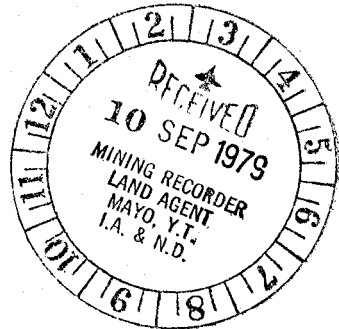


COMINCO LTD.

EXPLORATION
NTS: 115P/16

WESTERN DISTRICT



DIAMOND DRILL ASSESSMENT REPORT ON THE

SUN GROUP OF MINERAL CLAIMS

SCHEELITE DOME AREA, YUKON TERRITORY

63°47' LATITUDE; 136°15' LONGITUDE

PERIOD OF WORK: JULY 1, 1979 TO AUGUST 15, 1979

MAYO MINING DIVISION

AUGUST 1979

S.B. BUTRENCHUK

021358

DIAMOND DRILL LOGS

CLAIM SHEET 115-P-16 YEAR 1979

AREA Scheelite Dome Area

COMPANY Cominco Ltd.

NO. OF HOLES 2 FOOTAGE 499 ft.

CLAIM DRILLED Sun No. 7 and 8

CORE STORAGE On Property at West side of Scheelite Dome

NOTES AND REMARKS:

DIAMOND DRILL ASSESSMENT REPORT ON THE
SUN GROUP OF MINERAL CLAIMS

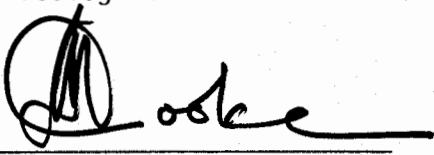
This report is submitted in order to fulfill the requirements for assessment work on the following mineral claims: Sun 1-6, 17-22, 33-38, 41, 49-56, 60, 65-70, 82.

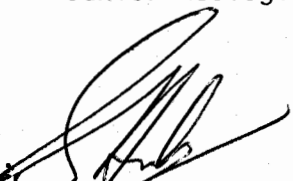
Using a Longyear 34 drill taking NQ core two diamond drill holes totalling 499 feet were drilled on the Sun claims (specifically Sun 7 and Sun 8) during the period from June 15, 1979 to July 15, 1979. All core including the remainder of those sections split for assay is stored on the property on the west side of Scheelite Dome. Holes being applied for assessment credit are SUN 79-2 and Sun 79-3.

The accompanying diamond drill logs include geological descriptions of the rocks intersected and updated with all assay results. No samples were submitted for assay on DDH Sun 79-2. All rocks intersected in the drilling are of Proterozoic age and include quartzites, quartz mica schists and limestone or calc-silicate.

Attached to this report is a Statement of Expenditures incurred during the period June 1, 1979 to July 13, 1979 supported by an invoice and an Affidavit.

Report by: Stephen B. Butrenchuk.
Stephen B. Butrenchuk
Geologist

Endorsed by: 
D.L. Cooke
Senior Geologist

Approved for
Release by: 
G. Harden, Manager
Exploration
Western District

Drill Hole Record



| | | | | | |
|--------------|--|-----------|----------------|-----------|------------|
| Property | SUN OPTION | District | MAYO | Hole No. | SUN 79-2 |
| Commenced | June 29/79 | Location | SCHEELITE DOME | Tests at | Hor. Comp. |
| Completed | July 4/79 | Core Size | NQ | Corr. Dip | -60° |
| Co-ordinates | 10095E, 4900N | True Brg. | 340° | Logged by | SBB |
| Objective | To test down dip extension of observed surface mineralization. | | | % Recov. | 90.7 |
| | | | | Date | July 3/79 |

Claim
SUN 8T Brg.
340°Collar Dip
-60°Elev.
4860 feetLength
192 feetHole No. SUN 79-2
Sheet 1

| Footage | | Description | Sample No. | Length | Analysis | | | | |
|---------|------|--|------------|--------|----------|--|--|--|--|
| From | To | | | | | | | | |
| 0 | - 20 | Overburden | | | | | | | |
| 20 | - 23 | Quartz-biotite-schist: broken core, rock has mainly a rusty appearance. | | | | | | | |
| 23 | - 24 | Quartzite: buff to light brown, moderately foliated, muscovite 5-20%. | | | | | | | |
| 24 | - 27 | Fault zone: broken and brecciated rock, rusty yellow colouration, soft, sandy. | | | | | | | |
| 27 | - 40 | Quartzite: buff to light brown to grey, badly broken, laminated and moderately foliated, chloritic laminae present; rock is mainly quartz with up to 20% muscovite. | | | | | | | |
| 40 | - 45 | Quartz-biotite-schist: knotted schist, laminated, foliated with foliation parallel to laminations, biotite knots up to 25% of rock. | | | | | | | |
| 45 | - 54 | Quartzite-quartz-muscovite-schist: soft, limonitic, rusty appearance throughout, locally chloritic, broken rock. | | | | | | | |
| 54 | - 65 | Quartz-biotite-chlorite-schist: dark grey to green depending on varying amounts of biotite and chlorite, laminated, foliated, occasional quartzite bed and occasional quartz stringer, trace Po. | | | | | | | |



Drill Hole Record

| Property | | SUN OPTION | District | Hole No. SUN 79-2 | | Claim | T Brg. | Collar Dip | Elev. | Length | |
|-----------------|-----|---------------------------------------|--|-------------------|-------------|----------|--------|------------|-------|--------|--|
| Commenced | | | Location | Tests at | Hor. Comp. | | | | | | |
| Completed | | | Core Size | Corr. Dip | Vert. Comp. | | | | | | |
| Co-ordinates | | | | True Brg. | Logged by | | | | | | |
| Objective | | | | % Recov. | Date | | | | | | |
| Footage From | To | Description | | Sample No. | Length | Analysis | | | | | |
| 65 | 67 | Knotted Schist: | grey to green, rock is chloritic; biotite knots occur only in individual beds, occasional quartz stringer, trace Po. | | | | | | | | |
| 67 | 69 | Calc-Silicate: | very pale green, rusty section 67-68 (limonitic), very siliceous, few laminations, trace wollastonite? and diopside. | | | | | | | | |
| 69 | 73 | Quartzite: | light grey, contains schist layers. | | | | | | | | |
| 73 | 78 | Knotted Schist: | quartz-biotite schist, biotite knots, locally chloritic, minor muscovite, trace disseminated Po. | | | | | | | | |
| 78 | 93 | Quartz-Muscovite-Schist: | grey to brown, locally chloritic, rock is broken. | | | | | | | | |
| 93 | 95 | Quartz-chlorite-schist: | green, weakly foliated. | | | | | | | | |
| 95 | 107 | Quartz-Biotite-Chlorite-Schist: | interbedded grey and green, weak to moderate foliation, Po: 0-2% throughout section, foliation at 70° to core axis, at 95.5 feet Po content up to 10%. | | | | | | | | |
| 107 | 112 | Rusty coloured sand, brecciated rock: | possible fault zone. | | | | | | | | |



Drill Hole Record

Scale

Colour Plot & Dips

| | | | | |
|--------------|------------|-----------|-----------|-------------|
| Property | SUN OPTION | District | Hole No. | SUN 79-2 |
| Commenced | | Location | Tests at | Hor. Comp. |
| Completed | | Core Size | Corr. Dip | Vert. Comp. |
| Co-ordinates | | | True Brg. | Logged by |
| Objective | | | % Recov. | Date |

Claim
T Brg.
Collar Dip
Elev.
Length
Hole No. SUN 79-2
Sheet 3

| Footage From To | Description | Sample No. | Length | Analysis | | | | | |
|--------------------|---|------------|--------|----------|--|--|--|--|--|
| | Hole deflected at 87.5 feet; re-drilled 87.5 to 117 feet. | | | | | | | | |
| 112 - 123 | Quartz-Chlorite-Schist: calc-silicate beds present, minor quartz-biotite-schist; quartz veining is common, rock is siliceous. - Py and Po: 0-1% disseminated. | | | | | | | | |
| 123 - 142 | Quartz-Chlorite-Biotite-Schist: mainly a pale green with darker bands present, siliceous rock. - 127-130 calc-silicate - 134-136 and 139-140 feet: brecciated rock; quartz filling around schist fragments. - quartz stringers with random orientation common throughout section. - at 127.5 feet: laminations at 55° to core axis - at 130 feet : laminations at 70° to core axis | | | | | | | | |
| 142 - 157 | Brecciated rock: weakly disseminated Py (less than 1%) throughout section. - 146-150 siliceous matrix with schist fragments - 150-153 quartz-mica schist; rock is severely broken. - 153-157 siliceous rock - possible calc-silicate; very pale green, rock is broken and weakly brecciated. | | | | | | | | |



Drill Hole Record

Scale
Colour Plot & Dip
0

| | | | | |
|--------------|------------|-----------|-----------|-------------|
| Property | SUN OPTION | District | Hole No. | SUN 79-2 |
| Commenced | | Location | Tests at | Hor. Comp. |
| Completed | | Core Size | Corr. Dip | Vert. Comp. |
| Co-ordinates | | | True Brg. | Logged by |
| Objective | | | % Recov. | Date |

Claim
T Brg.
Collar Dip
Elev.
Length

| Footage | | Description | Sample No. | Length | Analysis | | | | | |
|---------|-----|---|------------|--------|----------|--|--|--|--|--|
| From | To | | | | | | | | | |
| 157 | 162 | Quartz-biotite-chlorite schist: grey to green, laminated to thin bedded, in part brecciated may contain interbedded calc-silicate. | | | | | | | | |
| 162 | 171 | Quartz-chlorite schist: light green to green, laminated to thin bedded, in part brecciated, may contain interbedded calc-silicate bands. | | | | | | | | |
| 171 | 192 | Quartz-biotite-chlorite schist: dark grey to green, weakly foliated, one foot thick knotted schist bands present; thin bedded to laminated, locally the laminations are crenulated, occasional quartz stringer. - 189.5-190 Py lenses or blebs present; parallel to the foliation. - laminations at 50° to core axis. | | | | | | | | |
| | | END OF HOLE | | | | | | | | |
| | | Hole abandoned at 192 feet. | | | | | | | | |

Hole No. SUN 79-2 Sheet 4

Drill Hole Record



| | | | | | |
|--------------|--|-----------|----------------|-----------|--------------------------|
| Property | SUN OPTION | District | MAYO | Hole No. | SUN 79-3 |
| Commenced | July 5/79 | Location | SCHEELITE DOME | Tests at | Hor. Comp. |
| Completed | July 8/79 | Core Size | NQ | Corr. Dip | -90° Vert. Comp. |
| Co-ordinates | 10000E, 5000N | | | True Brg. | Logged by SBB |
| Objective | To test the down-dip extension of observed surface mineralization. | | | % Recov. | 95.8% Date July 11/79 |

Claim
SUN 7

T Brg.

Collar Dip
-90°Elev.
4905Length
307'Hole No. SUN
Sheet 1

| Footage | | Description | Sample No. | Length | Analysis | | | | | |
|---------|----|--|------------|--------|----------|--|--|--|--|--|
| From | To | | | | | | | | | |
| 0 | 10 | Overburden | | | | | | | | |
| 10 | 30 | Quartz-biotite schist: chlorite rich bands and laminations present throughout section. - dark grey, laminated to thin bedded, rare quartz stringer present - at 17 ft. - 1 ft. thick quartzite bed - trace Py at 26 ft. - laminations at 65°-70° to core axis. | | | | | | | | |
| 30 | 36 | Knotted schist: biotite knots 15%, rock is chloritic with chlorite knots also present; weakly disseminated Py and Po present (less than 1%). | | | | | | | | |
| 36 | 37 | Quartz-biotite schist | | | | | | | | |
| 37 | 39 | Knotted schist | | | | | | | | |
| 39 | 52 | Quartz-biotite-chlorite schist: grey to green, in part laminated, weakly foliated, occasional quartz stringer or veinlet present; up to 2% disseminated muscovite; quartz 50-75%. | | | | | | | | |

Drill Hole Record



| Property | SUN OPTION | District | | Hole No. | SUN 79-3 | Claim | | T Brg. | | Collar Dip | | Elev. | | Length | |
|--------------|------------|--|------------|-----------|----------|-------|------|--------|-------|------------|--|-------|--|--------|--|
| Commenced | | Location | | Tests at | | | | | | | | | | | |
| Completed | | Core Size | | Corr. Dip | | | | | | | | | | | |
| Co-ordinates | | | | True Brg. | | | | | | | | | | | |
| Objective | | | | % Recov. | | | | | | | | | | | |
| Footage | | Description | Sample No. | Length | Analysis | | | | | | | | | | |
| From | To | | | | Cu | W | Au | Ag | Sn | | | | | | |
| 52 | 57 | Quartzite: light brown, rock has a schistose appearance due to presence of biotite and chlorite; core is badly broken | | | | | | | | | | | | | |
| 57 | 117 | Quartz-biotite-chlorite schist: grey to dark grey, highly fractured, quartzite bands present, occasional quartz vein present. - 67-69 knotted schist - 70-76 broken core - 78-79 quartzite - 83-84 chlorite schist - 97.6-99 quartzite - at 102 feet bedding at 80° to core axis | | | | | | | | | | | | | |
| 117 | 123 | Quartz-chlorite schist: green to pale green, abundant quartz veining (15%), - occasional biotite rich laminae present, highly fractured - at 118 feet - 4 inch breccia zone - up to 1% disseminated Py; trace Cpy at 120 feet Assay 118-121 | 18631E | 3 ft | <0.01 | .01 | .002 | .05 | <0.01 | | | | | | |
| 123 | 124 | Quartzite | | | | | | | | | | | | | |
| 124 | 133 | Quartz-biotite schist: locally chloritic, occasional thin calc-silicate band, quartz veining common Assay 129-133 | 18627E | 4.0 | 0.01 | .22 | .052 | .03 | <0.01 | | | | | | |

Drill Hole Record



Property SUN OPTION District Hole No. SUN 79-3

Commenced Location Tests at Hor. Comp.

Completed Core Size Corr. Dip Vert. Comp.

Co-ordinates True Brg. Logged by

Objective % Recov. Date

| Footage From To | Description | Sample No. | Length | Analysis | | | | |
|--------------------|---|---------------|--------|----------|-----|------|-----|------|
| | | | | Cu | W | Au | Ag | Sn |
| 133 - 135 | Amphibole Skarn: poor recovery, 4 inch thick calc-silicate band at 133, mineralized: scheelite 0.25-0.50% Assay 133-135 | 18628E | 2.0 | .01 | .32 | .031 | .03 | <.01 |
| 135 - 155 | Calc-silicate: weakly calcareous, garnets present in occasional band, cream to green, thin bedded to laminated, limonitic section 138.6-141 occasional quartz-filled vug. 138-138.6: scheelite 0.25-0.50% 151-152: Amphibole skarn (scheelite present in a fracture, disseminated Po present (2-3%) Assay 135-138 | 18629E | 3.0 | .02 | .02 | .075 | .03 | <.01 |
| | 138-143 | 18630E | 5.0 | .01 | .01 | .018 | .02 | <.01 |
| | 143-147 | 18632E | 4.0 | .01 | .01 | .009 | .07 | <.01 |
| | 147-150 | 18633E | 3.0 | .01 | .01 | .016 | .04 | <.01 |
| | 150-152 | 18634E | 2.0 | .02 | .21 | .004 | .05 | <.01 |
| | 152-155 | 18635E | 3.0 | .01 | .11 | .003 | .04 | <.01 |
| 155 - 184 | Quartz-biotite-chlorite schist: dark grey to dark green, weakly foliated, occasional quartz stringer; few quartzite beds (less than 6" thick) 174-175 breccia zone. | | | | | | | |
| 184 - 185.5 | Quartzite | | | | | | | |

Claim

T Brg.

Collar Dip

Elev.

Length

Hole No. 79-3
Sheet 2

Drill Hole Recc. J



| Property | SUN OPTION | District | Hole No. | SUN 79-3 | | | | | | | | | |
|--------------------|--|-----------|-----------|-------------|--------|----------|-------|--------|------------|-------|--------|------------|-------|
| Commenced | | Location | Tests at | Hor. Comp. | | | | | | | | | |
| Completed | | Core Size | Corr. Dip | Vert. Comp. | | | | | | | | | |
| Co-ordinates | | | True Brg. | Logged by | | | | | | | | | |
| Objective | | | % Recov. | Date | | | | | | | | | |
| Footage From To | Description | | | Sample No. | Length | Analysis | Claim | T Brg. | Collar Dip | Elev. | Length | Sample No. | Sheet |
| 185.5 - 198 | Quartz-biotite-chlorite schist: biotite rich bands and laminae present throughout, dark green to grey, in part laminated, occasional quartz stringer, few fractures; laminations partly contorted - at 200: Po-15% (2 inch thick zone) - at 213: 6 inch breccia zone; schist fractures in a siliceous matrix - at 222: 12 inch calc-silicate band - at 224: 12 inch calc-silicate band - at 226: 6 inch calc-silicate band - at 230: 12 inch calc-silicate band - laminations at 65° to core axis | | | | | | | | | | | | |
| 239 - 242 | Quartzite | | | | | | | | | | | | |
| 242 - 243 | Quartz-chlorite schist | | | | | | | | | | | | |
| 243 - 244 | Quartzite | | | | | | | | | | | | |
| 244 - 259 | Quartz-chlorite schist: brecciated-possible fault zone; at 245 - band (3 inches thick) containing up to 20% Py-Po; no visual scheelite. | | | | | | | | | | | | |

STATEMENT OF QUALIFICATIONS

I, Stephen B. Butrenchuk, with business address at 409 Granville Street, 7th Floor, Vancouver, British Columbia, do hereby certify that I have supervised the field work and have assessed and interpreted the data resulting from the diamond drilling on the Sun mineral claims.

I also certify that:

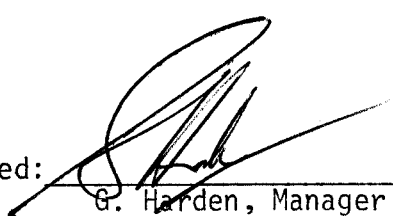
1. I am a graduate of the University of Manitoba, B.Sc. 1966 and M.Sc. 1970;
2. I have engaged in mineral exploration since graduation.

Respectfully Submitted:

Stephen B. Butrenchuk.
Stephen B. Butrenchuk, geologist

Stephen B. Butrenchuk was responsible for supervising the diamond drilling described herein. Mr. Butrenchuk received his B.Sc. and M.Sc. from the University of Manitoba in the years 1966 and 1970 respectively. He has worked for Cominco as a permanent employee since January 23, 1970. I consider him to be a competent geologist.

Signed:


G. Harden, Manager
Exploration
Western District

COMINCO LTD.

EXPLORATION
NTS: 115/P-16

WESTERN DISTRICT
29 AUGUST 1979

IN THE MATTER OF THE YUKON QUARTZ MINING ACT AND
IN THE MATTER OF A DIAMOND DRILLING SURVEY CARRIED OUT ON
MINERAL CLAIMS SUN 1-6,17-22,33-38,41,49-56,60,65-70, 82
LOCATED IN THE MAYO MINING DISTRICT OF THE YUKON TERRITORY

A F F I D A V I T

I, Stephen B. Butrenchuk, of the city of Port Coquitlam, in the Province of British Columbia, geologist, make oath and say:

1. THAT I am employed as a geologist by Cominco Ltd. and as such, have a personal knowledge of the facts to which I hereinafter depose;
2. THAT annexed hereto and marked as "Exhibit A" to this my affidavit is a true copy of expenditures on a diamond drilling survey carried out on mineral claims Sun 1-6, 17-22, 33-38, 41, 49-56, 60, 65-70, 82;
3. THAT the said expenditures were incurred between the 1st day of June 1979 and the 13th day of July 1979 for the purpose of mineral exploration on the above noted claim group.

Sworn Before Me at the City)
of Vancouver in the Province)
of British Columbia this 6th)
day of September, 1979.)

Catherine A. Hoel)
A Notary Public In and For the)
Province of British Columbia)

Stephen B. Butrenchuk
STEPHEN B. BUTRENUK
GEOLOGIST

COMINCO LTD.

EXPLORATION
NTS: 115/P-16

WESTERN DISTRICT
29 AUGUST 1979

EXHIBIT "A"

DIAMOND DRILLING REPORT ON THE SUN MINERAL CLAIMS
SITUATED AT: 63°47'N LATITUDE; 136°15'W LONGITUDE

DIAMOND DRILLING:

\$ 19,322.83

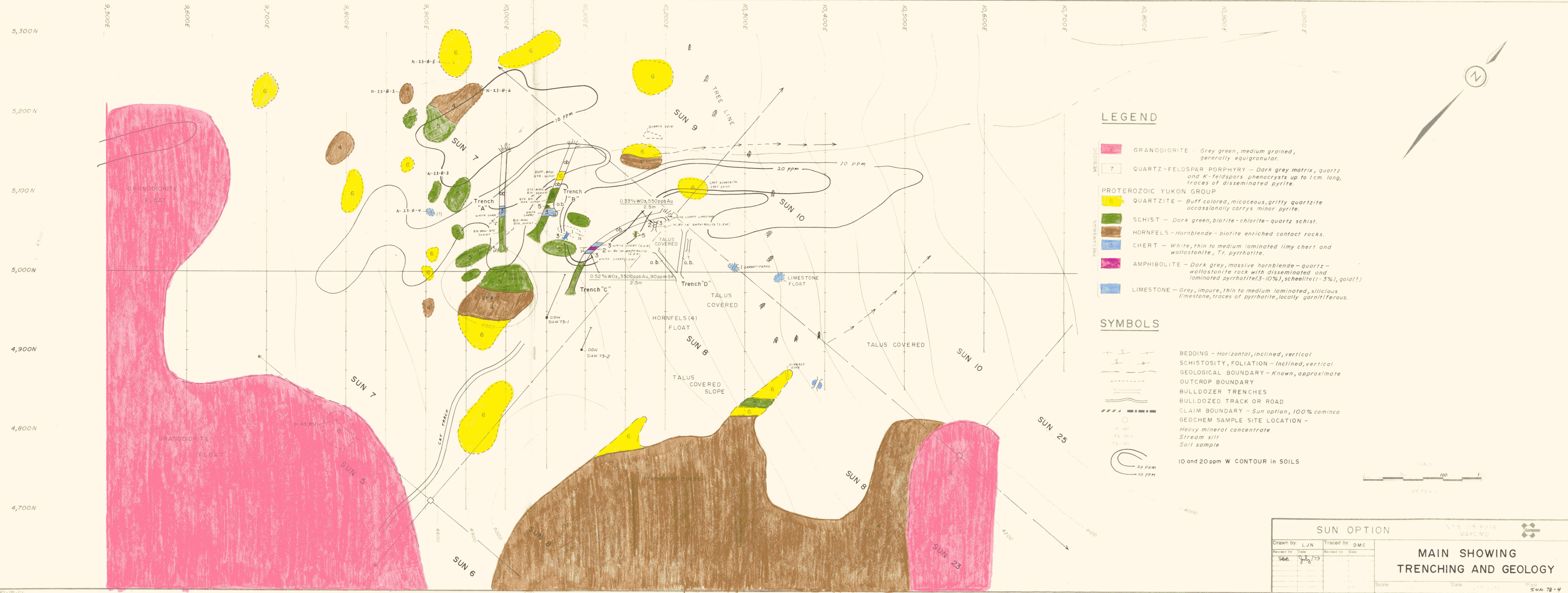
TOTAL:

\$19,322.83

Signed: Stephen B. Butrenchuk
Stephen B. Butrenchuk
Geologist

aff. davit 207
This is Exhibit "A" to the ~~Statutory Declaration~~ of Expenditures relating
to the Diamond Drilling declared before me the 4th day of September, 1979
A.D.

Signed: Colleen A. Iloe
A Notary Public In and For
The Province of British Columbia



LEGEND

- MESOZOIC**
- GRANODIORITE - Grey green, medium grained, generally equigranular.
- 7**
- QUARTZ-FELDSPAR PORPHYRY - Dark grey matrix, quartz and K-feldspars phenocrysts up to 1cm. long, traces of disseminated pyrite.
- PROTEROZOIC YUKON GROUP**
- QUARTZITE - Buff colored, micaceous, gritty quartzite occasionally carries minor pyrite.
 - SCHIST - Dark green, biotite-chlorite-quartz schist.
 - HORNFELS - Hornblende-biotite enriched contact rocks.
 - CHERT - White, thin to medium laminated limy chert and wollastonite, Tr. pyrrhotite.
 - AMPHIBOLITE - Dark grey, massive hornblende-quartz-wollastonite rock with disseminated and laminated pyrrhotite(3-10%), scheelite(1-3%), gold(?)
 - LIMESTONE - Grey, impure, thin to medium laminated, silicious limestone, traces of pyrrhotite, locally garnitiferous.

SYMBOLS

- BEDDING - Horizontal, inclined, vertical
 - SCHISTOSITY, FOLIATION - Inclined, vertical
 - GEOLOGICAL BOUNDARY - Known, approximate
 - OUTCROP BOUNDARY
 - BULLDOZER TRENCHES
 - BULLDOZED TRACK OR ROAD
 - CLAIM BOUNDARY - Sun option, 100% cominco
 - GEOCHEM SAMPLE SITE LOCATION - Heavy mineral concentrate
 - Stream silt
 - Soil sample
- 10 and 20 ppm W CONTOUR in SOILS

| | | |
|-------------------|-------------------------|---|
| SUN OPTION | | NTS 115 P/16 MAYC MD |
| Drawn by: LUN | Traced by: DMC | MAIN SHOWING TRENCHING AND GEOLOGY |
| Revised by: S&E | Revised by: [Signature] | |
| Date: 10/1/79 | Date: [Signature] | Scale: 1:50,000 Date: 10/1/79 Plate: SUN 78-4 |