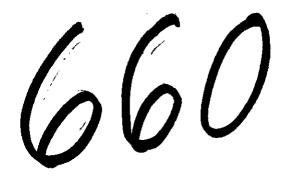
NTS 104-I-4



GEOLOGICAL AND GEOPHYSICAL REPORT ON THE KRYSKO COPPER PROSPECT (JUNE CLAIMS 1-12, STIKINE CLAIMS 1-20) GNAT LAKE, B.C.

by R.D. Westervelt, NEWCONEX CANADIAN EXPLORATION LTD.

Claim Location: 75 miles south of Cassiar, B.C. (Longitude 129°47'W., Latitude 58°15'N.)
Work Period: September 10 - October 19, 1964.

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Department of

Mines and Petroleum Resources

ASSESSMENT REPORT

NO. 660 MAP

GNAT LAKE, BRITISH COLUMBIA.

1) INTRODUCTION

In September 1964, a one month working option was obtained on the Krysko Copper Prospect at Gnat Lake, B.C.

The present report outlines the field program and results obtained during the option period terminating on October 19, 1964.

2) PROPERTY AND LOCATION

The property consists of thirty unpatented claims and two fractional claims in the Liard Mining Division of Northern British Columbia as follows:

June Group - Nos. 1 to 6 (11514-11519 inclusive)
June Group - Nos. 7 to 10(12100-12103 inclusive)
Stikine Group - Nos. 1 to 20(14809-14829 inclusive)
June Group - Fractional claims No. 11 and 12.

The claim group (58°15'N., 129°47'W.), located 75 miles due south of the asbestos operation at Cassiar, is traversed by the Cassiar-Stewart highway presently under construction. Road distance to the property from Cassiar is approximately 90 miles.

3) HISTORY

During the summer of 1960, a general prospecting program was carried out in the vicinity by Cassiar Asbestos Corporation. Several copper showings discovered near Gnat Lake were staked but the ground was allowed to come open following further prospecting and some hand trenching.

In 1963, the showings were re-staked as the June Group by Mr. Emil Krysko, a local prospector. Limited bulldozing uncovered additional copper showings and the claims were subsequently optioned to W.S. Kennedy and W.H. Gross of Toronto.

Twenty further claims were staked in 1964 and the property was submitted to Newconex by Dr. Gross. Following a brief field examination in August, the property was recommended on the basis of:

- a) widespread copper mineralization
- b) favourable geological invironment
- c) extensive overburden with no previous geophysical investigation

A preliminary option agreement was subsequently arranged.

4) GENERAL GEOLOGY

As shown on G.S.C. map 29-1962 (Cry Lake, B.C.), the property is located west of the Cassiar granitic batholith and within the Central British Columbia Basin.

The claims are underlain by Upper Triassic volcanics along the north flank of a large quartz-monzonite-granodiorite intrusive stock. The intrusive is believed to be related to the Cassiar batholith of Upper Jurrassic or Cretaceous age.

The volcanics are andesites, basalts, and tuffs with minor altered basic intrusives and sediments. In the immediate vicinity of the claims, the general strike appears to be easterly parallel to the granodiorite contact.

5') FIELD PROGRAM

During the examination period, geological and geophysical investigations were carried out over the entire claim group. All significant mineralization encountered was sampled and a D8 bulldozer with ripper was employed in stripping and trenching local areas of interest.

a) Geology

Geological mapping of the property was completed on a scale of 1"=200 feet. For mapping control, the grid established for the geophysical work was used.

Rock exposure in the claim group is quite limited. The western half of the property covers a broad, relatively flat, north trending valley. This area is blanketed with heavy sand and gravel deposits and outcrop is confined to the few road cuts and creeks. To the east of the valley, the topography rises fairly sharply in a series of prominent ridges. Even in this area of higher relief, overburden is extensive and outcropping is confined to the crests and western slopes of the ridges.

Mapping has indicated the claims are largely underlain by a volcanic complex consisting mainly of andesite and dacite. Rhyolite is exposed along a ridge east of the valley and several scattered outcrops of more basic rocks indicate the presence of minor basaltic flows or altered basic intrusives. The volcanics are moderately to strongly carbonatized and are generally sheared and fractured. Considerable brecciation occurs locally within the rhyolite exposures. Due to the deformation and alteration of the volcanic complex, no primary features were observed and the attitudes of the flows could not be determined.

The intensity of shearing and carbonate alteration increases toward the valley suggesting this distinctive topographic feature may represent a major broad shear zone. All exposures within the valley are extremely sheared and fractured and several coarse carbonate veins up to 2 inches in width occur. Although there is considerable variation in the shearing, the predominant direction appears to be north-westerly.

The granodiorite intrusive contact is somewhat irregular but generally strikes east-west along the southern boundary of the group. Where exposed, the intrusive is a fine to medium grained granitic rock varying in colour from light grey to pinkish. Mafic minerals (hornblende and biotite) are generally low and occasional accessory magnetite occurs as fine disseminated grains. The intrusive exposures are generally well jointed and have varying amounts of epidote developed along the joint planes.

A small associated granitic stock intrudes the volcanics north of the Creek showing.

Disseminated chalcopyrite mineralization is widespread and occurs, generally in trace amounts, in all the volcanic rocks. Only rarely are minute amounts of finely disseminated chalcopyrite observed within the intrusives. Where copper is present in any concentration, a thin surface skin of secondary malachite and azurite has developed.

Two distinctive types of mineralization are present:

- i) magnetite-chalcopyrite occurring as fracturefilling veinlets in the andesite and dacite
 flows. The veinlets, rarely exceeding ½"
 in width, pinch and swell erratically along
 strike and are often accompanied by local
 chlorite alteration. Replacement of the
 host rocks is rare but in some cases has
 produced small higher grade lenses within
 the volcanics. The largest pod of this
 material found in place measured 2'x 2' x 1'
 and assayed 2.94% copper (trench 2). Rare
 flecks of molybdenite and occasionally heavy
 specular hematite are also associated with
 this type of mineralization.
- ii) fine disseminated chalcopyrite in the brecciated rhyolite east of the valley. The rhyolite is generally carbonatized and the brecciation varies from a fine mosaic structure to coarse fragments up to 2" cemented in a fine grained matrix. The chalcopyrite mineralization, often accompanied by weak chloritization, occurs as erratic fine disseminations within the matrix. More rarely, fine veinlets of chalcopyrite occur. No magnetite is present but occasional fine pyrite is noted locally. Available exposure indicates this type of mineralization is quite erratic.

b) Geophysics

To test for possible concentrations of the magnetite-chalcopyrite mineralization, a magnetic survey was completed on the property. For survey control, three base-lines were cut and a grid system established. In the central area, cross lines at 200'

intervals were picketed using pace and compass. The remainder of the property was covered with picketed lines at 400' intervals using chain and compass.

Magnetic readings were taken with a Sharpe MF-1 Fluxgate magnetometer at 100 foot stations along the lines. All profiles were tied into base stations at regular intervals and the corrected readings were plotted on the accompanying magnetic map at a scale of 1"=200 feet. A total of 43.3 line miles of magnetic traversing was completed.

A series of magnetic highs along the south boundary of the property defines the volcanic-intrusive contact. Magnetic relief over the granodiorite is quite high with a general background in excess of 1000 gammas. In contrast, the magnetic relief over the volcanics is relatively flat with a background value of approximately 350 gammas.

Several anomalous magnetic areas are present within the volcanic complex. These are quite irregular in shape and have intensities ranging up to 1700 gammas above background over lengths varying from 300 to 1200 feet. Although these anomalies have a general northwest distribution, no distinctive magnetic trends are apparent.

A Crone Sr. E.M. unit was used to test all magnetic anomalies and areas of known mineralization. A total of 9.5 miles of E.M. profiling was completed using a coil separation of 200 feet. Readings were plotted on the magnetic map. The Crone unit was also used as a vertical loop instrument to test the mineralization in the rhyolite breccia. No significant E.M. conductors were located. A weak but distinctive anomaly was obtained on the Creek showing (Trench No. 1).

c) Trenching and Stripping

Bulldozing was concentrated on the known showings and on the main magnetic anomalies. A total of 61 hours was accumulated on the D8 Cat and ripper in preparing 12 major trenches (cumulative length 3700 feet). An estimated 17,000 cu. yards of overburden and 1,700 cu. yards of rock were removed.

Depth of overburden varied from zero to in excess of 22 feet in five trenches which failed to reach bedrock. Sand, gravel, and coarse boulder till were encountered in the bulldozer cuts.

Where explosed, the magnetic anomalies were found to be caused by:

- i) low grade magnetite-chalcopyrite mineralization.
- ii) magnetite-chalcopyrite float similar to the lenses encountered in Trench No. 2.
- iii) basic volcanics or intrusives with weak disseminated chalcopyrite.
 - iv) satellite plugs of granodiorite
 - v) magnetite-bearing granodiorite rubble.

Additional trenching on showings not accompanied by magnetitic anomalies generally explosed only trace amounts of chalcopyrite. However, trench No. 3 on the rhyolite breccia exposed finely disseminated chalcopyrite mineralization grading 0.83% Cu. across 50 feet.

d) Sampling

Chip samples were taken from all outcrops and trenches containing more than trace amounts of chalcopyrite. The sample locations are shown on the accompanying geological map and assay results are summarized below.

| | Sample No. | $\frac{\text{Width}}{(\text{Feet})}$ | % Cu. | Oz. Au. | Oz. Ag. | Remarks |
|----|---------------|--------------------------------------|-------|---------|---------|---|
| 1 | 38277 | 3.4 | 2.02 | 0.005 | 0.18 | "Main showing" proven by trenching to be float. 0.26% MoS2. |
| l | 38278 | 3.0 | 1.05 | | | Chalcopyrite veinlets in rhyolite. Outcrop north of Trench No. 4. |
| 1. | 38279 | 21.0 | 0.10 | | | "Creek showing". Traces of cpy. in andesite. |
| / | 38280 | 31.0 | 0.15 | | | As above. Adjoining and east of 38279. |

| | Sample No. | Width (Feet) | % Cu. | Oz. Au. | 0z. Ag. | Remarks |
|---|---------------|-----------------|-------|---------|---------|--|
| , | 38281 | 10.0 | 0.30 | Trace | 0.14 | "Creek showing". Cpy. in fractured andesite. Sample partially follows fracture filling. |
| / | 38282 | 14.0 | 2.88 | 0.01 | 0.18 | "Creek showing". Character sample along cpy magnetite fracture filling veinlet. |
| ſ | 38283 | 17.0 | 0.22 | | | Taken at right angles to 38282. Probably represents average grade of Creek Showing. |
| 1 | K-1 | 45.0 | 0.10 | Trace | Trace | Trench 2. Sparse cpy. in altered dacite. |
| J | K-2 | 50.0 | 0.83 | Trace | Trace | Trench 3. Finely disseminated cpy. in rhyolite and rhyolite breccia. |
| J | K-3 | 50.0 | 0.28 | Trace | Trace | As above. Adjoining and west of K-2. |
| / | K-4 | 50.0 | 0.19 | Trace | Trace | As above. Adjoining and west of K-3. |
| | ∕ K≖5 | Specimen | 2.94 | Trace | Trace | Trench 2. Heaviest magnetite-cpy. mineralization found. Lens 2'x 2'x 1'. |
| | / K-6 | Specimen | 2.48 | Trace | Trace | Trench 4. Float at 7.0' depth. Cpymagchl. |
| | / K-7 | Specimen | 1.90 | Trace | Trace | Trench 4. Float at 5.0' depth. CpySpec. hemmag. |
| | K-8 | 15.0 | 1.23 | Nil | Trace | Trench 1. Erratic cpy mag. fracture fillings and dissemination in altered volcanic. |

| Sample No. | Width (Feet) | <u>% Cu.</u> | Oz. Au. | Oz. Ag. | Remarks |
|---------------|-----------------|--------------|---------|---------|---|
| K-9 | 13.0 | 1.07 | Ni1 | Trace | Trench 1. Mineralization similar to above but weaker. |
| K-10 | 15.0 | 0.72 | Ni1 | Trace | Trench 7. Strongest disseminated cpy. in 25' pod of coarse grained basic volcanic or intrusive. |
| K-11 | Specimen | 0.46 | Ni1 | Trace | Moderate disseminated cpy. in altered volcanic float downhill from K-10. |

6) SUMMARY AND CONCLUSIONS

Traces of chalcopyrite are widespread within the volcanic rocks on the Krysko property. Mineralization appears to be associated with a broad shear zone along Gnat Creek and with an intrusive body to the south of the claims.

Although chalcopyrite is generally present only as weak erratic disseminations, stronger mineralization with magnetite is noted in several showings. Geophysical surveying, geological mapping, and trenching have failed to disclose any economic concentrations of the magnetic type of mineralization.

The area is largely overburden covered and the possibility of a large low-grade deposit cannot be ruled out. The geophysical methods applied have not adequately tested the ground for the non-magnetitic disseminated type of mineralization. Disseminated copper approaching interesting amounts has been encountered in an area of rhyolite breccia. Limited exposure in this immediate locality suggests the disseminated mineralization is quite erratic.

An I.P. survey of the group would be required to test for concentrations of the low-grade mineralization. Interpretation of the I.P. data would be complicated by the presence of the widespread weakly disseminated chalcopyrite and local minor amounts of magnetite and pyrite.

Respectfully submitted,

F.D. Westewell

R.D. Westervelt, Newconex Canadian Exploration Ltd.

Toronto, Ontario, December 8, 1964.



KRYSKO PROJECT

-- MAJOR EXPENSE ITEMS --

| 1) | Wages | - | \$ 4,226.08 |
|----|--|---------|-----------------|
| 2) | Bulldozer (Watson Lake Const.) | - | 2,298.50 |
| 3) | Vehicle Rental (Hanna Gold Mines, Rancheria Mining) | - | 398.00 |
| 4) | Assaying (X-Ray Lab, Whitehorse Assay Office) | - | 108.50 23.50 |
| 5) | Groceries | | 546.00 |
| 6) | Mag and EM rental (1 month) | - | 300.00 |
| | | | \$ 7,900.58 |
| | | | |

KRYSKO COPPER PROSPECT

PROJECT PERSONNEL

| Name | Address | Period | Type of Work | Rate | Gross |
|--|--|--|--|-------------------------------|---|
| R. D. Westervelt, B.A.Sc., M.Sc., P.Eng. (Ontario) | Newconex Canadian Exploration Ltd., 1702-8 King St. E., Toronto 1, Ontario. | Sept. 19, 20 Oct. 2, 6-13 Dec. 7-8 | Supervision and Report | \$25 per \$ day x 13 | 325.00 156.00 (R.D.W. portion re Jan.salary) |
| L. M. Feasey | - | Sept. 23-25 Oct. 6-11 | Survey base lines, E.M. Operator | \$16.67/day x 9 | 150.03 |
| G. Scoretz | Newconex Canadian Exploration Ltd., 914-525 Seymour St., Vancouver, B.C. | Sept. 23 - Oct. 13 | Geological map- ping, trenching, sampling. | \$15.83/day x 21 | 332.43 |
| J. Verhaugen | Marshall, Macklin & Monaghan, 1480 Don Mills Rd., Don Mills, Ontario. | Sept. 10 - Oct. 12 | Mag. Operator | | 1470.00) 891.82) |
| E. Krysko | 12025-79th Street, Edmonton, Alberta. | Sept. 10 - Oct. 11 | Line cutting & prospecting | \$25/day x 28 Holiday pay | 700.00 16.00 |
| P. Ritco, | Newconex Canadian Exploration Ltd., 914-525 Seymour St., Vancouver, B.C. | Sept. 23 - Oct. 8 | Line cutting, prospecting, assistant on EM survey. | \$15/day x 16 | 240.00 |
| A. Nehass | Cassiar, B. C. | Sept. 23-25 | Setting baselines | \$2 x 24 hrs. \$3 x 9 hrs. | 75.00 |
| J. James | Watson Lake, Yukon | Sept.23-Oct.8 | Line cutting | \$15/day + Holiday | 257.40 |
| B.Barrett | m | Sept.23-Oct.8 | Line cutting | \$15/day + Holiday | 257.40 |
| J. Dickson | - | Sept.23-Oct.13 | Cook | \$15/day + Holiday | 355.00 |
| | | | | · · · · · · | \$4,226.08 |

I Salph Donaldson Westewell, certify that

(1) Lam a graduate engineer in Mining Beology
from the University of Toronto (1956)

(2) I have obtained a Master's Degree in Economic
Beology from Queen's University (1960)

(3) Lam a registered professional engineer
in Ontario and have been registered with
the A.P.E.O. since 1956.

(4) with the exception of one year's graduate study I have practised as a geologist in exploration and production since 1956. and have been employed by the following companies

Ap. 1956 - May 1957 M.J. Boylen Engineering, Toronto May 1957 - Sept 1957 L.F. Labour, Toronto March 1959 - April 1960 Northspan Maning Mines, Elliot Lake. May 1960 - Jan. 1963 Keevel Mining Draup, Toronto Feb. 1963 - Jan. 1964 Watto, Briffin McQuat, Toronto Feb. 1964 - April 1965 Newcones Canadian Explorations Ltd. Toronto.

Cassian, B.C. August 24, 1965 F.D. Westewelt, P.Eng (Ont)

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NEWCONEX CANADIAN EXPLORATION LTD.

EXPENSES RE: KRYSKO PROJECT

| 1. | Wages | \$ 4,226.08 |
|----|--|-----------------|
| 2. | Bulldozer (Watson Lake Const.) | 2,298.50 |
| 3. | Vehicle Rental (Hanna Gold Mines, Rancheria Mining) | 398.00 |
| 4. | Assaying (X-Ray Lab, Whitehorse Assay Office) | 108.50 23.50 |
| 5. | Groceries | 546.00 |
| 6. | Mag. and E.M. rantal (1 month) | 300.00 |
| | Total | \$ 7,900.58 |

Certified Correct

F.A. Wright
Secretary-Treasurer.

NEWCONEX CANADIAN EXPLORATION LTD.

INVOICE

X-RAY ASSAY LABORATORIES LIMITED

28 EGLINTON AVENUE WEST TORONTO, ONTARIO HUDSON 5-8907

Newconex Limited, 8 King St. E. Suite 1701-06, Toronto 1, Ontario.

DATE : Oct. 15-64

INVOICE NO

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X-RAY ASSAY LABORATORIES LIMITED

28 EGLINTON AVENUE WEST TORONTO, ONTARIO HUDSON 5-8907

Newconex Canadian Exploration Limited, 8 King St. E. Suite 1702, Toronto 1, Ontario.

DATE

Oct. 20-64

INVOICE NO

6986

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Watson Lake Construction Limited

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WATSON LAKE, YUKON

NewConex Holdings Ltd.,

Nov. 30/64

Suite 1702 . Royal Bank Building

8 King St. E. Toronto 1, Ont.

| DETAILS | CHGS | CREDITS | BALANCE |
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| DETAILS | | | |
| | | | |
| Oct. 6 - 12 Trenching and stripping at Gnat | | | |
| Lake area with D8 Cat & Ripper | | | |
| 61 Hrs. 0 \$28.00 per Hr. | \$1,738.50 | | |
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| Haugage of D8 & Ripper from | | | |
| Cassiar to Gnat Lakes and return to Watson Lake. | | | |
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WAGES PAID RE: KRYSKO PROJECT

| | Period | Rate | Gross · · / * |
|-----------------|--|--|--|
| R.D. Westervelt | Sept. 19-20 Oct. 2,6-13 Dec. 7-8 | \$25.00 per day x 13 | \$325. 156.(R.D.W. pottion re Jan. Salary) |
| L.M. Feasey | Sept. 23-25 Oct. 6-11 | \$16.67 per day x 9 | 150.03 |
| G. Scoretz | Sept. 23-Oct. 13 | \$15.83 per day x 21 | 332.43 |
| J. Verhaegen | Sept. 19-Oct. 12 | | 470.00) 891.82) |
| E. Krysko | Sept. 10-Oct. 11 | \$25.00 per day x 28 Holiday Pay | 700.00 16.00 |
| P. Ritco | Sept. 23-Oct. 8 | \$15.00 per day x 16 | 240.00 |
| A. Nehass | Sept. 23-25 | \$2.00 x 24 Hrm. \$3.00 x 9 Hrs. | 75.00 |
| J. James | Sept. 23-Oct. 8 | \$15.00 per day + Holiday Pay | 257.40 |
| B. Barrett | Sept. 23-Oct. 8 | \$15.00 per day + Holiday Pay | 257.40 |
| J. Dickson | Sept. 23-Oct. 13 | \$15.00 per day + Holiday Pay | 355.00 \$4,226.08 |

NEWSONEX CAMADIAN EXPLORATION LTD.

Certified Correct

f.A. Wright, Sec/Tres.

