

83-#231

ASSESSMENT REPORT
ON
DIAMOND DRILLING
ON THE
GOOSMUS GROUP OF MINERAL CLAIMS
GREENWOOD MINING DIVISION, B.C.
BY
A. I. BETMANIS, P.ENG.

Claim: New St. Maurice, Lot 682
Location: $49^{\circ}00\frac{1}{2}'N$, $118^{\circ}36\frac{1}{2}'W$
NTS: 82E/2E
Owner: E. J. Harrison
Operator: Teck Explorations Ltd.
Contrator: Bergeron Drilling Ltd.

part 2
of 2

Vancouver, B.C.

May 26, 1983
GEOLOGICAL BRANCH
ASSESSMENT REPORT

11,365

CONTENTS

| | <u>Page</u> |
|--|-------------|
| INTRODUCTION | 1 |
| a) Location and Access | 1 |
| b) Property and Ownership | 1 |
| c) Previous Work | 2 |
| d) Current Work | 2 |
| PROPERTY GEOLOGY AND MINERALIZATION | 4 |
| RESULTS OF DRILLING | 5 |
| CONCLUSIONS | 6 |
| REFERENCES | 7 |
| AUTHOR'S CERTIFICATE | 8 |
| APPENDIX I: Personnel and Dates | 9 |
| APPENDIX II: Drilling Costs | 10 |
| APPENDIX III: Grouping Notices and Statement of Exploration and Development | 11 |
| APPENDIX IV: Drill Logs; DDH's TS-67 and TS-69 | 12 |
| Fig. 1: Location Map following Page 1 | |
| Fig. 2: Claim Map following Page 3 | |
| Fig. 3: Drill Hole Location Map following Page 4 | |

INTRODUCTION

The following report describes part of a diamond drilling program conducted by Teck Explorations Ltd. on the Goosmus Group of mineral claims and leases (Grenoble, Teck, and Seraphim et al properties) located in southern Boundary District of the Greenwood area, B.C. The drilling program was started in December 1982 and completed in late May 1983.

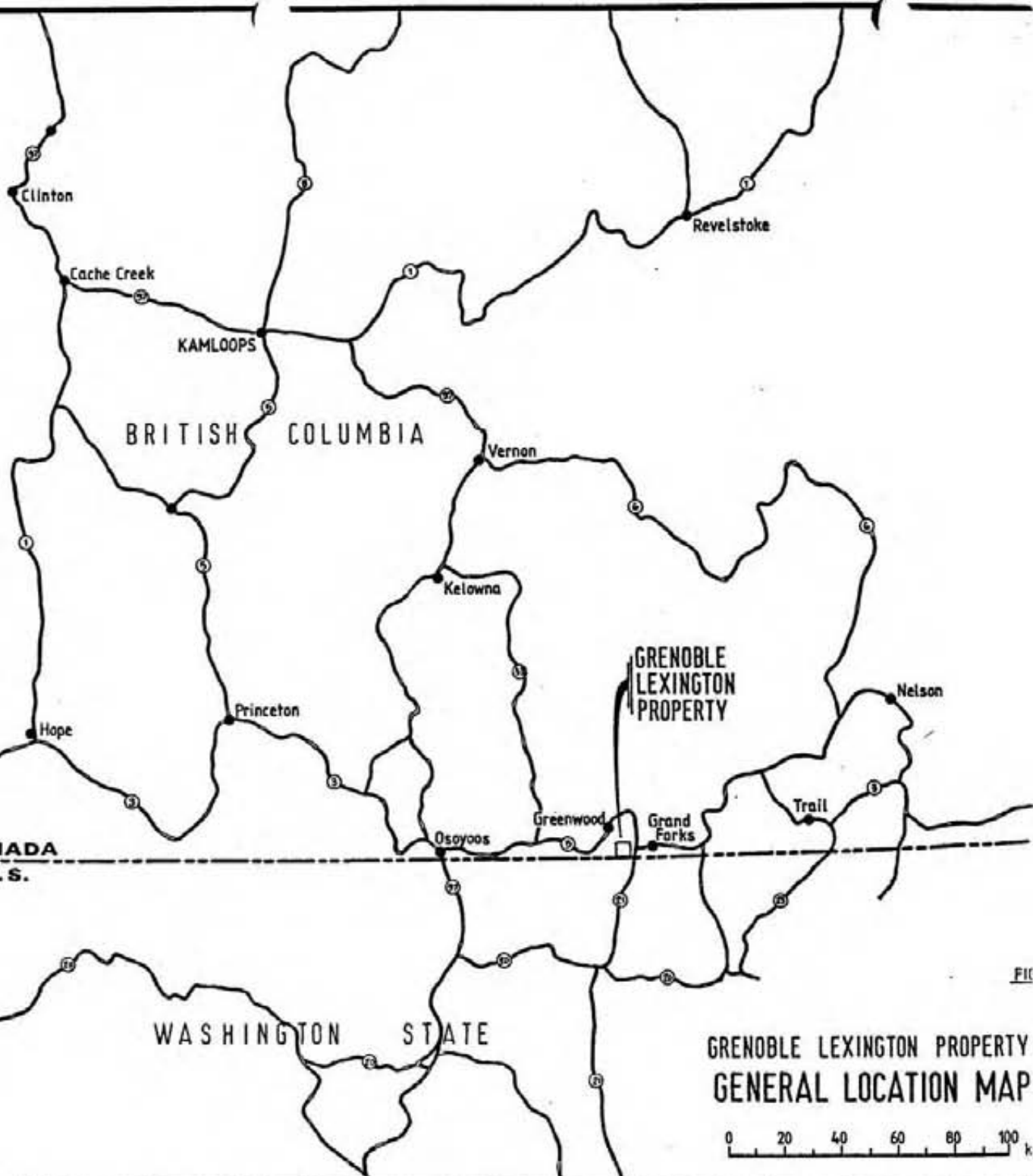
a) Location and Access

The Goosmus Group is located between Mount Wright and the U.S. border, 10 kilometres southeast of the City of Greenwood, B.C., in the Greenwood Mining Division (see Fig. 1). The geographical co-ordinates of the approximate centre of the property are $49^{\circ}00\frac{1}{2}'N$, $118^{\circ}36\frac{1}{2}'W$; the NTS location is 82E/2E.

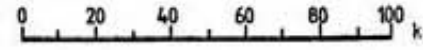
Access to the property is by good gravel road from Greenwood to the Phoenix Mine, and then southerly on the heavy-duty gravel haul road built to truck ore from the Lone Star Mine in Washington State to Phoenix, for a total distance of approximately 26 kilometres. About 0.7 km. north of the U.S. border, a dirt road best suitable for four-wheel-drive vehicles branches to the west and connects with a network of dirt roads which service all parts of the property.

b) Property and Ownership

The property consists of 13 Crown-granted claims, 15 located and reverted single unit claims, and two located claims of 29 units total which comprise the Goosmus Group, and four mineral leases. The property, other than the Teck wholly-owned claims, is under option to Teck Corporation. The Goosmus Group claims are shown in Fig. 2, and the claims and their ownership are listed in Appendix III.



**GRENOBLE LEXINGTON PROPERTY
GENERAL LOCATION MAP**



FIC

The drilling described in this report was done on the New St. Maurice Crown-granted Lot 682.

c) Previous Work

The City of Paris, Lincoln, and Lexington Mines, which are a part of this property, were active between 1892 and 1901, during which time a total of 113 metres of shaft sinking, 1,580 metres of drifting and crosscutting, and 213 metres of raising were done, principally on the City of Paris and Lincoln. Recorded production is 2,100 tons grading 3.12% Cu, 0.40 oz./ton Au, and 2.1 oz./ton Ag. Further minor production from high-grade gold-silver veins was realized in the mid 1930's.

Since then the claims now comprising the property have been controlled by or optioned to King Midas Mines Ltd., Lexington Mines Ltd., Silver Standard Mines Ltd., Granby Mining Company Ltd., Aalenian Resources Ltd., Grenoble Energy Ltd., and most recently Teck Corporation.

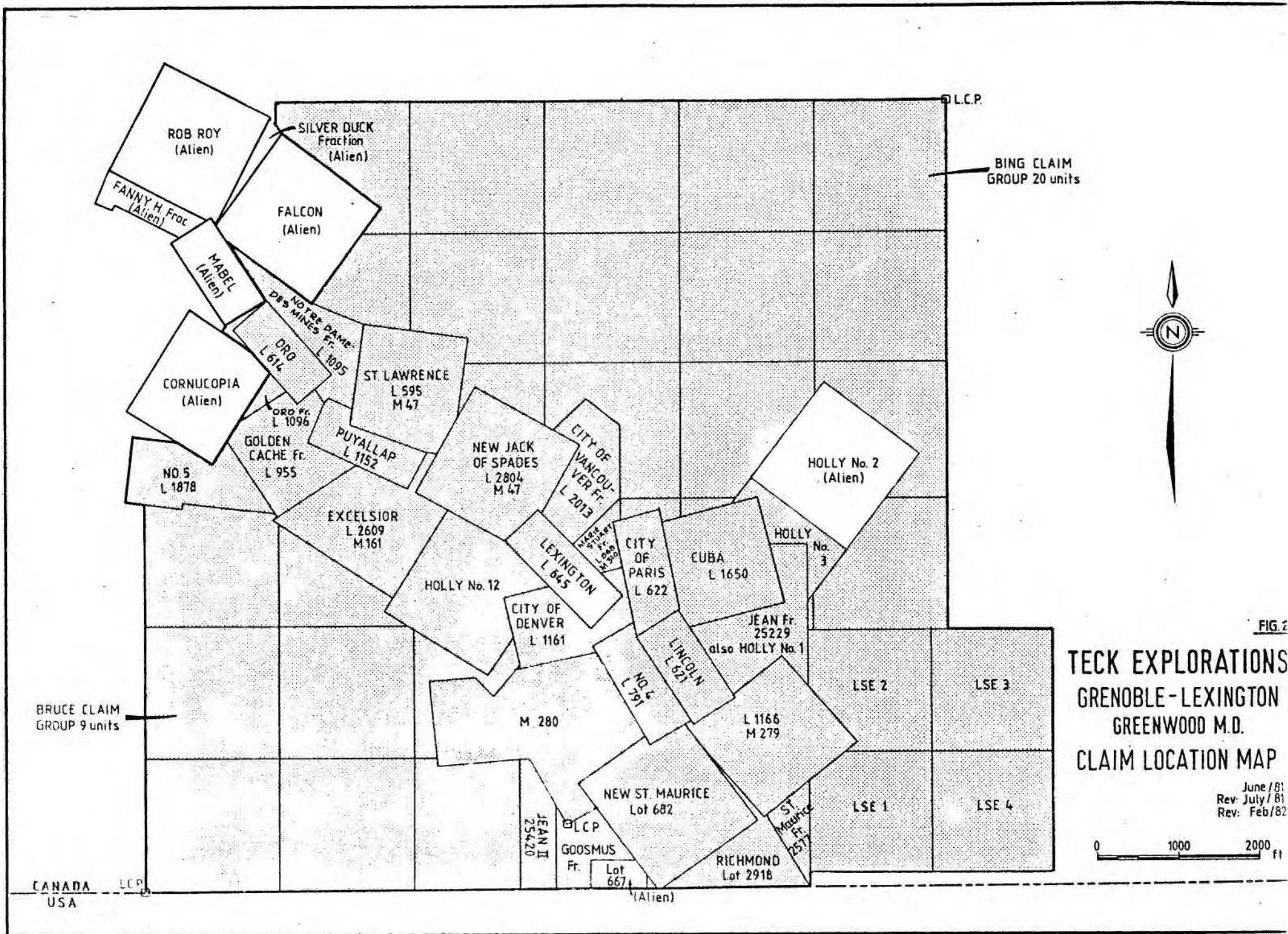
Up to the start of the most recent diamond drilling program by Teck, numerous geophysical and geochemical surveys have been performed, bulldozer trenches cut, and 11.8 kilometres of diamond drilling and 5.3 kilometres of percussion drilling done on the property.

d) Current Work

Bergeron Drilling Ltd. of Greenwood, B.C. were contracted to drill additional holes to explore (a) extensions of previously indicated mineralized zones, and (b) geologically favourable but inadequately tested areas. Drilling was done using wire-line diamond drilling equipment to recover NQ core.

The program was started on December 1, 1982, and was completed on May 18, 1983. A total of 3,228.7 metres was drilled. The core is stored in wooden core boxes on private property in Greenwood. Location of drill hole collars is shown on Fig. 3.

The drill holes described in this report were drilled to explore a geologically favourable but previously untested area.



ROB ROY
(Alien)

SILVER DUCK
Fraction
(Alien)

FANNY H. Frac
(Alien)

FALCON
(Alien)

MABEL
(Alien)

NOTRE DAME
DRG MINES Fr.

CORNUCOPIA
(Alien)

DRG L 614

ST. LAWRENCE
L 595
M 47

NO. 5
L 1878

GOLDEN
CACHE Fr.
L 955

PUYALLAP
L 1152

NEW JACK
OF SPADES
L 2804
M 47

CITY OF
VANCOU-
VER Fr.
L 2013

HOLLY No. 2
(Alien)

EXCELSIOR
L 2609
M 161

LEXINGTON
L 845

CITY OF
PARIS
L 622

EUBA
L 1650

HOLLY
No. 3

HOLLY No. 12

CITY OF
DENVER
L 1161

JEAN Fr.
25229
also HOLLY No. 1

LSE 2

LSE 3

BRUCE CLAIM
GROUP 9 units

M 280

LINCOLN
L 791

L 1166
M 279

LSE 1

LSE 4

CANADA
USA

JEAN II
Fr.
25420

GOOSMUS
Fr.
Lot
667

NEW ST. MAURICE
Lot 682

ST.
Maurice
Fr.
25377

RICHMOND
Lot 2918

(Alien)

D.L.C.P.

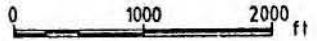
BING CLAIM
GROUP 20 units



FIG. 2

TECK EXPLORATIONS
GRENOBLE-LEXINGTON
GREENWOOD M.D.
CLAIM LOCATION MAP

June / 81
Rev: July / 81
Rev: Feb / 82



PROPERTY GEOLOGY AND MINERALIZATION

The property and area have been mapped by N. B. Church, and his findings are published in the 1970 edition of Geology, Exploration and Mining in British Columbia.

The property is underlain by a north-northwest trending and gently easterly dipping dacite body of approximately 200-metres thickness lying between argillites of early Mesozoic or late Paleozoic Attwood Formation to the west of gneissic and schistose basement metamorphic rocks to the east. Both contacts of the dacite are intruded by serpentinite. Late diorite irregularly intrudes all of the above rocks.

From recent petrographic studies and examination of drill core, the dacite has been identified as a series of andesitic to dacitic fragmental and welded tuffs. Although variations between tuff beds have been identified, no specific marker bed has been recognized.

Mineralization occurs as pyrite and chalcopyrite variably disseminated in the tuffs, and as a concentration of semi-massive to massive pyrite and chalcopyrite at or near the lower serpentinite-tuff contact. Gold and silver values occur with the sulphides, and are more common with chalcopyrite than with pyrite.

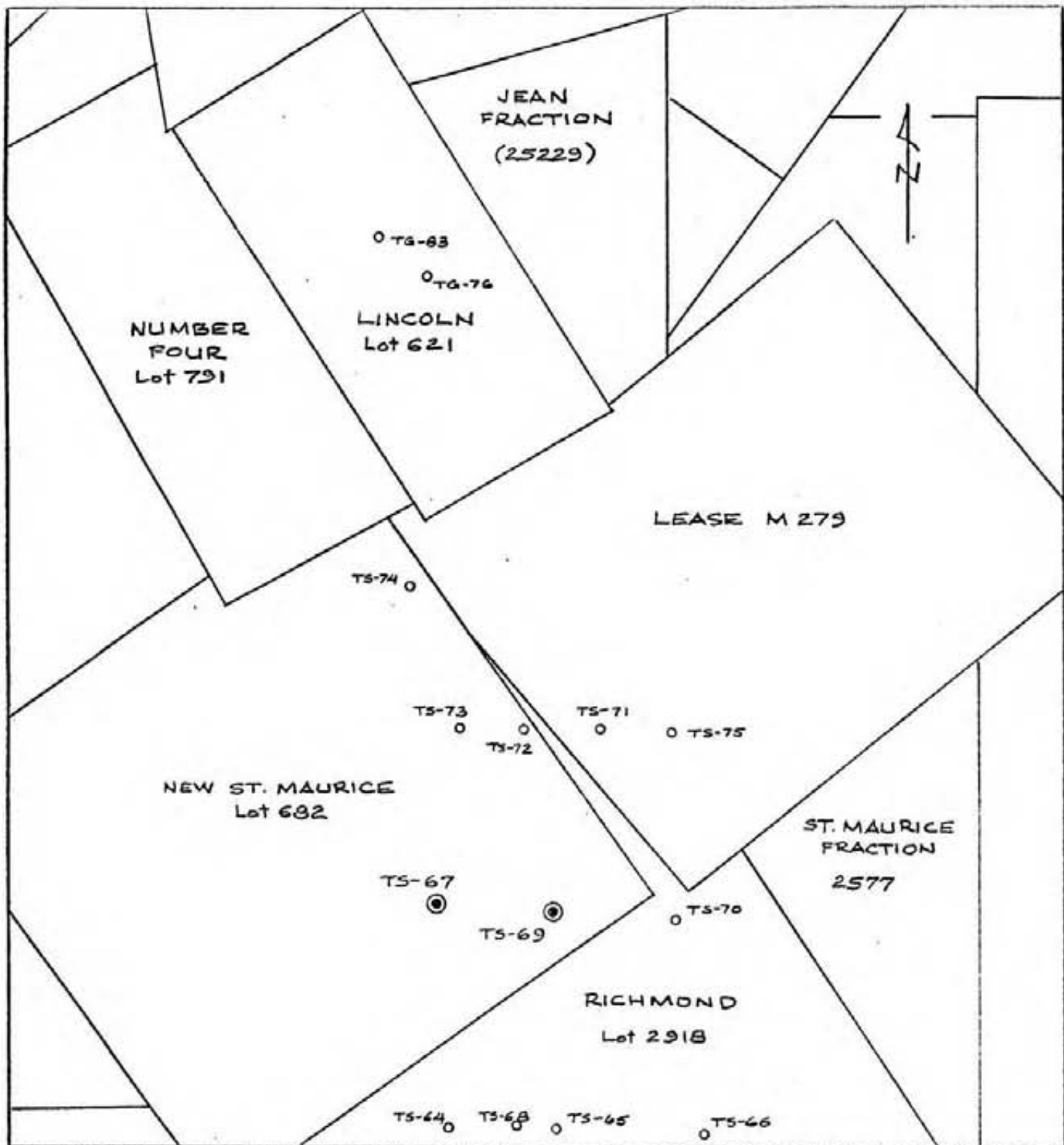
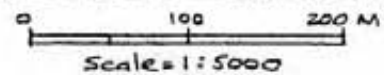


FIG. 3

- O DRILL HOLES 1982-83
- ⊙ DRILL HOLES REPORTED
- └ CLAIM BOUNDARY
- ══ INTERNATIONAL BOUNDARY

TECK EXPLORATIONS LTD.
 GOOSMUS GROUP
 GREENWOOD MINING DIVISION, B.C.
 NTS 82 E/2E
 DRILL HOLE LOCATION MAP



RESULTS OF DRILLING

Drill hole TS-67 encountered 51.2 metres of overburden and collared in serpentinite. The hole was continued in case the serpentinite was a lense in the dacite, and was stopped at 89.3 metres still in serpentinite. Minor pyrite with traces of chalcopyrite were disseminated throughout the serpentinite. (See Appendix IV for drill logs).

The drill was moved 100 metres to the east, and drill hole TS-69 was drilled. Projections from other drilling in the general area indicated that the hole should core dacite before passing into serpentinite, but after 47.9 metres of overburden, the drill encountered serpentinite. The hole was continued to 148.7 metres in case the area was underlain by a down-dropped fault block and the upper serpentinite was being cored, but due to no change in lithology other than occasional late diorite dyke intrusions, the hole was abandoned. A sample taken from the first 0.95 metres of serpentinite cored assayed 0.964% Cu and 0.0237 oz./ton Au, indicating that hole entered serpentinite close to the projected lower serpentinite-dacite contact.

CONCLUSIONS

Both drill holes failed to core the favourable dacite or tuffs. This was due partly to erosion of the dacite in the area and deposition of a thick glacial till over the serpentinite. However, interpolation between other drill holes on the property indicates that the area of drill holes TS-67 and TS-69 probably also has been faulted upwards. The dacite-serpentinite contact probably lies a short distance to the east of DDH TS-69.

Respectfully submitted,



A. I. Betmanis, P.Eng.

May 26, 1983
Vancouver, B.C.

REFERENCES

- Betmanis, A. I. (1983): Report on the 1982/83 Diamond Drilling Exploration Program, Grenoble and Seraphim et al Properties, Greenwood Mining Division, B.C., dated May 6, 1983; private report for property owners.
- Church, N. B. (1970): B.C. Department of Mines reports Lexington and Richmond properties in GEM 1970, pp 413-427.
- Page, R. O. (1982): Assessment Report on Diamond Drilling on the Goosmus Group of Claims, Greenwood Mining Division, B.C., dated June 18, 1982.
- Phendler, R. W. (1982): Exploration Report on the Grenoble/Lexington, Seraphim et al Properties, Greenwood Mining Division, B.C., dated August 25, 1982; private report for Grenoble Energy Ltd.

AUTHOR'S CERTIFICATE

I, Andris I. Betmanis, do hereby certify that:

I am a geologist residing at 1988 Arroyo Court, North Vancouver, B.C.;

I am a graduate of the University of Toronto with a B.A.Sc. degree in Applied Geology;

I am a registered member of the Association of Professional Engineers of the Province of British Columbia;

I have practiced my profession in geology and mineral exploration for the past 18 years, and since 1970 in British Columbia for Teck Explorations Limited;

I supervised the diamond drilling program on the Goosmus Group of claims described in this report between December 1982 and May 1983.

May 26, 1983


A. I. Betmanis, P.Eng.

APPENDIX I

PERSONNEL AND DATES

A. I. Betmanis, P.Eng. of Vancouver, B.C. supervised the program, laid out the drill sites and logged all of the drill core.

K. Pasco of Greenwood, B.C. was employed on a temporary basis as required to split drill core for assay purposes.

Bergeron Drilling Ltd. of Greenwood, B.C. was the drilling contractor.

Afton Operating Corporation laboratories at Kamloops, B.C. performed the assaying of samples from DDH TS-69.

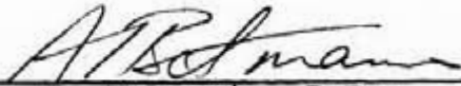
The duration of the drilling program was from December 1, 1982 (first hole collared) to May 18, 1983 (last hole completed); and the dates of drilling of the holes described in this report were January 4 to January 12, 1983.

APPENDIX II

DRILLING COSTS

Under the drilling contract between Bergeron Drilling Ltd. and Teck Explorations Ltd. dated November 25, 1982 for the drilling of NQ wireline core holes on the Goosmus Group in the Greenwood area, the basic cost of drilling to 1,000 feet (304.8 metres) depth was \$23.00/ft. (\$75.46/m). The cost of drilling claimed in the Statement of Exploration and Development for the work covered by this report is the basic cost, and does not include bulldozer work for site preparation, assaying supervision, accommodation, etc., which are also applicable to assessment cost requirements.

| | | |
|---------------------------------------|---|--------------------|
| DDH TS-67, 89.3 metres @ \$23.00/ft. | = | \$ 6,739.00 |
| DDH TS-69, 148.7 metres @ \$23.00/ft. | = | <u>11,224.00</u> |
| | | <u>\$17,963.00</u> |


A. I. Betmanis, P.Eng.

APPENDIX III

GROUPING NOTICE

AND

NOTICE OF EXPLORATION AND DEVELOPMENT

MINERAL ACT
 FORM 1

SUB-RECORDER
 RECEIVED
 JUL 31 1961
 M.R. # 16-1998-5-1130-51
 VANCOUVER, B.C.

NOTICE TO GROUP

Mining Division GREENWOOD Location GOOSMUS CREEK

Name of group GOOSMUS GROUP Map No. 82 E/2

We, the undersigned owners* of the following adjoining claims, desire to group them according to the provisions of the Mineral Act:-

| NAME OF CLAIM | No. of Units | Record No. | Month of Record | SIGNATURE OF OWNER* | Free Miner Certificate No. | | |
|----------------------------|--------------|------------|-----------------|---------------------|----------------------------|--------------------|--------|
| New Jack of Spades | 1 | 996 | April | Alan J. Reed | 203597 | | |
| Cuba | 1 | 997 | April | | | | |
| St. Lawrence | 1 | 1000 | April | Agent for | | | |
| Holly 1 | 1 | 1271 | Aug. | E.J. Harrison | 209612 | | |
| Holly 3 | 1 | 1273 | Aug. | | | | |
| Holly 12 | 1 | 1282 | Aug. | | | | |
| Excelsior | 1 | 1351 | Oct. | Teck Corporation | 203630 | | |
| Bing | 20 | 2765 | June | | | | |
| Bruce | 9 | 2766 | June | | | | |
| Goosmus Fr. | 1 | 2767 | June | | | | |
| City of Paris C.G. | 1 | L 622 | | | | | |
| Lincoln | 1 | L 621 | | | | | |
| Number Four | 1 | L 791 | | | | | |
| City of Vancouver Fraction | 1 | L 2013 | | | | | |
| Lexington | 1 | L 645 | | | | | |
| City of Denver | 1 | L 1161 | | | | | |
| N.D. Des Mines Fr. | 1 | L 1095 | | Estey Agency | 209966 | | |
| Oro | 1 | L 614 | | | | | |
| Oro Fraction | 1 | L 1096 | | | | | |
| Puyallup | 1 | L 1152 | | | | | |
| Golden Gate Fr. | 1 | L 955 | | | | | |
| LSE 1 | 1 | 1286 | July | | | W.G. Hallauer, Jr. | 184036 |
| LSE 2 | 1 | 1287 | July | | | | |
| LSE 3 | 1 | 1288 | July | | | | |
| LSE 4 | 1 | 1289 | July | | | | |
| St. Maurice Fr. | 1 | 2577 | Dec. | | | W.E. McArthur, Jr. | 199351 |
| Jean Fr. | 1 | 25229 | May | R.H. Seraphim | 191290 | | |
| Jean #11 | 1 | 25420 | June | | | | |
| New St. Maurice | 1 | L 682 | | W.E. McArthur, Jr. | 199351 | | |
| Richmond | 1 | L 2918 | | | | | |

*May be signed by agent on behalf of owner.

| | |
|---|---|
| C. DRILLING <small>(Details in report submitted as per section 8 of regulations.) (The itemized cost statement must be part of the report.)</small> | COST |
| | 238 metres. NQ diamond drilling in two holes (TS-67, TS-69)\$17,963.00..... |
| D. GEOLOGICAL, GEOPHYSICAL, GEOCHEMICAL <small>(Details in report submitted as per section 5, 6, or 7 of regulations.) (The itemized cost statement must be part of the report.) (State type of work in space below.)</small> | |
| | |
| TOTAL OF C AND D\$17,963.00..... | |

Who was the operator (provided the financing)? Name Teck Explorations Ltd.
Address 1199 West Hastings Street
Vancouver, B.C. V6E 2K5

| Portable Assessment Credits (PAC) Withdrawal Request | | AMOUNT |
|--|---------------|--------|
| Amount to be withdrawn from owner(s) account(s): | | |
| | Name of Owner | |
| <small>(May be no more than 30 per cent of value of the approved work submitted as assessment work in C and (or) D.)</small> | 1. | |
| | 2. | |
| | 3. | |
| | 4. | |
| TOTAL WITHDRAWAL | | |
| TOTAL OF C AND (OR) D PLUS PAC WITHDRAWAL | | |

I wish to apply \$ 17,600.00 of this work to the claims listed below.

(State number of years to be applied to each claim, its month of record, and identify each claim by name and record no.)

Two years to each of: BING, 20 units, record no. 2765 (June); BRUCE, 9 units, record no. 2766 (June); GOOSPIUS Fr., record no. 2767 (June).....
Three years to each of: LSE #1 to #4 incl., record nos. 1286-89 (July); HOLLY #1, .. record no. 1271 (Aug.); HOLLY #3, record no. 1273 (Aug.); HOLLY #12, record no. 1282 (Aug.); EXCELSIOR, record no. 1351 (Oct.); ST. MAURICE FR, record no. 2577 (Dec.).
One year to Jean #11, record no. 25420 (June).

Value of work to be credited to portable assessment credit (PAC) account(s).

(May only be credited from the approved value of C and (or) D not applied to claims.)

| | Name | AMOUNT |
|--|---------|--------|
| In owner(s) name. | 1. | |
| | 2. | |
| | 3. | |
| In operator(s) name (party providing the financing). | 1. | |
| | 2. | |
| | 3. | |

Alberta
(Signature of Applicant)

APPENDIX IV

DRILLING LOGS

DDH's TS-67 and TS-69

PROPERTY SERAPHIM

GRID _____

DIAMOND DRILL LOG

HOLE No. TS-62SHEET 1 OF 7

LOCATION New St Maurice L682 BEARING — LATITUDE 2549-68N CORE SIZE NQ LOGGED BY A. Betmanis
 DATE COLLARED Jan 10/83 LENGTH 148.7 mts DEPARTURE 6416.18 E SCALE OF LOG 1:110 DATE March 10, 1983
 DATE COMPLETED Jan 12/83 DIP -90° @ collar ELEVATION 1177.2 m REMARKS Recovery 94%; -89° 568W @ 122.9 mts.

| ROCK TYPES AND ALTERATION | ROCK TYPE ALTERATION | GRAPHIC LOG DEPTH ELEV. | STRUCTURE | MINERALIZATION AND STRUCTURES | MINERALS | METRE BLOCKS | REC'VY | SAMPLE No. | ASSAY RESULTS | | | | |
|---|-------------------------|----------------------------------|-----------|--|----------|-----------------|---------------------|---------------|---------------|-------------|-------------|-------|--|
| | | | | | | | METRES CORE % | | % Cu | oz/ST Au | oz/ST Ag | | |
| OVERBURDEN | | 45 | | Cased. | | | | | | | | | |
| 47.85 SERPENTINITE, black to blue blk, fine grained, fairly hard, scattered ob ults, minor grn serp min, very magnetic 49.60-50.10 inc eb vng | | 48 | | Fract 5-10/m 47.85-48.20 streaks py, some streaks op at top dec. w. depth. 0.5% diss py to 48.8 | | 47.85 | | 47.85 | 15744 | 0.964 | 0.237 | 0.111 | |
| | | 51 | | No sulphides | | 49.99 | 2.87 134 | 48.8 | 15745 | 0.048 | | | |
| Serpentinite as above, sl. inc cb vng | | 54 | | Fract < 5/m No sulphides | | 52.12 | 1.93 91 | 51.0 | | | | | |
| | | 54 | | 53.70-54.00 0.5% diss py | | | 2.34 110 | | | | | | |

TECK EXPLORATIONS LTD.

DIAMOND DRILL LOG

PROPERTY: SERAPHIM

LOCATION: _____

HOLE NUMBER: TS-69

SHEET 7 OF 7

| ROCK TYPES AND ALTERATION | GRAPHIC LOG | | MINERALIZATION AND STRUCTURES | SPECIFIC GRAVITY | METRE BLOCKS | REC'Y | SAMPLE NUMBER | ASSAY RESULTS | | | | | | | |
|---------------------------|----------------------|-----------------|-------------------------------|------------------|--------------|------------|---------------|---------------|--------|--|--|--|--|--|--|
| | ROCK TYPE ALTERATION | DEPTH IN METRES | | | | STRUCTURE | | WT. IN GRAMS | CORE % | | | | | | |
| As above | | | As above, sl. den. fract | | 147.02 | | | | | | | | | | |
| | | 147 | | | | 1.52 48 | | | | | | | | | |
| As above | | | Fract ~ 5/m. | | 147.22 | | | | | | | | | | |
| END OF HOLE | | | JANUARY 12, 1983 | | 148.20 | | | | | | | | | | |
| | | 150 | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |