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NANIKA LAKE PROPERTY

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H02662

GEOLOGICAL REPORT

(11-B)

OMINECA MINING DIVISION

BRITISH COLUMBIA

CANADA

H. H. SHEAR, P.ENG

November 18, 1971

SUMMARY

This report covers the Nanika Lake copper prospect in west-central British Columbia. Extensive work, including sixteen diamond drill holes, has been performed on the property by Quintana Mineral Corporation during the 1968 and 1970 seasons. This work inferred approximately twenty million tons of 0.437% copper with minor molybdenum, gold and silver values. There do not appear to be any exploration targets outside of the known zone. A five hole diamond drilling program is recommended because large undrilled areas exist within the 2,400 foot long zone. Also two areas of higher than average grade occur which appear to be expandable.

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INTRODUCTION

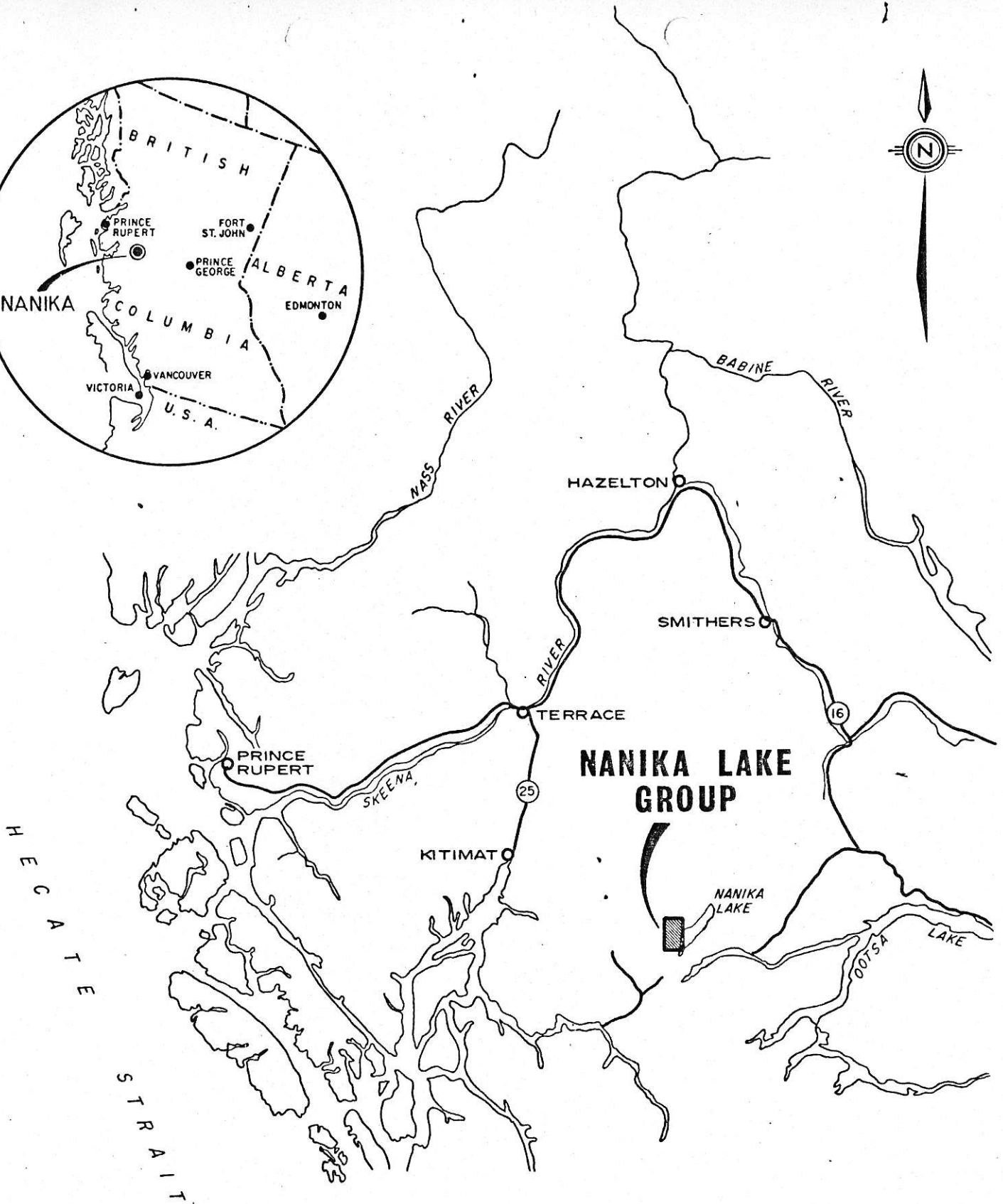
The Nanika Lake Prospect has had a considerable amount of work completed on it by Quintana Mineral Corporation. This work was done during the seasons of 1967, 1968 and 1970. The writer directed these work programs and was on the property most of the time while the work was being done. No work was ever carried out on the property prior to 1967.

This report describes the data available to date on the Nanika Lake Prospect and outlines a continuing program for it. The report has been prepared for Aston Resources Limited.

LOCATION AND ACCESS

The Nanika Lake Prospect lies in the Omineca Mining Division of British Columbia, 75 miles south of the town of Smithers. The mineral zone lies on the west shore of Nanika Lake at latitude $53^{\circ}45'$ north and longitude $127^{\circ}40'$ west.

Access is by fixed wing float plane or by helicopter and the normal supply point is Smithers. Drilling equipment may be landed on a floating wharf by Otter or Beaver aircraft and then skidded to potential drill sites. A tote road runs from the lake shore to the mineral zone and along its entire length. There are no roads into the general area from outside road systems.

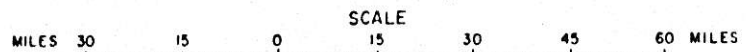


G. J. W. Shum

LOCATION MAP
ASTON RESOURCES LIMITED

NANIKA LAKE PROPERTY

OMINECA M.D., B.C.



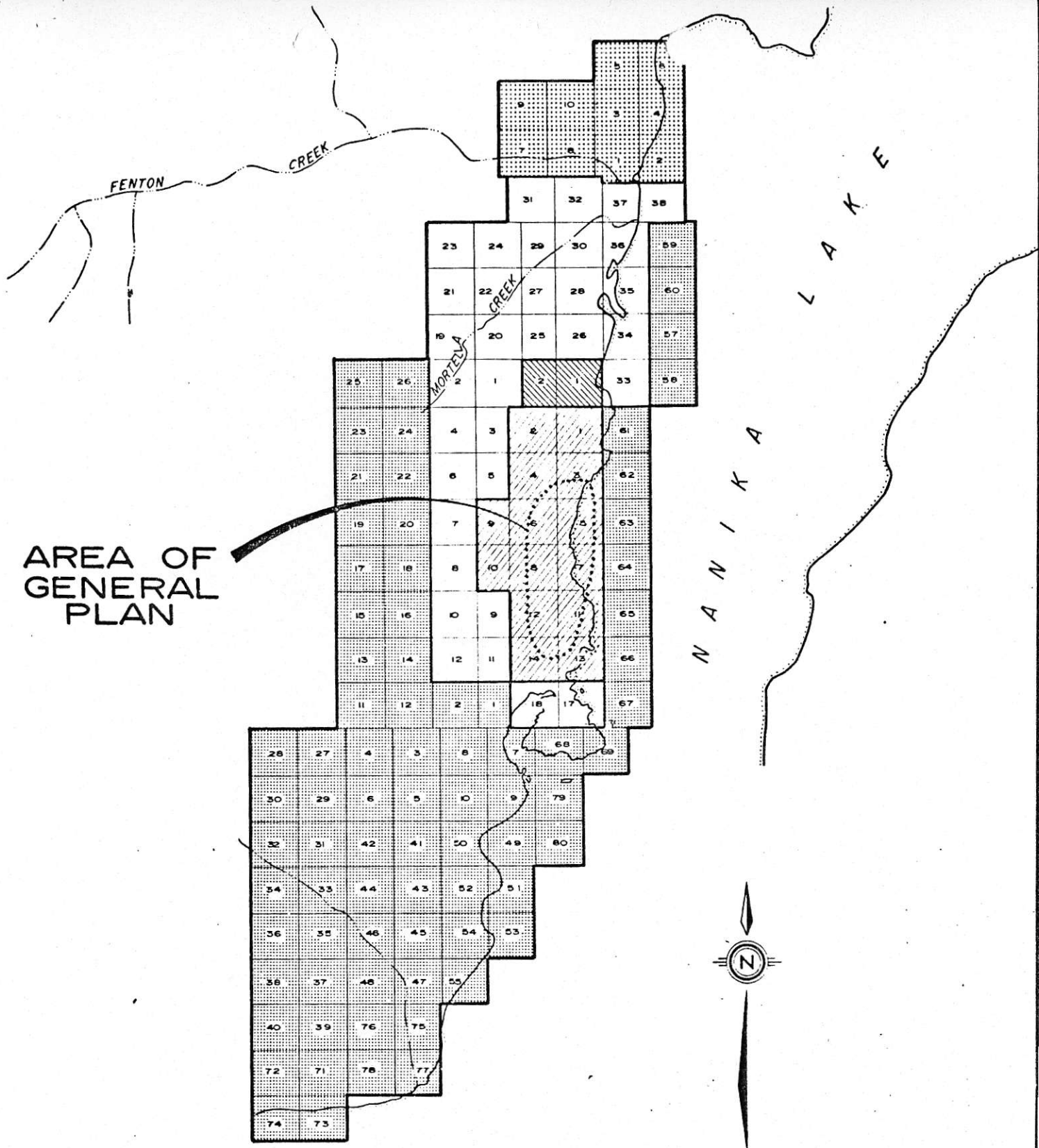
CLIMATE AND TOPOGRAPHY

The climate is relatively severe at Nanika Lake. Rainfall approaches 100 inches per year and snowfalls may be up to 50 feet during the winter. Therefore, the season is short, from July through September. Water is abundant. The timber consists of hemlock and balsam and is of poor quality.

The topography is rugged as the property lies just five miles east of the divide in the Coast Mountain Range. Glaciers are abundant in the area but do not occur on the property. Slopes along the mineral zone range up to 35°.

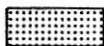



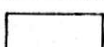
CLAIMS

The Nanika Lake Prospect consists of 138 recorded mineral claims. All claims were staked under the writer's supervision and the key claims covering the mineral zone were staked by the writer. Many of the posts and lines have been observed. Staking in all cases was done using Brunton compass and chain, and the location lines are well marked. The staking was done in accordance with B.C. Mining Laws and Regulations. The property is currently held under option by Aston Resources Limited.



AREA OF
GENERAL
PLAN

LEGEND

-  FEN CLAIMS
-  PUC CLAIMS
-  CORB CLAIMS
-  DW CLAIMS
-  CUP CLAIMS

G. S. V. Shear

CLAIM MAP

ASTON RESOURCES LIMITED

NANIKA LAKE PROPERTY

OMINECA M.D., B.C.

SCALE
FEET 1500 0 1500 3000 4500 6000 7500 FEET

Claims (Cont'd)

The claims are listed below:

<u>Claim Name</u>	<u>Record Number</u>
Corb 1 - 55	63643-63697
Corb 57 - 69	63698-63710
Corb 71 - 80	63711-63720
Cup 1 - 12	57268-57279
Cup 17 - 18	57282-57283
Cup 19 - 38	60954-60973
Puc 1 - 2	61756-61757
Fen 1 - 10	62897-62906
DW 1 - 14	54492-54505

HISTORY

The Nanika Lake copper prospect has been known to a few prospectors and trappers since the 1920's. The original showing was a 600 foot exposure of low grade copper mineralization. This occurred in a gully cutting across the strike of the zone. It was staked by Silver Cup Mines, Limited, in 1966. The Quintana group optioned the property in 1967, and four weeks of preliminary work was completed in August and September of that year.

From June 19 to October 25, 1968, Quintana drilled 14 diamond drill holes, one of which was abandoned. Drilling was supplemented by line cutting, additional claim staking, prospecting,

History (Cont'd)

geologic mapping, magnetometer and geochemical surveys and trail and road construction.

The 1970 program consisted of intermittent work from late June until early October. Two more drill holes and an extensive Induced Polarization Survey were completed. The geologic, magnetometer, and geochemical surveys were extended and a considerable amount of additional line cutting completed.

GEOLOGY

The Geological Survey of Canada, Memoir 299, describes the regional geology of the area. The Nanika Lake prospect lies approximately three miles west of the main contact between the Coast Range intrusives to the west and various Mesozoic sediments and volcanics, principally Hazelton Group, to the east. Although Memoir 299 does not show Hazelton Group rocks as underlying the Nanika Lake prospect, a block of these rocks approximately two miles in length is present, lying along the western Nanika Lake shore line.

The Nanika Lake mineral zone lies along a large shattered and faulted zone trending north 30 degrees east and dipping from 20 degrees to 40 degrees west. The zone follows a contact of intrusive rocks on the west and Hazelton Rocks. Thin sections

Geology (Cont'd)

suggest the principal host rock is dacite porphyry; however, since it is intensely altered, identification is inconclusive. The principal intrusive is quartz monzonite. A younger fine grained, magnetite rich quartz diorite has been intruded along the foot wall of the southern portion of the mineral zone. It is apparently post mineral.

The principal structural control of mineralization appears to be the faulted and shattered contact zone. Two east-west cross faults cut the mineral zone suggesting block faulting. No folding is in evidence.

Sulphide mineralization occurs as disseminations, fracture filling and veinlets. Sulphide minerals arranged in order of abundance are pyrite, chalcopyrite, pyrrhotite, and molybdenite. Pyrite is by far the most abundant mineral and its distribution is variable. Grade of copper does not seem related to the amount of pyrite present. Pyrrhotite is a minor constituent in the mineral zone and occurs in a few massive lenses a few inches wide. Molybdenite in minute amounts is widespread.

Alteration in the mineralized dacite porphyry(?) includes biotite, silica and chlorite and is quite intense in places. The three alteration minerals do not necessarily occur together. Only

Geology (Cont'd)

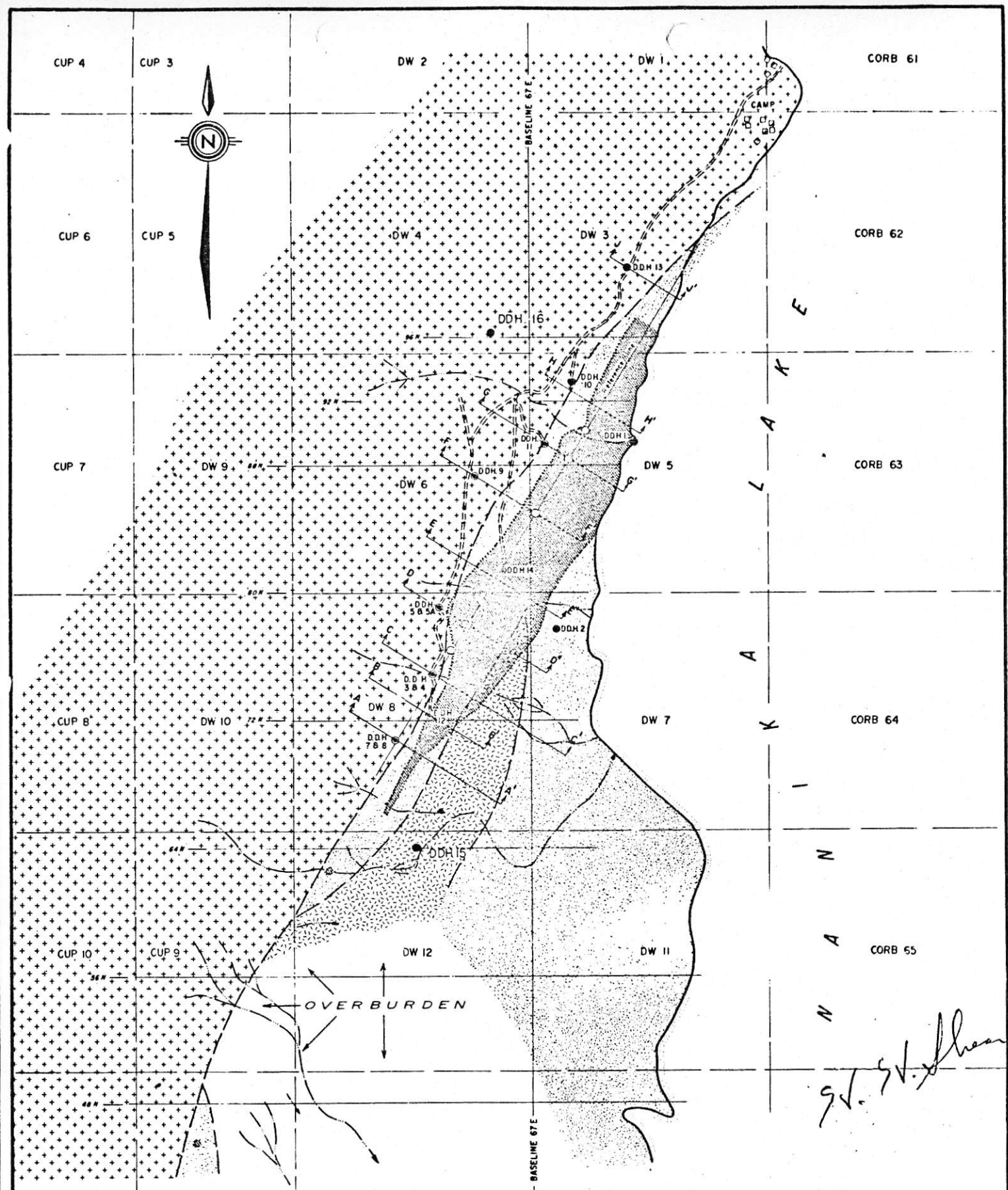
minor, spotty alteration has been noted outside the mineral zone. No significant pyrite halo has been observed.

The alteration and mineralization of the Nanika Lake prospect is characteristic of a porphyry copper, although the zone is tabular. A recognized porphyry copper prospect known as the Berg Mountain property, lies ten miles to the northeast.

PROPERTY DEVELOPMENT





The Nanika Lake prospect has been covered by a grid of picket lines 800 feet apart along the mineral zone and 1,600 feet apart to the north and south. This grid system is 17,600 feet long and averages about 4,800 feet wide. It has been covered by Induced Polarization, magnetometer and geochemical (Cu and Mo) surveys. No anomalies of interest were found outside the immediate area of the mineral zone. Fifteen diamond drill holes have been completed and one diamond drill hole abandoned.

An interesting zone of mineralization has been partially delineated by eight diamond drill holes for a strike length of approximately 2,400 feet. The zone lines from cross section B-B' to H-H' as shown on the General Plan. The zone may continue a short distance northeast of DDH 10 on the cross section H-H'. However, the zone is pinching out in DDH 13 and all survey results were







LEGEND

GEOLOGY

-  Mineral Zone
-  Hazellon Group
-  Quartz Monzonite
-  Magnetite Quartz Diorite

SYMBOLS

-  Drainage
-  Road
-  Diamond Drill Hole
-  Proposed Diamond Drill Hole

General Plan
ASTON RESOURCES LIMITED
NANIKA LAKE PROPERTY
OMINECA M.D., B.C.

SCALE
 FEET 200 0 200 400 600 800 1000 1200 1400 1600 FEET

Property Development (Cont'd)

negative to the north. The zone strikes into Nanika Lake to the northeast.

During the 1970 program DDH's 15 and 16 were drilled to test strong I.P. anomalies south and down dip of the known zone. Both holes returned negative results. Results of the various surveys do not justify additional work south or west of the known zone. There is a high percentage of outcrop both south and west of the mineral zone which also discourages additional work in those directions. Down dip exploration is limited for two reasons. The mineral zone dips into a steep side hill and values intersected to date suggest an open pit potential only.

In spite of the negative aspects discussed above, a mineral zone over 2,400 feet long has been indicated, which contains interesting values in copper. The thickness of the zone varies. Including all mineralization, the zone is over 400 feet thick in some sections. Better grade intersections are up to 300 feet thick. Width depends on the potential stripping ratio but could be as much as 500 feet in places.

Drill core was split in ten foot sections and assayed by Seymour Laboratories of North Vancouver, B.C.

ESTIMATED TONNAGE AND GRADE CALCULATIONS

Assumed: Pit wall slope = 50°, tonnage factor = 12 cu.ft./ton.

Stripping ratio of approximately 1.5:1

Sec.	Area * Mineral	Area * Waste	Tonnage + Mineral/l.f.	Tonnage + Waste/l.f.	Strip Ratio	Length Represented	Tons/ Sec.	% Cu	% Mo	Oz/ T.AU.	Oz/ T.AG.
B-B'	34,776	50,810	2,898	4,234	1.46	298	835,000	0.430	0.014	0.007	0.06
C-C' ^x	62,600	96,700	5,050	8,058	1.56	312	1,577,000	0.508	0.016	0.005	0.39
D-D'	132,100	195,820	11,008	16,318	1.48	359	3,955,000	0.361	0.007	0.004	0.21
E-E'	94,150	140,500	7,845	11,708	1.49	613	4,810,000	0.421	0.010	0.001	0.07
G-G'	93,050	137,500	7,854	11,458	1.46	626	4,920,000	0.436	0.005	0.011	0.06
H-H'	167,400	161,700	13,950	13,474	0.97	283	3,950,000	0.504	0.010	0.006	0.02

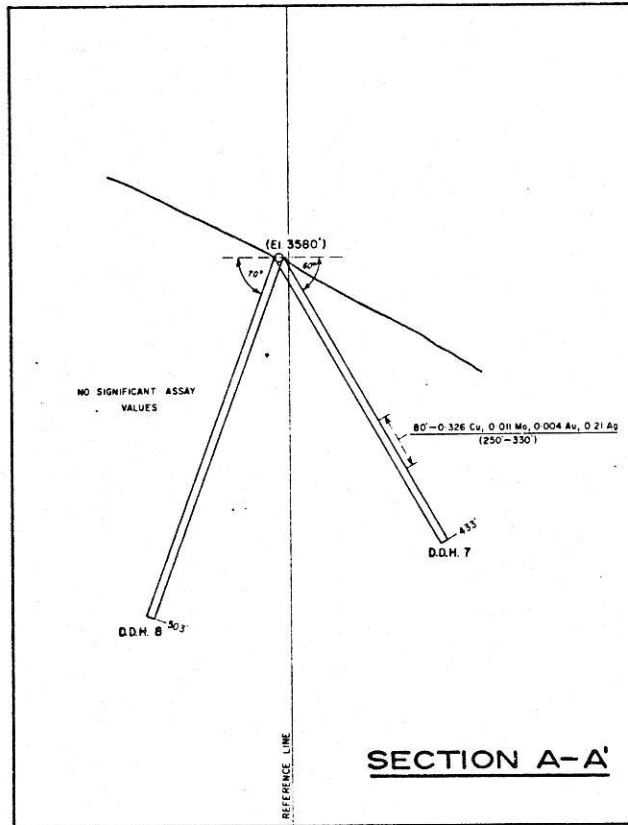
2,481 20,047,000 0.437 0.009 0.006 0.11

(Weighted averages)

* - on cross section

+ - l.f. = lineal foot along strike of zone

x - calculations do not include deep section of 160 feet of 0.755% Cu.

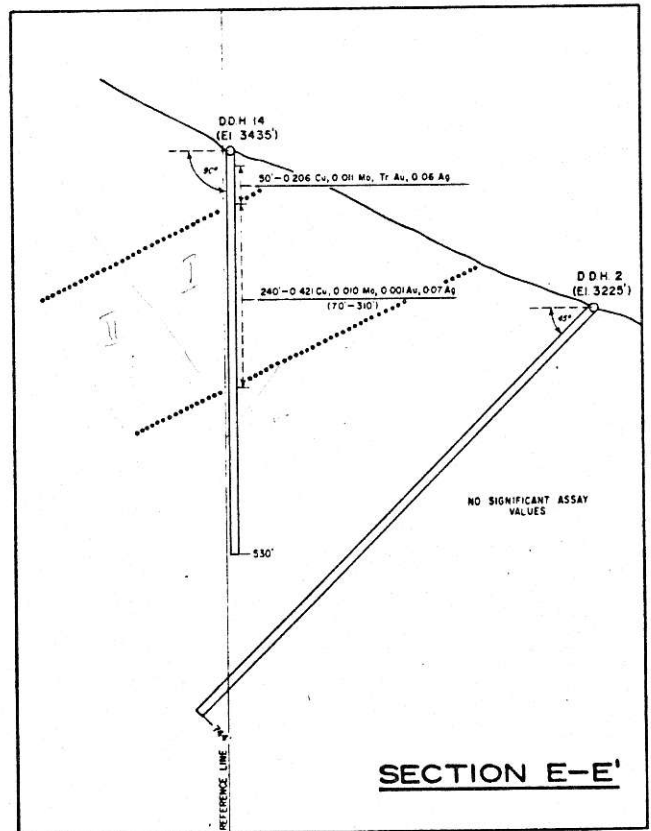
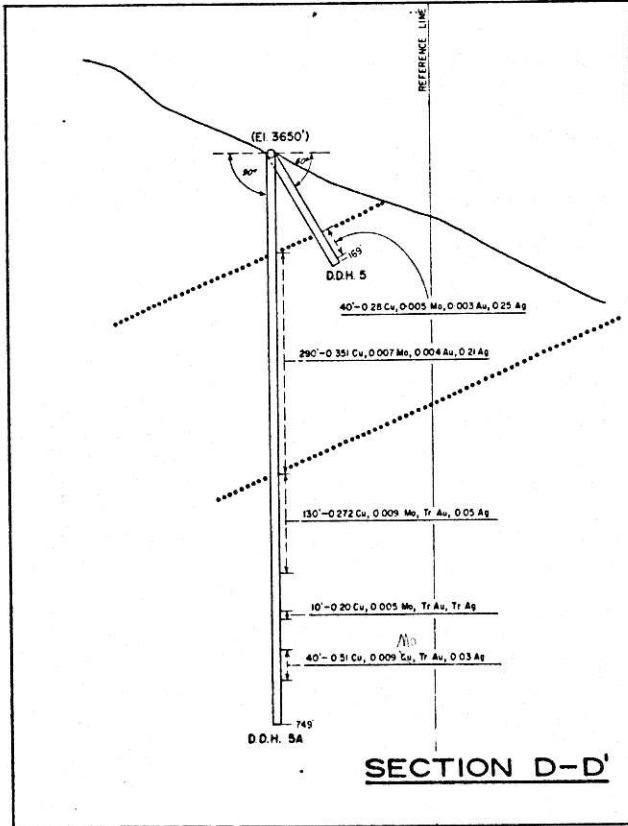
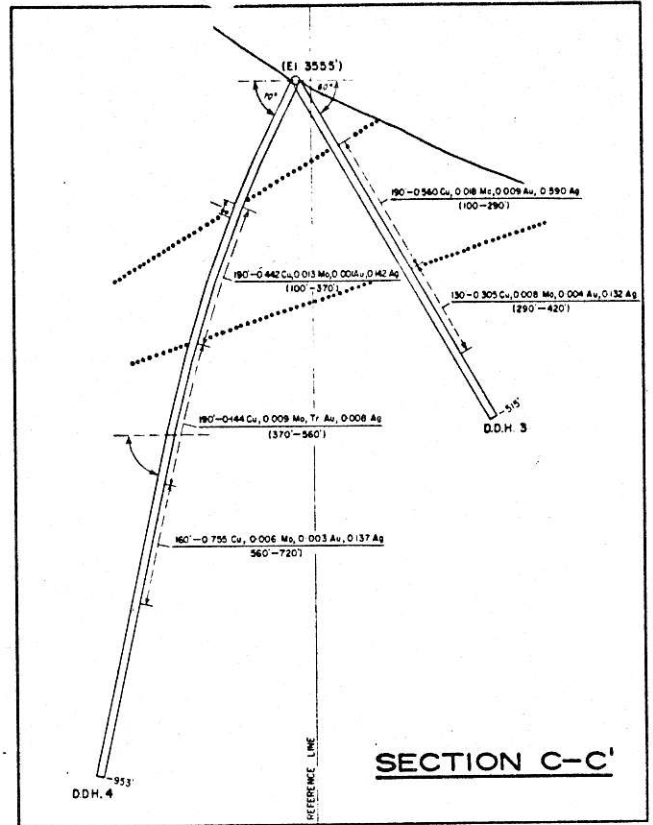
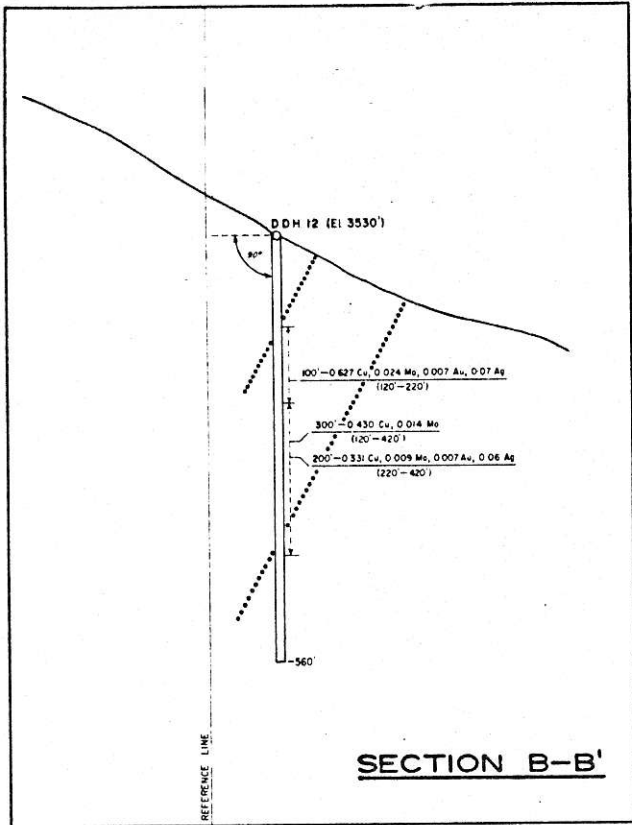


G. H. Shear

Diamond Drill Hole Section
ASTON RESOURCES LIMITED
MANIKA LAKE PROPERTY
OMINECA M.D., B.C.

LEGEND
 AREA USED TO CALCULATE
 20,000,000 INFERRED TONS
 OF 0.437% COPPER

SCALE
 FEET 0 10 20 30 40 50 60 70 80 90 100
 TO ACCOMPANY REPORT BY H. H. SHEAR, P. ENG. DATED NOV 18, 1971



H. M. Shear

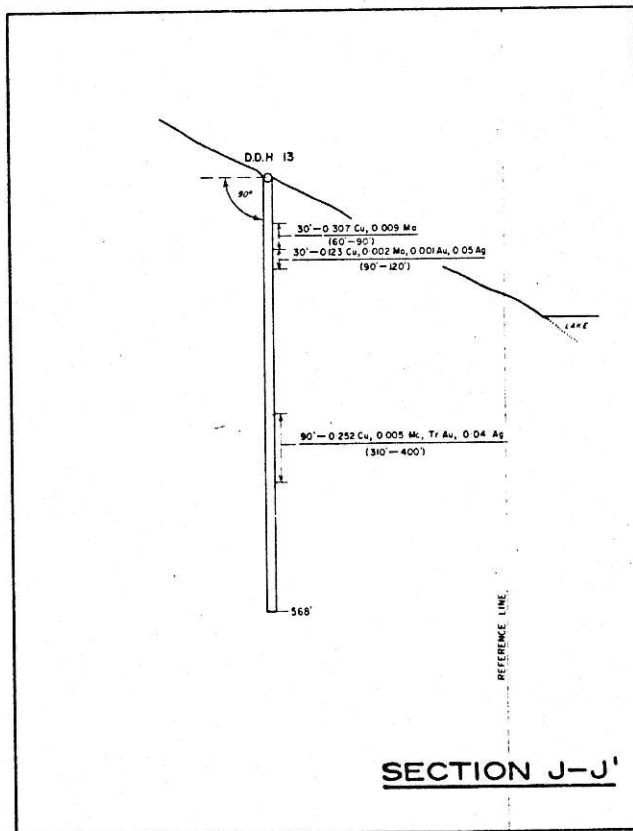
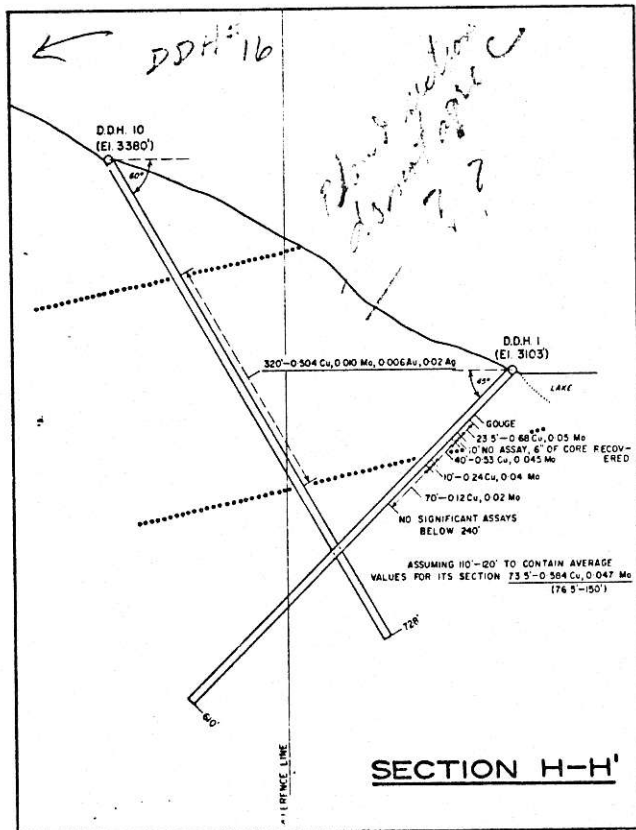
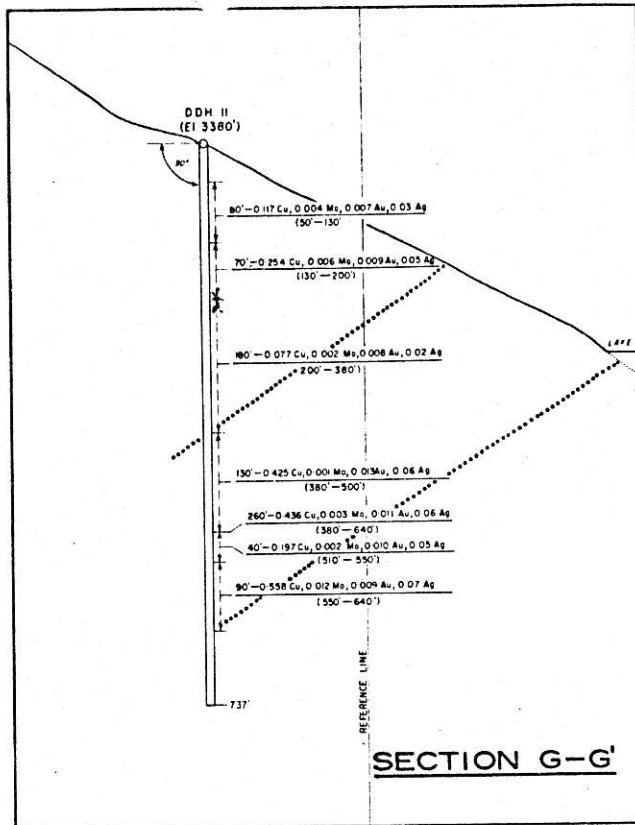
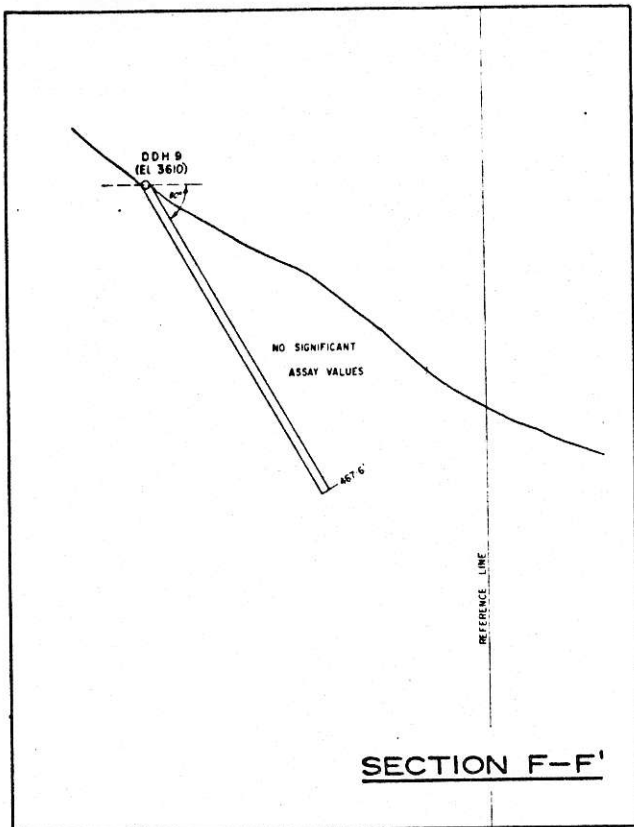
Diamond Drill Hole Sections
ASTON RESOURCES LIMITED

MANIKA LAKE PROPERTY
OMINECA M.D., B.C.

LEGEND
..... AREA USED TO CALCULATE
20,000,000 INFERRED TONS
OF 0.437% COPPER

SCALE
FEET 0 50 100 150 200 250 300 350 400

TO ACCOMPANY REPORT BY H.M. SHEAR, P. ENG. DATED NOV 18, 1971



Diamond Drill Hole Sections

ASTON RESOURCES LIMITED

NANIKA LAKE PROPERTY

OMINECA M.D., B.C.

S. H. Shear

LEGEND

..... AREA USED TO CALCULATE
20,000,000 INFERRED TONS
OF 0.437% COPPER

SCALE
0 50 100 150 200 250 300 350 400 FEET

TO ACCOMPANY REPORT BY H.H. SHEAR, P.E. & G. DATED NOV 18, 1971

Property Development (Cont'd)

Sufficient data is not available for conclusive calculations of tonnage and grade. However, the data is adequate for a rough estimate of the tonnage and grade as indicated by past drilling. Refer to the cross sections in figures 4 - 6, the General Plan in figure 3 and the calculations on page 11.

These calculations have been made using the higher grade portions as indicated on the cross sections. This rough estimate of tonnage and grade infers approximately 20 million tons of 0.437% copper with minor molybdenum, gold, and silver values. If all mineralized zones shown on the cross sections are included, approximately 50 million tons of 0.34% copper can be inferred by going down dip an average of 400 feet.

It should be noted that DDH 9, cross section F-F', did not reach the mineral zone. It was not used in the calculations. Values obtained in DDH's 11 and 14 were each projected halfway through this 800 foot gap. Consequently, another drill hole is warranted along cross section F-F' southeast of DDH 9. If higher than average grade material is found to be present, the overall situation could be markedly improved.

Property Development (Cont'd)

Of particular interest are the higher grade sections in DDH's 3 and 12 and DDH 10. A 100 foot section near the top of DDH 12 runs 0.627% copper and 0.024% molybdenum. In DDH 3, 190 feet was encountered running 0.560% copper and 0.018% molybdenum. At DDH 10, 320 feet averaging 0.504% copper and 0.010% molybdenum occurs. Closer spaced drilling is necessary and warranted to evaluate the potential for developing higher grade zones in these two areas.

CONCLUSIONS

1. The Nanika Lake property is a copper prospect on which no meaningful work was performed until 1968.
2. Mineralization occurs in a large fault zone on the boundary between Coast Range Intrusives and Hazelton Group volcanics. Mineralization is almost entirely in the Hazelton rocks.
3. A considerable amount of work has been completed on the property by Quintana Mineral Corporation during the 1968 and 1970 seasons.
4. The possibility of developing targets outside the known zone appears discouraging in light of the data obtained to date.
5. Diamond drilling has indicated a zone approximately 2,400 feet long dipping shallowly into a steep sidehill. Thickness

Conclusions (Cont'd)

- of better grade sections varies up to 300 feet while width is limited up to about 500 feet due to a potentially adverse stripping ratio.
6. Preliminary results suggest about 20 million tons of 0.437% copper with minor amounts of molybdenum, gold and silver.
 7. Large undrilled areas exist within the partially explored mineral zone.
 8. Two areas of higher than average grade occur within the mineral zone, one in the area of DDH's 3 and 12 and the other at DDH 10.
 9. The potential of the prospect is for open pit mining. The possibilities of a potential underground situation is very remote considering the grades indicated to date.
 10. A reasonable potential exists for up grading the known zone by fill in diamond drilling. A good potential exists for delineating five to ten million tons in the range of 0.6% copper.

RECOMMENDATIONS

A five hole diamond drill program totalling 2,000 feet is recommended as shown on the General Plan, figure 3. These holes should be drilled vertically for about 400 feet. This drilling is designed to extend the two higher grade sections encountered to date and to fill in an 800 foot gap that exists between DDH's 11 and 14.

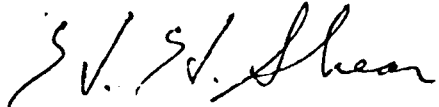
It is necessary that a small diamond drill such as a BBS 1 be used. Some labour will be required to aid the drill contractor in preparing trails on which to skid the drill machine to drill sites. An arrangement should be made for cooking facilities to be provided by the drill contractor with company's employees boarding. Every effort should be made to avoid the use of helicopters.

The cost of the program is estimates as follows:

Diamond drilling (BQ wireline) 2000' x \$14/ft	\$28,000.
Assaying	1,000.
Supervision, reports	3,000.
Transportation	3,000.
Camp setup, labor, board	1,500.
Contingencies @ 10%	<u>3,650.</u>
Total	\$40,150.

Should this work indicate a trend toward the development of one, a much expanded program would be required.

Respectfully submitted:


H.H. Shear, P.Eng.

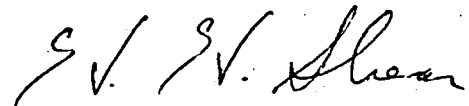
CERTIFICATE

I, Henry Herbert Shear, of Greenwood, British Columbia

do hereby certify:

1. That I am a consulting geological engineer residing at 156 Copper Street, Greenwood, British Columbia, and that my business address is Box 159, Greenwood, British Columbia.
2. That I am a graduate of the University of Arizona with the following degrees:
B.S. in Geological Engineering (May, 1959)
and B.S. in Mining Engineering (January, 1960).
3. That I have practised continuously in the field of mining exploration since 1960, in British Columbia and in Australia, as a field geologist, independent prospector, exploration manager and for the last five years as a consulting geologist.
4. That I am a member of the Association of Professional Engineers of British Columbia.
5. That I am well acquainted with the Nanaika Lake property by virtue of having managed, as an independent consultant, the 1968 and 1970 field programs thereon.
6. That I do not have, nor do I expect to receive any interest directly or indirectly in the properties or securities of Aston Resources Limited, or of Silver Cup Mines Ltd. (N.P.L.).

Respectfully submitted:



H. H. Shear, P.Eng.