metres, above road access grade. Several outcrops, based upon examination of surface exposures, suggests a good potential for large block production and use of the marble as a dimensional stone.

While chemical analysis has limited use of the quarry marble for many industrial mineral applications, the "fines" from the crushing operation may find markets in the agricultural and industrial areas as a soil conditioner, asphalt and concrete fillers, and terrazzo products.

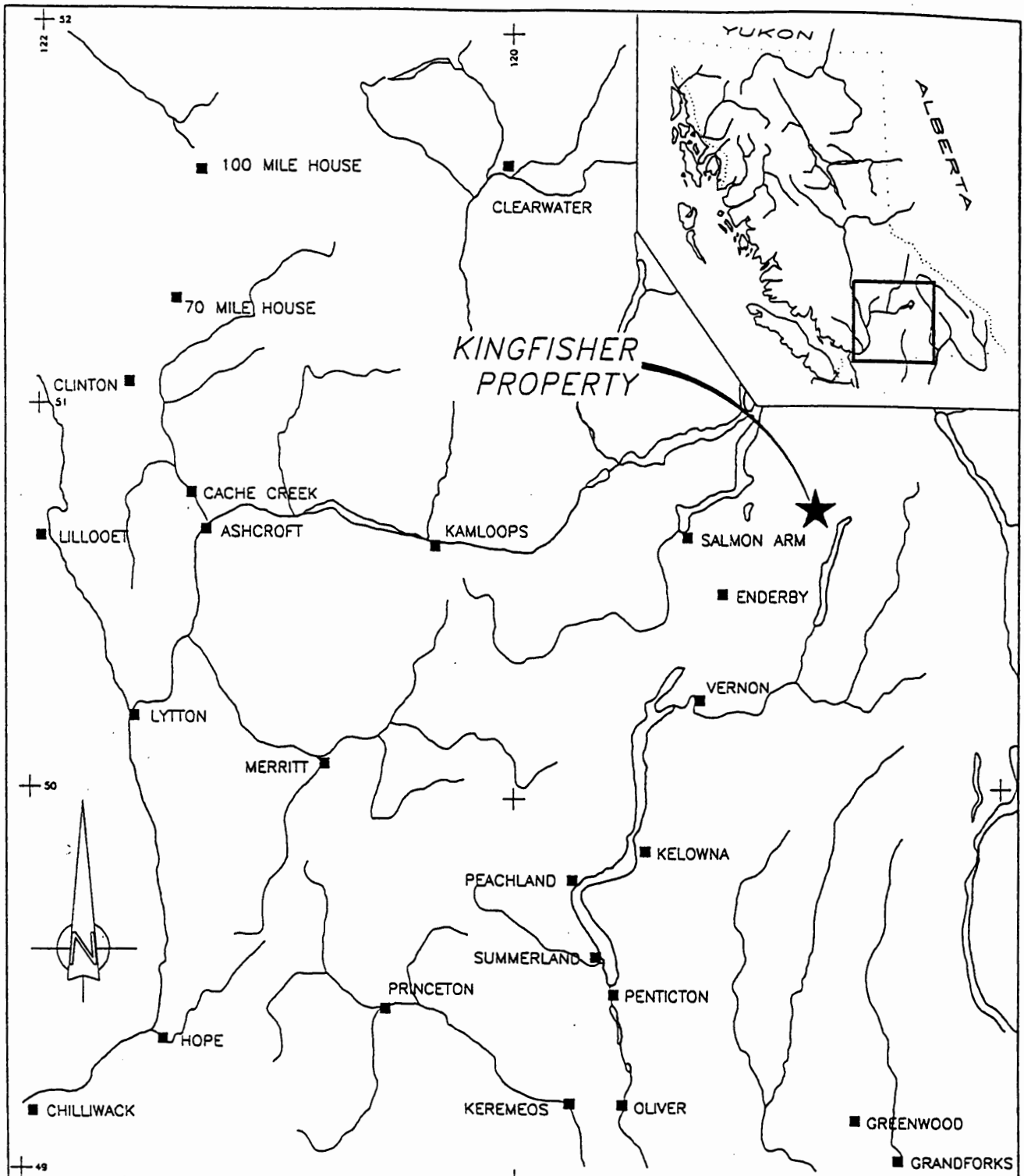
Evaluation of a near white pegmatitic granite rock has also been initiated. Preliminary results of chemical and physical testing, and initial market research has been very encouraging. Based on surface exposure, the zone has the potential of 2.9 million tonnes above road access grade. Development strategy proposes targeting the deposit for initial sales as ashlar and split face building stone. Additional detail exploration and evaluation of the rock unit for block production for dimensional stone quality is ongoing.

Respectfully submitted,



R. J. Englund, P. Geo.

February 26, 1995



KINGFISHER MARBLE LTD.

KINGFISHER PROPERTY
 VERNON M.D. NTS 82L/10

LOCATION MAP

RJE

Scale: As Shown | Dwg. by: RJE | Date: FEB. 1995 | FIG. 1

1. INTRODUCTION

1.1 Terms of Reference

R. Englund & Associates was engaged by Kingfisher Marble Ltd., 620 Lake Street, Silverton, B. C., to report on the exploration and development work carried out by the company under terms of the Explore B.C., Mineral Exploration Incentive Program, Grant Identification Number 94/95-57. The report is completed as partial fulfillment of the technical requirements of the program.

This report summarizes work completed by Kingfisher Marble Ltd. during the period June 1, 1994 through February 20, 1995. The report is based upon field work carried out by the author during this period and upon information and data provided by Kingfisher Marble management personnel. Based upon several property visits, the author is fully familiar with the bulk sampling program and exploration work carried out by Kingfisher Marble Ltd. personnel.

The main exploration targets are a high purity calcite marble that can be developed as an industrial mineral source of calcium carbonate and a potential white marble, dimensional stone and a white pegmatitic granite unit with apparent physical properties which will meet the specifications and quality requirements for the quarrying of dimensional or architectural stone.

1.2 Location, Access, Physiography

The property is located in the Kingfisher/Danforth Creeks drainage area about 43 km. northeast of Enderby, B. C. Access to the claims area is from Enderby, east on the paved Mable Lake road for 30.0 km. and thence northerly on the Mable Lake-Three Valley forestry service road for 13.2 km. to the southern property boundary.

The central claims area lies between 610 and 850 metres above sea level on a low intervalley ridge between Kingfisher and Danforth Creeks. Topography is gentle to moderate with occasional steep rock ridges. The eastern margin of the claims covers the western extent of a prominent, precipitous ridge which reaches elevations of 1220 metres above sea level.

The region has a typical Okanogan climate with warm to hot summers and cold winters with the area having a moderate amount of snowfall. Vegetation consists mainly of forests of fir, pine, and cedar. Much of the claims area has been subject to logging in the past and has been replanted with fir and pine.

The economy of the area is resource based, mainly in logging and agriculture. Equipment and experienced personnel for physical work are readily available locally. A power transmission line is located less than 2 km from the property and could supply power for all mining and processing operations. The property is located some fifty kilometers from the Okanogan, an important agricultural and industrial area in British Columbia.

1.3 Property

The mineral claims, called the Kingfisher Group, consist of 37 two-post claims and 2 modified grid claims located in the Vernon Mining Division. Information on file with the Gold Commissioner in Vernon, B. C. is as follows:

| <u>Claim Name</u> | <u>Units</u> | <u>Tenure No.</u> | <u>Expiry Date</u> |
|-------------------|--------------|-------------------|--------------------|
| Kingfisher # 1 | 12 | 321311 | 1997/09/28 |
| Kingfisher # 2 | 16 | 321312 | 1997/10/01 |
| TTX # 1 | 1 | 310484 | 1996/06/19 |
| TTX # 2 | 1 | 310485 | 1996/06/19 |
| TTX # 3 | 1 | 310486 | 1996/06/19 |
| TTX # 4 | 1 | 310487 | 1996/06/19 |
| TTX # 5 | 1 | 310488 | 1996/06/19 |
| TTX # 6 | 1 | 310489 | 1996/06/19 |
| BB # 1 | 1 | 260137 | 1995/05/15 |
| BB # 2 | 1 | 260138 | 1995/05/15 |
| BB # 3 | 1 | 260139 | 1995/05/15 |
| BB # 4 | 1 | 260140 | 1995/05/15 |
| BB # 5 | 1 | 260141 | 1995/05/15 |
| BB # 6 | 1 | 260142 | 1995/05/15 |
| BB # 7 | 1 | 260143 | 1995/05/15 |
| BB # 8 | 1 | 260144 | 1995/05/15 |
| BB # 9 | 1 | 260145 | 1995/05/15 |
| BB # 10 | 1 | 260146 | 1995/05/15 |
| BB # 11 | 1 | 302205 | 1995/07/15 |
| BB # 12 | 1 | 302206 | 1995/07/15 |
| BB # 13 | 1 | 302207 | 1995/07/16 |
| BB # 14 | 1 | 302208 | 1995/07/16 |
| BB # 15 | 1 | 302238 | 1995/07/16 |
| BB # 16 | 1 | 320228 | 1995/17/16 |
| TTB # 7 | 1 | 302198 | 1995/07/15 |
| TTB # 8 | 1 | 302199 | 1995/07/15 |
| FCC # 1 | 1 | 308916 | 1997/04/19 |
| WFC # 2 | 1 | 308913 | 1997/04/25 |
| WFC # 3 | 1 | 308914 | 1997/04/25 |
| WFC # 4 | 1 | 308915 | 1997/04/25 |
| KF # 4 | 1 | 321313 | 1997/10/01 |
| KF # 9 | 1 | 321330 | 1997/09/28 |
| KF # 10 | 1 | 321331 | 1997/09/28 |
| KF # 11 | 1 | 321332 | 1997/09/28 |

| <u>Claim Name</u> | <u>Units</u> | <u>Tenure No.</u> | <u>Expiry Date</u> |
|-------------------|--------------|-------------------|--------------------|
| KF # 12 | 1 | 321333 | 1997/09/27 |
| KF # 13 | 1 | 321334 | 1997/09/27 |
| KF # 14 | 1 | 321335 | 1997/09/28 |
| RJH # 1 | 1 | 324746 | 1997/04/19 |
| RJH # 2 | 1 | 324747 | 1997/04/19 |

The claims are shown on British Columbia Mineral Titles Map Sheet B2L/10 E&W, centered at 50 44' N. Latitude and 118 44' W. Longitude in the Vernon Mining Division (Figure 2). There is considerable overlap of the staked claims and the total claim area is calculated to be approximately 1309 hectares.

Kingfisher Marble Ltd. also holds a Ministry of Energy, Mines and Petroleum Resources Quarry Permit, Number Q-4-23, as well as a Ministry of Environment, Lands and Parks License of Occupation, Number 336102 (Land Act, Section 36), for quarrying, crushing and processing of a white marble rock unit. The quarry operations are located on mineral claims TTX # 1 and TTX # 2, in the southwest corner of the property.

2. HISTORY

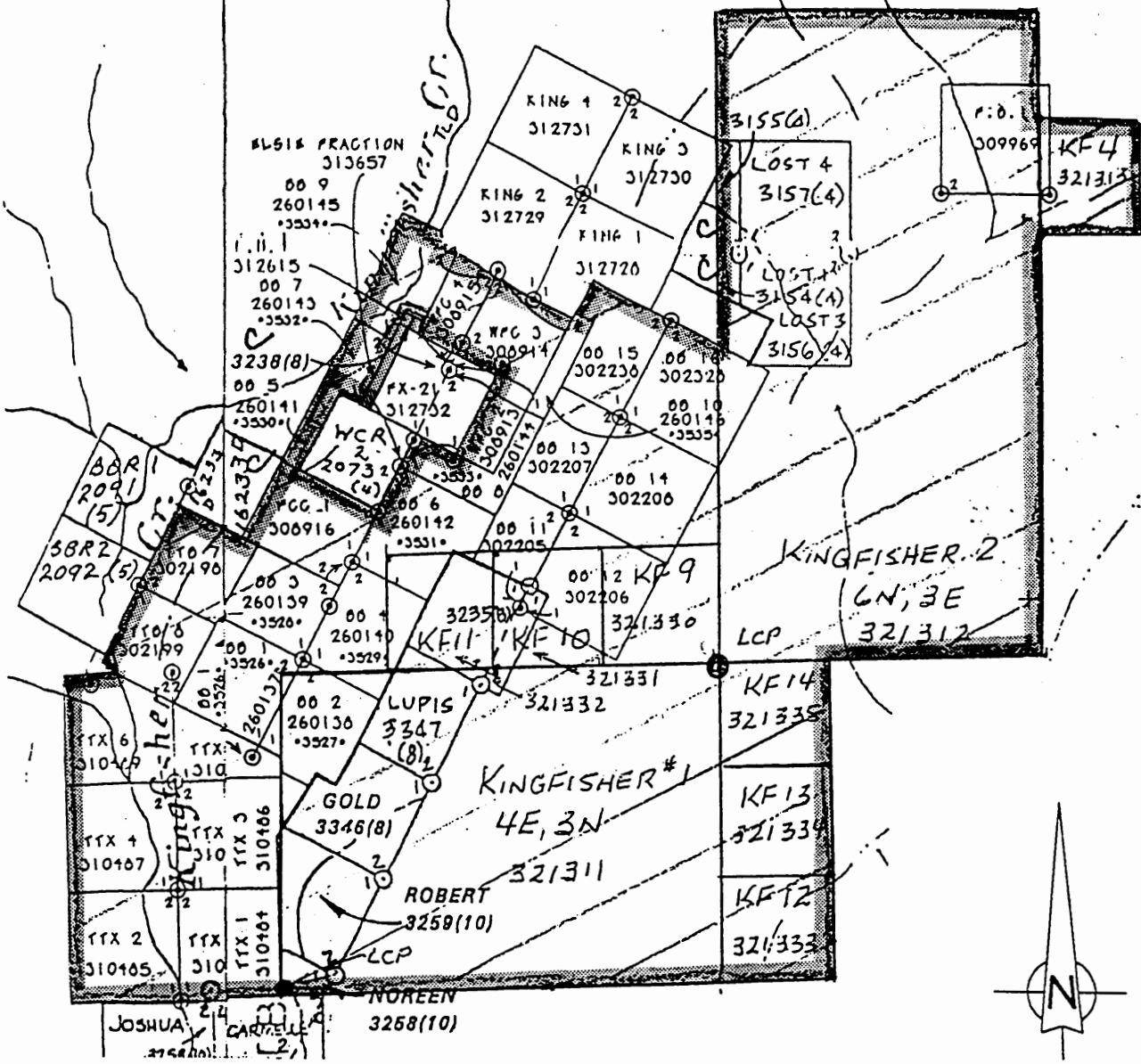
The history of the claims dates back to 1963 when the area was explored for its considerable zinc-lead mineral potential. During the period 1965 through 1975, extensive surface stripping, geochemical and geophysical surveying, geological mapping and diamond drilling was carried out by several companies. This work led to the discovery of widespread and extensive zinc-lead mineralization, generally found within a massive, white marble zone.

In 1991, Franz Capital Corporation acquired the property in order to evaluate the economic potential of the calcite marble rock unit as a potential industrial mineral source. Work by the company through 1993 included preliminary geological mapping, trenching, and 804 metres of diamond drilling over a strike length of 800 metres. This exploration established the presence of a 30 to 50 metre wide zone of high grade calcite marble, estimated at 10.2 million tonnes, over a strike length of 1300 metres within the southwest corner of the property.

Kingfisher Marble Ltd., a joint-venture company incorporated in British Columbia in 1994 for the purpose of developing and exploiting the calcite marble prospect, presently holds title to the mineral claims and the quarry license.

118°45'00"
50°45'00"

380160



After: Mineral Titles Reference
Map 082L10 E & W

RJE

| | | | |
|-------------------------------|--------------|-----------------|--------|
| KINGFISHER MARBLE LTD. | | | |
| KINGFISHER PROPERTY | | | |
| VERNON M.D. | | NTS 82L/10 | |
| CLAIM MAP | | | |
| Scale: 1:31680 | Dwg. by: RJE | Date: FEB. 1995 | FIG. 2 |

3. GEOLOGY

3.1 Regional Geology

Rocks in the property area are assigned to the Monashee Group which is part of the Shushwap Complex, a belt of high grade metamorphic rocks in the Columbia Orogenic province of southeastern British Columbia. In this area the Monashee Group, a heterogenous package of Proterozoic to Early Paleozoic age metasediments, is comprised mainly of granitoid gneiss, augen gneiss, sillimanite schist, limestone, and prominent marble and quartzite layers.

3.2 Property Geology

The geology of the claims area has been reported on by T. Hoy (1975) and A.S. Green (1991) and is summarized below for completeness of this report.

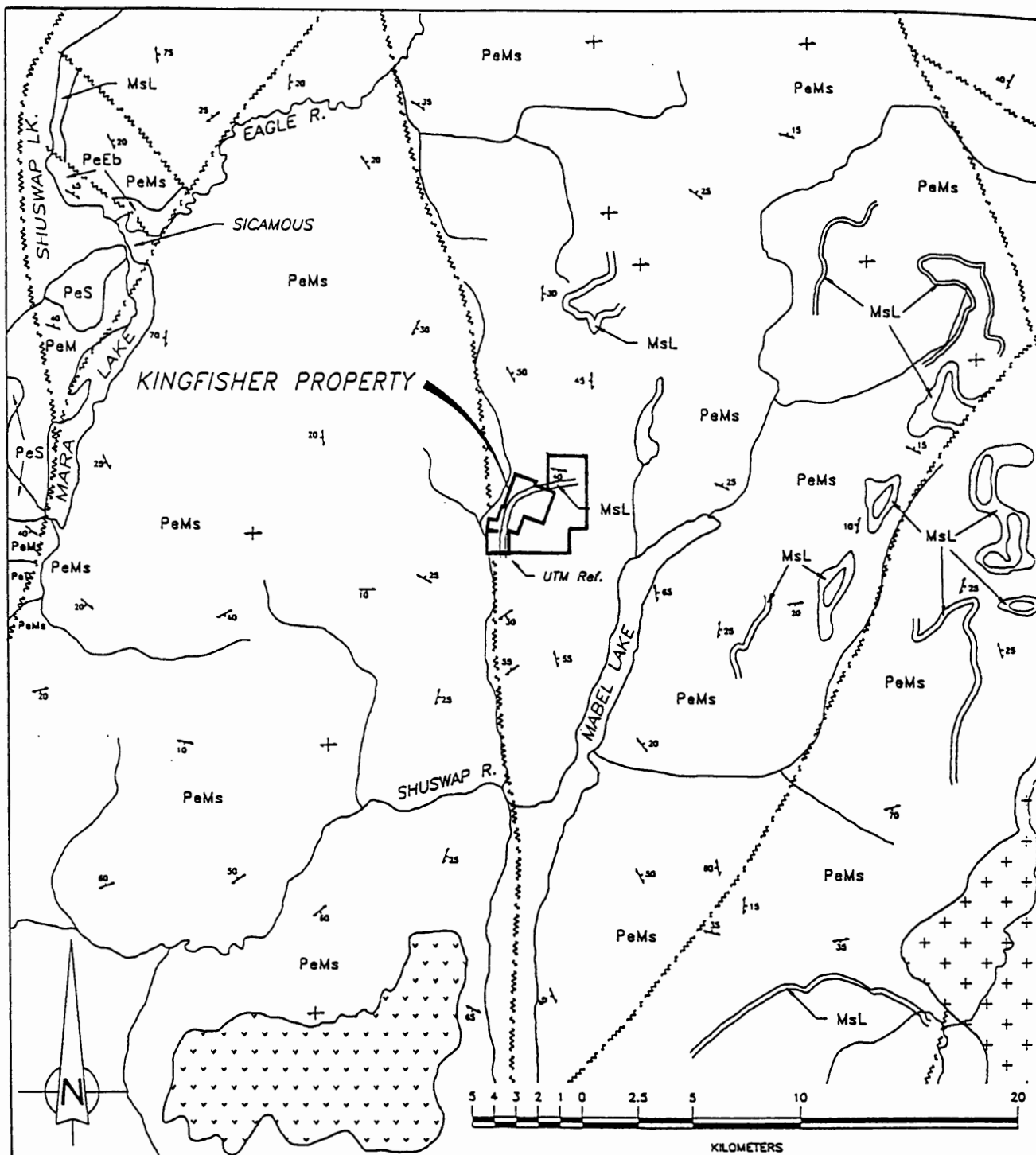
A sequence of six metamorphic rock units and two intrusive units underlie the property area (Figure 4). Although likely conformable, the age-sequence of the metamorphic rocks is not known.

Unit MsH consists of hornblende gneiss, garnet-biotite gneiss, and some calc-silicate gneiss. The hornblende gneiss grades to amphibolite with increasing amphibole content.

Unit MsB consists of rusty weathering garnet-biotite-sillimanite gneiss and minor calc-silicate gneiss. The unit is commonly intruded by granite-pegmatite bodies.

Unit MsM, up to several hundred meters thick, is comprised of massive, coarse-grained white calcite marble with minor amounts of diopside, dolomite, tremolite and quartz. A number of zones of significant sulphide mineralization occur within this unit, especially in the west-central claim area.

Sub-unit MsM1 is a near continuous layer of massive white marble occurring along the center of the unit. The rock consists of coarse crystalline white calcite with minor dolomite and trace amounts of quartz, mica and graphite.



LEGEND

- | | |
|---|--------------------------|
| EAGLE BAY FORMATION | |
| PeEb chlorite and sericite schist, slate, limestone, quartzite; minor conglomerate | fault (defined, assumed) |
| SICAMOUS FORMATION | |
| PeS foggy limestone, sericite schist, graphitic schist | geological boundary |
| MARA FORMATION | |
| PeM argillite, slate, sericite and chlorite schist, limestone | foliation |
| TSALKOM FORMATION | |
| PeT green andesite and agglomerate; chlorite schist, slate | |
| MONASHEE GROUP | |
| PeMs granitoid gneiss, augen gneiss, quartzite, marble, mica-sillimanite-garnet schist, hornblende gneiss, slate, phyllite | |
| MsL limestone | |

[Handwritten signature]

| | |
|-------------------------------|--------------|
| KINGFISHER MARBLE LTD. | |
| KINGFISHER PROPERTY | |
| VERNON M.D. | NTS 82L/10 |
| REGIONAL GEOLOGY | |
| Scale: As Shown | Dwg. by: RJE |
| Date: FEB. 1995 | FIG. 3 |

Unit MsC, a heterogenous unit comprised of calc-silicate gneiss with weathered rusty to clean white marble, garnet-biotite gneiss, minor quartzite, and minor amphibolite, occupies the western extent of the south-west claim area. The calc-silicate gneiss is generally light grey-green in color, coarse grained, and composed of diopside-quartz or diopside-actinolite-quartz with varying amounts of feldspar, calcite, epidote, and garnet. The calc-silicate gneiss, quartzite, and marble of this unit host much of the zinc-pyrrhotite mineralization in the claims area.

Unit MsQ consists of interlayered near pure white marble and quartzite. The quartzite includes some garnet-biotite gneiss layers and calc-silicate gneiss along the quartzite-marble contacts. Sulphide mineralization occurs in some areas within the more impure quartzite units.

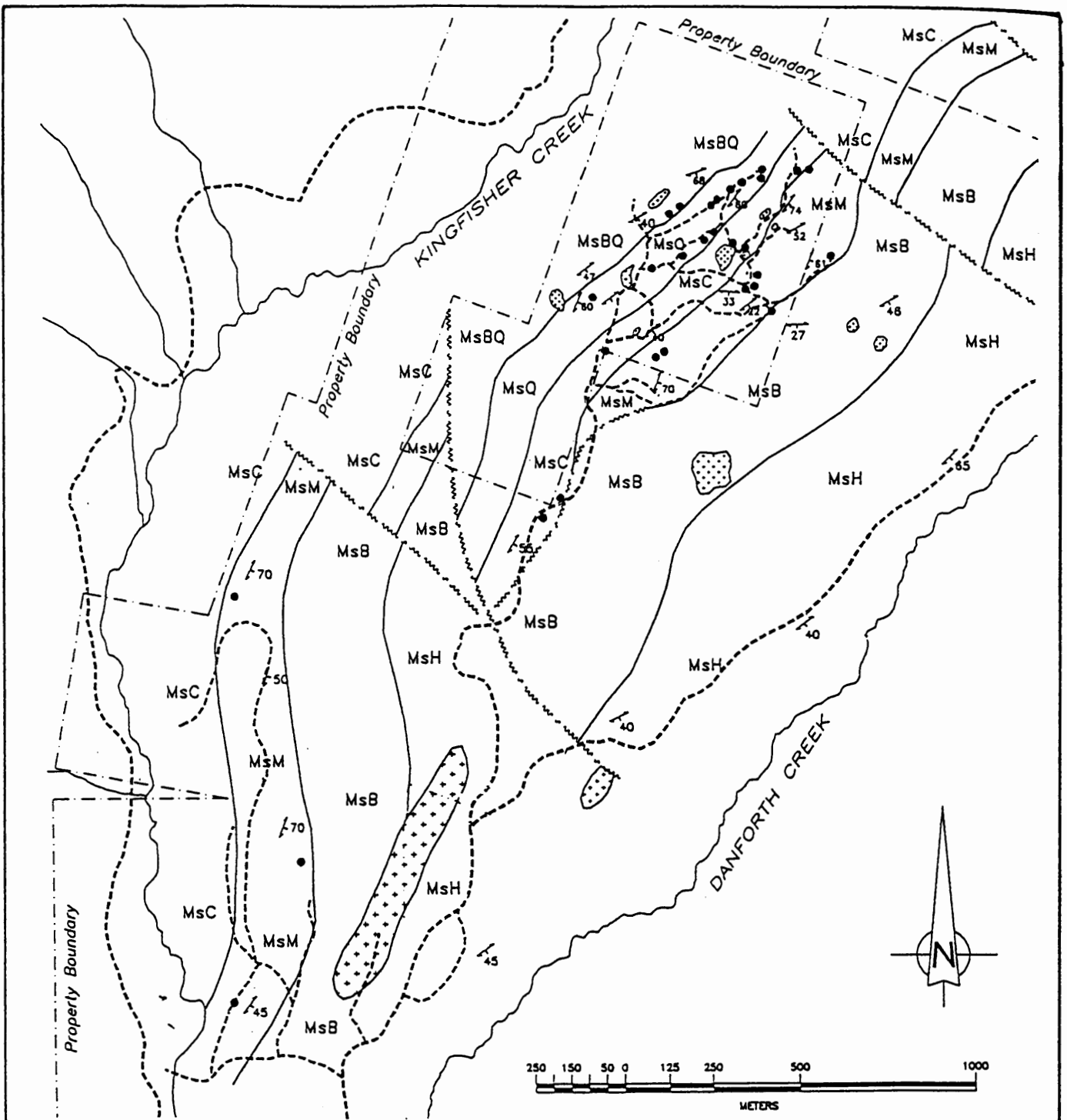
Unit MsQB, underlying areas west of unit MsQ, is comprised of garnet-biotite gneiss intruded by many granite-pegmatite sills and dykes. Some white marble, quartzite, and rare calc-silicate gneiss layers occur within the unit.

Granite-pegmatite stocks, sills, and dykes intrude all of the rock units. These bodies range in size from small discontinuous sills to circular to rod-shaped intrusions several hundred metres in length or diameter. The pegmatites are generally massive and composed of feldspar and quartz with lesser biotite, muscovite, and garnet.

Quartz-feldspar porphyry dykes cut across the metamorphic rock units. These dykes generally trend northerly and are 5-10 metres in width.

The structure of the western claims area is dominated by several northwest trending faults that separate the layered rock sequence into distinct blocks. The apparent movement on these faults is right-lateral with displacements of 100 to 700 metres. A northeast trending fault truncates unit MsM in the BB # 6 claim area.

Macroscopic folds have not been recognized on the property but tight, isoclinal to variable mesoscopic southwest plunging folds are common. Foliation is near parallel to bedding; orientation of rock units is moderately southeast dipping, northeast to east striking with many local irregularities due to folding (Green, 1991).



LEGEND

- pegmatite
- MONASHEE GROUP**
- PeMs** granitoid gneiss, augen gneiss, quartzite, marble
mica-sillimanite-garnet schist, hornblende gneiss, slate, phyllite
- MsL** limestone
- MsBQ** biotite gneiss and pegmatite; minor marble, calc-silicate gneiss and quartzite
- MsQ** quartzite and marble, interlayered
- MsC** calc-silicate gneiss; minor biotite gneiss, quartzite
- MsM** marble; minor biotite gneiss, amphibolite
- MsM1** calcite marble, high purity
- MsB** biotite gneiss and pegmatite, minor calc-silicate gneiss
- MsH** hornblende gneiss; amphibolite and biotite gneiss; minor calc-silicate gneiss
- fault (defined, assumed)
- geological boundary
- faliation
- sphalerite-pyrite-pyrrotite-(galena) mineralization

After: A.S. Green, 1981,
T. Hoy, EMPR, 1975

| | | |
|-------------------------------|--------------|-----------------|
| KINGFISHER MARBLE LTD. | | |
| KINGFISHER PROPERTY | | |
| VERNON M.D. | | NTS 82L/10 |
| PROPERTY GEOLOGY | | |
| Scale: As Shown | Dwg. by: RJE | Date: FEB. 1995 |
| | | FIG. 4 |

4. 1994 EXPLORATION PROGRAM

Field work was concentrated in the southwest property area. This work consisted of a bulk sampling and quarry development program on the southernmost exposure of the white calcite marble zone. A total of 24,000 tonnes of calcite marble was excavated by drilling and blasting. Some 4,000 tonnes has been crushed to minus 2 inch aggregate, 10,000 tonnes remains to be crushed, and 16,000 tonnes of rock is stored in boulder form.

Exploration work in the area consisted of re-establishment of a 1991 survey grid, and outcrop mapping and sampling of the MsM1 marble zone. The survey grid was extended east to include an extensive pegmatite-granite unit which was mapped and sampled. As well, limited trenching was carried out along strike of the marble zone and road rehabilitation, minor excavation, and block sampling of the granite-pegmatite rock unit was completed.

Several samples of the calcite marble and a portion of the block sample of the pegmatitic granite unit were submitted for whole rock and geochemical analysis as well as petrographic studies and ASTM standards testing. An outcrop map of the zones is presented as Figure 5, and sample descriptions and analysis results are appended to this report.

4.1 Calcite Marble Zone

The MsM1 unit is a massive, white calcite marble which is exposed intermittently on surface over a strike length of 800 metres from the quarry site in the southwest claims area to the north marble zone. Since previous work, including a 1991 diamond drill program, has established the continuity of the zone, present exploration work was limited to examination of several outcrop areas in an effort to establish the zones potential for commercial block production.

Two locations, of limited surface exposure, have been identified as warranting excavation and detail examination and sampling. A marble outcrop located at Line 365N, 540E shows as a solid white marble with no apparent surface fracturing or tight jointing. In hand specimen, examination of the rock displays a massive, white, coarse crystalline calcite marble with trace muscovite mica. Trenching will be required to properly evaluate the quality and lateral extent of this zone.

The north marble zone, located a 925N, 430E, is partially exposed by previous minor excavation. The marble, in hand specimen, is a massive coarse crystalline, white calcite with minor quartz and trace graphite. The zone shows near surface, widely spaced (1.5 to 2 metre) fractures parallel to bedding.

The extent of the fracturing has not been determined, however, the pattern and spacing may support block production from the zone.

A third, extensive marble outcrop, located from 550N to 590N, 510E, shows zones of good grade white calcite marble to light grey marble with minor mica and trace galena. A small biotite-amphibolite/sphalerite lens is located on the eastern extent of the outcrop. A 6 metre by 15.5 metre trench was excavated to a maximum depth of 3 metres at 600N, 500E, on the northern extent of the outcrop area. Trenching was completed with a Cat 213 excavator and after examination the trench was filled and the ground recontoured. The rock exposed consisted of white calcite marble with minor mica and chlorite disseminations. Major fracturing was not observed in the trench. Although considerable surface fracturing is apparent in outcrop, the zone warrants further evaluation for block and architectural stone production.

A marble outcrop, located at 845N, 330E, shows high quality, white calcite marble with no apparent visible impurities. This zone is located some 100 metres west of the mapped MsM1 zone and may represent a parallel zone of similar type and quality. Topography and the presence of a number of calcite boulders (possible outcrop) along this trend also suggests the area be further investigated.

4.2 Pegmatitic Granite Zone

A regionally mapped pegmatite (T.Hoy, E.M.P.R. 1975) intrudes all metamorphic rock units as small stocks and dikes in this area. Several outcrops of this pegmatite-granite unit are found in the south central property area and one extensive intrusion forms a gently rising, northerly trending prominent ridge located some 250 metres east of, and near parallel to, the white marble zone presently being explored by the company.

This pegmatite-granite is of potential economic interest as a dimension or architectural stone. The unit is best described as a pegmatitic granite and the rock is generally massive and composed of quartz and feldspar with lesser biotite, and garnet. The color is variable over the extent of the zone but is generally white to light grey with some flesh colored and light reddish-brown coloring dependent on the orthoclase content of the rock. Significant numbers of garnets are present in some samples and appear very attractive on a cut face.

Typical of granite pegmatites, the composition of the rock is quite variable over short distances owing to the highly irregular distribution of its component minerals. The texture is generally uneven, with very coarse and variable grain size and large, well formed quartz crystals in most outcrops. In the central region, 400N and 525N, the rock, due to the intergrowth of quartz and feldspar, may be classified as a "graphic granite".

Considerable surface fracturing was noted in a number of areas, especially near the northern extent of the zone. These areas may prove suitable for architectural stone production. A number of outcrops form small bluffs that appear to be solid and, with sufficiently wide spacing of fractures and jointing, the rock could be suitable for block production.

A block sample of the pegmatitic granite was taken from the north end of a bluff at 855N, 785E. A total of 19.7 cubic metres of sample was removed by air track drilling and controlled shear blasting. Access to the test site required the rehabilitation of 215 metres of old logging road and 68 metres of road construction for access to the top of the bluff. A Cat 213 excavator was used for this work. Portions of the block sample were cut and submitted for chemical and whole rock analysis, as well as, physical testing and petrographic examination.

4.3 Bulk Sampling/Quarry Operations

Bulk sampling of the calcite marble zone consisted of a 44 metre by 26 metre lateral excavation into the face of the southernmost outcrop of the zone (See Figures 6 and 7). Air track drilling equipment and controlled blasting was used to remove a total of 24,000 tonnes of rock.

Two biotite-amphibolite schists (widths less than 1 metre) were encountered during excavation. These schists form discontinuous lenses along the bedding of the marble zone and, with proper grade control, can be easily separated from the marble. The excavation was stopped on the face of a sphalerite lens which, as indicated by drilling, has a width of between 1 and 2 metres. Good quality white marble is again found in back of this lens.

Two trenches were excavated across the strike of the marble zone, 12 metres and 32 metres north of the quarry pit, in order to evaluate the quality of the north extension of the zone. Each trench, 30.5 metres in length and 2 metres in width, revealed good quality, white marble. The sphalerite lens, found in the back of the quarry excavation, widens to approximately 3 metres in the first trench and pinches to a width of 1 metre in the second trench. Good quality marble is found on both sides of this sphalerite lens.

A crushing and screening operation was used to process some 4,000 tonnes of rock into minus 2 inch (5 cm.) aggregate for market testing as a landscape rock. As well the "fines" from the crushing operation were stored for analysis and market testing as a potential soil conditioner and terrazzo product. A total of 10,000 tonnes of broken rock remains to be crushed.

Some 16,000 tonnes of rock is stored in larger boulder form for processing as building stone in the form of cut and split-face ashlar, veneers and flagstones. Many of the larger boulders, removed from the outcrop face prior to blasting, are stored for small block production and dimension stone cutting for market testing.

5. SAMPLING

The surface exposures of the zones were examined and categorized over a strike length of 850 metres. A total of three marble samples and nine pegmatite-granite rock samples were collected from surface exposures of the zones. Due to the hardness of the rock only partially weathered surface samples could be obtained. Future sampling of the rock units should be carried out using a "chop saw" and short hole diamond drilling. Sample descriptions and grid coordinate locations are tabulated as Table 1 in Appendix 1.

Five marble samples from the quarry operations were submitted for analysis. Sample numbers and descriptions are tabulated as Table 2, Appendix 1. Certificates for chemical and whole rock analysis for the rock are also included in Appendix 1.

Analysis of a representative rock sample from the pit (Sample No. 48785-A) and two 5 kilogram samples of minus 2 inch crushed rock, taken from crushing operations in October 1994 and January 1995, rank the marble as a siliceous limestone or magnesian limestone. Both the chemical and whole rock analysis indicate concentrations of silica, alumina, and siderite to be above minimum purity standards for a high-calcium limestone.

Two samples of the crushed "fines", again taken from October and January operations, were screened for size fraction analysis (See Appendix 1) and the coarse (+18 mesh) and fine (-18 mesh) fractions were analyzed separately. Analysis shows little difference between the crushed "fines" and the host rock. Slightly higher concentrations of arsenic and zinc, as well as siderite and alumina, found in the -18 mesh fraction are likely attributable to "picked-up" soils passing through the crushing plant rather than the rock itself.

Samples of the marble were cut and forwarded to Vancouver Petrographics Ltd. for petrographic analysis and cutting of samples for physical properties testing (ASTM Standards) which was completed at AGRA Earth & Environmental Limited. Analysis certificates are included as Appendix 2 and the Petrographic Report is attached as Appendix 3.

Petrographic examination classifies the marble as a calc-silicate, the composition being 85 % calcite, 12 % diopside (a calc-silicate accessory), and minor muscovite and quartz. The diopside likely accounts for the higher magnesium and silica oxides reported in whole rock analysis. The diopside crystals are generally transparent and, where prominent, add a slightly greyish-green lustre to the white calcite color of the rock. Texturally the rock is homogenous and devoid of fracturing or shearing.

Results of physical and mechanical testing show the marble exceeds minimum requirements of ASTM standards for marble as a dimension stone, both for interior and exterior applications. Compressive strength of the marble (dry) is 66.6 MPa (9,660 psi) and Modulus of Rupture is 7.04 MPa (1,021 psi), well above the minimum 7,500 psi for compression and above the minimum 1,000 psi ASTM test requirements for traverse strength. Density, absorption and abrasion characteristics of the rock are good. Samples submitted for analysis were taken from boulders removed from the quarry by blasting methods. Further testing of the material for modulus of rupture and flexure strength has been initiated.

One composite sample of the pegmatite-granite, taken from the block samples, was submitted for chemical and whole rock analysis, as well as, petrographic examination and physical strength testing.

Chemical analysis shows the main composition of the rock to be silica and alumina with very low metallic mineral content. The rock is classified as a leucocratic granite by petrographic analysis with the mineral composition being 25 % quartz, 30 % plagioclase, 40 % K-feldspar, and minor biotite and garnet. The very coarse crystal structure of the unit classifies the rock as pegmatitic. The rock is generally homogenous and free of physical weaknesses. Some localized microfractures are stained and infilled with limonite, possibly accounting for some observed iron staining on cut surfaces.

Initial testing of physical properties consisted of compressive strength, density, absorption, and abrasion resistance. Because sample blocks submitted for cutting were taken from blasted rock and some fracturing was noted, traverse strength testing was not carried out. Additional testing of the rock has been scheduled.

Compressive strength of the rock is 150.2 MPa (21,785 psi), well above the minimum ASTM specifications of 19,000 psi for a granite dimension stone. The rock is relatively lightweight, having a density of 2,612 kg/cu.m. (163.1 lb/cu.ft.). Due to the nature of deposition, the unit shows considerable variation in both mineral composition and crystal size over short lateral distances, and may show some "zoning" with depth. Diamond drill testing will be required to determine the composition and physical properties of the rock at depth.

6. DISCUSSION

Analysis of the marble at the present quarry site classifies the rock as a calc-silicate or diopside marble. Chemical analysis of the rock indicates concentrations of silica, alumina and siderite to be above minimum requirements for classification as a high-calcium limestone. The marble is coarse crystalline, white in color, has good brightness, and an average density of 170.4 lb/cu.ft. (S.G. 2.75). Physical testing has shown the marble to exceed minimum requirements for ASTM Standards as a dimensional stone. Preparation of samples shows the marble is capable of taking a good polish.

Due to fracturing at the present quarry site has precluded the potential for large block production. However, much of the large boulder material, particularly material removed prior to blasting, can be used for smaller block production. The material characteristics, color, and texture of the rock allow targeting of specific markets for the sale of blocks for dimensional stone products.

Smaller boulders can be processed as architectural stone, split-faced and ashlar construction products. Initial market research for these products has been very encouraging.

Processing of material to date has been crushing and screening of some 4,000 tonnes of minus 2 inch landscape rock. The rock is white and has a good brightness. Bagging of the product and market testing in the Okanogan area has been scheduled for the spring of 1995.

Analysis of the crushed "fines" indicates this material may have market potential as a soil conditioner (aglime). The main use of the rock would be in correcting soil acidity, with the added benefit of enhancement of calcium and magnesium in the soil content. The coarse fractions may find market potential as a barnstone, or asphalt, concrete and roofing aggregates. Market research in these areas, as well as in other potential industrial mineral applications, for this material is recommended.

The white marble zone is more massive and resistant to weathering and forms a gently rising ridge, gaining some 55 metres in elevation from the quarry site to the north marble zone. Allowing for a nominal width of 40 metres, a strike length of 900 metres, and a rise in ground level of 55 metres, the ridge alone has the potential for at least 2.5 million tonnes above road access grade. The geometry of the ridge is very attractive for quarrying operations and, by working uphill, a series of faces could be developed to allow for diversification and production of various types of materials for select markets.

The pegmatitic granite unit has been tested at one location, where a 15 metre high bluff appears to provide good potential for block production. Physical properties testing shows the rock exceeds minimum standards for compressional strength and meets requirements for density, absorption and abrasion as a granite dimension stone. Traverse and flexure testing remains to be completed. Split-faced ashlar and architectural stone products can be produced from the more fractured sections of the unit. Considerable variation in composition and texture of the rock unit over relatively small lateral distance has been noted and a detail assessment of the unit is required. Further evaluation of the rock in splitting, cutting, and polishing characteristics, and staining is needed to better qualify the rock for specific market opportunities.

Initial market research has indicated a considerable interest in the stone, mainly due to its white color, distinct patterning, and the inclusion of garnets.

This unit outcrops intermittently over a distance of 850 metres and rises, from road access level, some 60 metres in elevation at its northern extent. The deposit is considered to be open on both ends and to depth. Allowing for a nominal width of 40 metres and a rise of 60 metres over a strike length of 900 metres the ridge alone has the potential for some 2.9 million tonnes above road access grade. Depth extent of the unit is as yet undetermined, however, due to the nature of deposition the deposit can be considered to have a geological potential of at least 6 million tonnes. The geometry of the ridge is very attractive for a quarry operation and, with the main forestry service road running near parallel less than 150 metres to the east, several quarry faces could be developed simultaneously at very low cost.

The occurrence of the pegmatite-granite rocks on the property is extensive. Several small intrusives in the immediate area are still to be examined. Further exploration work will likely identify additional granite units having equivalent or better potential for large block production.

7. CONCLUSIONS AND RECOMMENDATIONS

Field work completed to date has established that both the white marble and granite rock units have excellent potential as viable quarries for split-faced/ashlar products and architectural stone products. Market research has established good market potential for these types of products as an initial entry for the company into the stone market. Further testing and exploration along known zones should be carried out to establish potential for large block production for the dimensional stone industry. Initial market research has dictated the processing of a minus 2 inch landscape rock and market testing of a bagged product is scheduled for the 1995 spring market.

Chemical analysis of the marble at the present quarry site has limited potential industrial mineral applications, mainly due to the rocks higher silica content. However, the rocks mineral composition having been established, market research in a number of industrial mineral areas is warranted. Previous testing along strike of the marble zone has indicated some high grade calcium carbonate rock and additional exploration work is required to identify potential industrial mineral sources.


The pegmatitic granite zone requires additional testing to qualify the rock as a dimensional stone for tiles and building facings. Initial market research for ashlar and architectural stone has been very encouraging. The industrial mineral potential of the rock as source of feldspar and garnet should also be investigated.

Both the marble and granite ridges provide a geometry very suitable for above access grade quarry operations. The potential for development of commercially viable quarries providing stone products for select markets is considered to be excellent.

Exploration work to date has covered less than ten percent of the property area. Further exploration and evaluation of the property should include:

- * extending exploration work to qualify known additional marble and granite targets for further evaluation.
- * an economic assessment of the present marble and granite zones, as well as a potential parallel marble trend, should be conducted to confirm the ability of the zones to provide blocks for the dimension stone industry.
- * since different markets have various chemical, mineral, and physical requirements, reserves of marble and granite need to be qualified as to specific markets.

Respectfully submitted,



R. J. Englund, P. Geo.

February 26, 1995

8. SELECTED REFERENCES

Hoy, T., 1975, B.C. Dept. of Mines & Pet. Res., GEM Geological Fieldwork, pp 7-18.

Jones, A.G., 1959, G.S.C. Memoir 296, Vernon Map Area, B.C.

Min. E.M.P.R. Assessment Reports: 4945; 4934; 4933; 2169; 578.

Green, A.S., July 18, 1991, Geological Report, Kingfisher Calc Prospect, for Franz Capital Corporation.

Slim, B.A., June 25, 1992, A Quarrying Opportunity for an Internationally Traded Commodity, for Franz Capital Corporation

Englund, R.J., May 12, 1994, Summary Report on the Kingfisher Claim Group, Vernon Mining Division, private report for Kingfisher Marble Ltd.

9. CERTIFICATE

I Rolph J. Englund of 17948 - 24th Avenue, South Surrey, Province of British Columbia, do hereby certify that:

1. I am a registered member of the Association of Professional Engineers and Geoscientists of British Columbia.
2. I am a Consulting Geophysicist with the firm of R. Englund & Associates whose offices are located at 17948 - 24 Avenue, South Surrey, British Columbia.
3. I graduated in 1970 from the University of British Columbia with a Bachelor of Science degree.
4. I have practiced my profession in the mineral exploration industry throughout Canada and the western United States continuously for the past 22 years.
5. I am a director of Franz Capital Corporation, which holds a majority interest in Kingfisher Marble Ltd.
6. This report is based on personal field work carried out during the period October 1994 to February 1995, and upon information and data supplied by Kingfisher Marble Ltd. management personnel.

Dated at South Surrey, Province of British Columbia, this 26th day of February, 1995.

A handwritten signature in cursive script, appearing to read 'R. Englund', with a large, stylized flourish at the end.

R. J. Englund, B.Sc., P.Geo.

A P P E N D I X 1

Sample Descriptions and Chemical
Analysis Certificates

TABLE 1

SAMPLE DESCRIPTIONS

| <u>Location</u> | <u>Description</u> |
|-----------------|--|
| 365N 540E | Marble - massive calcite, white, coarse crystals, minor mica, trace graphite. Wx surface grey. |
| 925N 430E | Marble - massive, white, coarse crystalline calcite, minor quartz, trace graphite. Wx surface grey, oxidized. |
| 845N 330E | Marble - massive, white coarse grain calcite, no visible impurities. Wx surface grey. |
| 675E 245N | P/Gr. - coarse grain, crystalline quartz, numerous small garnets, muscovite. Color white to light tan Wx surface lt. tan. |
| 730E 370N | P/Gr. - very coarse grain, large quartz crystals, 40-65% feldspar, muscovite. Color lt. brn, mottled white to pink/red-brn, minor garnets. |
| 750E 394N | P/Gr. - very large quartz crystals. Color white to lt. brn, w/some reddish colors on fractures, Wx surface very lt. grey. "Graphic Granite" |
| 760E 525N | P/Gr. - large qtz crystals, muscovite, sparse dark mineral inclusions, rare garnets. Color white. Wx surface dull white, Graphic Granite character. |
| 775E 690N | P/Gr. - med. quartz crystals, muscovite, minor garnets and feldspars. Color white to lt. tan. Wx surface lt.tan. Significant fracturing on surface. |
| 790E 810N | P/Gr. - large white quartz crystals, muscovite, 15% feldspar on fr. faces, minor garnets. Color white to lt. tan, Wx surface white to lt. grey. |
| 790E 1000N | P/Gr. - coarse grain, med. quartz crystals, zoned heavy feldspar, numerous very small garnets. Color lt. brn to dull white. Wx surface lt. brn. |
| 800E 1030N | P/Gr. - med. quartz, med. crystals, heavy feldspar, some garnets. Color mottled pink to red-brn. Wx surface lt. grey to lt. brn. Grades to granite on west side. |
| 810E 1040N | P/Gr. - large quartz crystals, muscovite, minor garnets. Color white to very lt. grey. Wx surface white to lt. grey. Grades to granite on west side. |

TABLE 2
 SAMPLE DESCRIPTIONS - CHEMICAL ANALYSIS

| <u>Sample No.</u> | <u>Description</u> |
|-------------------|---|
| 48782-A | Marble - crushed "fines" (- 1/2 inch), color white to tan, 5.5 kg. Sample taken October 10, 1994. |
| 48783-A | Marble - crushed product (+ 1 inch), color white, 5 kg. Sample taken October 10, 1994. |
| 48784-A | Marble - crushed product (+ 1 inch), color white, 5 kg. Sample taken January 17, 1995. |
| 48785-A | Marble - quarry pit, representative, color white, 5 kg. Sample taken January 17, 1995. |
| 48786-A | Marble - crushed "fines" (- 1/2 inch), color white to tan, 3.7 kg. Sample taken January 17, 1995. |
| 48788-A | Pegmatite-Granite - quartz, feldspar, coarse xtal, color white to lt. tan, minor garnet, composite sample (5 kg.) taken from block samples at 855N, 785E. |

ROSSBACHER LABORATORY LTD.

CERTIFICATE OF ANALYSIS

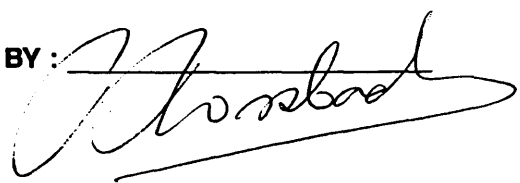
2225 Springer Ave., Burnaby,
British Columbia, Can. V5B 3N1
Ph:(604)299-6910 Fax:299-6252

To : R. Englund and Associates
17948-24 th Avenue
Surrey, B.C.

Project: Kingfisher
Type of Analysis: Assay

Certificate: 95011
Invoice: 50384
Date Entered: 95-02-20
File Name: ENG95011.WR
Page No.: 1

| PRE FIX | SAMPLE NAME | % SiO2 | % Al2O3 | % Fe2O3 | % MgO | % CaO | % Na2O | % K2O | % P2O5 | % TiO2 | % MnO | % BaO | % Cr2O3 | % SrO | LOI | % TOTAL |
|------------|-----------------|-----------|------------|------------|----------|----------|-----------|----------|-----------|-----------|----------|----------|------------|----------|------|------------|
| | 48782A +18 MESH | 9.74 | 0.59 | 0.16 | 4.16 | 48.77 | 0.22 | 0.06 | 0.257 | 0.014 | 0.006 | 0.018 | 0.005 | 0.023 | 37.5 | 101.5 |
| | 48782A -18 MESH | 13.63 | 0.98 | 0.31 | 4.85 | 46.90 | 0.20 | 0.17 | 0.310 | 0.031 | 0.009 | 0.028 | 0.006 | 0.022 | 34.7 | 102.1 |
| | 48783-A | 13.06 | 0.55 | 0.12 | 5.02 | 49.02 | 0.13 | 0.06 | 0.260 | 0.008 | 0.006 | 0.016 | 0.005 | 0.021 | 35.2 | 103.5 |
| | 48784-A | 9.24 | 0.61 | 0.08 | 4.36 | 50.28 | 0.16 | 0.07 | 0.268 | 0.010 | 0.004 | 0.016 | 0.003 | 0.019 | 37.5 | 102.6 |
| | 48785-A | 8.37 | 0.57 | 0.09 | 5.05 | 49.43 | 0.14 | 0.06 | 0.326 | 0.010 | 0.004 | 0.015 | 0.003 | 0.019 | 38.0 | 102.1 |
| | 48786A +18 MESH | 8.01 | 0.70 | 0.12 | 3.96 | 50.85 | 0.17 | 0.12 | 0.241 | 0.019 | 0.004 | 0.020 | 0.004 | 0.019 | 36.9 | 101.1 |
| | 48786A -18 MESH | 11.83 | 1.07 | 0.25 | 5.03 | 49.97 | 0.17 | 0.19 | 0.374 | 0.032 | 0.005 | 0.029 | 0.004 | 0.018 | 32.3 | 101.3 |
| | 48788-A | 71.73 | 13.28 | 0.43 | 0.11 | 1.38 | 3.02 | 5.60 | 0.077 | 0.031 | 0.013 | 0.044 | 0.014 | 0.016 | 0.4 | 96.1 |

CERTIFIED BY : 

ROSSBACHER LABORATORY LTD.

CERTIFICATE OF ANALYSIS

2225 Springer Ave., Burnaby,
British Columbia, Can. V5B 3N1
Ph:(604)299-6910 Fax:299-6252

To : R. Englund and Associates
17948-24 th Avenue
Surrey, B.C.

Project: Kingfisher

Type of Analysis: Geochemical

Certificate: 95011 SG
Invoice: 50384
Date Entered: 95-02-19
File Name: ENG95011.SG
Page No.: 1

| PRE FIX | SAMPLE NAME | % CaCO3 | % MgCO3 | SG |
|------------|-------------|------------|------------|------|
| A1 | 48783 A | 79.41 | 2.91 | 2.84 |
| A1 | 48784 A | 84.16 | 2.84 | 2.73 |
| A1 | 48785 A | | | 2.62 |
| A1 | 48788 A | | | 2.18 |

CERTIFIED BY : _____

ROSSBACHER LABORATORY LTD.

CERTIFICATE OF ANALYSIS

2225 Springer Ave., Burnaby,
British Columbia, Can. V5B 3N1
Ph:(604)299-6910 Fax:299-6252

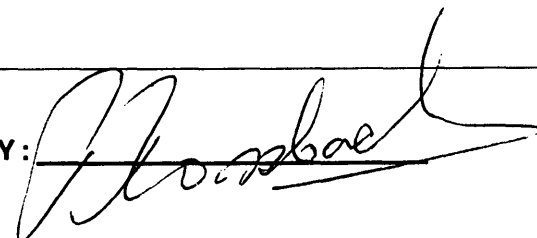
To : R. Englund and Associates
17948-24 th Avenue
Surrey, B.C.

Project: Kingfisher
Type of Analysis: ICP

Certificate: 95011
Invoice: 50384
Date Entered: 95-02-20
File Name: ENG95011.I
Page No.: 1

| PRE FIX | SAMPLE NAME | PPM MO | PPM CU | PPM PB | PPM ZN | PPM AG | PPM NI | PPM CO | PPM MN | % FE | PPM AS | PPM U | PPM AU | PPM HG | PPM SR | PPM CD | PPM SB | PPM BI | PPM V | % CA | % P | PPM LA | PPM CR | % MG | PPM BA | % TI | % AL | % NA | % K | % SI | PPM W | PPM BE |
|------------|----------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|---------|-----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|----------|---------|--------|-----------|-----------|---------|-----------|---------|---------|---------|--------|---------|----------|-----------|
| A | 48782-A-18MESH | 2 | 17 | 6 | 13 | 0.1 | 4 | 1 | 18 | 0.08 | 36 | 5 | ND | ND | 168 | 1 | 1 | 5 | 1 | 25.08 | 0.03 | 1 | 7 | 0.81 | 52 | 0.01 | 0.09 | 0.01 | 0.01 | 0.01 | 1 | 2 |
| A | 48782-A-18MESH | 1 | 14 | 1 | 30 | 0.1 | 6 | 2 | 28 | 0.16 | 53 | 5 | ND | ND | 162 | 1 | 6 | 8 | 1 | 23.84 | 0.05 | 1 | 17 | 0.85 | 86 | 0.01 | 0.15 | 0.01 | 0.01 | 0.01 | 1 | 2 |
| A | 48783-A | 2 | 14 | 1 | 12 | 0.1 | 3 | 1 | 13 | 0.05 | 26 | 5 | ND | ND | 171 | 1 | 1 | 3 | 1 | 26.43 | 0.04 | 1 | 4 | 0.86 | 49 | 0.01 | 0.08 | 0.01 | 0.01 | 0.01 | 1 | 2 |
| A | 48784-A | 1 | 14 | 1 | 12 | 0.1 | 1 | 1 | 9 | 0.03 | 10 | 5 | ND | ND | 159 | 1 | 1 | 1 | 1 | 27.83 | 0.05 | 1 | 1 | 0.91 | 36 | 0.01 | 0.08 | 0.01 | 0.01 | 0.01 | 1 | 2 |
| A | 48785-A | 1 | 15 | 1 | 17 | 0.1 | 4 | 1 | 14 | 0.05 | 8 | 5 | ND | ND | 160 | 1 | 1 | 1 | 1 | 28.01 | 0.07 | 1 | 1 | 1.34 | 47 | 0.01 | 0.09 | 0.01 | 0.01 | 0.01 | 1 | 2 |
| A | 48786-A-18MESH | 1 | 16 | 1 | 15 | 0.1 | 3 | 1 | 11 | 0.06 | 2 | 5 | ND | ND | 162 | 1 | 1 | 1 | 1 | 28.62 | 0.04 | 1 | 2 | 1.02 | 51 | 0.01 | 0.14 | 0.01 | 0.01 | 0.01 | 1 | 2 |
| A | 48786-A-18MESH | 2 | 16 | 1 | 36 | 0.1 | 7 | 2 | 13 | 0.12 | 51 | 5 | ND | ND | 143 | 1 | 3 | 1 | 1 | 24.57 | 0.08 | 1 | 5 | 1.03 | 80 | 0.01 | 0.19 | 0.01 | 0.06 | 0.01 | 1 | 2 |
| A | 48788-A | 2 | 4 | 12 | 12 | 0.2 | 4 | 1 | 13 | 0.20 | 6 | 5 | ND | ND | 8 | 1 | 1 | 1 | 2 | 0.12 | 0.01 | 3 | 60 | 0.08 | 10 | 0.01 | 0.17 | 0.03 | 0.09 | 0.01 | 4 | 1 |

CERTIFIED BY:



ROSSBACHER LABORATORY LTD.

CERTIFICATE OF ANALYSIS

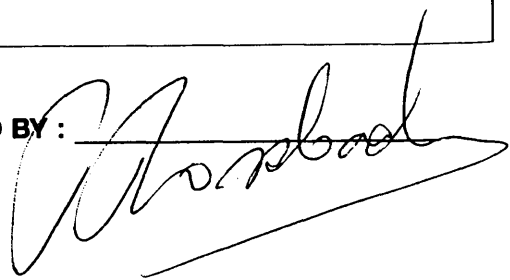
2225 Springer Ave., Burnaby,
British Columbia, Can. V5B 3N1
Ph:(604)299-6910 Fax:299-6252

To : R. Englund and Associates
17948-24 th Avenue
Surrey, B.C.

Project: Kingfisher
Type of Analysis: Assay

Certificate: 95011 screen
Invoice: 50384
Date Entered: 95-02-19
File Name: ENG95011.SCR
Page No.: 1

| PRE FIX | SAMPLE NAME | frac tion | Wt in Gram | % Wt |
|------------|-------------|--------------|---------------|---------|
| A1 | 48782-A | + 1/4 | 1400 | 25.7 |
| A1 | 48782-A | + 1/4+10 | 1818 | 33.3 |
| A1 | 48782-A | - 10 +18 | 1128 | 20.7 |
| A1 | 48782-A | - 18 +40 | 541 | 9.9 |
| A1 | 48782-A | - 40 +80 | 290 | 5.3 |
| A1 | 48782-A | - 80 | 281 | 5.1 |
| A1 | 48786-A | + 1/4 | 971 | 26.1 |
| A1 | 48786-A | - 1/4+10 | 1031 | 27.7 |
| A1 | 48786-A | - 10 +18 | 431 | 11.6 |
| A1 | 48786-A | - 18 +40 | 366 | 9.8 |
| A1 | 48786-A | - 40 +80 | 386 | 10.4 |
| A1 | 48786-A | - 80 | 531 | 14.3 |

CERTIFIED BY : 

A P P E N D I X 2

Physical Test Results

ASTM Standards

TECHNICAL REPORT

Kingfisher Marble,
c/o Franz Capital Corporation,
White Marble Development,
17948 - 24th Avenue,
Surrey, British Columbia
V4P 1M6

FILE: VA-3406
DATE: February 24, 1995

ATTENTION: Mr. Ralph J. Englund, B.Sc., P. Geo.

PROJECT: Dimension Stone Testing
SUBJECT: Marble

| Marble Dimensional Stone Testing | | | | |
|------------------------------------|----------------------|---|--------------------------------------|-------------------------|
| The Physical Property Tested | The ASTM Method Used | Standard Specification Requirements ASTM C 503 | Average Test Results | No. of Specimens Tested |
| Absorption % by Weight | C 97 | 0.20 (maximum) | 0.08 | 3 |
| Density (kg/m ³) | C 97 | 2595 for calcite (minimum) | 2747 | 3 |
| Compressive Strength, MPa (psi) | C 170 | 52.0 (7,540) (minimum) | Dry 66.6 (9,657) Wet 62.6 (9,077) | 5 5 |
| Modulus of Rupture, Mpa (psi) | C 99 | 7.0 (1,000) (minimum) | 7.04 (1,021) | 1 * |
| Abrasion Resistance Wear Index | C 501 | See Comments | 22.0 | 4 |

Comments

Date tested 95-02-23.

Specimens prepared by Kingfisher Marble.

Typical wear index for 55 MPa concrete is 24.4 and for 20 MPa concrete is 14.7.

* A minimum five specimens required for this test (Modulus of Rupture).

CERTIFIED BY: _____

P. Joshi
P. Joshi, A.Sc.T.,
Laboratory Services Manager

CS#2/3406m.T

TECHNICAL REPORT

Kingfisher Marble,
c/o Franz Capital Corporation,
White Marble Development,
17948 - 24th Avenue,
Surrey, British Columbia
V4P 1M6

FILE: VA-3406
DATE: February 24, 1995

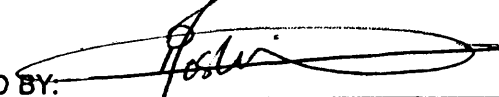
ATTENTION: Mr. Ralph J. Englund, B.Sc., P. Geo.

PROJECT: Dimension Stone Testing
SUBJECT: Granite

| Granite Dimensional Stone Testing | | | | |
|-----------------------------------|-----------------|--|--|-------------------------|
| The Physical Property Tested | The ASTM Method | Standard Specification Requirements ASTM C 615 | Average Test Results | No. of Specimens Tested |
| Absorption % by Weight | C 97 | 0.40 (maximum) | 0.30 | 3 |
| Density (kg/m ³) | C 97 | 2560 (minimum) | 2612 | 3 |
| Compressive Strength MPa (psi) | C 170 | 131.0 (19,000) (minimum) | Dry 150.2 (21,800) Wet 132.7 (19,245) | 5 5 |
| Abrasion Resistance Wear Index | C 501 | See Comments | 78.2 | 4 |

Comments

Date tested 95-02-23.
Specimens cut and delivered to AGRA lab by Kingfisher Marble.
Typical Wear Index for 55 MPa concrete is 24.4 and 20 MPa concrete is 14.7.

CERTIFIED BY: 
P. Joshi, A.Sc.T.,
Laboratory Services Manager

CS#2/3406G.T

A P P E N D I X 3

Petrographic Examination Report



Vancouver Petrographics Ltd.

8080 GLOVER ROAD, LANGLEY, B.C. V3A 4P9
PHONE (604) 888-1323 • FAX (604) 888-3642

Report for: Ralph England,
17948 24th Ave.,
SOUTH SURREY, B.C
V4P 1M6

February 20th, 1995

SAMPLES:

Pieces of two rock types, designated "granite" and "marble" respectively, were submitted for slabbing and petrographic examination (with the object of assessing their suitability for dimension stone).

Several polished thin section were prepared of each sample.

DESCRIPTIONS:

Granite:

Estimated mode

| | |
|-------------------------|-------|
| Quartz | 25 |
| Plagioclase | 30 |
| K-feldspar | 40 |
| Biotite | 3 |
| Garnet | 2 |
| Fe oxides) Limonite) | trace |

This rock is a leucocratic granite consisting predominantly of an interlocking intergrowth of anhedral quartz, plagioclase and K-feldspar, of grain size 1 - 5mm. There is also a minor, more finely granular component of the same minerals, (in the range 0.3 - 1.0mm).

The feldspars are strikingly fresh (devoid of common alteration products such as sericite, clays, carbonate). Minor development of myrmekitic intergrowths of quartz droplets in feldspar can be seen.

Of two off-cut blocks, one is essentially devoid of mafics. The other contains scattered clusters of brown biotite, sometimes associated with irregular grains of garnet.

One of the thin sections includes a garnet grain 1cm in size, partially mantled by biotite. The garnet appears fresh, but is characteristically traversed by networks of irregular cracks which will reduce its physical strength.

Localized fracturing was observed in the quartzo-feldspathic rock matrix, sometimes extending between clusters of biotite. Some of these microfractures are stained and infilled by limonite (secondary Fe oxides). Rare pockets of limonite occur associated with the biotite.

One minute speck of pyrite was recognized within an Fe oxide grain in a fracture in garnet. This suggests that the limonite in this rock may be mainly secondary after pyrite. The latter appears to be a rare trace associate of the mafic segregations (biotite/garnet) in the rock.

The bulk of this rock is homogenous, light-coloured, and free of physical weaknesses. Local micro-fracturing is associated with sporadic mafic segregations, as are rare traces of pyrite - now largely oxidized to limonite. The latter features may give rise to spalling and irregularities during cutting, and to localized Fe staining. The fractured garnets may tend to disintegrate and/or "pop-out" during cutting.

One off-cut block shows a severe example of breakage along an Fe-stained fracture. However, the incidence of such features overall is probably very low.

Marble:

Estimated mode

| | |
|-----------|-------|
| Calcite | 85 |
| Diopside | 12 |
| Amphibole | trace |
| Muscovite | 2 |
| Quartz | 1 |

This rock is a coarse, anhedral aggregate of calcite, dominantly of grain size 1 - 5mm (but locally ranging down to 0.5mm or less, and up to 10mm). It is texturally homogenous and devoid of shearing or fracturing.

Mineralogical heterogeneities consist of scattered grains and clumps of calc-silicate accessories - dominantly diopside. This forms sub-prismatic grains, 0.5 - 2.0mm in size, occasionally clumped as patches to 5.0mm or so.

Associated minerals are discrete, somewhat rounded flakes of muscovite, and small droplet-like grains of quartz.

These silicate clumps are light-coloured like the matrix, and are not prominent visually. They are apparent on cut surfaces as patches of different lustre. They are also (except for the muscovite) considerably harder than the calcite matrix, and may possibly tend to break out along sharp edges in cut slabs of the rock. Such an effect may be aggravated in the few cases where the diopside is partially altered to, or intergrown with, micaceous material.

PHOTOMICROGRAPHS:

All photos are by transmitted light at a scale of 1cm = 0.17mm.
Note: colours seen in cross-polarized light conditions are optical interference effects, not the true colours of the minerals.

Marble:

Neg. 352-18: Cross-polarized light. Diopside grains (yellow and grey; upper left), muscovite flake (green/blue) and quartz grains (rounded; dark grey) in matrix of coarsely interlocking calcite (reddish, green, greys, with lattice twinning).

Neg. 352-19: Cross-polarized light. Diopside grains (red/blue/purple) with muscovite (orange) in matrix of coarse calcite (dark greys/pastel shades).

Neg. 352-20: Cross-polarized light. Diopside clump (light grey) with intergrown amphibole (olive brown; top) in mosaic-textured calcite host.

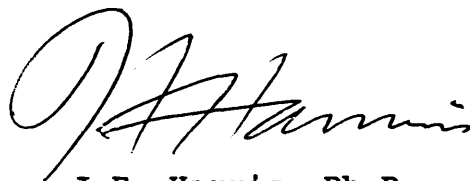
Granite:

Neg. 352-21: Cross-polarized light. Interlocking aggregate of quartz (yellowish, whitish) and feldspar (mottled greys; sometimes with cleavage: e.g. top left). Black areas are grains in optical extinction position.

Neg. 352-24: Cross-polarized light. Smooth dark areas at top are quartz. Mottled grey (dominant constituent) is K-feldspar. Grains (centre) showing lamellar twinning are plagioclase. Note myrmekitic intergrowth of quartz blebs (white/dark) in the plagioclase. Small orange area (upper centre) is biotite. Note wide-spaced fracturing (dark cracks: far left and far right) cutting the rock.

Neg. 352-22: Garnet grain (centre; cut by network of fractures) flanked by biotite (brown; platy fabric). Peripheral colourless areas are the feldspathic host rock.

Neg. 352-25: Mode of occurrence of accessory biotite (brown; lamellar structure) - in this case, without garnet. This field exemplifies an area of localized microfracturing (dark cracks) cutting the quartz and feldspar. Fractures are coated with limonite (brown). Field also includes two discrete small pockets of compact limonite (dark; far left and lower right).

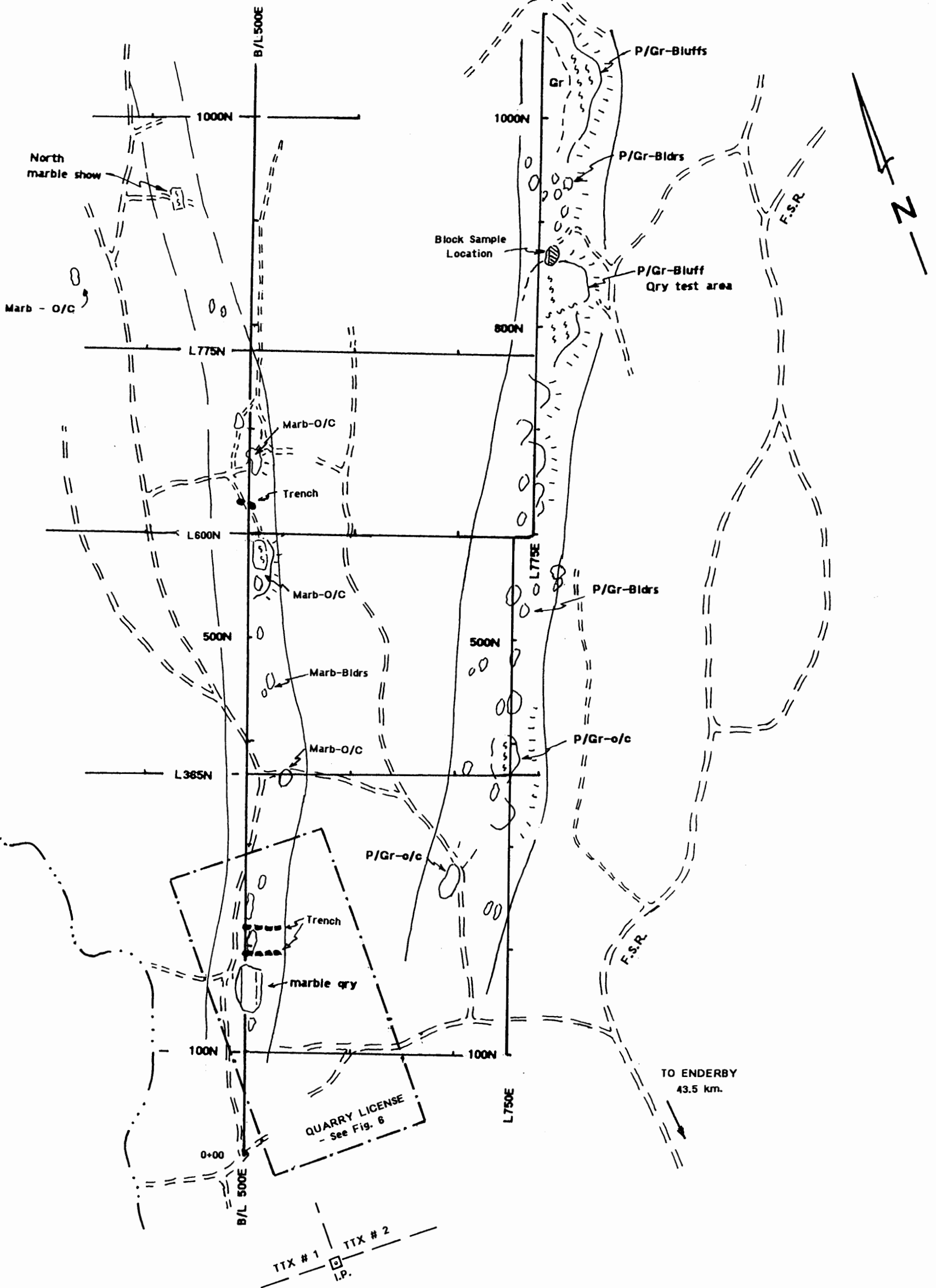


J.F. Harris Ph.D.

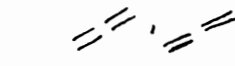
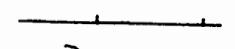
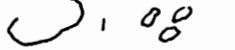



(929-5867)

A P P E N D I X 4

Maps - Figures 5 - 7

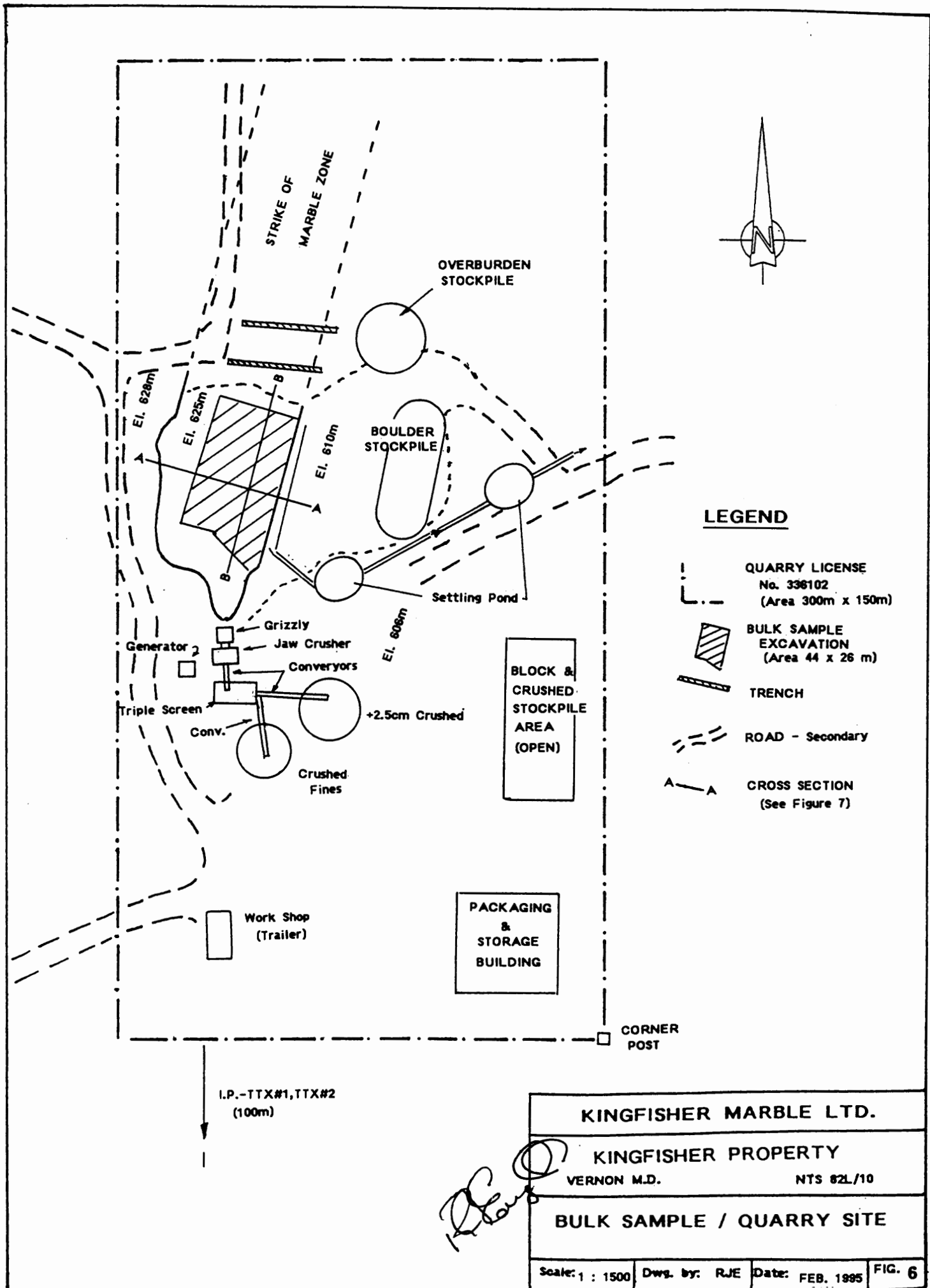


LEGEND






-  ROAD - Primary (F.S.R.), Secondary
-  SURVEY LINE
-  OUTCROP (O/C), BOULDERS
-  GEOLOGIC BOUNDARY
-  FAULT
-  TRENCH

RJE

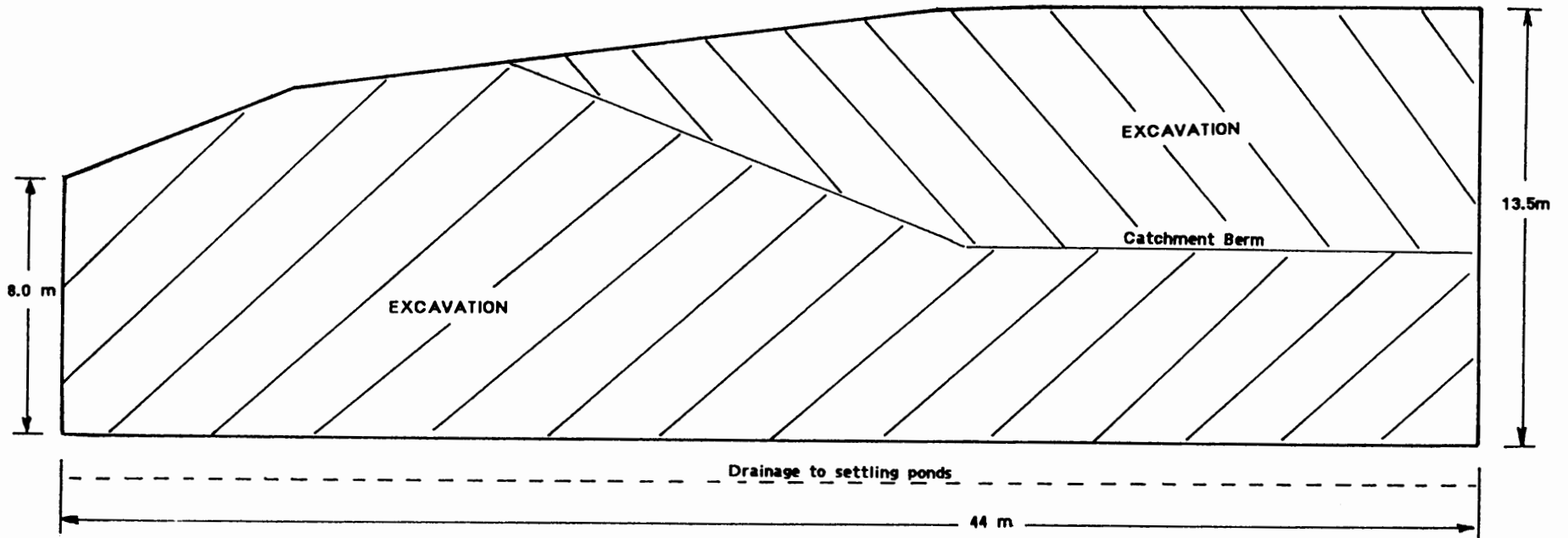
| | |
|-------------------------------|--------------|
| KINGFISHER MARBLE LTD. | |
| KINGFISHER PROPERTY | |
| VERNON M.D. | NTS 82L/10 |
| LOCAL GEOLOGY | |
| OUTCROP MAP | |
| Scale: 1:4000 | Dwg. by: RJE |
| Date: FEB. 1995 | FIG. 5 |



LEGEND

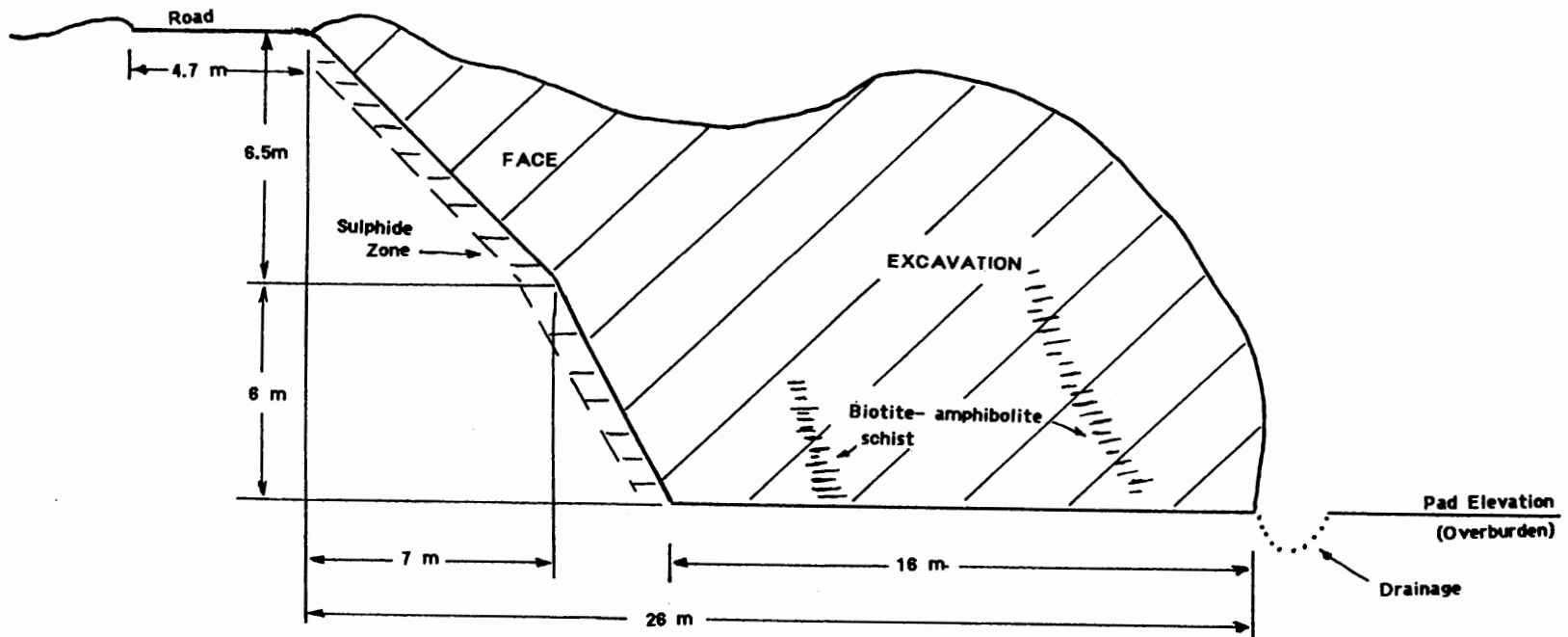
-  QUARRY LICENSE
No. 336102
(Area 300m x 150m)
-  BULK SAMPLE
EXCAVATION
(Area 44 x 26 m)
-  TRENCH
-  ROAD - Secondary
-  CROSS SECTION
(See Figure 7)

| | | | |
|----------------------------------|--------------|-----------------|---------------|
| KINGFISHER MARBLE LTD. | | | |
| KINGFISHER PROPERTY | | | |
| VERNON M.D. | | NTS 82L/10 | |
| BULK SAMPLE / QUARRY SITE | | | |
| Scale: 1 : 1500 | Dwg. by: RJE | Date: FEB. 1995 | FIG. 6 |



EXCAVATION - LOOKING WEST

SECTION B - B



EXCAVATION - LOOKING NORTH

SECTION A - A

RJE

| | | | |
|----------------------------------|--------------|-----------------|--------|
| KINGFISHER MARBLE LTD. | | | |
| KINGFISHER PROPERTY | | | |
| VERNON M.D. | | NTS 82L/10 | |
| QUARRY SITE | | | |
| EXCAVATION CROSS SECTIONS | | | |
| Scale: 1 : 1500 | Dwg. by: RJE | Date: FEB. 1995 | FIG. 7 |