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ANNOTATED BIBLIOGRAPHY ON METALLIC MINERALIZATION IN THE REGIONS OF NORANDA, MATAGAMI, VAL-D'OR, CHIBOUGAMAU

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DEPARTMENT OF NATURAL RESOURCES

SPECIAL PAPER 2

Annotated Bibliography

on

METALLIC MINERALIZATION

in the regions of

- NORANDA
- MATAGAMI
- VAL-D'OR
- CHIBOUGAMAU

GEOLOGICAL SERVICES

P.-E. GRENIER, DIRECTOR

1967

QUÉBEC DEPARTMENT OF NATURAL RESOURCES

HONORABLE DANIEL JOHNSON
Minister

PAUL-ÉMILE AUGER
Deputy Minister

MINERAL DEPOSITS SERVICE
R. ASSAD, DIRECTOR

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PREFACE

This annotated bibliography and the map which accompanies it constitute another important addition to the inventory of the mineral resources of the Province of Quebec. It follows the bibliography published in 1963 concerning the Appalachian region. The present bibliography describes about 1,400 metallic mineral occurrences in the districts of Noranda, Val-d'Or, Matagami and Chibougamau. The total area covered by the map is close to 50,000 square miles.

The colored map, in six sheets, was preceded by preliminary maps B-835 and B-850. It contains essentially the same information that can be found on the preliminary maps save that the uniformity of the geology is improved and the zones of rhyolitic and intrusive ultramafic rocks are better defined.

The Department acknowledges the work of its resident geologists in the compilation of the information for their own districts. These geologists are J. Dugas (Rouyn-Noranda), M. Latulippe (Val-d'Or), and G. Duquette (Chibougamau). Geologists J.H. Remick and A. Laurin also gave assistance, the former in compiling the information contained on Sheet I, the latter in compiling the geology of the Dozois and Cabonga Reservoirs area on Sheet VI.

In preparing the bibliography, the authors made use of memoirs, annual reports, geological reports and various maps and compilation works published by the Quebec and Ottawa governments. Geological and mining publications of various societies were also consulted. In addition, technical documentation kept in the regional and the Quebec offices was examined.

Each occurrence on the map is given a number which corresponds to a similar one in the bibliography under the name of the township where the occurrence is situated. Moreover, the occurrences described in the bibliography are easily traced on the map by first noting the number shown in the margin and then by noting, immediately under the township name, the number of the sheet and the combination of a letter and a number indicating the sector in which the center of the township is to be found.

Each entry in the bibliography opens with a paragraph giving the location of the occurrence and the names of the mining companies or persons associated with it. The location is indicated by reference either to ranges (roman numerals) and lots (arabic numerals) or to landmarks. Chemical symbols for the metals and abbreviations for the minerals contained in the occurrence follow this preface. References to publications and documents are then given. These references are set out in no particular order save that the one which inspired the text is given last. The references to publications give either the name of the author of the publication or the abbreviated name of the publishing society. They also mention the year of publication and the page numbers to be consulted. The title and other details of the publications are given in the list of references at the end of the bibliography. References to documents belonging to the Technical Archives of the Mineral Deposits Service carry the letters A.W.R. followed by the index number of the document and the year it was filed. If the author of the document is or was a government employee, the letters A.W.R. are replaced by the employee's name.

This compilation contains a great deal of information for those concerned with the mining industry but persons using this information are cautioned against the defects inherent in compilation work. They therefore should study the maps and documents used in making this compilation before drawing any conclusions on areas which may interest them.

Paul-E. Grenier
Director of Geological Services

List of Symbols and Abbreviations

Elements

Ag - Silver
As - Arsenic
Au - Gold
Be - Beryllium
Bi - Bismuth
Co - Cobalt
Cr - Chromium
Cu - Copper
Cs - Caesium
Fe - Iron
Li - Lithium
Mo - Molybdenum
Nb - Niobium (columbium)
Ni - Nickel
Pb - Lead
Pt - Platinum
Sb - Antimony
Se - Selenium
Ta - Tantalum
Te - Tellurium
Ti - Titanium
U - Uranium
W - Tungsten
Zn - Zinc

Minerals

Py - Pyrite
Po - Pyrrhotite
Mag - Magnetite
Sid - Siderite

Miscellaneous

A.W.R. - Refers to documents kept in the Technical Archives of the Mineral Deposits Service, which are not signed by present or past personnel of the Department. For the most part, these documents are assessment work reports.

Q.D.M. - Quebec Department of Mines

Q.D.N.R. - Quebec Department of Natural Resources

Q.B.M. - Quebec Bureau of Mines

C.I.M.M. - Canadian Institute of Mining and Metallurgy

G.S.C. - Geological Survey of Canada

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AIGUEBELLE TOWNSHIP

V - B6

1 I - 12 (Aiguebelle Goldfields Ltd.)
Au, Cu

Ingham et al. - 1949, p. 3

In a strongly altered zone, probably in the extension of Destor - Porcupine fault, pink and gray syenite and dikes of porphyritic syenite cut talcose rocks. A few of these dikes contain pyrite, chalcopyrite and specularite. Encouraging gold assays have been obtained in a few of these dikes.

2 II - 4 (Destorbelle Mines Ltd.)
Au

Ingham et al. - 1949, p. 4

A hole in fragmental and tuffaceous rocks cut a 21-foot zone mineralized with massive and finely disseminated pyrite, which assayed 0.24 ounce per ton.

3 X - 40 (Bisson claims)
Py

Dugas, J.; GM-4903, 1957

A hole has cut 5 feet of massive pyrite.

4 II - 11 (Hardrock Gold Mines Ltd.)
Au

A.W.R.; GM-5753, 1946

Diamond drilling

5 X - 12 (Wesley Mines Ltd.)
Py

Q.D.M. - 1959, p. 2

Two intersections of massive pyrite, 4 and 5 feet wide.

ALOIGNY TOWNSHIP

III - B3

1 About 4 miles from the south boundary of the township and 3 miles from the east boundary. (Ranworth Explorations Ltd.)
Py, Po

A.W.R.; GM-9294, 1959.

Iron formation

ATWATER TOWNSHIP

VII - A10

1 Hunters' Point lake (Belleterre Quebec Mines Ltd.)
U, Au

Q.D.M. - 1959B, p. 2

"Uranium and gold mineralization occurs in a band of quartzite with interbedded thin beds of garnet gneiss... At the site of the original discovery an entry inclined at 25° has been driven toward the southwest. The radioactivity is confined to lenses; the main lens has a length of some 75 feet and a maximum width of 2.3 feet. High assays are reported by the company, the best being 5.23% U_3O_8 and 0.67 ounce of gold per ton over a width of 1.3 feet."

2 Hunters' Point lake (Belleterre Quebec Mines Ltd.)
U

Q.D.M. - 1959B, p. 2

The same quartzite formation extends more than 3,000 feet to the southwest. It is radioactive in places.

BABY TOWNSHIP

VII - A8

1 IV - 3, 4 (Zullo Mineral Exploration)
Cu

Gilbert, J.-E.; GM-2865, 1953

Quartz vein mineralized with pyrite and chalcopyrite.

2 V - 9 (Roy claims)
Cu, Ni

Dugas, J.; GM-13884, 1963

"The zone strikes roughly to the east and follows a shear zone. The dip appears to be vertical. Mineralization is in the form of pockets of massive sulfides comprising fine-grained pyrite, chalcopyrite and magnetite. This mineralization is exposed over a width of about 5 feet... A selected sample contained 5.39% copper and 3.54% nickel." (translated)

3 V - 20 (Roy claims)
Cu, Ni
Dugas, J.; GM-13884, 1963

"At the foot of the hill, the gabbro is mineralized with pyrite and chalcopyrite forming pockets ranging in diameter between one quarter of an inch and half an inch. The rock may contain between 10 and 15% sulfides; chalcopyrite is almost as abundant as pyrite." (translated)
This is a nickel-bearing rock.

4 - III - 7 (Patry claims)
Cu

Q.D.N.R. - 1964, pp. 2-3

In a cut along the railway, streaks of rust can be seen in andesite. In the fresh cuts, in addition to streaks of rust which follow the strike of the formations, the rock shows a little chalcopyrite. About 1,300 feet to the northeast,

the mineralization is much the same. Streaks of sulfides, containing some chalcopyrite, are found here and there. The owners have found a couple of samples containing native copper.

5 I - 2, 3 (Patry claims)
Cu, Mo
Dugas, J.; GM-13884, 1963

"On lots 2 and 3, along the line common to Guigues and Baby townships, many granite outcrops have been found that contain chalcopyrite lodged in fractures or disseminated in the rock. Molybdenite, which may be relatively plentiful over a width of a few inches, has also been found." (translated)

BAPST TOWNSHIP

III - B3

1 Central part of the township (Selco Exploration Co. Ltd.)
Py

A.W.R.; GM-8726, 1959

Pyrite in argillite. Diamond drill log.

BARLOW TOWNSHIP

IV - H3

1 3.9 mi. E. and 3.0 mi. S. of NW. corner of twp. (Mid-Chibougamau Mines Ltd.)
Au

A.W.R.; GM-5788, 1957

"Of 37 samples... submitted for assay..., only those from trench I which crosses the crest of the anticline showed more than a trace of gold. One sample composed entirely of pyrite... assayed... 1.910 ounces per ton of gold."

2 1.0 mi.E and 4.7 mi. N. of SW. corner of twp. (Chiboug Copper Corp. Ltd.)
Po, Py

A.W.R.; GM-10696, 1961

In all, 36 holes were drilled in 1960. At footage 51.3 in hole No. 4, 25-30% pyrite and pyrrhotite over 20 feet in graphitic schist and tuff.

3 2.0 mi. W. and 4.5 mi. N. of SE. corner of twp. (Consolidated Central Cadillac Mines)

Au, Cu

A.W.R.; GM-1840, 1952

Archibald, G.M. - 1959, p. 2
Gaucher, E.-H. - 1960, pp. 10-11

"A mineralized quartz vein, mineralized with sulfides, located in the central part of the property, has been stripped along a strike length of 150 feet. The vein occurs in a fault zone that has sheared and drag-folded the lavas. The fault strikes S.75°E. and dips 80° south. The quartz vein varies from 0.5 foot to 3 feet in width, and the mineralization consists of chalcopyrite and pyrite. A sample from the central, and richest part of the vein, assayed 2.48 ounces of gold per ton... A chip sample taken by J.R. Assad in 1956... assayed... 1.0 ounce of gold per ton."

Assad, J.R. - 1957, pp. 1-2

"... Two samples, one a chip sample and the other a grab sample, were taken by the writer. The chip sample assayed 0.47% copper and 1.008 ounces of gold per

ton; the grab sample, 0.78% copper and 0.496 ounce of gold per ton. Six diamond drill holes drilled in the vicinity of this zone are reported to have failed to intersect the vein structure at depth... Some 6,500 feet of diamond drilling in 16 holes were completed in early 1956. Six of these holes tested the mineralized zone mentioned above and the remainder were drilled to test magnetic anomalies. Hole No. 5 cut two zones: one carrying 0.18 ounce of gold per ton over 1 foot, and the other carrying 0.17 ounce over 1.7 feet..."

4 5.4 mi. N. of SW. corner of twp.
Cu

Mawdsley and Norman - 1935, pp. 60-61

"Most of the work done up to August, 1930, is confined to an area immediately northeast of mile-post 5... A width of about 45 feet of shattered porphyry containing scattered phenocrysts of quartz and altered feldspar, and mineralized with disseminated sulfides that form from 1 to 5% of the volume of the rock. These consist of 70% pyrrhotite, 25% pyrite, and 5% chalcopyrite. Calcite veinlets bearing chalcopyrite are also present."

5 3.6 mi. E. and 3.3 mi. N. of SW. corner of twp. (Consolidated Red Poplar Minerals Ltd.)
Cu

A.W.R.; GM-4430-B, 1957

"In one hole (out of six) some copper mineralization was encountered: 2.44% Cu over 2.8 feet in andesitic lavas... with some interbedded tuffs."

6 3.0 mi. W. and 3.4 mi. N. of SE. corner of twp. (Wright-Hargreaves Mines Ltd.)
Au

A.W.R.; GM-907, 1951

Graham et al. - 1953, pp. 3-4

"The showing... consists of a quartz vein... It occurs along and parallels a shear zone 6 feet wide in carbonatized diorite. The vein strikes east and dips 70° south at the east end and dips vertically at the west end. It has been traced for a length of 70 feet and is from 1 foot to 2 feet wide. Immediately north of the east end of the vein, there is a stockwork of quartz stringers which has been traced to the north for 50 feet and is about 50 feet wide. To the east, the quartz vein and shear zone are... cut off by... a diorite dike which strikes N.30°E.... The vein consists of well fractured quartz... The fractures are filled with... carbonate. Coarse pyrite occurs as disseminations in the quartz and also filling fractures... Coarse chalcopyrite occurs sparingly with the pyrite. The surface of the vein contains porous lenses due to the weathering of carbonate and pyrite. These lenses... yield good tenors in gold."

7 3.0 mi. E. and 2.3 mi. N. of SW. corner of twp. (Giant Chibougamau Mines Ltd.)
Cu

A.W.R.; GM-1840, 1952

"... Widespread concentration of chalcopyrite and pyrrhotite... The sulfides occur as disseminations and massive concentrations in what appears to be sheared and altered gabbro... Grab samples... assayed up to 5% in copper and 0.07 ounce of gold per ton."

8 5.0 mi. E. and 2.2 mi. N. of SW. corner of twp. (K.B. Mining Company Ltd.)
Py

A.W.R.; GM-4465, 1956

"Sulfide zone containing disseminated to massive pyrite and pyrrhotite in altered basic volcanics and sediments. Some pyrite and a little pyrrhotite in a 100-foot-thick formation of which a 10-foot band carries 30-90% pyrite."

BARRAUTE TOWNSHIP

V - C6

1 VII - 28 to 30 (Manitou-Barvue Mines Ltd.)
Zn, Pb, Ag

Weber, W.W. - 1951A, p. 17
Weber and Latulippe - 1964, pp. 43-4

From 1952 to 1957, the mine produced 5,601,278 tons of ore containing 2.59% zinc and 0.71 ounce of silver per ton. During 1953, 1956 and 1957, the total lead production was 208 tons. Ore reserves were calculated at 4 million tons grading 3.5% zinc and 1.3 ounces of silver per ton at the close of the mine in 1957. Most of the ore came from an open pit. The ore is found in pyroclastic rocks.

2 VII - 25 to 28 (Consolidated Pershcourt Mining Ltd.)
Zn, Ag, Pb

Weber, W.W. - 1951A, p. 18
Weber and Latulippe - 1964, pp. 39-40

The Manitou-Barvue ore zone extends on this property. A shaft was put down 558 feet and two levels were partly developed. From drilling, the footwall zone was calculated to contain 3.45% zinc and 3.28 ounces of silver per ton for a length of 3,000 feet and a width of 10.3 feet.

3 VII - 17 to 24 (Frebert Mines Ltd.)
Zn, Ag

Weber, W.W. - 1951A, p. 19
Q.D.N.R. - 1962, p. 3
Weber and Latulippe - 1964, pp. 41-2

The zinc-silver zone of Manitou-Barvue and Cons. Pershcourt extends on the Frebert ground. From drilling in lot 24, the ore zone, for a length of 650 feet and an average width of 16 feet, was calculated to contain 2.58% zinc and 4.63 ounces of silver per ton.

4 I - 27 (Absam Mines Ltd.)
Zn, Au

Latulippe, M.; GM-11208, 1961
Q.D.N.R. - 1964, p. 3

At the south end of the lot a drill hole cut a sulfide zone in tuff which assayed 6.65% zinc across 2.5 feet. In the same hole, a quartz-carbonate vein assayed 0.162 ounce of gold per ton across 2.0 feet.

5 III - 9 (Alta Mines Ltd. - Randall Mines Corporation)
Au

James and Mawdsley - 1928, p. 59

A narrow quartz vein at the north end of the lot contains visible gold.

6 VII - 11 to 13. (Barel Duc Mines Ltd.)
Zn, Ag, Pb

Weber and Latulippe - 1964, pp. 36-37
Ingham, W.N.; GM-1284, 1951

Minor sphalerite, galena and silver mineralization was encountered in drilling on lots 11 to 13. The mineralization is found in the western extension of the Barvue-Pershcourt-Frebert zone in tuffaceous rocks.

7 VI - 46 to 52. (Bargold Mines Ltd. - Bartec Mining Company Ltd. - Groslouis claims)
Au, Cu

Ross et al. - 1940, p. 3
Dresser and Denis - 1949, p. 108
Ingham et al. - 1949, p. 6

Some of the quartz veins cutting tuffs and lavas in these lots contain gold and minor chalcopyrite. The Jackson showing, at the south end of lot 49, is reported to have 100 tons per vertical foot grading 0.17 ounce of gold per ton. The Bartec showing at the north end of lot 52 is reported to have 58,000 tons grading 0.337 ounce of gold per ton. The Groslouis showing in the south part of lot 46 yielded erratic gold assays.

8 II - 13, 14 and III - 17 (Bar-Lan Gold Mines Ltd. - Venus Gold Mines Ltd.)
Au

Bell, L.V. - 1931, p. 39
Dresser and Denis - 1949, p. 109

Numerous quartz veins contain erratic gold. Shafts were put down in both areas to the 200-foot levels. The veins are narrow, irregular and lenticular. The gold accompanies the pyrite in the border zones of the veins.

9 VI - 31, 32. (Bar-Manitou Mines Ltd.)
Zn, Ag, Pb

A.W.R.; GM-1135, 1951
Weber and Latulippe - 1964, p. 37

The Manitou-Barvue zinc zone extends into the north end of lots 31 and 32. The structure locally contains lenses of zinc and silver ore but widths and lengths are small. The best zinc section returned 5.98% zinc and 1.80 ounces of silver per ton across 6.5 feet. The best silver section returned 13.55 ounces of silver per ton, 4.90% zinc and 2.20% lead across 4.0 feet. In 1951, drilling amounted to 20,000 feet.

10 III - 28 to 30. (Barraute Mng. Co. - Oregon Quebec Gold Mines Ltd.)
Au

A.W.R.; GM-14605, 1935

Narrow quartz veins in a granite sill which crosses these lots contain gold. Most of the gold is in the free state.

11 I - 28 to 32. (Belfort Mines Ltd. - Roymont Mines Ltd.)
Zn, Cu, Ag, Au

Latulippe, M.; GM-11207, 1961
Q.D.N.R. - 1964, p. 3

A sulfide zone, at the south end of lot 28, lies in tuffaceous rocks and contains sphalerite and minor chalcopyrite. The company engineer estimated 250,000 tons grading 7.00% zinc, 0.21% copper, 0.12% lead and 0.61 ounce of silver per ton. A granodiorite mass, in the south part of lots 28 to 32, is cut by quartz veinlets which contain gold. Some of the better gold assays obtained in the drilling are, in ounces per ton: 1.15 across 1.0 foot, 0.71 across 0.8 foot, and 0.42 across 1.5 feet.

12 VIII - 13 (Cour-Bar Mines Ltd.)
Ag

Graham et al. - 1953, p. 4

An assay of several ounces of silver per ton was obtained from 6 inches of core containing quartz and pyrite.

13 VIII - 31, 32. (Citra-Lartic Mines Ltd. - Nealon Mines Ltd.)
Cu, Zn, Ag

Weber and Latulippe - 1964, p. 45

A zone of copper-zinc mineralization was followed for 1,200 feet at the north end of these lots. Some of the better intersections in tuffaceous rocks were: 27.0 feet of 1.5% copper; 20.0 feet of 1.25% copper, 2.59% zinc and 1.9 ounces of silver per ton; 24.3 feet of 4.1% zinc.

14 IV - 24. (Cons. Mng. and Smelting Co. of Canada Ltd.)
Au

Tremblay, L.-P. - 1950, p. 93

Erratic gold in quartz veinlets can be seen in a granodiorite sill at the south end of the lot.

15 II - 9. (Cummings-Trudel Mining and Dev. Co. Ltd. - Continental Gold Mines)
Au

Dresser and Denis - 1949, p. 110

Quartz-carbonate veins cutting volcanic rocks at the north end of the lot yielded erratic gold assays.

16 VIII - 45 to 60. (D'Aragon Property - East group)
Cu

Q.D.M. - 1959A, p. 4
Weber and Latulippe - 1964, pp. 40-41

Drilling in these lots cut graphitic tuffs with various amounts of sulfides. A few grains and small masses of chalcopyrite were noted. The best assay over 5.0 feet returned 0.79% copper.

17 II - 47, 48. (Vallée claims)
Au, Cu, As

Tremblay, L.-P. - 1950, p. 92

Quartz veinlets in a fracture zone cutting a granite porphyry contain gold, minor chalcopyrite and arsenopyrite.

18 VIII - 1 (East Sullivan - Group 2)
Zn

A.W.R.; GM-10550, 1960

A drill hole cut a 6-inch carbonate vein with sphalerite. It assayed 8.60% zinc.

19 IX - 50 to 62 (Gibson Mines Ltd.)
Au
Weber and Latulippe - 1964, pp. 42-3
A.W.R.; GM-7579, 1958

Gold is found in quartz veins cutting granitic and aplitic dikes in these lots. The best core sections assayed 0.165 ounce of gold per ton across 59.2 feet. A section of 15.0 feet in this core section assayed 0.3 ounce of gold per ton.

20 I - 34, 37. (Mogador Mines Ltd. - Vendome Mines Ltd.)
Au

Latulippe, M.; GM-11504, 1961 (Q.D.N.R. - 1964, pp. 4-5)

Holes put down at the south end of lot 34 and in the central part of lot 37 intersected narrow gold-bearing quartz veins. The best of four intersections returned 0.302 ounce of gold per ton across 1.7 feet.

21 V - 47 (Malbar Goldfields Ltd.)
Au
Weber and Latulippe - 1964, p. 43
Ingham et al. - 1949, p. 9
A drill hole at the north end of the lot cut a gold-bearing quartz vein in tuffaceous rocks. An assay of 0.10 ounce of gold per ton across 5.0 feet was obtained.

22 III - 43, 44 (Tri-Cor Mining Co. Ltd.)
Au, Cu

A.W.R.; GM-8668, 1959

Latulippe, M.; GM-11211, 1961
Q.D.N.R. - 1964, p. 6

Drilling at the south end of these lots cut gold-bearing quartz veins containing minor chalcopyrite. The quartz veins are in granite and in a large inclusion within the north part of the Barraute granite plug. The best assay gave 3.02 ounces of gold per ton across 6.0 feet. Other assays were 1.07 ounces across 1.0 foot and 0.5 ounce across 0.5 foot.

23 VII - 56
Mo, Au, Cu

Weber and Latulippe - 1964, p. 45

A quartz vein cutting a syenite-gabbro complex contains molybdenite and chalcopyrite. It was also reported to contain gold.

24 IX - 42 (Canadian Shield Mining Corp.)
Cu

A.W.R.; GM-10014, 1959

A hole in the central part of the lot cut tuffaceous rocks and assayed 1.14% copper across 0.5 foot.

BARRY TOWNSHIP

VI - F5

1 North end of Loutres lake (Quebec Smelting and Refining Ltd.)
Cu, Au

Milner, R.L. - 1943, p. 22

A shear zone at the north end of Loutres lake contains pyrite, chalcopyrite and erratic gold. The best assay returned 0.133 ounce of gold per ton across 1.0 foot.

2 West end of Barry lake (Barry Lake Mining Company Ltd.)
Au, Cu

Milner, R.L. - 1943, p. 20

Chalcopyrite and erratic free gold in quartz veins.

3 South end of Loutres lake
Mo

Faessler, C. - 1936, p. 38

Molybdenite was observed in a porphyritic rock that forms a high cliff on the eastern shore at the south end of the lake.

BARTOUILLE TOWNSHIP

V - D5

1 III - 65 (Quebec Explorers Corp. Ltd. - Loring claims)
Py, Po

Bannerman, H.M. - 1936, p. 22
Q.B.M. - 1929, p. 131

Large lenses of pyrite and pyrrhotite in tuffaceous rocks. At least 29 drill holes were put down.

2 II - 74, 75
Cu
Py, Po

Bannerman, H.M. - 1936, p. 24

Minor chalcopyrite in silicified tuff impregnated with pyrite and pyrrhotite.

3 V - 9, 10 (Belzil property)
Mo, Bi

Q.D.N.R. - 1962, p. 4

A small amount of molybdenite and bismuthinite can be seen in quartz veins at the contact between volcanic and granitic rocks.

4 III - 15 (Lebel claims)
Cu

A.W.R.; GM-2439, 1953

A minor amount of chalcopyrite in fractures.

BASSERODE TOWNSHIP

VII - B7

1 V - 40
Be
Freeman, P.V. - 1957-B, p. 7
"... one large crystal associated with quartz in a pegmatite..."

BAUNEVILLE TOWNSHIP

VII - B8

1 VIII - 9
Mo
Chagnon, J.-Y. - 1961, p. 9
"Blasting exposed some sulfides, including molybdenite and pyrite, in a very coarse-grained pegmatite dike near its contact with biotite gneisses. A grab sample assayed 0.62% MoS_2. The dike trends north and is approximately 25 feet thick."

BÉARN TOWNSHIP

V - C5

1 VIII - 20 to 25 (Stadacona Mines (1944) Ltd.)
Cu
Py, Po
Q.D.N.R. - 1961, p. 3
A zone of tuffaceous rocks contains pyrite, pyrrhotite and minor chalcopyrite.

BEAUCHASTEL TOWNSHIP

V - A7

1 X - 1 (Wm. Leys Mining Corporation Ltd.)
Au
Q.D.N.R. - 1962, pp. 4-6
Mineralized fault zone striking northeast. "Samples from the trenches assayed 0.02 to 0.37 ounce of gold per ton."

2 X - 2 (Wm. Leys Mining Corporation Ltd.)
Cu, Ni
Q.D.N.R. - 1962, pp. 5-6
A six-inch wide sulfide zone in diabase. "A 9-foot section assayed 1.46% copper and 1.22% nickel."

3 X - 17 (Nordis Gold Mines, Limited)
Au
Graham et al. - 1953, p. 6
Silicified zone in rhyolite. "The zone has fine disseminated pyrite and surface samples gave assays up to 0.5 ounce of gold a ton."

4 X - 30 (G.S. Eplett Mining and Development Company, Limited)
Au
Q.D.N.R. - 1961, p. 3
Graham et al. - 1953, p. 5

"The quartz contains fine pyrite and is associated with one or more diorite dikes that intrude the granite... The most encouraging assay from the vein zone was 0.57 ounce of gold across 6 inches, but a 4-foot section of granite containing coarse pyrite assayed 0.58 ounce."

5 IX - 24 (Lee Poirier, Buffam claims)
Au, Mo

Robinson, W.G. - 1943, p. 18
Bell, A.M.; GM-6119, 1942

Trenching on the granite-rhyolite contact has yielded samples containing good tenors in gold. Molybdenite accompanies the gold. The same kind of mineralization has been found a little farther west.

6 VIII - 7 (R.M. Nickel Mines Ltd.)
Cu, Ni, Pt

Q.D.M. - 1959A, p. 7
Q.D.N.R. - 1961, p. 4

"The drilling explored a zone of copper-nickel mineralization on the east side of the diorite dike over a distance of 800 feet. The mineralization occurs in diorite and andesite, near the contact. Some pods of high-grade massive sulfide were delimited." Low tenors in platinum occur locally.

7 VII - 30 (Abenakis Mines Ltd.)
Au

A.W.R.; GM-6031, 1945-7

White quartz in brecciated andesite forming a pipe-shaped orebody with a diameter of about 100 feet. This mass is mineralized with pyrite. Coarse gold has been observed in the quartz but its distribution is erratic.

8 VII - 30 (Horne Fault Mines Ltd. - Centre Boischatel Copper Co. Ltd.)
Cu

Q.B.M. - 1930, p. 100

"The shaft is sunk on a sheared zone, in basic lavas, and this zone is mineralized with chalcopyrite. A pit, 15 feet southeast of the shaft, shows a narrow lens of chalcopyrite... About 800 feet southwest of the shaft, near the edge of a small bluff, a quartz vein, well mineralized with chalcopyrite, is exposed."

9 VII - 8 (Gan Copper Mines Ltd.)
Au, Zn, Cu

A.W.R.; GM-2896, 1954

Drill holes have intersected many sulfide veinlets containing pyrite, chalcopyrite, sphalerite and some gold.

10 VI - 20, 21, Block 63 (Aldermac Copper Corp.)
Cu, Zn, Au, Ag
Py, Po

Cooke et al. - 1931, pp. 175-183
Bruce, E.L. - 1933, pp. 74-86
Claveau et al. - 1951, p. 9
Q.D.M. - 1956, p. 7
C.I.M.M. - 1948, pp. 719-30

Massive sulfide deposit occurring south of a syenite mass in felsic tuffs and agglomerates interstratified with rhyolite and forming the north limb of a

syncline. The mineralization consists of pyrite, pyrrhotite, chalcopyrite, sphalerite and magnetite. Between 1933 and 1943, the mine produced 2,091,591 tons containing 1.65% copper and a little gold and silver. Pyrite was also shipped from this mine.

11 VIII - 34 (Halliwell Gold Mines Ltd.)
Au, Cu

MacKenzie, G.S. - 1941, p. 17

A high-grade gold orebody, now mined out, was found in andesite in contact with a nearly flat-lying aplite. The orebody had a conical shape and consisted of chloritized andesite speckled with fine chalcopyrite and pyrite. More massive chalcopyrite occurred in some places in veinlets and lenses. Pyrrhotite, sphalerite, bismuth and molybdenite were reported. A total of 2,719 tons of ore, averaging 0.43 ounce of gold a ton, was mined.

12 X - 50 (Elder Mines Ltd.)
Au

Ingham and Ross - 1947, pp. 7-10
Ingham et al. - 1949, pp. 14-15
Claveau et al. - 1951, p. 4

This mine sends silica-rich gold ore to the Noranda smelter. From 1946 to 1962, production reached 2,067,498 tons grading $5.33 in gold a ton. After a temporary shut-down for the purpose of deepening the shaft, production resumed again in 1964. The main vein strikes N.57°E. on surface and dips 32° south. Another vein runs parallel to it. The ore consists of quartz and of the adjacent mineralized and silicified granite.

13 X - 48, 49 (Elder Mines Ltd.)
Au

Claveau et al. - 1951, p. 4

Quartz vein striking west and dipping 35° south. Gold is erratically distributed.

14 IX - 54 (Rouandah Mining Co. Ltd.)
Cu

Graham et al. - 1953, p. 7

Near the Smoky Creek fault "five holes cut a zone of disseminated pyrite and chalcopyrite in lightly sheared volcanics. This zone is 350 feet long, is elongated to the northeast, and dips steeply south... The copper content of the zone is low..."

15 X - Block 105 (Ribago Rouyn Mines Ltd.)
Cu, Zn, Au

Ross and Asbury - 1939, p. 13
Claveau et al. - 1951, pp. 7-8

Q.D.M. - 1959B, p. 3

A 147-foot shaft and 161 feet of lateral work explored a small zone of disseminated chalcopyrite. Also, quartz veins striking NE. and containing chalcopyrite and a little gold have been drilled, along with a zone of disseminated mineralization in andesite. This zone contained minor pyrite, pyrrhotite, chalcopyrite and sphalerite.

16 X - 61 (Despiña Gold Mines Ltd.)
Cu

Q.D.M. - 1956, p. 80
Q.D.M. - 1959A, p. 73

"A series of 10 quartz veins fills fractures in the andesite; the veins trend northeasterly to almost easterly. These veins and the wall rock are generally mineralized with pyrite and chalcopyrite." Vein No. 8 has a tenor of 1.52% copper over a width of 3.3 feet and a length of 600 feet. Vein No. 5 is 200 feet long, 4.8 feet wide, and has an average tenor of 1.81% copper. Low gold, silver and zinc tenors are reported.

17 X - Block 108 (Ribago Rouyn Mines Ltd.)
Cu

Claveau et al. - 1951, p. 7

A 147-foot shaft and 161 feet of lateral work explored a small zone of disseminated chalcopyrite. Also, quartz veins striking NE. and containing chalcopyrite and a little gold have been drilled, along with a zone of disseminated mineralization in andesite. This zone contained minor pyrite, pyrrhotite, chalcopyrite and sphalerite.

18 VI - 37 (Wingait Gold Mines Limited)
Au

Ingham, W.N. - 1945, p. 14
Ingham and Ross - 1947, pp. 16-17
Ingham et al. - 1949, pp. 19-20

The Wasa shear zone extends across this property. Acidic pyroclastic rocks occur both north and south of the shear. In the southwest corner of lot 37, range VI, a mineralized zone has been found in the hanging-wall and a second one in the shear zone. "The management calculated that the two zones have 193,900 tons averaging $6.30 in gold per ton..."

19 VIII - 60 (Fontana Mines (1945) Ltd.)
Cu

Q.D.M. - 1959A, p. 6

"Disseminated chalcopyrite occurs over considerable widths in the granitic rock..."

20 V - 30 (Lake Wasa Mining Corporation)
Au

C.I.M.M. - 1948, pp. 730-734
Claveau et al. - 1951, p. 6

The first zone was discovered about 800 feet south of the main shaft. This zone consists of auriferous quartz-pyrite bodies at the contact of a diorite intrusion in andesite. Both rocks are mineralized. The Wasa shear zone was explored in 1944. This structure is at least 14,000 feet long and 45 to 160 feet wide. It dips 50° north. At least two silicified or chloritized zones have been outlined which contain gold in commercial quantities. Reserves are estimated to be in excess of 2,000,000 tons down to a depth of 800 feet and to grade $5.25 a ton. The mine and a 1,500-ton plant are being readied for production in 1965.

21 IV - Block A (Renfort Gold Mines Ltd. - Lake Fortune Gold Mines Ltd.)
Au

Q.B.M. - 1926, pp. 124-125
Q.B.M. - 1933, pp. 73-4
Q.B.M. - 1935, p. 72
Q.B.M. - 1936, pp. 45-6

Mineralization in a 6- to 12-foot-wide shear zone. Native gold or tellurides are associated with veins containing quartz, carbonates, fuchsite, pyrite and chalcopyrite. A 490-foot shaft was sunk in 1934-35.

22 V - Block 159 and Block 27 (Francoeur Mines Ltd.)
Au, Ag

C.I.M.M. - 1948, pp. 701-710
Cooke et al. - 1931, p. 270
The Northern Miner - July 2, 1964

Between 1938 and 1947, this mine produced 581,502 tons of gold ore averaging 0.186 ounce a ton. Some silver was also produced. Following recent work, the reserves are reported to be 437,750 tons grading 0.22 ounce of gold a ton. There are four main deposits in an east-west shear zone dipping 40 to 50° north.

23 See 22.

24 See 22.

25 V - Block H (Arntfield Gold Mines)
Au, Ag

C.I.M.M. - 1948, pp. 711-719
Cooke et al.- 1931, p. 270

Between 1935 and 1942, this mine produced 529,987 tons of gold and silver ore. The ore is in a shear zone, mostly in mineralized tuffs and agglomerates cut by quartz veinlets.

26 See 25.

27 I - 9 (Valray Explorations Ltd.)
Cu

Q.D.M. - 1959A, p. 8

"A quartz vein 2 feet thick... containing irregular amounts of chalcopyrite, is exposed... for almost 300 feet... The wall rocks are silicified and the mineralization extends in places to more than 5 feet... It was reported from the drilling that the vein averaged 3.45% copper across 5.7 feet for a length of 230 feet."

28 IV - 60 (Durbar Gold Mines Ltd.)
Au

Bell, L.V. - 1937, p. 15
Ingham, W.N. - 1945, pp. 6-8
Q.D.M. - 1959B, p. 2
Wilson, M.E. - 1962, p. 56

A 100-foot shaft in an auriferous quartz vein cutting andesite. Strong assays were obtained in places.

29 IV - 58 (Durbar Gold Mines Ltd.)
Au

Same references as for (28)

Along the Cadillac fault, visible gold in a strongly carbonatized zone cut by quartz veinlets.

30 IV - 56 (Bazooka Mines Ltd.)
Au

Ingham, W.N. - 1945, p. 4
Ingham et al. - 1949, pp. 12-13
Q.D.M. - 1958, p. 3
Wilson, M.E. - 1962, p. 54

A 700-foot-long gold zone was discovered as a result of drilling along the Cadillac fault. The grade was calculated to be $9.50 over a length of 400 feet and a width of 95 feet. In 1949, a 409-foot shaft was sunk to explore the Cadillac fault. On the 372-foot level, two sections show some gold in a carbonatized graywacke cut by quartz veins.
There is also a vein containing gold erratically distributed in the northern part of the lot, near the line common to ranges IV and V.

31 III - 54, 55 (Kekelac Gold Mines Ltd.)
Au

Ingham et al. - 1949, p. 16

Two quartz veins striking east-west contain grains of free gold.

32 IV - 45 (Wakeko Mines Limited)
Au

Ingham, W.N. - 1945, pp. 8-10
Ingham and Ross - 1947, p. 12

"Gold-bearing formations were cut by the drilling in the Bouzan Lake shear, in the Adeline Lake shear and in the Wasa Lake shear, but no orebodies were outlined."

33 IX - 29 (Belkor Mines, Ltd.)
Au

Claveau et al. - 1951, p. 2

A fracture zone in granite. This zone, which is about one foot wide, contains a few quartz stringers mineralized with coarse pyrite. An assay of $5.60 was obtained for 5 feet in one of the drill holes and slightly lower assays were obtained in some other holes.

34 IX - 60 (Buffalo Canadian Gold Mines Ltd.)
Cu

Q.B.M. - 1929, pp. 70-1
Q.B.M. - 1930, p. 100

A few fractures filled with quartz containing pyrite and chalcopyrite. A shaft was sunk to a depth of 112 feet.

35 VIII - 9 (Caron Malartic Gold Mines, Ltd.)
Mo

A.W.R.; GM-5888, 1947
Claveau et al. - 1951, p. 3

A quartz vein containing pyrite, chalcopyrite, and, in places, molybdenite. The same type of mineralization occurs in the central part of lots 7 and 8.

36 VIII - 10 (Caron Malartic Gold Mines, Ltd.)
Au

A.W.R.; GM-5888, 1947

A 6-inch-wide quartz vein assayed 0.13 ounce a ton.

37 VIII - 7 (Caron Malartic Gold Mines, Ltd.)
Cu, Pb, Ag

Claveau et al. - 1951, p. 3

"The vein occurs in the diorite near the contact with the volcanic rocks... Pyrite, chalcopyrite and galena occur in the vein. Hole No. 1 cut two quartz veins in diorite that assayed respectively 7% lead and 5 ounces of silver per ton across 1 foot, and 3.3% lead and 2 ounces of silver across 6 inches."

38 VII - 16 (Gan Copper Mines, Limited)
Cu

Ingham et al. - 1949, p. 15

Dalmatianite area. "Small seams of pyrite and chalcopyrite were cut but no ore zones were indicated."

39 V - 49 (Dorrington, No. 1 showing - Horne Fault Mines Ltd.)
Au

A.W.R.; GM-6131, 1934

Narrow quartz veins. Free gold has been reported.

40 V - 44 (Dorrington, No. 5 showing - Horne Fault Mines Ltd.)
Au

A.W.R.; GM-6131, 1934

Vein that dips slightly to the north. Free gold and a few good assays have been reported.

41 VI - 3, 4 (Morgan - Piché; Jim Jon)
Au

Robinson, W.G. - 1948, p. 16

"The work was concentrated on a silicified zone with disseminated sulfides near the center of lots 3 and 4 of range VI. Scattered mineralization occurs here over an east-west length of about 500 feet and over a maximum width of about 280 feet... A sample of the better mineralized material taken by the writer returned 0.238 ounce of gold per ton."

42 II - 19 (Lucky Break group)
Au

Larivière, J.-R.; GM-6456, 1946

South shore of Donez lake. A shear zone with quartz veinlets. Gold values in excess of $8.00 a ton are reported.

43 I - 9 (Valray Explorations Ltd.)
Pb, Cu

A.W.R.; GM-2485, 1953

Small veins containing a little chalcopyrite and galena.

44 V - 37 (Wakeko Mines, Limited)
Au

Ingham and Ross - 1947, p. 12

"Gold-bearing formations were cut by the drilling in the Bouzan Lake shear, in the Adeline shear and in the Wasa Lake shear, but no orebodies were outlined."

45 IX - 18 (White Quartz Gold Mining)
Cu, Pb

De Mille, B.; 143-R, 1938

Irregular quartz vein containing pyrite, chalcopyrite and galena.

46 VI - 8 (The Consolidated Zinc Corp. of Canada, Ltd.)
Cu

A.W.R.; GM-13583, 1963

Disseminations of pyrite, pyrrhotite and chalcopyrite in rhyolite.

BELLECOMBE TOWNSHIP

V - A7

1 IX - 41 (Auger claims)
Cu, Zn

Robinson, W.G.; GM-986, 1950

"A large pit has been blasted in an outcrop of graywacke. The graywacke shows some bedding and appears to strike N.30°E. and to dip 30° to 45° east. It is cut by steeply dipping fractures and many of these have thin coatings of silica and platy pyrite, pyrrhotite, chalcopyrite and sphalerite. Galena was seen in two places."

2 IV - 41 (Doyon claims)
Li, Mo

Gilbert, J.-E.; GM-3295, 1955

"On the main showing, three small crystals of pale green spodumene are visible along a freshly blasted face in a muscovite pegmatite and occur in an 8-inch quartz vein cutting across the main pegmatite dike... A small amount of molybdenite flakes are also present in the pegmatite."

3 VII - 25 (Gendron - Rémillard claims)
Pb, Zn

Gilbert, J.-E.; GM-2388, 1953

A mineralized section in a shear zone contains pyrite disseminations and, for about 1 foot, sphalerite concentrations, a little chalcopyrite, and a few crystals of galena. A second section exhibits a quartz vein cutting the granite and containing sphalerite, galena, and a small quantity of pyrite, pyrrhotite and carbonate.

4 III - 11, 15, 19 (Lee option)
Cu, Zn

A.W.R.; GM-2290, 1952

Mineralized zones in sedimentary rocks containing some pyrite and pyrrhotite and a small quantity of chalcopyrite and sphalerite.

5 See 4.

6 See 4.

7 IV - 18 (Lee - Labranche claims)
Cu, Ni

A.W.R.; GM-2829A, 1954
A.W.R.; GM-4961, 1957

One of the diamond drill holes cut a 5-foot section which assayed 0.72% copper and 0.10% nickel.

8 VII - 4 (Lesage claims)
Cu

Dugas, J.; GM-12815, 1962
Q.D.N.R. - 1964, pp. 7-8

"In the paragneiss occurring on the south side of a lamprophyre mass, some fractures have been filled with quartz and chalcopyrite... The mineralization has been traced for a distance of about 50 feet. At one place the vein has a width of about 1 foot and contains nearly equal quantities of chalcopyrite and quartz." (translated)

9 X - 45 (Thibodeau claims)
Zn, Cu, Pb

Gilbert, J.-E.; GM-3456, 1955

"From 30 to 40 feet, going south, the rock is an altered and finely injected tuff of sediment... This part of the zone contains the most abundant sphalerite mineralization together with small blebs of galena... and a little chalcopyrite."

BENOÎT TOWNSHIP

III - F4

1 5 mi. E. and 0.8 mi. S. of NW. corner of twp. (Wright-Hargreaves Mines Ltd.; Moneta Porcupine Mines Ltd.)
Py, Po (iron formation)

G.S.C.; Geophysics Paper 529G, 1957
A.W.R.; GM-1012, 1948
A.W.R.; GM-7308, 1958

Aeromagnetic map 529G indicates an anomaly trending N.70°E. and extending across the north half of the township and into the southeast part of Nelligan township. In the western portion of the anomaly, "a sulfide zone was outlined by E.M. survey and diamond drilling over a length of 1 3/4 mi. The sulfides consist mainly of pyrrhotite and pyrite with specks of chalcopyrite. The zone occurs in interlayered basic lava and pyroclastic rocks."

2 1.0 mi. E. and 1.0 mi. S. of NW. corner of twp. (McIntyre Porcupine Mines Ltd.)
Po

A.W.R.; GM-9073, 1959

"... pyrrhotite with some pyrite and trace of chalcopyrite over fair width were recorded while drilling four holes in basic lavas and acidic tuff."

BÉRAUD TOWNSHIP

VII - B7

1 VII - At Mile-post 23 on the Cadillac-Rapid 7 road.
U

Freeman, P.V. - 1957A, p. 7

Radioactive mineral in a small biotite-rich shear zone.

2 IX - Road south of Béraud lake
Mo

Freeman, P.V. - 1957A, p. 8

"Small flakes of molybdenite were found in a biotite granodiorite inclusion in pegmatite... "

3 N.E. corner of the township
U

Freeman, P.V. - 1957A, p. 7

"A sample of coarse biotite schist in contact with pegmatite... has 0.022% U_3O_8 equivalent."

4 Cadillac-Rapid 7 road, east of Ferguson lakes.
Be

Freeman, P.V. - 1957A, p. 8

"Scattered crystals of beryl... in quartz vugs in Pontiac schist near pegmatite on the Rapid 7 road..."

BERGÈRES TOWNSHIP

III - E4

1 4 mi. SE. of Imbault lake, near the west side of Iserhoff river. (O'Brien Gold Mines Ltd.)
Pb, Zn, Au, Ag
Mag

A.W.R.; GM-4031, 1955

Drilling in this area cut quartzitic rocks with gold, silver, galena and sphalerite. The best intersection was given as 9.6 feet of 0.09 ounce of gold per ton, 1.0 ounce of silver per ton, 1.46% lead and 1.43% zinc. Magnetite iron formations are also present on the property.

2 South bank of the Iserhoff river in the eastern part of the township
Zn

Claveau, J. - 1953, p. 28

Sphalerite occurs as disseminations or small, lens-shaped, minor concentrations in volcanic and sedimentary rocks.

3 South of Imbault lake
Cu

Lang, A.H. - 1933, p. 42
Claveau, J. - 1951, p. 43

Chalcopyrite in quartz veins in the volcanic and sedimentary rocks.

BERNETZ TOWNSHIP

V - C5

1 X - 49, 50 and IX - 49 to 61 (Hudson Bay Exploration)
Py, Po

Latulippe, M.; GM-11460, 1961

Fourteen holes were put down. The rocks are of sedimentary origin and show thin beds of massive pyrite and pyrrhotite. A few specks of chalcopyrite were noted in some holes.

BERRY TOWNSHIP

V - B5

1 X - 16, 17 (Lequin - Legault claims)
Au

Ingham et al, - 1949, pp. 20-21

Shear zone in amphibolitic syenite striking N.20°W. and invaded by narrow aplitic dikes and quartz veins. Gold values of $13.62 a ton were obtained.

2 See 1.

BERTHIAUME TOWNSHIP

III - D4

1 A short distance W. of Mad lake (Dominion Gulf)
Zn, Cu, Ag

A.W.R.; GM-427, 1949

Chalcopyrite and sphalerite can be seen in silicified zones in sedimentary schists. Silver is also present.

BESCHEFER TOWNSHIP

III - B3

1 Twinning creek, 2 mi. S. of the Harricana river (Anglo-Huronian Ltd.)
Au, Cu, Te

A.W.R.; GM-6256, 1948

Gold occurs in the form of calaverite in quartz veins. There is also a little chalcopyrite.

BIGNELL TOWNSHIP

II - J2

1 4.4 mi. E. and 0.7 mi. S. of NW. corner of twp.
Cu

Gilbert, J.-E. - 1958, p. 54

"White quartz and pink carbonate are abundant, in places, just south of Waconichi lake, close to the center line of Bignell township, along the faulted contact zone between the greenstones to the south and the Chibougamau formations to the north. Trenching and blasting along a large quartz vein exposed small pyrite-chalcopyrite-carbonate veinlets within the quartz, some of which carry gold and silver."

2 4.8 mi. E. and 3.4 mi. S. of NW. corner of twp. (Conwest Exploration Co. Ltd.)
PO
A.W.R.; GM-3494, 1955

"Considerable pyrrhotite in bands and seams was intersected over a width of 50 feet while drilling north of the northeast end of Bordeleau Lake."

3 4 mi. E. and 4.4 mi. N. of SW. corner of twp. (Chibougamau Mining and Smelting Co. Inc.)
Zn, Cu, Au

A.W.R.; GM-7613, 1958

"A series of trenches were made which expose heavy sulfides. The predominant mineral is pyrrhotite. This mineral is particularly heavy in trench A-102. A number of grab samples from this trench gave the following assays of interest: 0.010 ounce of gold a ton and 0.30% copper... At another trench, B-100... much shearing has occurred with the development of considerable sericite. Pyrrhotite is predominant... again... Assays of interest... are as follows: 6.50% zinc and 0.86% lead... Graphitic slates were found in this shear."

BLONDEAU TOWNSHIP

VI - B9

1 NW. shore of Kelly lake (Consolidated Regcourt Mines Ltd.)
Cu, Ni

Q.D.M. - 1956, p. 7
Q.D.M. - 1959A, pp. 10-11

"The main mineralized zone... is exposed over a width of 30 feet and consists of splashes of pyrite, chalcopyrite and pyrrhotite. It strikes east and is in a diorite or gabbro resembling anorthosite, in places, at the contact with rhyolite... The mineralized zone is almost vertical and has a width of 35 feet. According to company reports the drilling has indicated 2,200,000 tons grading approximately 1.40% copper-nickel, with copper and nickel in about the same proportions."

2 West of Lett lake (Belleterre Quebec Mines Ltd.)
Cu

A.W.R.; GM-6045, 1957

A 4-foot quartz vein mineralized with chalcopyrite in a shear zone.

3 South of Lett lake (Blondeau Nickel Mines Ltd.)
Cu, Ni

Q.D.M. - 1959A, pp. 9-10

"The mineralization consists of disseminated pyrrhotite and chalcopyrite in gabbro. The best intersections assayed 0.56% copper and 0.62% nickel over 34 feet and 0.33% copper and 0.34% nickel over 95 feet.

4 North of Road 62, SW. end of Taché lake (Blondor Quebec Mines Ltd.)
Au

Ingham, W.N. - 1945, pp. 10-12
Auger, P.-E.; - 1952, p. 48

"The general strike of the vein is a little south of west, and the dip varies from vertical to 60° south. The vein was followed for 250 feet. Its average width is 2 to 3 feet... The vein filling is glassy quartz, banded in places

and containing some pyrite, a little chalcopyrite, and some magnetite, especially in the tuff band section. High gold assays and some visible gold have been reported from this vein."

5 Four hundred feet N. of the road and 600 feet W. of Taché lake. (Blondor Quebec Mines Ltd.)
Au

Auger, P.-E.; 1952, p. 49

"It was traced for a distance of 800 feet... Vein No. 3 consists of glassy, white and smoky quartz, containing minor amounts of pyrite and pyrrhotite with a few grains of chalcopyrite and sphalerite. Some good assays in gold were obtained from several places in the trenches and in diamond drill intersections. The highest assay reported was 1.55 ounces of gold per ton over a width of 9 inches."

6 Road 62, near the E. boundary of the twp. (Blondor Quebec Mines Ltd.)
Au

Auger, P.-E.; 1952, p. 49

"It is a quartz vein about one foot wide striking east and dipping 40° south... Good assays in gold were reported from this vein."

7 South of Allard lake, near the township center line. (Dallaire-England property)
Cu, Zn

A.W.R.; GM-4595, 1956

Pyrrhotite with disseminated chalcopyrite, pyrite and sphalerite in a granitic gneiss.

8 West of Sables lake. (Guillet Gold Mines Ltd.)
Au

Auger, P.-E.; 1952, p. 50
Ross, S.H.; GM-337, 1941

"The most important showing consists of a shear zone, 10 feet wide and 50 feet long, cut by a glassy, bluish quartz vein, 5 feet wide, striking N.80°E. and dipping 80° north. The quartz is mineralized with fine disseminated pyrite and pyrrhotite... A grab-sample taken by the writer (Ross)... assayed $6.40 in gold per ton."

9 West side, Girard lake. (Parterre Gold Mines Ltd.)
Au

Retty, J.A. - 1931, pp. 84-5
Ingham and Ross - 1947, p. 20

"Diamond-drill hole No. 3 cut a section of quartz and schist mineralized with pyrite and pyrrhotite which assayed, according to company reports, 1.5 oz. in gold per ton across five feet..."

10 South shore, Allard lake. (Larivière claims)
Ag

Gilbert, J.-E.; GM-2338, 1953

"The main showing of the property is along the southern shore of the lake, on claim 5, C62106. It consists of a vein of massive pyrrhotite and pyrite,

about two feet wide, in biotite gneiss, apparently a metamorphosed and injected graywacke... Specimens containing up to 10 ounces of silver are reported to have been obtained from the main sulfide vein."

11 SE. shore of Kelly lake. (Turney claims)
Py, Po, Mag

Retty, J.A. - 1930, part B, pp. 83-4

"Banded iron formation crops out about 500 feet south of the narrows... The band varies in width from 30 feet to 40 feet, and it is exposed over a length of 200 feet.

12 Near Castor lake.
Py, Po

Reported

BOSSÉ TOWNSHIP

III - E4

1 1/4 mi. N. of Mile-post 7 on the Bossé-Duplessis township line. (Chesbar Chibougamau Mines Ltd.)
Mag

Latulippe, M.; GM-13886, 1961
A.W.R.; GM-9097, 1958-59

A considerable amount of drilling was done on magnetite iron formations in sedimentary rocks. The main zone was calculated to contain 30 million tons grading 29.6% iron.

2 South end of Waswanipi lake. (Dumont claims)
Mag

Latulippe, M.; GM-13887, 1963
A.W.R.; GM-9555, 1960-61

Limited drilling at the south end of Waswanipi lake, near the east boundary of Bossé township, cut magnetite iron formation in sedimentary rocks. The longest intersection in the formation was 116 feet grading 18.17% iron.

3 5.5 mi. NE. of the mouth of Iserhoff river.
Zn

Claveau, J. - 1953, p. 28

A small amount of sphalerite was noted in lenses of pyrite in sedimentary rocks on the north shore of the southwest bay of Waswanipi lake.

BOURBAUX TOWNSHIP

III - D3

1 2.5 mi. S. of Ramsay bay. (Prospectors Airways Co. Ltd.)
Li

Verbal communication

Spodumene was noted in pegmatite dikes cutting the anorthosite-gabbro complex in the Dalhousie mountains.

2 2.0 mi. N. of SE. corner of twp. (Kennco Explorations (Canada) Ltd.)
Ni, Cu

Archibald, G.M. - 1959, p. 2

Chalcopyrite and a nickel mineral are disseminated with pyrite and pyrrhotite in parts of a basic sill within an anorthosite-gabbro complex.

3 2.2 mi. NW. of SE. corner of twp. (Prospectors Airways Co. Ltd.)
Ni, Cu

Archibald, G.M. - 1959, p. 3

Chalcopyrite and a nickel mineral are disseminated with pyrite and pyrrhotite in parts of a basic sill within an anorthosite gabbro complex. The showings are located 1.5 miles southwest of the Kennco Explorations' showings.

4 3.0 mi. N. and 1.5 mi. W. of SE. corner of twp. (Billiton property).
Ni, Cu, Mo

A.W.R.; GM-7252, 1958

Minor amounts of chalcopyrite and a nickel mineral were noted with pyrite and pyrrhotite in an amphibolitic phase of an anorthosite-gabbro complex. Molybdenite was also noted in some pegmatite dikes.

BOURLAMAQUE TOWNSHIP

V - C7

1 SW. corner of NW. quarter of twp. (Lamaque Gold Mines Ltd.)
Au, Ag, W, Te

Dresser and Denis - 1949, p. 258
Wilson, H.S. - 1948, p. 882

A gold producer since 1935, this company, up to 1964, extracted 115 million dollars worth of gold. The last ore reserves (1963) were given as 2,354,316 tons grading 0.184 ounce of gold per ton. The quartz veins which contain scheelite and tellurides as well as gold are generally located in or about pipe-like intrusive bodies of diorite and granodiorite. Scheelite was extracted over a short period of time during 1963.

2 Central part of NW. quarter of twp. (Sigma Mines (Quebec) Ltd.)
Au, Ag, W, Te

Dresser and Denis - 1949, p. 264

A gold producer since 1937, this property is adjacent to the north boundary of Lamaque Gold Mines. Production to 1964 totalled about 68 million dollars. The last ore reserves (1963) were given as 1,345,000 tons grading 0.226 ounce of gold per ton. The ore zone could be described as a large block of fractured, competent siliceous volcanic rock bordering the north edge of a strong shear zone that strikes east-west and dips vertically. Numerous sub-parallel, generally south dipping, subsidiary fractures or shear zones run into the main shear zone from the north side. Gold-bearing quartz veins have filled the subsidiary shear zones and a large number of cross and oblique faults. Some scheelite was also taken from the quartz veins during the war. Tellurides are also present.

3 SE. corner of NW. quarter of twp. (East Sullivan Mines Ltd.)
Cu, Zn, Au, Ag

Ingham and Ross - 1947, p. 28

A base-metal producer since 1948, this company, up to 1963, produced 105 million dollars worth of copper, zinc, gold and silver. A pyrite concentrate was sold for a short period. The last ore reserves (1962) were given as 2.1 million tons grading 0.89% copper, 0.37% zinc, 0.006 ounce of gold and 0.24 ounce of silver per ton.
The ore is found as massive and disseminated sulfides in tuffaceous rocks. A minor amount of ore was extracted from the contact zone of a syenite mass.

4 SE. part of NE. quarter of twp. (Manitou-Barvue Mines Ltd. - Golden-Manitou Mines Ltd.)
Zn, Cu, Ag, Au, Pb

Dresser and Denis - 1949, p. 441
Hopper, S.A.J. - 1948, p. 891

This base-metal producer began mining in 1942. Metals worth over 55 million dollars were produced to the end of 1962. The ores are in two separate zones, one a copper zone and the other a zinc zone. Silver, lead and gold are by-products of the copper and zinc. Chalcopyrite, sphalerite and galena are found as disseminations and masses in tuffaceous rocks.

5 On the line common to Bourlamaque and Louvicourt townships. (Dunraine Mines Ltd. - Rainville Mines Ltd.)
Cu, Au, Ag

Latulippe, M. - Compilation, 1964

Dunraine Mines Ltd. was a copper, gold and silver producer from 1956 to 1958. During this period, 280,768 tons of ore, containing 7,990,189 lbs. of copper, 1,496 ounces of gold and 28,702 ounces of silver, was mined. Gross value of production was 2,228,377 dollars. Part of the production came from the Bourlamaque shaft area and part, from the Louvicourt shaft area. Ore reserves at the end of production totalled 650,000 tons grading 1.22% copper. The sulfide ores which contain pyrite, chalcopyrite and some sphalerite are found in tuffaceous rocks on both sides of a diorite sill. Gold is also found in quartz veins in granodiorite near the east end of the property.

6 NW. part of NE. quarter of twp. (New Formaque Mines Ltd.)
Au, Cu

Dresser and Denis - 1949, p. 257
Ingham et al. - 1949, p. 26
Ross et al. - 1938, p. 18

A gold producer during a short period in 1938, the company recovered 466 ounces of gold from 4,812 tons of ore. The gold-bearing quartz veins occur in the granodiorite of the Bourlamaque batholith near a greenstone embayment. The last ore reserves were given as 50,000 tons grading 0.20 ounce of gold per ton. A 400-foot shaft was sunk on the property. A minor amount of chalcopyrite is also found in the veins.

7 Blocks 13 and 14, west side of twp. (New Harricana Mines Ltd.)
Au, Cu

Dresser and Denis - 1949, p. 265

A quartz vein in volcanic rocks along the edge of a porphyry dike has been traced for a length of 200 feet on the property. It has a width of 3.5 feet and is reported to contain 0.263 ounce of gold per ton and a moderate amount of chalcopyrite. A shaft was put down 782 feet and lateral work done on six levels. A modest tonnage of good-grade ore was reported.

8 Near the SW. corner of the NW. quarter of twp. (Villemaque-Mylamaque Gold Mines Ltd.)
Au

Ross et al. - 1940, p. 6
Bell, L.V. - 1937, p. 63
Ingham, W.N. - 1945, p. 26

This property has gold-bearing quartz veins in diorite and porphyry sills. A shaft was put down to 240 feet and a limited amount of lateral work performed. Bulk sampling of vein material gave erratic results.

9 Near the SE. corner of the NW. quarter of the twp. (Aumaque Gold Mines Ltd.)
Au, Cu, Zn, Pb, Ag, Te

Ingham et al. - 1949, p. 23

The claims of this company are east of Lamaque Gold Mines and north of East Sullivan Mines. A considerable amount of drilling — 26,574 feet underground and 90,897 feet at surface — a shaft to 540 feet, a winze from 500 to 649 feet and 7,189 feet of lateral work on three levels were completed. From this work 200,000 tons grading 0.25 ounce of gold per ton were indicated. The gold is found in quartz veins and in lenses of massive sulfides, which are mainly chalcopyrite, sphalerite and galena.

10 East-central part of the NW. quarter of twp. (New Bidlamaque Gold Mines Ltd.)
Au, Cu

Ingham et al. - 1949, p. 28
Q.D.M. - 1959A, p. 12

A shaft to 390 feet, approximately 2,000 feet of lateral work and 127 surface holes were completed on this ground. The gold is in quartz veins in a shear zone within siliceous lavas. A fair amount of chalcopyrite is present in the veins. Surface work indicated a zone 550 feet long and 5.2 feet wide which contains 0.172 ounce of gold per ton and 1.8% copper down to 200 feet. At the 150-foot level, the vein, for a length of 312 feet and a width of 3.7 feet, gave 0.181 ounce of gold per ton and 1.72% copper. Results were poor on the 375-foot level.

11 North central part of the NW. quarter of twp. (Central Mining Corp.)
Au, Cu, W

Graham et al. - 1953, pp. 8-9

This property is located in and about Langlade Lake. Quartz-carbonate veins containing visible gold, chalcopyrite, and scheelite were intersected in two of the seven holes drilled on the property. One vein is in the volcanic rocks and the others in granodiorite along the edge of the Bourlamaque batholith.

12 Central part of the NW. quarter of twp. (Union Mining Corp.) (Numaque Mines)
Au, Cu

Dresser and Denis - 1949, p. 266
Graham et al. - 1953, pp. 11-2

Visible gold and chalcopyrite in quartz veins within andesite and granodiorite were seen at surface and in diamond drill core on this property.

13 North central part of twp. (Standard Gold Mines Ltd.)
Au, Cu

Dresser and Denis - 1949, p. 266
Ross et al. - 1938, p. 20

Gold and chalcopyrite mineralization, in quartz veins within volcanic rocks and in the granodiorite of the Bourlamaque batholith, was encountered in surface work and in diamond drilling.

14 NW. quarter of twp. (Val d'Or Mineral Holdings)
Au

Claveau et al. - 1951, p. 15

Visible gold was seen in a drill hole which intersected a quartz stringer zone in volcanic rocks. Fifty-five holes were drilled on the property.

15 SW. corner of the NE. quarter of twp. (Hydra Explorations Ltd. - New Norseman Mines Ltd.)
Au, Cu, Pb

Graham et al. - 1953, pp. 9-10

Forty-six holes were drilled here. Gold, in quartz veins and in fractures along the north edge of the East Sullivan plug, was reported along with minor chalcopyrite and galena. The best assays were 0.516 ounce of gold per ton across 0.8 foot and 0.19 ounce of gold per ton across 1.0 foot.

16 E. central part of the NW. quarter of twp. (Wildor Gold Mines Ltd.)
Au, Cu

Ingham et al. - 1949, p. 30

Thirty-six holes were drilled. Gold and chalcopyrite mineralization was encountered in a few holes. The best assay gave 0.52 ounce of gold per ton across 1.0 foot in a quartz vein with chalcopyrite. Some chalcopyrite was also reported from a 5-foot section of massive sulfides in agglomerate.

17 Near the SW. corner of the NE. quarter of twp. (Norvalie Mines Ltd. - Lavalie Mines Ltd.)
Au, Zn

Q.D.M. - 1956, p. 13
Ingham, W.N. - 1945, p. 23

Over 100 holes have been drilled. Low zinc content was found in a shear zone. The best assay was 4.00% zinc across 1.0 foot. Gold values in quartz veins were noted in a few holes.

18 NE. quarter of township. (Gale Cummings Mines Ltd.)
Cu, Zn

Q.D.M. - 1956, p. 12
Ingham et al. - 1949, p. 27
Ingham, W.N. - 1945, p. 18

A small property located at the west end of the Manitou-Barvue Mine. Chalcopyrite is found as disseminations in granodiorite and in quartz veinlets. A fair amount of chalcopyrite was also seen in quartz veins within the volcanic rocks. Minor chalcopyrite and sphalerite were noted in the tuffaceous rocks.

19 Central part of NE. quarter of twp. (Droumaque Gold Mines Ltd.)
Au, Cu

Ingham et al. - 1949, p. 25

Gold and chalcopyrite mineralization can be found in quartz veinlets along the south edge of the Bourlamaque batholith.

20 N. of Manitou-Barvue in NE. quarter of twp. (Quebec Manitou Mines Ltd.)
Au, Cu, Zn, Pb, Ag

Claveau et al. - 1951, p. 13

Gold and chalcopyrite mineralization has been found in quartz veins in the south contact zone of the Bourlamaque batholith and in the volcanic rocks. A sulfide zone in tuffaceous rocks, which may be the eastern extension or a parallel zone of the Manitou-Barvue sulfides, contains sphalerite, galena and silver.

21 On the E.-W. center line in E. part of twp. (Starcourt Gold Mines Ltd.)
Au

Q.D.M. - 1956, p. 14

Twenty holes were drilled. An assay of 0.28 ounce of gold per ton across 1.0 foot was obtained in one hole and another of 0.32 ounce across the same width, in a second one.

22 Near the SW. corner of the NE. quarter of twp. (Annamaque Mines Ltd.)
Cu, Zn, Au

Q.D.M. - 1956, p. 11
Ingham, W.N. - 1945, p. 15

Thirty-seven holes were drilled. They outlined an 800-foot-long zone strongly mineralized with pyrrhotite, pyrite and minor chalcopyrite and sphalerite. The zone occurs in volcanic rocks and contains roughly 0.25% copper and 0.50% zinc. Gold values across narrow widths were obtained in the syenitic rocks.

23 NE. part of township. (Savard claims)
Cu, Mo

Q.D.M. - 1959B, pp. 5-6

Chalcopyrite and molybdenite mineralization is disseminated in a breccia zone a mile within the Bourlamaque batholith. The zone is approximately 250 feet long and 70 feet wide.

24 N. central part of SW. quarter of twp. (Silvermaque Mining Ltd. - Centremaque Gold Mines Ltd.)
Au

Ross, S.H. - 1941, p. 3
Q.D.N.R. - 1964, pp. 9-10

Gold in quartz veins has been reported from holes drilled near and through the Cadillac break.

25 N. central part of the S. half of township. (Orenada Gold Mines Ltd.)
Au, Cu, As

Hawley, J.E. - 1931, p. 87
Ross et al. - 1940, p. 7
Ingham and Ross - 1947, p. 31
Q.D.N.R. - 1964, pp. 10-12

There are three zones of gold mineralization and three zones of copper mineralization. Gold is found in quartz veins with arsenopyrite in and about the Cadillac break. Chalcopyrite is found in lavas and tuffaceous rocks. Approximately 135 holes were drilled on the property.

26 NW. corner of SE. quarter of twp. (Vankirk Mines Ltd.)
Au, Cu

Q.D.M. - 1959A, p. 13

At least 57 holes were drilled. Narrow quartz veins in a large diorite sill contain gold. Chalcopyrite mineralization in siliceous volcanic rocks was cut in a drill hole. The assay result was 1.11% copper across 8.0 feet.

27 NE. corner of the SE. quarter of twp. (Paramaque Mines Ltd.)
Au

Claveau et al. - 1951, p. 12

At least 73 holes were drilled. Narrow quartz veins in diorite carry erratic gold values.

28 Near NE. corner of the SE. quarter of township. (El Sol Mining Ltd.)
Au

A.W.R.; GM-6880, 1950

At least 23 holes were drilled. Numerous gold-bearing quartz veins, generally narrow, were intersected. Some of the better gold tenors, in ounce per ton, were: 0.642 across 6.0,feet, 0.716 across 5.0 feet, 0.34 across 7.0 feet, 0.316 across 7.0 feet and 0.243 across 9.0 feet.

29 Near NE. corner of the SE. quarter of twp. (Goldora Mines Ltd.)
Au, Cu

Ingham, W.N. - 1945, p. 20
Claveau et al. - 1951, p. 10

The Goldora property was located to the west of Paramaque and El Sol. Eighty-eight holes were drilled. Gold and chalcopyrite were encountered in diorite, feldspar porphyry, and volcanic rocks. The chalcopyrite is found in quartz-carbonate veins and in fractures and disseminations with other sulfides in the volcanic rocks. Some of the better gold tenors, in ounce per ton were:

0.182 across 13.0 feet, 0.675 across 6.0 feet, 0.24 across 12.0 feet. The best copper tenors were: 3.31% across 1.0 foot, 2.14% across 5.0 feet and 1.56% across 3.0 feet.

30 On the E.-W. center line of twp. (Bourlamaque Central Mines (1945) Ltd.)
Au, Cu

A.W.R.; GM-14569, 1938
A.W.R.; GM-14568, 1945

At least 29 holes were drilled on this property located to the west of East Sullivan. Free gold was seen on surface in a quartz vein. A drill hole cut a 2.5-foot section, which assayed 0.40 ounce of gold per ton. Chalcopyrite was noted in quartz veins and siliceous volcanic rocks cut by some of the drill holes.

31 Near NE. corner of the SW. quarter of twp. (D'Aragon Mines Ltd.)
Cu, Au

Latulippe, M.; GM-12803, 1962
Q.D.N.R. - 1964, pp. 8-9

D'Aragon Mines is located south of East Sullivan Mines. Chalcopyrite mineralization occurs as lenticular bodies, disseminations, and veinlets in volcanic rocks and in the contact area of a syenite intrusive. The mineralization is erratically distributed. Some of the best sections encountered in the drilling gave copper assays of 1.40% across 22.0 feet, 2.10% across 5.0 feet, 1.45% across 18.0 feet, 1.56% across 12.0 feet and 1.15% across 8.0 feet. The best gold assay was 0.20 ounce per ton across 2.0 feet. Fifty-two surface holes were drilled. The zone was explored underground from the East Sullivan mine; a total of 410 feet of cross-cutting and 11 drill holes were completed.

32 Near the NE. corner of township. (Poulmaque Gold Mines Ltd.)
Au, Cu

Ingham, W.N. - 1945, p. 28

A large quartz vein, known as the Snowbank vein, contains erratic gold. Some chalcopyrite in a basic phase of the Bourlamaque batholith can be seen for a few hundred feet north of the Snowbank vein.

33 Near the NE. corner of the SE. quarter of twp. (Toburn Gold Mines Ltd.; Balzimer-Doody property)
Au

Bell, L.V. - 1937, p. 64

The property was adjacent to New Formaque Gold Mines. A gold showing in schisted granodiorite of the Bourlamaque batholith was reported in 1935. Some drilling was done by Cache d'Or Gold Mines Ltd. but the results are unknown.

BOUSQUET TOWNSHIP

V - B7

1 X - 2 miles N. of Highway 59 in NE. corner of twp. (Abadex Mines Ltd.)
Au, As, Cu

A.W.R.; GM-10769, 1960

"... a width of 25 feet is mostly quartz, mineralized with pyrite and arsenopyrite, with lesser amounts of chalcopyrite... A freshly broken sample of the more concentrated arsenopyrite section of the main zone assayed 0.29 ounce of gold per ton."

2 VII, Block 7 (Bouscadillac Gold Mines Ltd.)
Au, As

Gunning, H.C. - 1941, pp. 59-65

The deposits occur a short distance to the south of a strong fault-zone within the band of volcanic rocks, which are thereby altered to talc-chlorite schists. The principal deposit opened up during earlier operations consisted of a silicified, carbonatized, and mineralized zone carrying a moderate to a low content in gold and occurring within a band of porphyritic andesite. Underground work and diamond drilling carried out chiefly in 1928 and 1929, and a further campaign of diamond drilling in 1934, showed that the zone is of substantial width at the 125-foot horizon of the mine, but that it shows remarkably little vertical continuity below this particular horizon. The shaft was sunk on a narrow quartz vein that occurs a short distance south of the above zone. Visible gold is found in several places in this vein.

3 VII - North of Bouscadillac Gold Mines (Brown Cadillac Mines Limited)
Au, As

Bell, L.V. - 1937, p. 28
Gunning, H.C. - 1941, pp. 67-68

"Many quartz veins have been found on the property; several contain tourmaline and some pyrite. Two showed considerable arsenopyrite. One of these is in the middle of claim A62465. A zone from 10 inches to 10 feet wide along the strike of graywacke is exposed for 50 feet, and may be continuous through other exposures for another 110 feet... Mr. Paquin reports that grab samples from the pit generally contain some gold, and that one sample assayed $61.90 a ton..."

4 North of Bousquet lake (Calder-Bousquet Gold Mines Ltd.)
Au

Gunning, H.C. - 1941, pp. 69-71
Bell, L.V. - 1937, p. 27
Graham et al. - 1953, pp. 12-14

Five gold-bearing zones have been explored along the Cadillac fault. In general, they are mineralized zones containing quartz stringers and occurring in graywacke or conglomerate. The quartz is dark blue and contains arsenopyrite, pyrrhotite, pyrite and chalcopyrite. A 125-foot shaft was sunk on one of these zones.

5 See 4.

6 See 4.

7 See 4.

8 NW. corner of the township (Greater Malartic Gold Mines Ltd.)
Au

Ross, S.H. - 1941, p. 4

"A number of quartz veins and shear zones have been explored by surface trenching and diamond drilling. They are mineralized with pyrite, arsenopyrite, pyrrhotite, and small amounts of chalcopyrite. Gold is associated with coarse arsenopyrite, according to Company reports."

9 IX and X - W. of twp. center line (New Mic-Mac Mines Ltd.)
Au, Cu, Ag

Financial Post Survey of Mines - 1949
C.I.M.M. - 1948, pp. 803-8

Between 1942 and 1947, this mine produced 797,558 tons of ore grading 0.13 ounce of gold a ton and containing some copper and a little silver. The deposit consists of zones of 1- to 2-inch-wide quartz veinlets mineralized with variable quantities of chalcopyrite, pyrite and pyrrhotite. Pyrrhotite and a little chalcopyrite are also found as disseminations in the host rock. Finely disseminated gold is also found in the quartz veins.

10 IX and X - W. of twp. center line (Mic-Mac Mines Ltd.)
Au

A.W.R.; GM-844, 1950

Diamond drilling.

11 IX - E. of twp. center line (Mic-Mac Mines Ltd.)
Cu

A.W.R.; GM-844, 1950

Diamond drilling

12 VI and VII - 1 1/2 mi. W. of E. boundary of twp. (Brown Bousquet Gold Mines Ltd.)
Au

Gunning, H.C. - 1941, pp. 65-7

A few quartz veinlets mineralized with pyrite, arsenopyrite, pyrrhotite and some tourmaline. A speck of gold and a 1.2-foot section assaying $4.55 in gold a ton were noted in one of the holes.

13 VII - South of Bousquet river (Doreva Gold Mines Ltd.)
Au, As

Gunning, H.C. - 1941, pp. 76-7
Ross, S.H. - 1941, pp. 3-4

"... a two-compartment prospect shaft... was sunk to a vertical depth of 200 feet on the northern of the two parallel quartz veins, at a point where visible gold was reported... The vein-zone consists of crushed and sheared, highly

altered, siliceous graywacke or tuff, 5 to 15 feet wide, at the south contact of a narrow bed of conglomerate, cut by stringers, lenses, and veins of bluish quartz, in part well mineralized with arsenopyrite, pyrite, and pyrrhotite."

14 VIII and IX - Near the township center line (Mooshla Gold Mines Co. Ltd.)
Au, Ag, Cu

Bell, L.V. - 1937, p. 29
Gunning, H.C. - 1941, pp. 82-6
Q.B.M. - 1941, p. 50

Zone "A" consists of a narrow sulfide stringer rich in gold and located in a small fracture in alaskite. At the 115-foot level, the vein is 75 feet long and has an average width of one to two inches and a maximum width of six inches. The vein matter is mostly pyrite with some pyrrhotite, chalcopyrite, sphalerite and galena. Gray quartz is also found with these minerals and its quantity increases with depth. A 372-foot shaft was sunk. In 1940, the mine shipped 4,901 tons of ore,containing 3,863 ounces of gold, to the Noranda smelter. A sample gave 20.07 ounces of gold and 10.20 ounces of silver a ton.

15 VIII and IX - Near the township center line (Mooshla Gold Mines Co. Ltd.)
Au

Gunning, H.C. - 1941, pp. 82-6
Bell, L.V. - 1937, p. 29

"Zone B is slightly more than a half mile north of zone A and is within the body of quartz diorite. It consists of several quartz veins showing patchy mineralization and occupying fractures with a variable, northwest strike. It is reported that erratic gold values occur in places within these veins..." An 80-foot prospect shaft was sunk.

16 NE. end of Bousquet lake (Norgold Mines Ltd.)
Au

Bell, L.V. - 1937, p. 29
Gunning, H.C. - 1941, pp. 87-8

"The prospect shaft is on a narrow vein zone in graywacke 400 feet south of the Cadillac 'break'... The fissure has been traced for 700 feet and the quartz veins in it are known to contain native gold."

17 North of Bousquet lake, west part (Normar Mines Ltd.)
Au

Ingham and Ross - 1947, p. 36

"Hole No. 10 cut a 3-foot section of bluish quartz mineralized with arsenopyrite and pyrite accompanied by visible gold..."

18 North of Bousquet lake, west part (Normar Mines Ltd. - Paquin claims)
Au

Gunning, H.C. - 1941, pp. 94-5

"A sample weighing 300 pounds from across 15 feet at the east end of the stripping is said to have averaged 0.25 ounce of gold a ton, and one of 50 pounds across 5 feet returned half an ounce."

19 NE. end of Bousquet lake (Cavanagh group)
Au

Q.B.M. - 1933, p. 87

"The discovery consists of veinlets of dark quartz filling interstices in a schisted zone in a band of Temiscamian conglomerate. A number of trenches and test-pits were excavated, and it is indicated that the zone has a width of about twenty feet; this included one three-foot width of nearly massive quartz.. It is indicated that the zone extends for a length of over 500 feet, and free gold has been found at several points."

20 VII - Norman lake (Sudbury Contact Mines Ltd.)
Au, As

Ingham et al. - 1949, pp. 32-3

"... the "A" zone was traced along an E.-W. length of 135 feet assaying, according to company reports, 0.17 ounce of gold per ton across an average width of 10 feet... "B" zone lies close to, and apparently follows, the south contact of a band of silicified tuffaceous breccia with talc-chlorite schist. Gold occurs in fractured tuffaceous breccia cut by bluish quartz veinlets, associated with arsenopyrite, pyrrhotite, and pyrite..."

21 VIII - East of Bousquet river (Thompson Bousquet Gold Mines Limited)
Au, Cu, Zn

Gunning, H.C. - 1941, pp. 100-2
Q.D.M. - 1946, p. 93

"... The work done indicates a tonnage of three million tons of possibly $3.00 grade to the 500-foot horizon..."

Ingham, W.N. - 1945, pp. 32-5

"Mineralized deposits on the property consist of several auriferous quartz veins and pyritic schist zones... A second zone of carbonatized chlorite and sericite schist lies 150 feet south of the east end of the above zone. It is heavily mineralized with pyrite, contains sparse grains of chalcopyrite and pyrrhotite, small stringers of sphalerite, and veinlets of dark-colored quartz.."

22 VIII - Southeast bank of Bousquet river (Westwood Cadillac Mines, Limited)
Au, Cu, Zn

Gunning, H.C. - 1941, pp. 106-9
Ingham, W.N. - 1945, pp. 35-6

"... A wide, strong shear zone, marked by the development of mineralized, carbonatized sericitic and chloritic schists with lensing quartz veins, trends slightly north of west across the property. This contains several highly pyritic sections cut by narrow veinlets of quartz, some impregnated with free gold..."
"... in 1938 a prospect shaft was sunk to a depth of 250 feet..." On the 210-foot level, a 1/4-inch-wide veinlet is exposed for a length of 76 feet. This veinlet contains much visible gold. In 1938, the mine shipped 6,350 pounds of ore from which 18.22 ounces of gold was extracted. Chalcopyrite and a few veins of sphalerite are reported.

23 VIII - NW. bank of Bousquet river (Warrenmac Mines Ltd.)
Au, Zn, Cu

Gunning, H.C. - 1941, pp. 102-3

South Zone. This zone consists of replacement pyrite in carbonatized, silicified and chloritic schists cut by stringers and veins of ferruginous and milky quartz which may be up to 6 feet in width. The quartz is accompanied by tourmaline, a considerable amount of pyrite and small quantities of chalcopyrite and sphalerite. The zone may reach a width of 25 feet. Gold values are reported.

24 VIII - About 1 mi. W. of Bousquet river (Warrenmac Mines Ltd.)
Au, Cu

Gunning, H.C. - 1941, pp. 102-3

North Zone. This zone, 1,500 feet north of the "south" zone, is a shear zone in porphyritic andesite. It consists of quartz stringers mineralized with finely crystalline pyrite, chalcopyrite and tourmaline. Visible gold was reported from a 2-inch-wide pyrite stringer.

25 1 1/4 mi. N. of Highway 59, across the road to Preissac. (Dumagami Mines Ltd.)
Au, Cu, Zn, Ag

Dugas, J.; GM-13891, 1963

A zone about 1,400 feet long has been outlined. The mineralization consists mostly of pyrite with a little chalcopyrite and sphalerite in sheared tuffs or felsic agglomerates. Visible gold was noted. In the 56 holes that were drilled, the intersections averaged 19 feet and the assays averaged 0.19 ounce of gold and 0.51 ounce of silver a ton, as well as 0.29% copper.

BRANSSAT TOWNSHIP

IV - F3

1 1.1 mi. E. and 3 mi. N. of SW. corner of twp.
Py, Po (Iron formation)

Gilbert, J.-E. - 1955, p. 35

"Altered and carbonatized zone in highly mineralized sedimentary rocks with, in places, massive pyrite, pyrrhotite, and some chalcopyrite, two and a half miles north of the eastern extension of Colette lake."

2 3.3 mi. W. and 4.2 mi. N. of SE. corner of twp. (Copper Rand Chibougamau Mines Ltd.)
Po, Py (Iron formation)

A.W.R.; GM-10480, 1960
Assad, J.R.; GM-11214, 1961

"... pyrrhotite and pyrite-bearing zones in fine-grained, and generally garnetiferous, metasedimentary rock... The sulfides occur in zones that measure from 5 to 20 feet in width, which zones may locally contain up to 60 or 75% sulfide material. The sulfides occur in finely laminated siliceous argillite or siltstone and dark shaly (and locally graphitic) argillite; commonly both types are interbedded."

3 3.4 mi. W. and 0.6 mi. N. of SE. corner of twp. (The American Metal Co. Ltd.)
Po, Py (Iron formation)

A.W.R.; GM-5432, 1957

"Altered highly mineralized greenstone and sedimentary rocks with, in places, massive pyrite, pyrrhotite, and traces of chalcopyrite. The zone occurs 1/2 mile north of Lac Inconnu."
In all, nine holes were drilled along that zone, testing a strike length of 2.75 miles.

BRESSANI TOWNSHIP

IV - H5

1 2.5 mi. E. and 4.8 mi. N. of SW. corner of twp. (Barnat Mines Ltd. - East Malartic Mines Ltd.)
U

Deland and Grenier - 1959, p. 61
A.W.R.; GM-3435, 1955
A.W.R.; GM-3457, 1955

".... Pegmatites giving interesting values of uranium associated with magnetite... at Yvonne lake..."

BRODEUR TOWNSHIP

VI - B8

1 IX - 56 (Consolidated Golden Arrow Mines; Kerr-Addison Gold Mines Ltd.)
Cu, Ni

Q.D.N.R. - 1961, p. 6

".... The mineralized zones occur in a hornblende-rich facies of the amphibolite... The mineralization, which on surface appears as two gossan areas 20 feet apart, approximately 30 feet by 15 feet and 55 feet by 30 feet respectively, consists mostly of pyrite and chalcopyrite... The company reports an average of 0.45% copper and 1.16% nickel for 11 holes over a length of 200 feet and probable true width of 15 feet. Average core length of the intersections is 31.6 feet."

2 I - 29, 30
Pb, Cu

Chagnon, J.-Y. - 1961, p. 9

"Disseminated pyrite, chalcopyrite, and galena occur in quartz-feldspar-biotite gneiss..."

BRONGNIART TOWNSHIP

IV - H3

1 4.4 mi. W. and 2.9 mi. N. of SE. corner of twp. (McIntyre Porcupine Mines Ltd.-Almar Mining Corporation)
Au

Q.D.M. - 1956, p. 16
A.W.R.; GM-4836, 1956

"... The main find is located near the shore of the lake... It consisted of a shear zone from 10 to 30 feet in width and... for a length of 800 feet. The shearing has vertical dip and varies in strike from N.30°W. to N.70°W... The shearing occurs in a buff-colored tuff band which has been subject to carbonatization... Two ages of quartz with occasional specks of pyrite, containing only trace of gold, and the latter a dense blue variety, occurring as short erratic veinlets not greater than 2 inches in width... In this blue quartz, fine gold could be seen with the aid of a mineral glass, and in places with the naked eye. "In 1953, Mr. Harris Hanson...discovered a large angular float of heavily pyritized blue quartz... in the vicinity of the carbonated shear... which assayed from 0.90 ounce to 2.70 ounces in gold. Subsequent trenching exposed the gold-bearing shear and... assay values were sufficiently encouraging to... drill the showing... four shallow holes spaced over a length of 440 feet were put down...

"Grab samples...assayed in gold as follows: 0.06 ounce, 0.180 ounce, 0.53 ounce, 0.080 ounce, and a trace."

2 4.2 mi. E. and 1.6 mi. N. of the SW. corner of twp. (Pevec-Chabot Claims - Yellow Mountain Mining Co.)
Cu

Archibald, G.M.; GM-5401, 1957
A.W.R.; GM-9341, 1959
Duquette, G.; GM-13892, 1963

Showing "A" is along the west shore of a small island located in the west branch of Eau Jaune lake. A trench has exposed rusty meta-volcanic rocks which run N.70°E. and dip 80° SE.

A grab sample, analysed for copper and nickel, yielded 2.06% copper and 0.09% zinc. The mineralization consists of very finely-disseminated pyrrhotite and thin veinlets of chalcopyrite, which run sub-parallel to the local schistosity and banding. Finely-disseminated chalcopyrite is equally present. Because the host rock is commonly thinly bedded or banded, it is believed that this rock may be of pyroclastic origin. Secondary quartz, as well as carbonate, was identified in the mineralized rock.

In strike and 50 feet northeast of showing "A", a trench has been dug over showing "B". Except for the amount of chalcopyrite, which is smaller, the sulfides present,as well as the type of mineralization, is similar to showing "A". The host rock is also similar, even though it carries here and there a fair amount of graphite. Where this is the case, the rock is highly schistose.

3 3.4 mi. E. and 1.1 mi. N. of SW. corner of twp. (Pevec-Chabot Claims - Yellow Mountain Mining Co.)
Py, Po (Iron formation)

Archibald, G.M.; GM-5401, 1957
Duquette, G.; GM-13892, 1963
A.W.R.; GM-9341, 1959

"The... showing lies at the junction of claims 2 and 3 of licence 167083 and claims 3 and 4 of licence 167084... The showing strikes east-west with a N. dip of 70°-80°. Gossan was heavy on the center section of the main trench and showed some copper staining. The center section, which had been excavated to a depth of 2 to 3 feet, showed a 15-foot width of a massive mixture of sulfides and oxides. Next to the massive section on the north is a well mineralized schisted quartz for 8 feet which blends into a diorite. South of the center section and 20 feet in width is a heavy mineralized siliceous zone with quartz lenses up to 3 feet in width.

"Continuation of the solid sulfides has been picked up 60 feet downhill to the east and 100 feet uphill to the west.

"Grab samples...from each section of the main showing gave copper values from 0.78% to 1.2%... The massive sulfides are mainly pyrite and pyrrhotite..."

4 3.9 mi. E. and 1 mi. N. of the SW. corner of twp. (Yellow Mountain Mining Co.; Pevec-Chabot claims)
Po

A.W.R.; GM-9341, 1959
Duquette, G.; GM-13892, 1963

The showing is located on a small spur of land protruding northerly into Eau Jaune lake. Small pits have been dug at a few places over a band of massive pyrrhotite,which is up to 1 1/2 feet across. The sulfides are in a brecciated sugary quartz material. A grab sample consisting of nearly massive pyrrhotite was assayed for nickel and copper. Results were negative. The mineralized band runs for a visible distance of 65 feet in a N.65°E. direction with a dip angle of 80° to the southeast.

5 4.7 mi. E. of the SW. corner of twp. (Canadian Nickel Co.)
Py, Po (Iron formation)

A.W.R.; GM-4349, 1956

Tuffaceous rock with disseminated and massive sulfides, mainly pyrite (80%) and pyrrhotite (10%). Assays yielded a low nickel content.

6 1.4 mi. W. of the SE. corner of twp. (Dominion Gulf Company)
Au

Q.D.M. - 1956, pp. 15-16
A.W.R.; GM-2870, 1954

"The quartz vein appears to be in a well-defined fault cutting across the trend of the lava flows. The wall rock along the east side of the vein is pillowed lava with fairly intense carbonatization. The rock west of the vein is unpillowed and not nearly as intensely carbonated. The vein strikes N.17°E., has a vertical dip and varies in width from 6 inches to 30 inches.

About midway along the 100-foot section... a fault striking N.60°E. displaces the vein 2 feet - the direction of movement is not known.

"The quartz is greatly fractured and is traversed by ribbon-like stringers of chlorite and in places holds needle-like crystals of tourmaline. A small amount of carbonate occurs in the quartz. Chalcopyrite is the abundant sulfide in the quartz north of the easterly-trending fault and pyrite is the chief sulfide south of this fault. Abundant carbonate is found in the wall rock near the quartz zone at the south end of the vein.

"Considerable visible gold was located along the vein, especially in the chlorite-chalcopyrite combination, to the north of the easterly-trending fault. Sampling results indicate that the gold is distributed erratically along the vein, and that the southern part of the vein, south of the easterly-trending fault, when pyrite is the chief sulfide, carries only a low gold content."

Two hundred feet west of this quartz vein, there is a 3-foot- to 4-foot-wide shear zone in a tuffaceous rock. The shear zone is bounded to the east by highly-carbonated lava rock and to the west by pillowed lava.

"The mineralization met in the highly-altered and light greenish silicified zone is a disseminated and fairly massive band of cubic pyrite. Within the mineralized zone occur numerous quartz veinlets carrying pyrite."

Several samples were taken along the 15-foot section opened up by blasting. The highest assay is $2.80 in gold per ton."

BRUNEAU TOWNSHIP

III - D4

1 Along the edges of Sinclair creek, about a mile north of Bell river. (Bruneau Mines Ltd.)
Pb, Ag, Cu, Zn

Douglas, G.V. - 1937, p. 51
Dresser and Denis - 1949, p. 31

Galena, chalcopyrite, sphalerite and silver mineralization was noted in drill holes put down along the edges of Sinclair creek. An assay of 3.04 ounces of silver per ton was recorded in 1936. In the drilling, the best assay was given as 1.80% lead, 1.60% zinc and 1.25 ounces of silver per ton across 3.5 feet. The mineralization is mostly pyrite and pyrrhotite with small masses or grains of galena, chalcopyrite and sphalerite in sedimentary rocks.

2 V and VI - East end (Baraca Mines Ltd.)
Cu
Py

A.W.R.; GM-7290, 1958

Minor chalcopyrite was noted in sedimentary rocks with pyrite. A magnetite iron formation crosses the property.

BUTEUX TOWNSHIP

IV - G5

1 4.4 mi. E. and 1.1 mi. S. of the NW. corner of twp. (Griffith claims)
Au
Freeman, B.C. - 1943, pp. 15-16

"... most of the rock exposed is an amphibolite in which faint traces of pillow structure can be seen. Interbedded with them (lavas) are four bands of impure quartzite now altered to quartz-biotite schist, which contains red garnets in places. Within this rock a white quartz vein, parallel to the bedding...

"The sediments at the south end of the main group have been mineralized... A curved lens of quartz about 15 feet long and 15 feet wide, in the central part of the exposures, is apparently a thickened mass forming the crest of a drag-fold; it contains carbonate, pyrite, and gold. A one-pound sample taken by the writer from this mass of quartz and assayed in the laboratory of the Bureau of Mines gave $11.79 in gold per ton."

2 0.9 mi. E. and 4.3 mi. S. of the twp. NW. corner (Sigouin-Griffith claims)
Au

Freeman, B.C. - 1943, pp. 13-15

"... The outcrops are along a northeast-trending ridge of high ground, and consists of gray, gneissic quartz diorite... One of the more important veins outcrops 67 feet south of Little Eagle river. It strikes east-west, has a maximum width of one foot along its exposed length of 30 feet... Pyrite is developed along many of the fractures, and near the diabase dike free gold in easily visible specks occurs with pyrite along the fractures. Five hundred feet northeast of the river... a channel sample taken across the five-foot zone is reported... to have assayed $2.80 in gold per ton."

CADILLAC TOWNSHIP

V - B7

1 Western limit of the township, on the north side of the road (New Alger Mines Ltd. - Thompson Cadillac Mines)
Cu, As

Gunning, H.C. - 1937, pp. 48-9
Claveau et al. - 1951, pp. 16-7
Bell, L.V. - 1937, p. 33

Between 1936 and 1939, there has been extracted from this mine 175,000 tons of low-grade ore. Visible gold and arsenopyrite are found in numerous quartz veins in the mine. The shaft was deepened to 1,100 feet in 1948 and four gold-bearing quartz veins were explored.

2 1 mi. north of road 59 (New Alger Mines Ltd.)
Au, Ag, Cu

The Northern Miner - Oct. 17, 1963

Hole No. 1 cut 21 feet of heavy sulfide mineralization, mainly pyrite with lesser amounts of chalcopyrite, pyrrhotine and sphalerite. Within this zone a 6-foot

core length assayed 0.19 ounce of gold, 0.43 ounce of silver, 0.19% copper and 0.36% zinc. Hole No. 4 cut a 9-foot core length which assayed 0.23 ounce of gold, 0.88 ounce of silver, 0.37% copper and 0.55% zinc.

3 Block 15 (O'Brien Gold Mines Ltd.)
Au, Ag, As

Bell, L.V. - 1937, p. 34
C.I.M.M. - 1948, pp. 809-16

Between 1934 and 1956, this mine produced 20.5 million dollars' worth of gold and silver from 1.25 million tons of ore. A small quantity of zinc was produced also. The ore consisted of narrow but rich gold-bearing quartz veins.

4 Block 60 (Kewagama Gold Mines (Que.) Ltd.)
Au

Q.B.M. - 1933, p. 87

A 524-foot shaft explored many quartz veins carrying visible gold. In 1940, a total of 2,723 tons of ore was shipped to Thompson Cadillac, from which was obtained 790.7 ounces of gold.

5 Block 61, N. of Highway 59, 1 1/2 mi. W. of twp. center line (Consolidated Central Cadillac Mines Ltd.)
Au, Ag, W

Ross et al. - 1940, pp. 12-3
C.I.M.M. - 1948, pp. 816-21

Mines in production from 1939 to 1943. The value of the production is estimated to be 2,208,528 dollars. It came from 377,489 tons of ore containing gold with some silver and tungsten and grading $5.85 in gold per ton. The deposits occur north of the Cadillac fault in sulfide lenses at the contact of iron formations or in quartz-tourmaline veins mineralized with pyrite, arsenopyrite, scheelite and native gold.

6 See 5.

7 S. of the road, on the twp. center line (Pandora Gold Ltd.)
Au, As

Ross et al. - 1940, p. 14

Five shafts were sunk on this property. Quartz veins contain pyrite, arsenopyrite and native gold. Between 1939 and 1942, a total of about 200,000 tons of gold ore was extracted from Nos. 2, 3 and 4 shaft areas.

8 N. of Highway 59, 1 1/2 mi. E. of twp. center line (Pandora Gold Ltd.)
Au, As

Ross et al. - 1940, p. 14

See (7) for commentary

9 1/2 mi. N. of Highway 59, 1/2 mi. E. of twp. center line (Pandora Gold Ltd.)
Au, As

Q.B.M. - 1940, p. 14

See (7) for commentary

10 N. of Highway 59, 2 mi. E. of twp. center line (Pandora Gold Ltd.)
Au, As

Ross et al. - 1940, p. 14

See (7) for commentary

11 Block 45 - S. of Highway 59, 2 mi. from the eastern boundary of the twp. (Lapa Cadillac Gold Mines Ltd.)
Au, As

Q.D.M. - 1944, pp. 97-8
Q.B.M. - 1937, p. 63

In production from 1938 to 1942. A total of 359,206 tons of ore has been milled grading 0.154 ounce of gold a ton. Gold was found in quartz veinlets in an albite dike or in shear zones developed in chloritized volcanic rocks.

12 N. of Highway 59, 2 mi. from the eastern boundary of the twp. (Tonawanda Mines Ltd. - Orefield Mining Corporation)
Au
Mag

Q.B.M. - 1935, p. 101

"The principal discovery, the No. 1 vein, consists of a banded iron formation, and is up to twenty feet in width... Quartz veins occur at other points on the property, and it is reported that free gold has been observed on the surface, and in one of the diamond drill cores. No continuous deposits of economic importance have been developed."

Q.D.M. - 1959A, pp. 15-16

"... The drill holes intersected three bands of iron formation consisting of magnetite, jasper and some quartz. These bands have widths 30 to 45 feet, 50 feet and 100 feet..."

13 V - 2 mi. from the E. boundary of the twp. (Maritime Cadillac Gold Mines Ltd.)
Au

Q.B.M. - 1935, p. 98

"... It was stripped for a length of 100 feet, and varies in width from a stringer to a maximum of about four feet. In places, it contains pyrite, and it is reported that gold values accompany the sulfide mineralization."

14 IV - 53 (West Malartic Mines Ltd. - Pan Canadian Gold Mines Ltd. - Angus Mines Ltd.); Block 55; eastern limit of the township, 2 1/2 mi. N. of S. boundary.
Au, Ag

Ross et al. - 1940, p. 13
Claveau et al. - 1951, pp. 17-18
Gunning and Ambrose - 1940, p. 103

Former producer of 305,088 tons of gold ore containing also some silver. The ore occurred in zones in diorite masses and in talcose schists and quartz stringers.

15 See 14.

16 See 14.

17 V - 58 (Border Malartic Gold Mines Ltd.; Deane-Cadillac Mining Corporation)
Au

Gunning and Ambrose, 1940, pp. 73-75

"Several drill holes were put down to test the porphyry mass, and particularly to explore its northern contact under heavy drift. One hole approximately beneath the township line cut several veins of bluish quartz near the contact and free gold was noted in several of them."

18 S. of Highway 59, 3/4 mi. from W. boundary of twp. (Pandora No. 1)
Au, As

Ross et al. - 1940, p. 14

Quartz veins mineralized with pyrite, arsenopyrite and native gold.

19 V - 3 1/4 mi. from W. boundary of twp. (St-Pierre Gold Mines Ltd.)
Au

Ross et al. - 1940, p. 15
Bell, L.V. - 1937, p. 36

"The company has reported the presence of visible gold in some veins..."

CAIRE TOWNSHIP

VI - A7

1 X - 3, 4 (Tremblay - Campeau claims)
Cu, Ni

Gilbert, J.-E.; GM-3566, 1955

"The main zone is located along the shore in the immediate vicinity of the line between lots 3 and 4, range X, Caire township. It consists of a pyrrhotite-pyrite-chalcopyrite-bearing fracture zone apparently about parallel to the local bedding of the enclosing sedimentaries and about 5 feet wide... One specimen taken from the best-looking part of the zone gave the following assay results: copper 0.13% and nickel 0.10%."

2 X - 57
Be

Chagnon, J.-Y. - 1961, map 1396

CARPENTIER TOWNSHIP

V - D6

1 I - 60. (Baril A. claims)
Cu

Bell and Bell - 1934, p. 64

A minor amount of chalcopyrite in quartz veinlets has been noted.

2 IV - 31; V - 31. (Bonsecour Mines Ltd.)
Au

Ingham and Ross - 1947, p. 37

Fractured porphyry dikes in tuffs contain quartz veinlets with gold. Shallow drilling returned 0.24 ounce of gold per ton across 5.0 feet and 0.31 ounce across 8.6 feet.

3 VII - 23 (Can. Johns-Manville)
Cu

A.W.R.; GM-12634, 1961-62

Minor chalcopyrite was noted with disseminated pyrite and quartz in carbonatized volcanic rocks in the middle of the lot.

4 IX - 11
Cu

Q.D.M. - 1959A, p. 16

Chalcopyrite and pyrrhotite mineralization was noted in the south-central part of the lot, along the south edge of a gabbro sill.

5 II - 26 to 30 (Candela Explorations Ltd.)
Cu

A.W.R.; GM-7673, 1950

A minor amount of chalcopyrite was noted in quartz stringers cutting porphyry and in fractures crossing tuffs in drill holes put down in these lots. Massive sulfide zones are made up of pyrite and pyrrhotite.

6 VI - 62 (Ellmargo Mines Ltd. - Hennessy group)
Au

Ross et al. - 1938, p. 29

Erratic gold has been reported from quartz veins cutting granitic dikes.

7 I - 31 to 34 (Dubuisson Mines Ltd.; Mirador-Jolin claims)
Au, Cu

Bell and Bell - 1934, p. 63
Dresser and Denis - 1949, p. 78

Gold and chalcopyrite have been reported from quartz veinlets cutting aplite dikes.

8 III - 46, 47 (Lebel property)
Cu

A.W.R.; GM-7575, 1957

Pyrite and pyrrhotite, with minor chalcopyrite, in tuffaceous rocks were noted in drill cores.

9 VIII - 62 (Roland Gold and Copper Mines Limited)
Cu, Au, Zn

A.W.R.; GM-431, 1947

Chalcopyrite in tuffaceous rocks and quartz veins was noted in drill holes and outcrops. The best copper intersection returned 2.16% across 4.5 feet. Erratic gold and minor sphalerite are also present.

CARPIQUET TOWNSHIP

IV - F5

1 2.1 mi. W. and 4.6 mi. S. of the NE. corner of twp. (Nightlen Mines Ltd.)
Py, Po (Iron formation)

A.W.R.; GM-10409, 1960

A 15-foot disseminated to nearly massive sulfide zone was intersected in two holes spaced 400 feet along strike. The sulfides consist of pyrite and pyrrhotite and were encountered in a bedded acidic tuffaceous rock which strikes N.80°E. and dips steeply to the north. An electromagnetic survey indicates that this zone extends for a length of 3,000 feet.

CARQUEVILLE TOWNSHIP

III - B4

1 VI - About 2,000 feet from the east boundary of the township (Selco Exploration Co. Ltd.)
Cu, Ni

A.W.R.; GM-4453, 1955

Map

2 Near the SE. corner of the twp. (Selco Exploration Co. Ltd.)
Mo, Cu, Au

Dresser and Denis - 1949, p. 26

"... near the south boundary of Carqueville township and just east of a small lake on the southeast flank of the Hebert hills, a rusty carbonatized zone in the volcanics is sparsely mineralized with sulfides, chiefly pyrite and pyrrhotite, but including some chalcopyrite and molybdenite. The zone has a width up to forty feet and has been traced for a mile and a half along its northwesterly strike..."

3 II - 58
Au, Cu

Ross, S.H. - 1959, p. 13

"The most extensive exploration up to 1951 has been on the Peacock claims... The main showing is in lot 58, Range II, where a shear zone in gabbro, which strikes N.25°W. and dips steeply to the southwest, has been explored by stripping and trenching. The country rock is hornblende schist. Chalcopyrite and

pyrrhotite occur in the shear zone, in a brecciated quartz vein between 8 and 9 feet thick." It is reported that recent sampling has disclosed the presence of gold.

CASA-BERARDI TOWNSHIP

III - A4

1 NE. corner of the twp. (McIntyre Porcupine Mines Ltd.)
Mag (Iron formation)

A.W.R.; GM-4967, 1957

Iron formation

CASTAGNIER TOWNSHIP

V - C5

1 VI - 49
Cu
Py, Po

Longley, W.W. - 1946B, p. 18

At the south end of the lot, a small band of volcanic rocks is heavily mineralized with pyrite and pyrrhotite. A small amount of chalcopyrite was also noted.

2 I - 8
Cu

Longley, W.W. - 1946B, p. 19

A quartz lens cutting greenstone on the southeastern shore of Obalski lake contains pockets of chalcopyrite.

CAVELIER TOWNSHIP

III - C3

1 Southern limit of the township (Dome Exploration (Canada) Ltd.)
Au

A.W.R.; GM-14577, 1946

A 6-foot silicified porphyry dike on Allard river contains erratic gold. The best grab sample returned 0.19 ounce of gold per ton. The best tenors in the three holes drilled were 0.48 ounce of gold per ton from a 5-foot sludge sample, 0.16 ounce from a 4-foot core and 0.18 ounce from a 3-foot core sample.

2 SW. quarter of twp. (East Sullivan Mines Ltd.)
Cu, Au, Ag, Pb
Mag

Q.D.N.R. - 1961, pp. 7-8

Tuffaceous and sedimentary rocks contain magnetite iron formations, disseminated chalcopyrite mineralization and quartz veins with gold, silver and galena. The best copper section returned 1.17% across 30.0 feet; the best gold, 0.65 ounce

per ton across 13.0 feet; and the best silver, 21.79 ounces per ton across 3.0 feet. Seventy holes were drilled in various parts of the property.

3 2 mi. S. of the center post of twp. (Burland Expl.)
Cu

A.W.R.; GM-7647, 1958

A drill hole in volcanic and gabbroic rocks showed minor chalcopyrite.

4 Central part of the NE. quarter of twp. (Lyndhurst Mining Co. Ltd.)
Cu

A.W.R.; GM-7537, 1958

Two drill holes in dioritic and volcanic rocks had fine veinlets of quartz-carbonate with minor chalcopyrite.

5 1.5 mi. S. of Mile-post 6, on Daniel-Cavelier township line. (International Ranwick Ltd.)
Cu

A.W.R.; GM-8695, 1958

Two drill holes cut an intrusive complex of granite, granodiorite and quartz diorite. Chalcopyrite was noted in minor amounts in the silicified zones and as disseminations in the dioritic rocks.

CÉLORON TOWNSHIP

III - B5

1 South side of Plamondon hills.
Mo

Tanton, T.L. - 1919, p. 57

"A few scales of the mineral were found in a small pegmatite dike which cuts the hornblende schist of the Abitibi group, a few hundred yards north from the granite contact."

CHASTE TOWNSHIP

III - C5

1 V and VI - 54 to 56. (Bellechasse Mining Corp. Ltd.)
Cu

A.W.R.; GM-7770, 1957

Chalcopyrite in minor amounts in quartz-carbonate veinlets and as disseminations in the volcanic rocks was noted at the south end of lots 54 to 56, Range VI, and in the central part of lot 56, Range V.

CHAZEL TOWNSHIP

V - A5

1 X - 33 (Kerr Addison Gold Mines Ltd.)
Cu

Q.D.M. - 1959B, p. 7

"A zone 20 feet wide, consisting of disseminations and pockets of pyrrhotite with some chalcopyrite and pyrite, outcrops on the shore of Turgeon lake..."

2 IX - 34 (Kerr Addison Gold Mines Ltd.)
Au

Q.D.M. - 1959B, p. 7

"... The core of one hole in lot 34, Range IX, contained visible gold."

3 IV - 40 (Oditan Mines Ltd. - Marcotte claims)
Cu, Zn

Q.B.M. - 1929, p. 113

"... Trenching has exposed a mineralized zone, 30 feet in width. This zone has been traced for a distance of 700 feet. It is a band of very siliceous rock, impregnated with coarse cubes of pyrite, and containing small amounts of sphalerite and chalcopyrite..."

4 II - 61 (Philippon claims)
Cu

A.W.R.; GM-15128, 1962

Quartz vein with chalcopyrite.

5 III - II (Val d'Or Consolidated Mines, Ltd.)
Zn, Cu

Ingham et al. - 1949, p. 34

"Strongly sheared and carbonatized volcanic rocks of acidic and intermediate composition outcrop in the vicinity of Chazel lake. At the showing, a heavily mineralized shear zone in highly altered volcanics is exposed in a prospect pit 30 feet south of the lake shore. The zone, which appears to strike N.80°E. and dip 80° to the north, is 25 feet wide. It consists of rusty schist and quartz stringers mineralized with massive and disseminated pyrite chiefly, and some pyrrhotite and chalcopyrite..."
Subsequent drilling has revealed the presence of zinc.

CLÉRICY TOWNSHIP

V - B6

1 V - 3 (Windfall Rouyn Mines Ltd. - Coniagas shaft)
Cu, Zn

Q.D.M. - 1959A, p. 19

Andesite mineralized with pyrite, pyrrhotite, chalcopyrite and sphalerite.
A 60-foot shaft was sunk in 1928.

2 V - 2 (Sozio claims)
Zn

Dugas, J.; GM-14916, 1952

A shear zone in andesite contains sphalerite stringers over a length of 300 feet and a width of 3 feet.

3 VI - 6 (Coniagas Mines Ltd.)
Cu

Q.D.M. - 1959A, p. 19

A 3-foot-wide quartz vein mineralized with chalcopyrite.

4 V - 6 (Harvie No. 4 shaft - Cross Fault Mines Ltd.)
Cu, Zn, Au, Ag

Q.D.M. - 1959A, p. 22
Q.D.N.R. - 1962, p. 7
Hogg, W.A. - 1963, p. 10
Claveau et al. - 1951, pp. 18-19

"... Channel samples taken at 10-foot intervals across the back indicated that a length of 70 feet averaged 0.156 ounce of gold per ton, 0.353 ounce of silver per ton, 0.642% copper and 1.95% zinc across 5 feet."

5 IV - 4 (Harvie No. 2 shaft)
Cu

Hogg, W.A. - 1963, p. 9

Adit. Pyrite zone and minor chalcopyrite.

6 IV - 9 (Harvie No. 3 shaft)
Cu

Hogg, W.A. - 1963, p. 10

Two quartz veins contain chalcopyrite with some pyrite and pyrrhotite. A shaft was sunk in one of the quartz veins. Chalcopyrite is found also in pillowed andesite.

7 IV - 9 (Harvie No. 1 shaft)
Cu, Zn

Q.D.M. - 1959A, p. 25
Hogg, W.A. - 1963, p. 9

Lenticular zone containing chalcopyrite, sphalerite and pyrite in the central part of lot 9. This zone was explored from a 125-foot shaft.

8 V - 10
Au

Hogg, W.A. - 1963

Shown on map.

9 V - 20 (Primrose Expl. Co. Ltd.)
Au

Bell, L.V. - 1937, p. 25
Ambrose, J.W. - 1941, p. 54

Gold-bearing quartz vein cutting andesite. Visible gold was noted at many places. Adit.

10 I - 5
Cu

Hogg, W.A. - 1963

Shown on map.

11 I - 12 (Claremont Mines Ltd.; Roybell Mines Ltd.)
Au, Cu

Ambrose, J.W. - 1941, pp. 56-9
Hogg, W.A. - 1963, p. 9
Ingham et al. - 1949, p. 34

"... The veins occur as irregularly-shaped quartz masses over widths from 20 to 100 feet and a length of 170 feet. They follow a shear which strikes N.64°E. and dips north at about 45°... Sampling of the surface veins is reported by the company to have indicated 160 tons of ore per vertical foot with a cut grade of $5.45 and an uncut grade of $6.80 in gold per ton..."

12 I - 44 (Bouchard Gold Mines Ltd.)
Au

Ambrose, J.W. - 1941, p. 39
Arbour, R. - 1964, p. 7

Pyritized and carbonatized andesite zone cut by numerous quartz and tourmaline veinlets. Coarse gold and erratic values are reported to be present in the quartz. A 100-foot shaft was sunk in 1929.

13 IV - 34 (Anaconda American Brass Ltd.)
Au

A.W.R.; GM-15386, 1963-64

Shear zone. Diamond drilling.

14 IV - 36 (Anaconda American Brass Ltd.)
Cu

A.W.R.; GM-15386, 1963-64

Pyrrhotite and chalcopyrite in andesite at the diabase contact. Diamond drilling.

15 VIII - 6 (Canadian Explorers Ltd.)
Cu

Q.D.M. - 1956, pp. 18-19

"Two of the drill holes that were directed into the main mass of basic intrusive cut sections containing chalcopyrite that gave assays of 0.23% copper over 2 feet, and 0.10% copper over 2 feet respectively."

16 VIII - 50 (Lusko claims)
Au

Robinson, W.G.; GM-920, 1950

In a gray and sheared felsite dike, the owner panned some gold.

17 I - 10, 11 (Mabell Mines Ltd.)
Cu

Q.B.M. - 1930, p. 126

A zone 1,200 feet long and 200 feet wide contains a disseminated mineralization consisting mostly of pyrite but also of minor pyrrhotite and chalcopyrite.

18 III - 11 (Miller claims)
Cu

A.W.R.; GM-13959, 1961

Diamond drilling.

19 VII - 44 (McDairmid showing)
Au, Mo

Ambrose, J.W. - 1941, pp. 51-52

"A sheared quartz-carbonate zone in lot 44, Range VII, Cléricy township, is known locally as the McDairmid showing. It is reported that gold can be panned from the zone where it is exposed in an adit, on the river shore." There is a little molybdenite on the slip planes in carbonate lenses.

20 VIII - 46 (McDermott claims - Rotondo claims)
Au

Ross et al. - 1940, p. 17

Gold tenors up to $3.92 a ton were reported from a carbonatized shear zone striking N.40°W. and dipping 55 to 65° to the east; the zone is cut by quartz veinlets.

21 VII - 52 (Mont Brun claims)
Au

Ross and Asbury - 1939, p. 26

Laminated zone in andesite showing quartz stringers over a 12-foot width. A 3-foot channel sample in a pyritized siliceous zone gave $7.42 in gold per ton.

22 IX - 32 (Victoria Copper Mines Ltd.)
Au

A.W.R.; GM-5956, 1947
Q.D.M. - 1956, p. 20

"... carbonate-rich rocks containing abundant green mariposite, with scattered pyrite and, in places, chalcopyrite..." Diamond drill logs indicate a gold content.

CLÉRION TOWNSHIP

VII - B8

1 V - 46
Cu

Freeman, P.V. - 1957B, p. 7

"Disseminated pyrite, chalcopyrite and magnetite occur in thin, iron-stained, northeast-trending quartz veins in a shear zone, 5 to 6 feet wide, in a sericitised granite..."

CLERMONT TOWNSHIP

V - A5

1 VIII - 54 (Baronial Copper Mines Ltd.)
Cu

Robinson, W.G.; GM-1487, 1950

Shear zone in granite mineralized with chalcopyrite. Drill logs indicate copper values.

2 VIII - 30, 31 (Clermont Mines Ltd. - Willet Graham claims)
Pb, Zn, Cu

Ross and Asbury - 1939, pp. 8-9

"In the rocky area north of range-line VII-VIII, lots 30 and 31, considerable stripping and trenching has been carried out, revealing seven shear zones, about 200 feet apart, some of which are well mineralized with sulfides. Most of the mineralized bands strike N.70° - 80°W. and dip 60° to 80° south. The sulfide mineralization consists of pyrite chiefly, and varying amounts of galena, sphalerite, and chalcopyrite. Quartz is associated with the sulfides and is both contemporaneous with and later than them."

3 VIII - 58 (Matte Adanison Mineral Expl.)
Cu

A.W.R.; GM-10719, 1960

Diamond drilling.

COLLET TOWNSHIP

III - A4

1 Turgeon river, 2 mi. from the W. boundary of the twp.
Cu

Davies, R. - 1962, p. 12

"Sheared hornblende schist associated with the breccia zone on Turgeon river carries pyrite and a little chalcopyrite. Assay values were 0.7% Cu, 0.02% Zn, 0.01% Ni and 0.03% Co."

COMPORTÉ TOWNSHIP

III - D3

1 SW. corner of twp. (Three Brothers Mng. Expl.)
Cu

A.W.R.; GM-9146, 1959

A minor amount of chalcopyrite, in seams with pyrite or in quartz veinlets dutting gabbro, was noted in a drill hole. The hole was drilled along the south edge of the Bell River complex.

2 Near the center of the township. (Leitch Gold Mines Ltd.)
Cu

Verbal communication - C. Pegg.

A minor amount of chalcopyrite with pyrrhotite was noted in drill holes put down near the center of Comporté township. The rocks are all gabbro-anorthosite of the Bell River complex.

COMTOIS TOWNSHIP

III - D5

1 II and III - 14 to 20 (Hudson Bay Expl. Dev. Co. Ltd.)
Cu, Zn
Py, Po

Latulippe, M.; GM-11464, 1961
A.W.R.; GM-11418, 1959

Very minor chalcopyrite and sphalerite mineralization was noted in drill cores with massive pyrite and pyrrhotite beds in sedimentary rocks.

COURVILLE TOWNSHIP

V - D6

1 IX - 16 (Heva Cadillac Gold Mines Ltd.)
Au

Bell and Bell - 1934, p. 66
Ross et al. - 1938, p. 21

Visible gold in quartz stringers has been reported from the north central part of the lot. The quartz cuts carbonatized and pyritized lavas.

2 V - 50, 51; east end of ranges IV to VII. (Big Town Copper M.)
Au, Cu

Bell and Bell - 1934, p. 68

Quartz veins and veinlets in fractured porphyry dikes contain erratic free gold. The largest dike is in Range V. Sulfide masses, made up of pyrite and pyrrhotite, in tuffaceous rocks at the east end of Ranges IV to VII, contain minor amounts of chalcopyrite.

3 VII - 38 (Courtown Gold Mines Limited)
Au

Ingham et al. - 1949, p. 35

At the south end of the lot free gold was found in quartz veins cutting a large granite sill and volcanic rocks.

4 VI - 43, 47. (Eastville Gold Mines Ltd.)
Au, Cu, Zn, Pb

Ingham et al. - 1949, p. 36

Quartz veins cutting diorite, quartz porphyry and volcanic rocks in the south half of lots 43 and 47 contain erratic free gold and minor chalcopyrite, sphalerite and galena.

5 VI - 35 (Pershing Manitou Gold Mines Ltd.)
Au, Cu

Ross, S.H. - 1941, p. 8

A shaft was put down 210 feet and lateral work completed on two levels to develop gold-bearing quartz veins in the north part of the lot. Veins and veinlets of quartz cutting volcanics, diorites and porphyries contain visible gold and some chalcopyrite.

6 II - 42 to 45 (Swanson P. claims); III - 38
Au

Bell and Bell - 1934, p. 58

Quartz veins in the north part of lots 42 to 45, and in the south part of lot 38 contain gold.

7 V - 49, 50 (Trempe-Belisle claims)
Au, Cu

Bell and Bell - 1934, p. 67

Gold and minor chalcopyrite have been reported from quartz veins in these lots.

CRISAFY TOWNSHIP

IV - H4

1 1.0 mi. E. and 0.6 mi. S. of NW. corner of twp. (New Jersey Zinc Expl., Co. (Canada) Ltd.)
Mo

A.W.R.; GM-8684, 1959

"A sulfide zone in a quartz-sericite schist... The sulfides consist mainly of disseminated (10 to 20%) to massive pyrite with some pyrrhotite. The molybdenite occurs in a 3-inch band within the disseminated section of the zone. A grab sample within the molybdenite horizon returns 0.23% of MoS_2."

CURRIE TOWNSHIP

III - E4

1 SW. corner of twp. (New Jersey Zinc Expl.)
Cu, Zn
Py, Po

Graham et al. - 1953, p. 16

Minor amounts of chalcopyrite and sphalerite were noted in drill holes and outcrops with massive and disseminated pyrite and pyrrhotite in tuffaceous sedimentary rocks.

2 SW. end of Rose lake (Bush claims)
Au, Cu

Q.B.M. - 1935, pp. 131-2

Gold was reported from quartz veins in chlorite and graphite schist. Chalcopyrite was also noted in the wall rocks of the veins.

3 S. end of Rose lake (Lake Rose Mines Ltd.)
Au, Cu, Zn, Te, Bi

Dresser and Denis - 1949, p. 35

Quartz veins contain free gold, bismuth telluride and minor amounts of chalcopyrite and sphalerite. The quartz veins are in shear and fracture zones cutting diorite, porphyry and volcanic rocks. An adit, a winze to 266 feet, and two levels were completed. A 25-ton mill recovered 0.63 ounce of gold per ton from 5,374 tons of ore.

4 Between Esther lake and Wedding river (Boulanger claims)
Pb, Ag, Cu, Zn, As

Dresser and Denis - 1949, p. 37

A narrow quartz vein in porphyry contains heavy galena mineralization, silver and minor chalcopyrite and sphalerite. Another vein on the claim group contains minor arsenopyrite.

5 3/4 mi. E. and 1.5 mi. N. of the southwest corner of the township
Au

Dresser and Denis - 1949, p. 38

Gold was reported at this location.

6 1/2 mi. N. of Mile-post 72 on Currie-Grevet township line
Au

Dresser and Denis - 1949, p. 38

Gold was reported at this location.

7 Near the west boundary of the township. (Prospectors Airways Co. Ltd.)
Au, Cu, Pb

Dresser and Denis - 1949, p. 38

This company reported gold, chalcopyrite and galena in quartz in shear zones in diorite. The location is not precise.

8 1/2 mi. SE. of Mile-post II on the E.-W. center line of twp. (Sullico Mines Ltd.)
Cu. Zn
Py, Po, Mag

A.W.R.; GM-12479, 1962

Diamond drilling cut massive sulfides (pyrite and pyrrhotite) and magnetite. The massive sulfides in sedimentary rocks contain minor amounts of chalcopyrite and sphalerite. A hole through magnetite iron formation cut 42 feet grading 25 to 30% iron.

9 1.0 mi. W. of Mile-posts II and III on the Currie-Duplessis township lines (Dominion Gulf)
Au

A.W.R.; GM-1215, 1951

Gold was reported from these two areas.

CUVIER TOWNSHIP

IV - H3

1 2.2 mi. E. and 4.7 mi. S. of NW. corner of twp. (Standard Gold Mines Ltd. - Newlund Mines Ltd.)
Cu
Po, Py

A.W.R.; GM-3742, 1956
A.W.R.; GM-6168, 1957
A.W.R.; GM-4800, 1957

"... A sulfide body varying in width from 3... to 6.5 feet... A series of trenches was found in this area... Two new trenches were dug in an attempt to trace the mineral zone and pick up a contact, and also two of the old trenches were extended and blasted. The blasting removed the surface rock... to show 1% to 2% visible chalcopyrite. Grab samples... assayed 1.6% copper and 1.2% copper.

"The sulfides appear to have come in along the contact between the sediments and the gabbroic rocks of Opemiska mountain and are found usually in the argillite phase.

"3,600 feet west of that zone... it was found, through the logging of two old drill holes, that a sulfide zone averaging 17 feet in width followed the contact between the gabbroic rock... and the sediments... The mineral zone averages 15% pyrrhotite, 3% to 4% pyrite, and 1/2% to 1% chalcopyrite."

2 2.5 mi. E. and 2.9 mi. S. of the NW. corner of twp.
Au

Norman, G.W.H.; Geol. Sur. Can., map 602A, 1941

Gold-bearing quartz occurrence.

3 1.8 mi. E. and 5.8 mi. S. of the NW. corner of twp.
Po

Verbal communication - V. Audet, 1964

A 4-foot band of massive pyrrhotite with a little chalcopyrite in acidic pyroclastics along the Opemisca lake shore in front of a large island, 1/2 mi. SW. of

Opemisca mountain. The host rock is conformably intruded by ultrabasic rocks. Standard Gold Mines Ltd. drilled a few holes in the vicinity of the showing.

DAINE TOWNSHIP

IV - G3

1 4 mi. W. and 2.5 mi. N. of the SE. corner of twp. (New Jersey Zinc Expl. Co. (Canada) Ltd.)
Ni, Cu

A.W.R.; GM-4485, 1956
Latulippe, M.; GM-4395, 1956

"The main nickel-copper showing is on the heel of the boot-like peninsula in Baie Ste-Geneviève. This showing is associated with an olivine gabbro sill which crosses the townships of Daine, Guettard, Lamarck and the southeast corner of Julien. It strikes about N.65°E. and dips with the formations from 40° to 70° north. The width varies from 120 to 300 feet.

"The sulfides are on the south side of the sill. They are made up of pyrrhotite, chalcopyrite and an unidentified nickel mineral, which is probably pentlandite. Assays over 2% Ni were obtained from grab samples."

2 4.3 mi. E. and 1.1 mi. N. of the SW. corner of twp. (Empire Oil and Minerals Inc.)
Ni

A.W.R.; GM-5365, 1957

"Good nickel assays were obtained from the northward dipping gabbro-diabase dike which extends across lac la Trève in a NE. direction. Mineralization occurs in pockets up to 3 or 4 feet in diameter and also as blebs. The mineralization consists of pentlandite, pyrrhotite, pyrite and chalcopyrite. Grab samples from surface showings assayed as high as 1.453% nickel."

3 2.9 mi. W. and 0.2 mi. N. of SE. corner of twp.
Cu, Pb

Gilbert, J.-E. - 1955, p. 36

"Pockets of pyrite with a little chalcopyrite and galena, in quartz veins cutting a small granitic mass containing disseminated pyrite, on the northern shore of the northernmost of the two large islands in the middle of Rita bay, La Trève lake."

DALET TOWNSHIP

III - B4

1 IV - 1, 2 (Selco Exploration Co. Ltd.)
Cu, Ni

Q.D.M. - 1959A, pp. 24-25

A vertical hole in a small mass of ultrabasic rocks gave an average of 0.4% copper and 0.73% nickel over a length of 37 feet.

2 East bank of Gale river, in the NE. corner of the township
Cu, Pb

Dresser and Denis - 1949, p. 26

"... on the east bank of Gale river, in the northeast corner of Dalet township, closely-spaced quartz veins up to four inches wide traversing an outcrop of sheared volcanics are mineralized with pyrite, chalcopyrite, and a little galena..."

3 Gale river, 6 mi. SE. of the NW. corner of the township
Au, Cu, Pb

Dresser and Denis - 1949, p. 26

A vein up to 15 inches wide was traced for a distance of about 300 feet. It "... is mineralized with pyrite and minor amounts of chalcopyrite and galena. Free gold was observed in a 12-foot section along a 'drag' in the vein..."

DALQUIER TOWNSHIP

V - C6

1 II - 42 to 44 (New Formaque Mines Ltd.)
Cu, Zn, Ag, Se, Bi

Q.D.M. - 1959A, p. 27

Two parallel sulfide zones crossing lots 42 to 44 contain chalcopyrite, sphalerite and minerals of silver, selenium and bismuth. One zone contains mostly chalcopyrite and six lenses within it were calculated to contain 440,000 tons grading 1.80% copper. A silver-rich lens within the zinc zone was calculated to contain 50,000 tons of 21.09 ounces of silver per ton and 3.14% zinc. Four zinc lenses within the zinc zone were calculated to contain 657,000 tons grading 1.77% zinc. Bismuth and selenium are erratically distributed in the deposits.

2 II - 46 (Bornite Copper Corp. Ltd.)
Zn, Pb, Ag

Q.D.M. - 1959A, p. 25

Drilling in this lot cut the eastern extension of the New Formaque zone. The best intersection returned 3.00% zinc, 0.92% lead and 1.15 ounces of silver per ton across 10.0 feet.

3 V - 19; VI and VII - 10 to 13 (Nortrac Mining Co. Ltd. - Colonial Mines Ltd.)
Au, W, Te, Ag, Zn

Dresser and Denis - 1949, p. 102

In lots 10 to 13, Ranges VI and VII, there are numerous quartz veins, in the border zone of a large granite pluton, which contain erratic gold, silver, scheelite and tellurides. A shaft was sunk to a depth of 112 feet on one of the veins in lot 13, Range VI.

In lot 19, Range V, a schist zone in volcanic rocks contains sphalerite and gold.

4 VI - 51, 52 (East Dalquier Gold Mines Ltd.)
Au, Cu, W

A.W.R.; GM-1714, 1952
Weber and Latulippe - 1964, p. 46

In lot 52, a quartz vein in a small granite pluton contains erratic gold and very minor scheelite. The best assay from four holes on the northern extension of the vein returned 0.14 ounce of gold per ton across 3.7 feet. On surface the best section of the vein returned an average of 0.093 ounce of gold per ton across 3.2 feet. A hole in the center of lot 51 cut an amphibolitic mass with disseminated pyrite, pyrrhotite and chalcopyrite.

5 X - 52 to 54 (Gordona Mng. Corp. Ltd. - Michaud prop.)
Zn, Pb

Q.D.M. - 1959B, p. 8
Weber, W.W. - 1951B, p. 13

Galena and sphalerite can be seen in a small lens of sulfides in lot 54. Drilling at the east end of lots 52 and 53 cut sulfide zones containing pyrite and pyrrhotite. The best intersection returned 1.00% zinc and 0.44% lead across 5 feet.

6 IV - 28, 29; V - 33; VI - 43, 45 (Mining Corp. of Canada Ltd.)
Cu, Zn

Q.D.M. - 1959A, pp. 26-7

Minor chalcopyrite was noted with pyrite and pyrrhotite mineralization in tuffs and volcanic breccias in holes drilled in lots 28 and 29, Range IV, and lots 43 and 45, Range VI. Minor sphalerite was also noted in a hole put down at the south end of lot 33, Range V.

7 I - 16, 18 (Oremonte Mines Inc.)
Cu

Ross and Asbury - 1939, pp. 28-9

Quartz veins cutting granite and gabbro in these lots contain chalcopyrite.

DANIEL TOWNSHIP

III - C3

1 SE. quarter of the township, on Allard river (New Hosco Mines Ltd.)
Cu, Zn, Au, Ag

Q.D.N.R. - 1962, p. 8
Sharpe, J.I. - 1964, p. 10
Q.D.N.R. - 1964, pp. 14-15

A copper producer since 1963. The ore consists of massive sulfides and magnetite in tuffaceous rocks. The main sulfides are chalcopyrite, sphalerite, pyrite and pyrrhotite. Reserves are 2,450,000 tons grading 2.64% copper and 960,000 tons grading 7.96% zinc. Gold and silver are also present.

2 2 mi. N. of center line of twp. between McIvor (Gouault) and Allard rivers (Daniel Mining Co. Ltd.)
Cu, Zn, Ag

Q.D.N.R. - 1964, pp. 13-14
Sharpe, J.I. - 1964, p. 9

A zone of chalcopyrite, sphalerite, pyrite and pyrrhotite mineralization in tuffaceous rocks was drilled in 1959. The zone is 350 feet long and 5 to 35 feet wide. Tenors range from 0.4 to 2.69% copper.

3 Near the SE. corner of the township (Bosada Synd. - New Calumet Mines Ltd.)
Cu, Zn

A.W.R.; GM-11342, 1961
Sharpe, J.I. - 1964, p. 9

Chalcopyrite and sphalerite mineralization was noted in drill holes with pyrite and pyrrhotite. The sulfides are in fractured lavas or in tuffaceous rocks.

4 On the S. limit of township, straddling the township center line (Allard Bay Mines Ltd. - Dransfield claims)
Cu

A.W.R.; GM-8644, 1958
Sharpe, J.I.; GM-9110, 1959

Minor chalcopyrite mineralization was noted with pyrite and pyrrhotite in quartz veinlets in core. An erratic block assayed 2.87% copper.

5 Underlies the largest bay on Allard river (Daering Explorers Corp. Ltd.)
Au, Cu

A.W.R.; GM-8379, 1958-59

Minor chalcopyrite, in silicified shears and fractures, was noted in holes drilled into volcanic rocks. One hole had a quartz vein from which a grab sample assayed 0.466 ounce gold per ton.

6 Near the NW. corner of the township (D'Aragon Mines Ltd.)
Cu
Py, Po

A.W.R.; GM-9255, 1959

Some chalcopyrite was noted with massive and disseminated sulfides in tuffaceous rocks.

7 Near the SE. corner of the township (Mining Corp. of Canada Ltd. - Watson Lake group)
Cu

A.W.R.; GM-11412, 1959
A.W.R.; GM-8743, 1959

Minor chalcopyrite was noted in volcanic and intrusive rocks in diamond drill holes and outcrops.

8 Near the NE. corner of the township (Mining Corp. of Canada Ltd. - No. 1 group)
Cu

A.W.R.; GM-7444, 1958
A.W.R.; GM-8743, 1958

A minor amount of chalcopyrite with pyrite and pyrrhotite was noted in drill cores. The mineralization was generally in quartz-carbonate veinlets cutting volcanic rocks.

9 Near MacIvor lake in the central part of the township (Mining Corp. of Canada Ltd. - No. 2 group)
Cu

A.W.R.; GM-8743, 1959

A minor amount of chalcopyrite was noted in sedimentary and dioritic rocks.

10 NE. part of the township, E. of Daniel Mng. (Newlund Mines Ltd. - N. group)
Cu

A.W.R.; GM-11192, 1961
A.W.R.; GM-11364, 1961

Chalcopyrite mineralization in volcanic rocks was noted in drill holes.

11 SE. quarter of the township, E. of New Hosco Mines Ltd. (Newlund Mines Ltd. - main group)
Cu

A.W.R.; GM-12523, 1961

Chalcopyrite, generally in quartz-carbonate veinlets cutting gabbroic and volcanic rocks, was noted in drill holes.

12 SE. part of the township (Newmont Mining Corp. of Canada Ltd.)
Cu, Zn

A.W.R.; GM-10070, 1959-60
A.W.R.; GM-8964, 1958
Sharpe, J.I. - 1964, p. 11

Drilling in the southeast part of the township cut gabbroic and volcanic rocks containing minor amounts of chalcopyrite and sphalerite.

13 NE. part of the township (Mile 18 Mines Ltd.)
Zn

A.W.R.; GM-10128, 1960

Minor amounts of sphalerite in veinlets were noted in holes drilled east of Daniel Mining.

DARLENS TOWNSHIP

VI - B7

1 IX - 1
Be

Freeman, P.V. - 1957B, p. 7

"... as small crystals in thin quartz veins cutting pegmatite..."

DASSERAT TOWNSHIP

V - A7

1 VIII - 4 (Bordulac Mines Ltd.)
Au, W

Cooke et al. - 1931, p. 234
Claveau et al. - 1951, p. 21

Shear zone in diorite with a length of at least 5,000 feet. It dips 68° to the south and contains auriferous quartz veins. Two parallel veins occur in the shaft area. Selected samples have given as much as 1,600 ounces of gold a ton.

2 VIII - 7 (Bordulac Mines Ltd.; indication "Russian Kid")
Au
Claveau et al. - 1951, p. 21
A large quartz vein is exposed for a length of 350 feet. Channel samples indicate that a 160-foot length of this vein contains an average of 0.32 ounce of gold a ton over a width of 5.12 feet.

3 IX - 30 (Dastur Gold Mines Ltd.)
Au

A.W.R.; GM-6006, 1946

Diamond drilling.

4 V - Block A (Pitchvein Mines Ltd.)
Au

Q.D.N.R. - 1961, p. 11

Carbonatized zone mineralized with pyrite. Visible gold was noted.

5 V - 45 (Payrock Mines Ltd.)
Au

Q.D.M. - 1959A, p. 30

"... There are three main stringers over a width of 10 feet, each about 6 inches wide... A selected sample taken by the writer assayed 0.628 ounce of gold per ton, 0.164 ounce of silver per ton and 0.03% tungsten."

6 At the junction of the railroad and the highway to Kirkland Lake (Dasson Copper Corp. Ltd.)
Cu

Q.D.M. - 1959A, p. 34

A vertical shear zone in the sedimentary rocks of the Pontiac group is filled with quartz mineralized with chalcopyrite over a 6-inch width.

7 V - Block B (Fayolle and Renault claims)
Zn, Pb, Cu, Mo, Au

Auger, P.-E. - 1947B, p. 21
Ross and Asbury - 1939, pp. 5-6

Assays of $6.82 in gold per ton and 0.66% copper were obtained in a dioritic

porphyry. A syenitic porphyry is cut by a 600-foot long and 1- to 4-foot-wide quartz vein mineralized with pyrite, chalcopyrite and galena.

8 South central part of twp., lot 36, 100 feet south of the road (Dasson Copper Corp. Ltd.)
Cu

Q.D.M. - 1959A, pp. 28-9

"... It consists of quartz stringers along a shear zone carrying patches and stringers of chalcopyrite..."

9 North of Opasatica lake (O'Leary - Malartic Mines Ltd.)
Cu

Q.D.M. - 1959A, pp. 29-30

"A zone of quartz mineralized with coarse chalcopyrite and a little bornite occurs at the south contact of the diabase dike with the biotite gneiss... It strikes east and is exposed for a length of 50 feet. The maximum width is 5 feet."

10 IV - 58 (Pepperess claims)
Cu

Q.D.M. - 1959B, p. 9

"Narrow seams of massive chalcopyrite were found along an easterly-trending shear zone in andesite. In 1958 a pit was sunk to a depth of approximately 20 feet; it exposed a high-grade shoot, 18 inches wide at its maximum, for a length of 15 feet."

11 III - 53 (Toburn Gold Mines Ltd. - Golden Valley Mines Ltd.)
Au

Ingham and Ross - 1947, p. 46
Aubert de la Rüe, E.; GM-251, 1947
Q.D.M. - 1959B, p. 9

"... High-grade gold mineralization was cut across narrow widths..." Molybdenite is also reported.

12 IV - 53 (Arncoeur Gold Mines Ltd. - Glazier claims)
Au

Company's annual report - 1945
Ross and Asbury - 1939, p. 6
Q.B.M. - 1926, pp. 123-4

An easterly-trending shear zone at the andesite-rhyolite contact. This zone is cut by quartz veins, a few of which contain visible gold. On surface, assays of 0.36 to 1.68 ounces of gold a ton were obtained over widths of 15 to 36 inches. Drill holes indicated 0.10 to 0.17 ounce of gold a ton for lengths ranging between 5 and 10 feet.

13 South part of the township, E. shore of Opasatica lake. (Campbell option - Bellren Mining Corp. - McDonald claims)
Cu, Pb, Zn

Q.D.M. - 1958, p. 9

"Several occurrences of pyrite, chalcopyrite, galena and sphalerite have been discovered on the property. The sulfides are generally associated with silica, either as fracture filling material or as disseminations throughout the schist and quartzite."

14 VIII - 49 (Charlebois claims)
Cu, Zn

Robinson, W.G.; GM-1334, 1951

A 2-foot-wide quartz vein accompanied by veinlets. The adjacent volcanic rocks contain, in order of abundance, irregular splotches of pyrite, sphalerite and chalcopyrite.

15 1 mi. E. of the Interprovincial boundary, 3/4 mi. N. of the road. (Chevrier property)
Cu

Robinson, W.G.; GM-1308, 1951

"The Chevrier showing is a northeasterly-trending quartz vein in argillite about 200 feet north of the Breen fault. The vein is about 2 feet wide, strikes N.35°E., dips steeply east and is exposed for 30 feet. A series of quartz stringers parallels the vein for about 3 feet on either side. Both the vein and the quartz stringers contain chalcopyrite." Another vein, which could be the extension of the first one, is exposed south of the Breen fault. This second vein is 8 inches wide.

16 VII - 53 (Gareau-Laroque claims)
Au

Gilbert, J.-E.; GM-2461, 1953

Quartz-carbonate veins cutting porphyritic dacite. A few veinlets contain minor pyrite and chalcopyrite. A sample showing coarse gold is reported to have been taken.

17 III - 55 (Gignac Gold Mines Ltd.)
Au

Ross and Asbury - 1939, p. 7
Rouyn-Noranda Press - Dec. 16, 1937

At the north end of Opasatica lake, on the opposite shores of the lake, narrow quartz veins cut the graywacke. The east and west veins are respectively 5 inches and 7 feet wide. They are slightly mineralized with pyrite and chalcopyrite. A report indicates that visible gold was found and that some interesting assays were obtained.

18 VI - 30 (Monarch Gold Mines Ltd. - Gilmont Mines Ltd.)
Au

Bell, L.V. - 1937, p. 3
Ross and Asbury - 1939, p. 5
Ingham et al. - 1949, p. 39

In 1935, the mine shipped 430 tons of high-grade ore. A 150-foot shaft was sunk afterwards to explore a vertical quartz vein striking N.60°E. and occurring near a shear zone developed at the contact between a feldspathic porphyry dike and the rhyolite.

19 IV - 59 (Macfort Gold Mines Ltd.)
Au, Mo, Cu

Ingham and Ross - 1947, pp. 45-6
Ambrose and Ferguson - 1945, pp. 24-6

There are two main mineralized zones, one west of Samia lake and the other between Samia and Fortune lakes. The mineralization is in shear zones in volcanic rocks. These zones are carbonatized and contain some quartz. A 20-foot-wide zone east of Samia lake follows the contact between diorite and volcanic breccia. Pyrite, chalcopyrite stains and molybdenite have been found, particularly in the gray quartz. Some samples gave as much as 1 ounce of gold per ton.

20 V - 39, 40 (Payrock Mines Ltd.)
Cu

Q.D.M. - 1959A, p. 30

"A zone mineralized with coarse pyrite mixed with, or surrounded by, fine chalcopyrite and magnetite in fractured diorite was uncovered at the west end of the diorite body in lot 39, Range IV. Chalcopyrite may be seen for a length of some 30 feet and a maximum width of 4 feet along a fracture striking N.15°E..."

21 IV - 31 (Pitchvein Mines Ltd.)
Cu, Pb

Q.D.M. - 1956, p. 24
Q.D.N.R. - 1961, p. 11

"... According to the drill logs of the company, a tuff zone was cut, locally mineralized with minor amounts of pyrite, chalcopyrite, hematite, galena and tetrahedrite."

22 At the south end of the township, 4 1/2 miles from the interprovincial boundary (Wm. Leys Mining Corp. Ltd.)
Cu

Q.D.M. - 1956, p. 24

Quartz vein in a biotite schist mineralized with pyrite, chalcopyrite and bornite. The mineralization extends into a granitic dike and the schist, over a 10-foot width.

DAUBRÉE TOWNSHIP

IV - H3

1 0.7 mi. W. and 4.1 mi. S. of NE. corner of twp. (Normiska Mining and Exploration Ltd.)
Cu, Zn

A.W.R.; GM-1733, 1952

"... Ore-bearing fracture zone... in the western part of the property where estimation from grab samples suggests between 2 and 3% copper, across about 8 feet in an east-west structure... Diamond drilling... in the west portion to test the surface showing. Some copper-bearing intersections were obtained in hole No. 1 ranging in width from a few inches to several feet. The best of these returned 1.47% Cu and 0.20% Zn over 2 feet."

2 0.6 mi. W. and 4.2 mi. N. of SE. corner of twp. (New York and Honduras Rosario Mining Co.)
Po, Py

A.W.R.; GM-4095, 1956

"Heavy (15% to massive) sulfides in altered lavas and pyroclastic sediments. Sulfides mineralization consists mainly of pyrrhotite and pyrite. The mineralization was intersected in three holes over a distance of 3,800 feet in an east-west direction."

3 0.2 mi. W. and 0.2 mi. N. of the SE. corner of twp. (Mid-Chibougamau Mines Ltd.)
Cu

Wolhuter, L.E. - 1962, p. 14

"In the southeast corner of the area, on the group of claims formerly held by Mid-Chibougamau Mines Ltd., copper mineralization was found in narrow quartz veinlets associated with small shears. The veinlets are 2 to 3 inches wide and average about 1% copper. The shears are mostly at the contact between metagabbro and amphibolitic hornblende."

4 2.8 mi. W. and 7.3 mi. S. of the NE. corner of twp.
Au

Norman, G.W.H. - G.S.C.; Map 602A, 1941

A gold-bearing quartz occurrence 1 1/2 mi. NW. of Cavan lake.

DAVOST TOWNSHIP

III - F3

1 5 mi. W. and 3.9 mi. N. of the SE. corner of twp.
Py (Iron formation)

Gilbert, J.-E. - 1951, p. 45

"Heavy pyrite replacement in ferruginous, cherty sedimentary beds, two and one-quarter miles north-northeast of the eastern end of McDonald lake."
This iron formation can be followed on G.S.C. aeromagnetic map No. 537G (McDonald Lake sheet) for a distance of approximately four miles.

Pyrrhotite or magnetite must be present in order to explain the magnetic anomaly.

2 4.7 mi. E. and 1.1 mi. N. of the SE. corner of twp.
Py (Iron formation)

Gilbert, J.-E. - 1951, p. 45

"Heavy pyrite replacement in sheared graywacke on the south shore of McDonald lake near its eastern end."
From G.S.C. aeromagnetic maps No. 537G and 541G, this formation appears to extend easterly across and beyond Colette lake, a total distance of approximately 8 miles.
Pyrrhotite or magnetite must be present with the pyrite in order to explain the magnetic anomaly.

DELBREUIL TOWNSHIP

VI - B8

1 N. shore of Simard lake (Viau claims)
Li

Dugas, J.; GM-10434, 1960

Three west-trending pegmatite dikes containing irregular concentrations of gray or light green spodumene, a little amber-colored apatite, fine-grained lepidolite and some magnetite. A particularly rich part of the dike shows 30 to 40% spodumene over a 200-foot length and an average width of 15 feet. A beryl crystal was observed.

2 NE. shore of Simard lake
Li, Be

Mulligan, R. - 1960, p. 30

"At the main showing an L-shaped trench measures about 40 and 15 feet on the limbs and about 10 feet in width. About 80 crystals are exposed in pockets and as single crystals ranging up to 1.6 by 0.6 feet exposed area, and many others, perhaps a majority, are several inches across... A little spodumene also occurs in limited areas..."

3 2.0 mi. from E. boundary of twp. and 3.5 mi. from S. boundary (Belleterre Quebec Mines Ltd.)
Cu, Zn

A.W.R.; GM-5416, 1958

Graphitic schist mineralized with pyrrhotite, pyrite and a small quantity of chalcopyrite and sphalerite.

4 Near the point common to Delbreuil, Hallé and Devlin twps.
Mo

A.W.R.; GM-11189, 1961

Molybdenite in pegmatite dikes.

DELESTRE TOWNSHIP

V - D6

1 V - 25, 26 (Atlas Sulphur Iron Co. Ltd. - Delandore Mines Ltd.)
Py, Po

Ross et al. - 1938, p. 27

A large pyrite and pyrrhotite zone located on Prospect island, in Parent lake, and on lots 25 and 26, Range V, occurs in tuffaceous sedimentary rocks. A block, 2,500 feet long, 100 feet or more wide, and 400 feet deep, was calculated to contain 13,500,000 tons grading 37% iron and 25% sulfur.

2 On Delestre-Brassier township line between Mile-posts V-VI
Py, Po

Bannerman, H.M. - 1936, p. 24

Pyrite and pyrrhotite mineralization in tuffaceous rocks was noted here.

DENAIN TOWNSHIP

VI - D7

1 Near the NW. corner of the township (Americ Mines and Minerals Ltd. - Charron group)
As, Cu, Au

A.W.R.; GM-4332, 1955

Disseminated and massive sulfides, comprising pyrite, pyrrhotite, arsenopyrite and minor chalcopyrite, are located in the contact area of gabbroic and sedimentary rocks. One grab sample assayed 0.23 ounce of gold per ton.

2 Midway between the small lake in the NW. corner of the township and the SW. end of Matchi-Manitou lake. (Harrison Minerals Ltd.)
Cu

Q.D.M. - 1959A, p. 31

Chalcopyrite in volcanic rocks at surface and in drill holes. The highest copper assay returned 2.78% across 6.0 feet. The widest intersection returned 1.05% copper across 24.0 feet.

DESANDROUINS TOWNSHIP

VI - A7

1 3 mi. from the S. boundary of the twp., W. of Rémigny lake (Mining Corp. of Canada)
Mo

Verbal communication.

2 III - 4
Cu, Ni

Verbal communication.

DESBOUES TOWNSHIP

V - B5

1 I - 21, 23 (Cartier Malartic Gold Mines Ltd.)
Au

Ingham et al. - 1949, pp. 40-41

Contact zone between a syenite mass and the volcanic rocks. Glassy quartz veinlets containing pyrite and some galena occur in the syenite. Gold is found in the altered syenite.

2 See 1.

DESJARDINS TOWNSHIP

III - D4

1 SE. corner of twp., between Cameron lake and Florence river. (New Jersey Lead and Zinc Co. Ltd. - Granada Gold Mines Ltd. - Wedding River Gold Mines Ltd. - Prospectors Airways Co. Ltd.)
Cu, Zn, Pb, Au
Py, Po

Q.B.M. - 1937, pp. 112-4
Q.D.M. - 1956, p. 25

Chalcopyrite, sphalerite, galena and gold mineralization was noted in surface exposures or in drill holes in a 3-square-mile area. Pyrite and pyrrhotite mineralization is widespread. Some of it is massive. Chalcopyrite and sphalerite were noted with the pyrite and pyrrhotite in tuffaceous rocks. Galena was noted in a carbonate vein. Gold in quartz veins was reported in at least two places on the property. Chalcopyrite and galena were reported from quartz veins.

2 SE. corner of township. (Flordin Mines Ltd. - Florence River Gold Mines Ltd.)
Au

Dresser and Denis - 1949, p. 34
Q.B.M. - 1937, p. 110

A shaft was sunk to 350 feet and two levels opened. A schist zone in lavas and tuffs is silicified and mineralized with gold and pyrite. The company reports 91,400 tons grading 0.305 ounce of gold per ton. The shaft is located 3 miles west and 3/4 of a mile north of the southeast corner of Desjardins township.

3 VI - East end of range (Cons. Mng. and Smlt. Co of Canada Ltd.)
Cu

Dresser and Denis - 1949, p. 35

Quartz veins contain a fair amount of chalcopyrite.

4 South central part of township. (Hollinger-Waite prop.)
Au

Q.B.M. - 1937, p. 113

Along the westerly extension of the Flordin property in the south central part of the township drilling cut 1.5 feet grading 0.257 ounce of gold per ton.

DESMAZURES TOWNSHIP

III - C3

1 2 mi. N. of Mile-post 33 on Douay-Desmazures township line (East Sullivan Mines Ltd.)
Cu
Py, Po

Latulippe, M.; GM-9309, 1959

Drilling explored a sulfide zone in tuffaceous and sedimentary rocks. The zone was traced for at least 1,600 feet. The sulfides are massive and disseminated pyrite and pyrrhotite with minor chalcopyrite. The zone contains about 0.2% copper over an average width of 85 feet.

DESMELOIZES TOWNSHIP

V - A5

1 X - 43, 44 (Normetal Mining Corp. Ltd.)
Cu, Zn, Ag, Au, Pb
Py

Tolman, C. - 1951, pp. 19-28
Gilman, W.F. - 1961, p. 12
C.I.M.M. - 1948, p. 690

The Normetal mine is a lenticular body of massive sulfides comprising mostly pyrite, chalcopyrite and sphalerite. The deposit is in a shear zone striking N.65°W. and dipping 80°NW. in felsic tuffs and agglomerates. It is cut by the north-trending (Abana) diabase dike. At the end of 1963, the production had reached 7,381,922 tons and the reserves were 1,552,922 tons grading 2.50% copper and 8.30% zinc. The shaft is down to a depth of 6,765 feet.

2 II - 26 (Duvan Copper Co. Ltd.)
Cu

Q.D.M. - 1958, p. 11
Q.D.M. - 1959A, p. 33
Gilman, W.F. - 1961, p. 11

A vein of massive sulfides comprising bornite, chalcopyrite and pyrite. The vein follows the stratification in graywacke and measures 120 feet in length and an average of 1 foot in width. A 1,000-foot shaft was sunk. Reserves were calculated to be 113,100 tons grading 2.5% copper. In 1960, the mine shipped to the Noranda smelter 1,159.6 tons of ore grading 11.99% copper and 2.94 ounces of silver a ton.

3 I - 36 (Bornite Copper Corp. Ltd.)
Cu, Zn

Gilman, W.F. - 1961, p. 12

"... A trench in metamorphosed sedimentary rocks, near their contact with epidotized and amphibolitized volcanics, disclosed massive pyrite mineralization with some chalcopyrite..." Some drill holes have intersected a scattered copper and zinc mineralization.

4 X - 42 (Jacmar Exploration Ltd.)
Cu, Zn, Ag

Tolman, C. - 1951, p. 30
Gilman, W.F. - 1961, p. 12

"In 1960, Jacmar Expl. Ltd. drilled a total of 4,097 feet in 13 holes. Mineralized sections were intersected which carried low tenors in copper, zinc and silver."

5 V - 39 (Bouzan Gold Mines Ltd.)
Cu, Zn, Pb

Gilman, W.F. - 1961, p. 12
Q.D.M. - 1959A, p. 32

Sedimentary rocks and graphitic schists contain veins and lenticular segregations of copper, lead and zinc sulfides.

6 VI - 26, 27 (La Reine Mines Ltd.)
Cu, Zn, Pb

Gilman, W.F. - 1961, p. 13

"... Numerous granite porphyry dikes inject the sedimentary rocks and contain disseminated pyrite with sphalerite, chalcopyrite and galena..."

7 VIII - 1 (Beaupré Base Metals Mines Ltd.)
Cu, Zn

Shear zone striking N.85°E. and cutting slates, tuffs and graywackes. The main metallic minerals are sphalerite and pyrite. These minerals are accompanied by a few grains of chalcopyrite and bornite.

8 IX - 28
Cu, Zn

Gilman, W.F. - 1961, p. 13

"Chalcopyrite, sphalerite and pyrite are disseminated in a well-trenched basic tuff band along the contact of a thin north-south-trending diabase dike..."

9 X - 30
Cu

Gilman, W.F. -

Shown on map, 1961

10 VII - 3, 4 (Fleetwood Mining and Explorations Ltd.)
Ni

Q.D.M. - 1959A, pp. 33-34

"Assays of 0.20 to 0.28% nickel were obtained from samples of the basic to ultrabasic intrusive rock."

DESPINASSY TOWNSHIP

V - D5

1 III - 32
Cu

Latulippe, M. - Personal notes

Chalcopyrite mineralization fills fine fractures in altered volcanic rocks at the east end of the lot.

DESROBERTS TOWNSHIP

VI - C7

1 On an island in Maurier lake and also 1/2 mi. E. of the lake
Be

Freeman, P.V. - 1957A, p. 8

Beryl crystals were noted in pegmatite dikes.

2 1 mi. N. of Truite lake
Cu

Freeman, P.V. - 1957A, p. 7

Veinlets of bornite and chalcopyrite were found in several boulders of pegmatite.

DESTOR TOWNSHIP

V - A6

1 IX - NW. corner of twp. (Richard Copper Corp. Ltd.)
Cu

Q.D.M. - 1959A, p. 35

Sheared rhyolite mineralized with pyrite and minor chalcopyrite. The best intersection is reported to be 1.45% copper over 5 feet.

2 X - 4 1/2 mi. from the E. boundary of the twp. (Lyndhurst Mining Co. Ltd.)
Cu

Q.D.M. - 1956, pp. 28-30

"Scattered pyrite, pyrrhotite, chalcopyrite, sphalerite and galena mineralization is present along almost the whole length of the main shear which extends across the property... The ore appears to occur in a northeasterly-trending crumpled fold in a silicified rhyolite agglomerate and is related to numerous irregular porphyry intrusions..."

From 1956 to 1957 the mine produced 156,000 tons of ore containing 1.93% copper.

3 VI - 4 (Duquesne Mining Co. Ltd.)
Au

Ross, S.H.; GM-88, 1946
Graham, R.B. - 1954, pp. 50-51

Diamond drilling.

4 3 mi. from the S. boundary of the twp., W. of Highway 46 (Duquette Mining Co. Ltd.)
Au

Ross, S.H.; GM-88, 1946
Graham, R.B. - 1954, pp. 50-51

"... Most of the underground work has been done to explore a lens of quartz-feldspar porphyry which lies north of the shaft... On the south side of the porphyry there is a strong fault marked by a band of intensely-sheared greenstone containing many porphyry dikes..."

The mineralization consists of very finely disseminated pyrite and of a little magnetite. Between 1951 and 1953, the mine produced 90,250 tons of ore grading 0.305 ounce of gold a ton.

5 Range West Macamic Road - 19 (Bédard claims)
Cu

Dugas, J.; GM-10118, 1960

"Chalcopyrite appears to have been introduced in the pillow rims in dacite. Massive sulfide stringers are also found. Their width is irregular but does not exceed 2 inches... The sulfides are mostly chalcopyrite, with a little pyrrhotite and, in places, minor black sphalerite." (translated)

6 I - 17 (Nova Beaucage Mines Ltd.)
Cu

Dugas, J.; GM-13902, 1962

"A strong shear zone is exposed over a width of 40 feet. The schistosity is vertical and strikes N.55°W... Small carbonate lenses contain chalcopyrite and pyrite." (translated)

7 IV - 39, 42 (New Thurbois Mines Ltd.)
Au

Bannerman, H.M. - 1940, p. 26
Ingham and Ross - 1947, pp. 47-9
Ingham et al. - 1949, p. 44
Claveau et al. - 1951, pp. 21-2

Six gold occurrences have been explored on the property. The main one is in diorite and silicified rhyolite. Zones "C", "D" and "E" consist of narrow quartz veins, a few inches to many feet in width, which strike N.15-30°W. and are mineralized with pyrite accompanied by specularite, galena, sphalerite and chalcopyrite. Zone "F" is the most important and was explored from a 285-foot shaft. In all, 14 possible orebodies were outlined. Their combined length reaches 970 feet. The average width is 10.2 feet and the gold content, 0.18 ounce a ton.

8 III - 41 (Double Strike Mines Ltd.)
Au

Bannerman, H.M. - 1940, p. 25
Bell, L.V. - 1937, p. 7
Ingham et al. - 1949, p. 42

Diamond drilling cut narrow mineralized quartz veins in west-striking shear zones on the north side of Destor fault. Gold assays up to 0.25 ounce a ton were obtained.

9 III - 59 (Zulapa Mining Corp. Ltd.)
Cu

Q.D.N.R. - 1964, p. 15
Hogg, W.A.; GM-11496, 1961

"A core section 6 feet in length was intersected at a depth of 20 feet and contained a chloritized andesite with heavily disseminated chalcopyrite."

10 III - 61 (Bassique Mines Ltd.)
Au

A.W.R.; GM-6071, 1946
Hogg, W.A.; GM-11496, 1961

An assay of O.112 ounce of gold per ton over 9.9 feet in the south part of lot 61.

11 VIII - 2 mi. from W. boundary of twp. (Destor O'Hara Mines Ltd.)
Cu, Zn

A.W.R.; GM-4348, 1956

Diamond drilling.

12 III - 37 (H.E. Silver claims)
Au

A.W.R.; GM-11740, 1962

Geological map.

13 Range East Macamic Road - 27 (Elk Lake Mines Ltd.)
Au

A.W.R.; GM-12099, 1962

Diamond drilling.

14 III - 22 (Elk Lake Mines Ltd.)
Cu

A.W.R.; GM-12099, 1962

Diamond drilling.

15 III - 54 (Klondyke Destor Gold Mines, Ltd.)
Au

Ingham et al. - 1949, pp. 43-44

"... Fractured zones with a few quartz stringers, disseminated pyrite, and a little chalcopyrite were intersected in both the porphyry and volcanics. These returned a low tenor of gold, the best assay coming from a zone in the porphyry which contained O.19 ounce in gold per ton over 2 1/2 feet, according to company reports."

16 Range East Macamic Road - 28 (Nipissing Engineers Expl.)
Au

A.W.R.; GM-9930A, 1946

Diamond drilling.

17 I - 27 (N.A. Timmins (1938) Ltd. - Rocca group).
Cu.

Ambrose, J.W. - 1941, pp. 55-6

"The rhyolite on the south ridge is extensively fractured, broken into small joint blocks, and mineralized with much massive fine-grained pyrite and some chalcopyrite."

DEVLIN TOWNSHIP

VI - B8

1 Near the E. boundary of the township.
Mo

Verbal communication.

2 1 1/4 mi. NE. of E. end of Devlin lake (Percy White vein).
Sb

Denis, B.-T. - 1937, p. 21

"... a system of parallel stibnite-bearing quartz-albite veins has been traced over a length of more than 1,000 feet... Pyrite and chalcopyrite are also sparingly present."

3 N. of Devlin lake
Cu

Verbal communication.

DIEPPE TOWNSHIP

III - A4

1 About 1 1/2 mi. from provincial boundary, N. of Turgeon river (Conwest Exploration Co. Ltd.)
Mag

A.W.R.; GM-6242, 1957

Iron formation.

DOLLARD TOWNSHIP

V - D6

1 III - 4 (Tatara claims)
Cu

Q.D.M. - 1959A, p. 37

A sulfide zone 10 to 20 feet wide and up to 900 feet long contains pyrite and pyrrhotite with minor local chalcopyrite.

DOLLIER TOWNSHIP

IV - J3

1 2.6 mi. E. and 0.2 mi. S. of the NW. corner of twp. (Père Marquette Mining Syndicate)
Au, Zn, Ag, Cu

A.W.R.; GM-4848, 1957

Père Marquette Mining Syndicate drilled four holes in 1956 from the ice of Stella lake on C1.3, C-95710. Seven core specimens were sent for assays. A good content of gold, silver, copper and zinc was found in three of them.

Neale, E.R.W. - 1959, p. 39

"One mineral showing is located at the northeast corner of Stella lake. Here, a northeast shear zone, apparently localized by a contact between pillowed andesite and granitic rock of the Chibougamau complex, has been cut across by six trenches. Albitization and silicification of the andesite was followed by the introduction of rusty-weathering iron carbonate, pyrite, and chalcopyrite. Assays of samples showed no gold and only trace value of copper."

A.W.R.; GM-12110, 1962

Subsequent exploration works done by Chibougamau Mining and Smelting Co. in those trenches showed narrow stringers of massive sphalerite. Assays from four grab samples gave maximum and minimum results of 0.21 ounce and trace of gold per ton, 0.36 and 0.10 ounce of silver per ton and 26.70 and 0.30% zinc. Diamond drilling was carried out.

2 3.0 mi. W. and 1.9 mi. S. of the NE. corner of twp. (Orefield Mining Corp.)
Po, Py

A.W.R.; GM-4717, 1956

"Several horizons of disseminated sulfides were intersected, while drilling six holes south of Lac au Couteau, in garnet-muscovite schist and gneiss. These intersections vary in width from a few inches to 16 feet. The mineralization consists mainly of pyrrhotite with some pyrite."

3 3.1 mi. E. and 2.5 mi. S. of the NW. corner of twp.
Mo

Neale, E.R.W. - 1959, p. 40

"A northeast-trending, carbonatized, shear zone near the southeast shore of Pillow lake contains small amounts of pyrite and molybdenite."

4 1.5 mi. E. and 2.3 mi. N. of the SW. corner of twp. (Patersen-Kilpatrick claims)
Au, Cu

A.W.R.; GM-2761A, 1954

"Gold was discovered in a small outcrop... High values at the north end of the outcrop were confirmed but the remainder proved barren... Some chalcopyrite was found in small stringers near the east edge of a second small outcrop south of the gold discovery."

A.W.R.; GM-2904 and 2961, 1954

The aforementioned property was optioned by Cyprus Exploration Corporation, which ran, in 1954, electromagnetic, geochemical and geological surveys and drilled a few short holes. Results were disappointing.

DOLOMIEU TOWNSHIP

IV -G3

1 4.9 mi. W. and 1.8 mi. S. of the NE. corner of twp. (Maxwell-Grenier claims; Prospector Airways Co. Ltd.)
Py, Po (Iron formation)

A.W.R.; GM-11942, 1962
Duquette, G.; 13901, 1962

"Numerous sections of graphite- and chlorite-rich pyroclastic sediments have been heavily to completely replaced by sulfides. Pyrite and pyrrhotite are the most abundant sulfide minerals. Very little chalcopyrite has been seen. In some sections the rock was enriched (up to 60%) by magnetite."

A.W.R.; GM-11841, 1962
Duquette, G.; GM-13900, 1962 (Brooks-Darcy Syndicate)

"2,000 feet east of the Maxwell-Grenier mineralized zone, a 5-foot pyrite-rich zone was intersected... in a fine-grained siliceous rock, probably a pyroclastic sediment."

2 1.1 mi. E. and 3.0 mi. S. of the NW. corner of twp. (Magoma Mines Ltd.)
Cu

A.W.R.; GM-4394, 1956

Sulfide replacement in green tuffaceous rocks was intersected in a few diamond drill holes. The sulfides consist of heavy to massive pyrrhotite with minor chalcopyrite. The massive pyrrhotite sections are, as a rule, 1 foot thick. Except for one sample which contains 1.42% copper over 0.8 foot, the copper assay results were negligible.

3 4.7 mi. E. and 3.4 mi. S. of the NW. corner of twp. (Alouette Mines Ltd.)
Cu, Ni, Co, Au

A.W.R.; GM-2917, 1954

"The (western or original) showing consists of a sulfide replacement body along the sedimentary belt. Pyrite, pyrrhotite and chalcopyrite are regularly and well distributed for a distance of at least three hundred feet long. Its width varies but stands over hundred feet... On both sides, i.e. on the north and south sides, the body is limited by strong vertical shears resting on quartz diorite... intrusives."

A.W.R.; GM-5169, 1957

"Some blasting to freshen the surface was undertaken... Assay results returned low but persistent copper values, with trace of nickel, gold and silver. One assay gave 0.273 ounce of gold...

"The second (or eastern) showing... is located some 3,000 feet east of the first showing along the same formation..."

Seven grab samples gave the following maxima and minima: 6.70 ounces and trace of gold per ton, 12.02 and 0.12% copper, 0.24 and 0.00% nickel, 3.900 and 0.010% cobalt.

In 1957, Alouette drilled five holes on the eastern showing and three on the western showing. The best intersection was 0.52% copper over 4 feet. Massive pyrrhotite bands a foot or less thick were encountered in a few holes. Only trace values of gold were seen in the core.

4 3.5 mi. W. and 2.4 mi. N. of the SE. corner of twp. (Canadian Nickel Co. Ltd.)
Cu, Ni

A.W.R.; GM-4571, 1957

"Sulfide mineralization was intersected in two diamond drill holes. It consists of very heavy to massive pyrrhotite and pyrite in tuffaceous andesitic rock.

"In hole 13266, the massive sulfides (py.) were intersected over 3-foot core length in contact with a diabase. The massive section is preceded by a 7.4-foot core length assaying 1.30% copper and 0.14% nickel... In hole 13287, an 8- to 7-foot section was found carrying up to 75% pyrite and minor pyrrhotite. Assays for nickel gave 0.12% and for copper, 0.04%."

5 2.8 mi. W. and 2.1 mi. N. of the SE. corner of twp. (Mining Corporation of Canada Ltd.)
Po, Py

A.W.R.; GM-8809, 1959

"Three holes, spaced over a length of 1,200 feet, were drilled to test part of an aeromagnetic anomaly (G.S.C. Geophysical Paper 518G) south of Obatogamau river in the SE. quarter of Dolomieu twp.

"The holes intersect sulfide mineralization on either side (N and S) of an olivine diabase dike. The sulfides consist of pyrrhotite and pyrite with minor chalcopyrite replacing completely or partly tuffaceous rocks."

DRUILLETTES TOWNSHIP

IV - H4

1 3.5 mi. W. and 0.3 mi. S. of the NE. corner of twp. (Chesbar Chibougamau Mines Ltd. - Concord Mines Ltd.)
Py, Po (Iron formation ?)

Assad, J.R.; GM-4400, 1956
A.W.R.; GM-7065, 1949

Three hundred feet south and parallel to anomalies 3-A and 3-B, there is a magnetic zone comprising anomalies 5-A and 5-B. The zone strikes N.70°E. for a length of 3,900 feet. At 2,000 and 4,800 feet east of anomaly 5-B there are two other anomalies in strike with that magnetic zone. Concord Mines Ltd. drilled one hole at the east end of anomaly 5-B. The hole was drilled from north to south and only the bottom part touched the north side of the anomaly. Very little sulfide was noted in graphitic and feldspar-rich pyroclastic sediments.

Five hundred feet south and parallel to anomalies 5-A and 5-B there is another magnetic zone known as 6-A. This zone was not investigated apparently.

2 3.0 mi. W. and 0.6 mi. S. of the NE. corner of twp. (Chesbar Chibougamau Mines Ltd.)
Py, Po (Iron formation)

Assad, J.R.; GM-4400, 1956
A.W.R.; GM-7534, 1957

Two magnetic anomalies (7-A and 7-B) trending N.70°E. were outlined 2,300 feet south of magnetic Zone 3. These anomalies are 3,500 feet and 4,700 feet long respectively and separated along strike by a distance of 1,500 feet. Two holes were drilled, one at the east end of anomaly 7-B and the other at the center of anomaly 7-A. These anomalies are underlain by sediments, probably of volcanic origin, containing some sections well mineralized with pyrrhotite and some pyrite.

DUBUISSON TOWNSHIP

V - C7

1 N. central part of the NE. quarter of the township (Sullivan Consolidated Mines Ltd.)
Au, Ag, W, Cu, Zn, Pb, Te

Dresser and Denis - 1949, p. 247

The first gold discovery of the area was made on this property in 1911. The mine has produced gold since 1934; approximately 33 million dollars' worth of gold has been extracted up to 1963. Silver is a by-product of gold mining. During the war a small amount of scheelite was mined. The ore is found in quartz veins which fill fracture and shear zones in the western nose of the Bourlamaque granodiorite batholith. Chalcopyrite, sphalerite and galena are common in the quartz veins. In particular, a rich but small gold orebody in the "K" zone contained a considerable amount of these base-metal sulfides. Tellurides have been reported. Ore reserves were last reported as 654,938 tons averaging 0.225 ounce of gold per ton.

2 IX - 1 to 4 (Malartic Gold Fields - No. 1 mine)
Au, Ag

Dresser and Denis - 1949, p. 228
Halet, R.A. - 1948, p. 868

Malartic Gold Fields has a mine in Dubuisson township, in lots 1 to 4, Range IX, and another mine across the township line in Fournière township. Gold has been taken from both mines and, during the period 1938-1963, approximately 60 million dollars worth of gold has been extracted. The last ore reserves were given as 150,000 tons grading 0.15 ounce of gold per ton. The ore is found in pyritized diorite masses within highly schisted rock adjacent to the Cadillac break.

3 X - 1 to 16 (Marban Gold Mines Ltd. - Marbenor Malartic Mines Ltd.)
Au, Ag, Cu

Ingham, W.N. - 1945, p. 39
Ingham et al. - 1949, p. 50
Graham et al. - 1953, p. 21

Production began in 1961. Up to 1963 approximately three quarters of a million dollars' worth of gold had been extracted. The orebodies lie between two north-dipping and parallel shears in competent siliceous tuffs and lavas. The gold-bearing quartz veins fill fractures and shears developed between the two parallel shears. Chalcopyrite is present in some veins.

4 NE. part of the NW. quarter of the township (Kiena Gold Mines Ltd.)
Au, Cu, Zn, Pb

Dresser and Denis - 1949, p. 255
Claveau et al. - 1951, p. 23

The Kiena property is a large one, covering the southwest part of de Montigny lake. Gold was found in numerous places on the claim group and two shafts were put down in the late thirties. In 1961 a new orebody of large dimensions was discovered. In 1963, the company sank a new shaft to develop the gold zone. The ore reserves have been conservatively estimated at 5 million tons grading 0.185 ounce of gold per ton. The orebody is found in a large shear zone slicing across a large block of lavas and tuffs, which are almost completely surrounded by incompetent peridotite. Some of the quartz veins on the property contain chalcopyrite, galena and sphalerite.

5 On a large island at the N. limit of the twp. (Siscoe Gold Mines Ltd.)
Au, Ag, W

Dresser and Denis - 1949, p. 240

This mine, a former producer, was the first to get into production in the area. During the period 1929-1949, 30 million dollars' worth of gold was extracted. The gold was found in quartz veins in a granodiorite plug, which is probably an apophysis of the Bourlamaque batholith.

6 VIII - 53N, 54; IX - 55S, 56, 57 (Greene Stabell Mines Ltd.)
Au, Ag, Cu, Te, Zn

Dresser and Denis - 1949, p. 252

This company, during the period 1933-37, produced 397,703 pounds of copper, 15,159 ounces of gold and 4,223 ounces of silver. The Stabell vein, from which production came, was located in a shear zone developed in volcanic rocks and cut by a porphyry dike. Chalcopyrite constituted 2% of the vein. At the No. 2 shaft, 3,000 feet northeast of the Stabell shaft, and in the contact zone of the Bourlamaque batholith, a vein on the 1,000-foot level was reported to have 0.3 ounce of gold per ton over a length of 240 feet and a width of 20.5 inches. The vein also contained tellurides and abundant sphalerite. The property is now part of Sullivan Consolidated Mines Limited.

7 VIII - 33 to 37 (Shawkey Gold Mining Co. Ltd.)
Au

Dresser and Denis - 1949, p. 249

This mine, during the period 1936-1938, produced 25,414 ounces of gold from 137,978 tons of ore grading 0.184 ounce of gold per ton. The ore was found in quartz veins within a fracture zone in volcanic rocks which are cut by porphyry dikes.

8 VIII - 43 (Provincial Mining School; Gale Gold Mines Ltd.)
Au
Dresser and Denis - 1949, p. 249

A gold property operated by the government as a mining school for a short period. A 450-foot shaft is located on lot 43, Range VIII. Gold is found in narrow quartz veins in and near porphyry dikes cutting andesitic rocks. During the period 1941-42, the mine produced 21,789 dollars worth of gold.

9 VIII - 27S, 28S. (Unison Gold Mines Ltd. - Crossroads Gold Mines Ltd.)
Au, As, Cu

Dresser and Denis - 1949, p. 257

Gold was found in quartz veins in diorite, porphyry and a carbonate zone. The gold, in the free state, is erratically distributed in the veins. Some veins contain fair amounts of chalcopyrite and arsenopyrite.

10 W. of Siscoe island, in de Montigny lake (West Siscoe Gold Mines Ltd.)
Au

Dresser and Denis - 1949, p. 255
Auger, P.-E.; 1947A, p. 31

A crosscut from the 450-foot level of Siscoe Gold Mines was driven into the West Siscoe claims. A granodiorite dike, with numerous quartz stringers containing gold, had given encouragement from surface drilling. The underground work failed to develop mineable orebodies.

11 VII - 39 to 41 (Cusco Mines Ltd.)
Au

A.W.R.; GM-13194, 1963

Gold was discovered in quartz veinlets within a granodiorite mass in 1963. The best hole returned 0.56 ounce of gold per ton for a core length of 35.6 feet.

12 X - 17 to 23 (Little Long Lac Gold Mines Ltd. - Clarnor property)
Au

Dresser and Denis - 1949, p. 256

Gold in quartz veins was discovered at an early date. The quartz veins are in a shear zone cutting across amphibolitic rocks.

13 VIII - 9 to 18 (Dubuisson Goldfields Ltd.)
Au

Claveau et al. - 1951, p. 22
Dresser and Denis - 1949, p. 230

Over 70 holes, totalling more than 50,000 feet of drilling, were completed on this property. Gold in quartz veins in the Cadillac break area, east of the Malartic Gold Fields mine, was found in diorite and porphyry. The best assays were 0.71 ounce of gold per ton across 2.5 feet, 0.21 ounce of gold per ton across 5.0 feet, 0.09 ounce of gold per ton across 13.0 feet and 0.144 ounce of gold per ton across 8.0 feet.

14 VIII - 19 to 25 (Central Mining Corp.) (Verbal communication)
Au

A fair gold assay from a drill hole was reported by the company from this property.

15 VII - N 1/2,1 to 15; VIII - S 1/2, 1 to 8 (Harpers Malartic Gold Mines Ltd.)
Au

Ross, S.H. - 1941, p. 10

Diamond drilling in 28 holes and surface trenching were completed on the property. An assay of 0.11 ounce of gold per ton in silicified graywacke was reported from one of the holes.

16 VII - S 1/2, 44 to 49 ; VI - 44 to 62 (Seventh Malartic Gold Mines - Amity Gold Mines Ltd.)
Au

Dresser and Denis - 1949, p. 251
Ingham, W.N. - 1945, p. 41
Norman, G.W.H. - 1942, p. 11

Gold in quartz veinlets has been reported from surface exposures and diamond drill holes. Free gold from narrow quartz veinlets was seen at surface. The best assays in ounces of gold per ton from drill holes were: 0.14 across 17.0 feet; 0.17 across 4.7 feet; and 0.16 across 3.5 feet.

17 VIII - 44, 45 (Sullivan Consolidated Mines Ltd. - Lamothe group)
Au, Zn

Norman, G.W.H. - 1942, p. 13
Bell, L.V. - 1937, p. 54

The outcrop on the railway, in the south part of lot 44, contains a few veinlets of sphalerite. A high erratic gold assay was obtained from a drill hole in the west-central part of lot 45; the hole was drilled by Teck-Hughes Gold Mines Ltd.

18 Water claims in the NW. corner of twp. (Lencourt Gold Mines Ltd.)
Au

A.W.R.; GM-11926, 1962
A.W.R.; GM-14138, 1963

Some of the quartz veins in volcanic rocks contain gold. Some of the best assays from drill holes, in ounces of gold per ton, were: 0.56 across 1.0 foot; 0.44 across 3.0 feet; 0.83 across 1.0 foot; and 0.98 across 1.0 foot.

19 II and III - 32 to 47 (New Jersey Zinc Exploration Co. (Canada) Ltd.)
Zn, Cu, Ni

Q.D.M. - 1959A, p. 38

Chalcopyrite, sphalerite and pentlandite mineralization has been found in surface trenching and diamond drilling. The sulfides are generally in tuffaceous or sedimentary rocks close to ultrabasic rocks. Tenors up to 1.7% zinc, 0.25% copper and 0.38% nickel were obtained over narrow widths.

DUCROS TOWNSHIP

V - D6

1 VIII - 71
Cu,
Py, Po

Bannerman, H.M. - 1936, p. 26

A vein bearing some chalcopyrite is reported to have been found on this lot. In the same location massive pyrite and pyrrhotite deposits in tuffaceous rocks were trenched.

2 VIII and IX - 58, 59 (Valray Explorations Ltd.)
Py, Po, Mag

Q.D.M. - 1959B, p. 10

Sulfide and iron formations made up of pyrite, pyrrhotite and magnetite are located on these lots.

DUFAY TOWNSHIP

V - A7

1 IX - 61 (Marosa Mines Ltd.)
Cu

Personal information

2 VII - 58 (Bellren Mining Corporation Ltd.)
Cu

Q.D.M. - 1958, p. 14

"The principal zone of alteration and mineralization of the property outcrops along the south shore of the little bay just south of the diabase dike, west of Moose bay. The rock is there made up mostly of intensely fractured, bleached, and carbonatized sedimentary schists, in places heavily mineralized with pyrrhotite, pyrite, and scattered chalcopyrite..."

3 X - 2 1/2 mi. from the provincial boundary (Carlson Mines Ltd.)
Au, Cu

Ingham and Ross - 1947, pp. 4-7
Ross et al. - 1940, p. 19

"Vein No. 1, the main vein, cutting graywacke, has been traced by stripping, trenching, and diamond drilling for a length of 2,000 feet... It averages five feet in width and strikes N.45°E... Vein No. 2, 200 feet north of No. 1 and

parallel to that vein, lies in a shear zone in graywacke... Diamond drill intersections indicate an actual length of 205 feet and a probable length of 1,500 feet for this vein..."

4 V - N. shore of Dushwak lake (Laloge claims)
Cu

Dugas, J.; GM-5344B, 1956

Vertical fractures in argillites of the cobalt series. These fractures are filled with quartz containing coarse chalcopyrite. The maximum width is 1 1/2 feet.

5 VII - Between Durand and Foudras lakes (Lambert claims - New Thurbois Mines Ltd.)
Cu

Dugas, J.; GM-4148, 1956
Dugas, J.; GM-4754, 1956

"The copper mineralization widens out to 4 feet under the surface and reaches a length of 40 feet. A few zones are rich in pyrite but, generally, the mineralization consists mostly of coarse chalcopyrite." (translated) Some other pegmatitic quartz veins contain chalcopyrite.

6 See 5.

DUFRESNOY TOWNSHIP

V - A6

1 V and VI - 1 (Vauze Mines Ltd. - B1 and B2)
Cu, Zn, Au, Ag
Py

Dugas, J.; GM-7217, 1958

From 1961 to the end of 1963, this mine produced 247,421 tons of high-grade copper-zinc ore containing a little gold and silver. At January 1st, 1964, the reserves were 105,000 tons grading 1.6% copper. The ore comes from two zones: the B-1, containing massive sulfides and occurring at the contact between the Waite rhyolite and the Amulet andesite; the B-2, containing chalcopyrite in disseminations or stringers and a little bornite and occurring in an alteration pipe in the rhyolite. The B-2 zone is low-grade but the B-1 contains about 6% copper and 5% zinc.

2 VI - 1 (Vauze Mines Ltd. - Quebec Copper Corporation)
Cu

Wilson, M.E. - 1941, p. 135

"Some chalcopyrite occurs in fractures cutting the andesite exposed in the pit and surface crosscut."

3 Blocks 183-184 (East Waite)
Cu, Zn, Au, Ag
Py

Canadian Mining Journal - Vol. 83, No. 4, p. 103

Between 1951 and 1961, there was mined a total of 1,500,000 tons of ore containing 4.13% copper, 3.26% zinc, 0.053 ounce of gold a ton and 0.91 ounce of

silver per ton. The massive sulfide deposit is at the contact between the Waite rhyolite and the Amulet andesite.

4 Block 2 (Amulet F)
Cu, Zn, Ag
Py

Wilson, M.E. - 1941, pp. 99-111
Q.B.M. - 1930, p. 120
C.I.M.M. - 1948, pp. 757-63
Can. Min. Journal - Vol. 83, No. 4, p. 103

This mine produced 280,000 tons of ore grading 3.4% copper, 8.6% zinc and 0.015 ounce of gold and 1.35 ounces of silver a ton. Massive sulfides.

5 Block 2 (Amulet C)
Cu, Zn, Ag
Py

Wilson, M.E. - 1941, pp. 99-111
C.I.M.M. - 1948, pp. 757-63

A total of 600,000 tons grading 2.2% copper, 8.5% zinc, and 0.017 ounce of gold and 2.53 ounces of silver a ton. Massive sulfides.

6 Block 1 (Amulet A); Block 53 (Lake Dufault Mines Ltd.)
Cu, Zn, Ag
Py

Ross and Asbury - 1939, pp. 19-22
Wilson, M.E. - 1941, pp. 99-111
C.I.M.M. - 1948, pp. 757-63

A total of 5,300,000 tons grading 5.12% copper, 5.47% zinc, and 0.043 ounce of gold and 1.36 ounces of silver a ton. Massive sulfides.

Q.D.M. - 1959A, p. 47

At the contact between andesite and the Amulet rhyolite, east of Amulet "A" deposit, Lake Dufault Mines Ltd. has outlined a massive sulfide deposit containing 65,000 tons grading 8.7% zinc, 0.02 ounce of gold a ton and 1.3 ounce of silver a ton.

7 V - 89 (Lake Dufault Mines Ltd.)
Cu, Zn, Au, Ag
Py

Q.D.M. - 1959A, p. 39
Dugas, J.; GM-13926, 1962
Company's annual report for 1963

Massive sulfide deposit containing pyrite, sphalerite, chalcopyrite and minor pyrrhotite. The deposit is about 400 by 300 feet and the thickness reaches 150 feet at the top of the lens at the contact between the Waite rhyolite and the Amulet andesite. Under the main deposit occurs a dalmatianite alteration zone which locally makes ore as disseminations or stringers of chalcopyrite. According to the 1963 report, the reserves for the two zones, with a dilution factor of 10%, are 1,798,000 tons containing 4.2% copper, 7.9% zinc, 2.2 ounces of silver a ton and 0.03 ounce of gold a ton.

8 Block 8 (Norbec Copper Mines Ltd.)
Cu, Mo

G.S.C. Mem. 229, pp. 123-5

Wilson, M.E. - 1941, pp. 99-111
Claveau et al. - 1951, p. 27

A small lens of copper sulfides was found on surface in the fault-zone adjacent to the contact between andesite and quartz porphyry. The fault-zone was explored by underground works. In 1930, about 278 tons of ore containing 6.74% copper was shipped to the Noranda smelter. Molybdenite was found west of the shaft near a diorite inclusion.

9 V - 45 (New Lorie Mines Ltd.)
Cu

Robinson, W.G. - GM-180, 1947

Diamond drilling

10 Range East Macamic Road - 68 (Acadia Uranium Mines Ltd. - Silvestri prop.)
Cu, Mo

Dugas, J.; GM-12823, 1962
Q.D.N.R. - 1964, p. 17

A zone of disseminated mineralization in granodiorite consisting of pyrrhotite and chalcopyrite. Tenors are generally below 0.1% copper. Molybdenite is exposed in lot 65. Diamond drilling on the property has also revealed some molybdenite.

11 West part of Dufault lake (New Insco Mines Ltd.)
Cu

A.W.R. ; GM-11864, 1962

Many alteration zones contain disseminated sulfides, in particular pyrite, sphalerite and chalcopyrite.

12 Central part of Dufault lake (New Insco Mines Ltd.)
Cu, Zn

A.W.R.; GM-11864, 1962

Many alteration zones contain disseminated sulfides, in particular pyrite, sphalerite and chalcopyrite.

13 VII and VIII - 52, 53 (Mobrun Copper Ltd.)
Cu, Zn, Au, Ag
Py

Q.D.M. - 1959A, p. 41

Massive sulfide zone containing mostly pyrite with chalcopyrite and sphalerite. The chalcopyrite fills fractures or is associated with quartz veinlets or lenses. The zone extends for a length of 1,000 feet and measures an average of 66 feet in width. It terminates at a depth of 600 feet. The calculated reserves are 3,041,000 tons grading 0.62% copper, 2.32% zinc, 0.052 ounce of gold a ton, 0.62 ounce of silver a ton, and 37.15% sulfur. The deposit occurs in rhyolite.

14 VII - 57 (Copper Hills Mines, Ltd.)
Cu

Ross et al. - 1940, pp. 20, 21

"A sulfide zone, 50 to 75 feet wide, striking N.50°W. and cutting altered lavas, mainly rhyolite and sheared rhyolite-breccia, has been exposed in several cross-trenches, 125 feet long and 250 to 300 feet apart, for a length of over 600 feet... It consists of lenses of massive, granular (2mm.) pyrite with some associated chalcopyrite..."

15 IV - 35 (Continental Copper Mines Ltd. - Gilbec Mines Ltd.)
Cu

Ambrose, J.W. - 1941, pp. 39-41
Ross, S.H. - 1941, p. 13
Ingham et al. - 1949, p. 52;
Q.D.N.R. - 1964, p. 16

"The Gilbert shaft was sunk in 1928 on a showing of massive chalcopyrite in agglomerate... A number of NW. and NE. striking fractures south and west of the shaft are heavily mineralized with massive chalcopyrite..."

16 III - 38 (West MacDonald Mines Ltd.)
Zn, Cu,
Py

Ambrose, J.W. - 1941, pp. 49-50
Claveau et al. - 1951, p. 25

"In 1944 massive sulfides were discovered by diamond drilling along the northern contact of the volcanic breccia with the granodiorite. Further drill holes outlined a body 800 feet long and up to 330 feet wide. The principal sulfides are pyrite, sphalerite and chalcopyrite, in that order of abundance."

From 1955 to 1958, this mine produced 1,000,000 tons of ore. Besides zinc, a little copper, gold and silver were recovered.

17 III - 53 (Hatfield - Plante claims)
Au

A.W.R.; GM-14915, 1932

"On a small shoal in the river this chloritic material with its contained pyrite was found on assay to carry values in gold."

18 X - 18 (Fox Lake Mines Ltd.)
Py, Po

Dugas, J.; GM-13903, 1963

"Six diamond drill holes cut a sulfide zone consisting of pyrrhotite, pyrite and very minor chalcopyrite. The width is from 5 to 40 feet and the length, at least 1,800 feet." (translated)

19 Block 169 (Lake Dufault Mines Ltd.)
Cu, Zn

Q.D.M. - 1959A, p. 39

"... In 1955 drilling in the northwest corner of block 169, west of the rhyolite nose, cut chalcopyrite in veinlets or fracture zones along a line trending N.60°E. for a distance of nearly 800 feet... In 1956, 38,700 feet of

diamond drilling in 23 holes delimited a horizontal body 400 feet long by 100 feet wide and 2 to 40 feet thick consisting of massive sulfides, stringers or disseminations. Tenors range up to 7% copper and 18% zinc..."

20 Range East Macamic Road 83 (Larandona Mines Ltd.)
Cu

A.W.R.; GM-8257, 1955

Three small patches of massive fine-grained pyrite, containing a little finely disseminated chalcopyrite.

21 I - 39 (La Salle Gold Mines - Patterson claims)
Pb

Q.B.M. - 1929, p. 97

"In 1928 a small mining plant was installed and a shaft was sunk to a depth of 75 feet... Narrow veins of quartz and calcite are present and small amounts of galena occur in these veins..."

22 VI - 30 (Noranda Mines Ltd.)
Cu

Q.D.M. - 1958, p. 15

Scattered chalcopyrite and pyrite mineralization in granodiorite.

23 III - 42 (Tromac Mines Ltd.)
Au, Cu

Ingham et al. - 1949, p. 59

Drill holes cut quartz-carbonate veins containing a little tourmaline, pyrite and chalcopyrite near the contact between granodiorite and volcanic rocks. Assays up to 1.94 ounces of gold a ton have been obtained over narrow widths.

24 IV - 38 (Tromac Mines Ltd.)
Au

Ingham et al. - 1949, p. 59

Diamond drilling.

25 VII - 1 (Consolidated Vauze Mines Ltd.)
Cu, Zn

A.W.R.; GM-8834, 1959-60

Diamond drilling.

26 VII - 14 (Consolidated Vauze Mines Ltd.)
Cu, Zn

A.W.R.; GM-8834, 1959-60

Diamond drilling.

DUHAMEL TOWNSHIP

VI - A9

1 Block A (Wright Mines Ltd. - Villa Lead Mining Corp. Ltd. - Cobalt Badger Silver Mines Ltd.)
Pb, Zn, Ag

Henderson, J.F. - 1936, p. 34
Claveau et al. - 1951, p. 30

"The ore occurs in a brecciated zone in which fragments of the agglomerate are cemented together with quartz, calcite, galena and sphalerite. Surface exposures and plans of the underground levels indicate that the ore is in a nearly vertical pipe, roughly oval in cross section, with widths of 50 to 90 feet."

Q.D.M. - 1956, pp. 38-9

"Company officials estimate reserves of 75,950 tons of recoverable and broken ore above the 330-foot level and 25,000 tons of possible ore below it, for a total of 100,950 tons. The average tenor is estimated at 5% lead, 1.8% zinc and 1.5 ounces of silver per ton."

2 VI - 21 (Guimond - Church claims - Mespi Mines Ltd.)
Ni

Gilbert, J.-E.; GM-2994, 1954

A little nickel (0.27%) in a serpentinized peridotite mass.

3 V - 3 (Mine Baldface)
Au, Cu

Henderson, J.F. - 1936, p. 34

"An old gold prospect... is situated on lot 3, range V, Duhamel twp... An échelon series of large lenses of vein quartz occurs in a band of highly sheared agglomerate... The largest quartz lens is 85 feet in length with a maximum width of 15 feet... The quartz is heavily mineralized with pyrite and chalcopyrite..."

DUPARQUET TOWNSHIP

V - A6

1 VI, facing lot 19 (Beattie - Duquesne Mines Ltd.)
Au, As, Mo, Ag

Graham, R.B. - 1954, pp. 48-50
C.I.M.M. - 1948, pp. 692-701

This mined-out property produced 10,614,421 tons of ore grading 0.12 ounce of gold a ton. The mineralization occurred around a syenitic porphyry dike on the north limb of a syncline. The porphyry is bounded to the north and to the south by the Donchester and Beattie faults. The mineralization consisted of finely disseminated pyrite, minor pyrite, and gold and was found in the porphyry itself or in the volcanic rocks. The presence of molybdenite was also reported.

2 VI, facing lot 25 (Donchester Mines Ltd.)
Au, As, Ag

Graham, R.B. - 1954, p. 48

The Donchester orebody occurs in the Donchester shear zone about 200 feet south of the Beattie mass. The gold ore forms lenses along this fault.

3 IV - South shore of Dugros lake (Quain group)
Py

Graham, R.B. - 1954, p. 56

"... Trenching over a width of 200 feet has exposed four veins of massive pyrite 6 to 8 feet wide. The veins strike N.65°W..."

4 IX - 45 (Beattie-Hunter Mines Ltd.)
Cu, Ag

Dugas, J.; GM-5998A, 1957

Disseminated chalcopyrite mineralization, in sheared rhyolite, forming three lenses with a convex top. A total of 129,000 tons grading 1% copper was mined in 1957. A small quantity of silver was recovered.

5 VI - island in Duparquet lake (Beattie Island property - East Bay Gold Ltd.)
Au

Graham, R.B. - 1954, p. 52

"An easterly-trending quartz vein lies along the more southerly of the two shear zones, near the northwest corner of the island... The vein is about 2 feet wide and dips 15° to 30° north..."
The mineralization consists of minor pyrite and chalcopyrite. In a drill hole, a 2.5-foot section assayed 0.75 ounce of gold per ton.

6 IX - 8 (Stadacona Mines (1944) Ltd.)
Py, Mag

Dugas, J.; GM-9707, 1960

A breccia made up of pink and white angular fragments and of a chloritic matrix contains pyrite and magnetite.

7 VI, facing lot 33 (Central Duparquet Mines Ltd.)
Au

Graham, R.B. - 1954, pp. 47-8

Gold-bearing quartz vein. Also, pyrite mineralization with gold values in altered porphyry and brecciated volcanic rocks along a fault.

8 VI, facing lot 29
Au

Graham, R.B. - 1954, pp. 47-8

Gold-bearing quartz vein. Also, pyrite mineralization with gold values in altered porphyry and brecciated volcanic rocks along a fault.

9 III - 1/2 mi. E. of twp. center line and 2 mi. N. of S. boundary of twp. (Dufresnoy Mines Ltd.)
Cu

Q.D.M. - 1959A, p. 44

"Some chalcopyrite was found by trenching in a band of agglomerate..." Chalcopyrite occurs in fractures and in patches, especially for a 300-foot length.

10 IV, S. of the road, 1 3/4 mi. from the E. boundary of the township (Pitt Gold Mining Company Ltd.)
Au

Graham, R.B. - 1954, pp. 55-6

"... The formations intersected by diamond drilling consist of altered lavas and sediments, intruded by numerous easterly-trending lens-like bodies of porphyry up to 200 feet wide... A pipe-like zone containing gold ore was found in one of the bodies of porphyry at a point where the main shear is intersected by another shear trending N.65^{0}E..."

11 V, S. of the road, 3/4 mi. from the E. boundary of the township (Golconda Mining Corp. - Garney Mines Ltd.)
Au

Graham, R.B. - 1954, p. 53

"... Trenching 800 feet south of the road has exposed a zone of shearing, brecciation, silicification and carbonatization 2 1/2 to 5 feet wide, from which good assay values in gold have been reported... Diamond drilling has proved this zone to be 1,100 feet long..."

12 IX - 47, 49, 50 (Parquet Mines Ltd.)
Cu, Zn, Pb

Dugas, J.; GM-13906, 1962

The mineralization consists mainly of pyrite with, locally, sphalerite, chalcopyrite, and minor galena. The richest copper zone is in lot 47 where interesting but erratic values were obtained. The zone is richer in zinc in lots 49 and 50. The mineralization occurs mainly in brecciated rhyolite.

13 IX - 51 (Parquet Mines Ltd.)
Cu

Dugas, J.; GM-13906, 1962

The sulfide zone extends to the east across nearly the whole length of the property. Sulfides are found north of the main zone.

14 IX - 58, 61 (Duquesne Mines Ltd.)
Au

A.W.R.; GM-88, 1947

Diamond drilling.

15 VIII - 61 (Parkway Mines Ltd.)
Cu, Zn

A.W.R.; GM-3647, 1955
Diamond drilling.

16 IX - 43 (Red Bark Mines Ltd.)
Cu

A.W.R.; GM-3666, 1955

Diamond drilling.

17 IX, 42, 43 (Windward Gold Mines Ltd.)
Cu

A.W.R.; GM-3867, 1955

Diamond drilling.

DUPLESSIS TOWNSHIP

III - E4

1 1/4 mile E. of a point midway between Mile-posts II and III on the Currie-Duplessis township line. (Dominion Gulf)
Au

A.W.R.; GM-2391, 1953

Gold was reported from this area.

2 3/4 mile E. of the center post of township. (Burge Lake Goldfields) (Bourcier-Kuntz Synd.)
Au, Cu, Zn, Pb

Ingham et al. - 1949, p. 63

Six showings of quartz veins in sheared diorite porphyry and tuffs contain gold, sphalerite and galena. Minor amounts of chalcopyrite, sphalerite and galena were noted with pyrite and pyrrhotite in tuffaceous rocks. The best drill intersections returned, in ounces of gold per ton, 0.2 ounce over 7.6 feet, 0.187 over 15.2 feet and 0.168 over 16.6 feet.

DUPRAT TOWNSHIP

V - A6

1 IV - 10 (Lapointe claims)
Au

Verbal communication.

2 IV - 14 (Lapointe claims)
Pb, Zn

Verbal communication.

3 III - 28 (Eldrich Mines Ltd.)
Au

Q.D.M. - 1958, p. 15
Claveau et al. - 1951, p. 35
Behr et al. - 1958, p. 7

During the period 1955-62, this company shipped 717,654 tons of gold ore worth an average of $4.80 a ton. The ore occurs in quartz veins striking N.60°E. and in the granite or diorite wall rock. In lot 27, about 2,000 feet north of the range line, quartz veinlets occupying a fracture zone in granite have given good assays in gold.

4 I - 16 (Nordis Gold Mines Ltd.)
Mo

Graham et al. - 1953, p. 6

A big SW.-trending quartz vein traverses the south part of lot 16, Range I, in the extension of the Quesabe fault. Diamond drilling across the fault indicated a low gold content. A hole drilled to intercept the quartz vein gave more than 0.2% molybdenite over 67 feet.

5 I - Block 146 (Quesabe Mines Ltd.)
Au

Q.D.M. - 1956, pp. 40-1
C.I.M.M. - Vol. II, 1957, p. 413

During the period 1950-51, this mine produced 145,000 tons of ore containing about 0.3 ounce of gold a ton. Gold-bearing quartz lenses introduced into the Quesabe fault which strikes N.65°E.

6 I - Block 148 (Quesabe Mines Ltd.)
Au

See 5.

7 I - 9 (Rainville claims)
Cu

A.W.R.; GM-6392, 1956

Diamond drilling.

8 I - 1 (Four Corners property)
Cu

Q.D.M. - 1959A, p. 62

Mineralized zone following a valley striking N.20°E. "The mineralization is in a rhyolite breccia and consists mostly of pyrite carrying, in places, a fair amount of chalcopyrite.

9 V and VI - 51 (Ansil Mines Ltd. - Noranda Mines Ltd.)
Cu, Zn

Dugas, J.; GM-13907, 1962

Disseminated chalcopyrite and sphalerite mineralization with chlorite in andesite or rhyolite.

10 II - Block Q (Waite Amulet Mines Ltd.)
Cu, Zn, Ag

Q.B.M. - 1928, p. 118
Wilson, M.E. - 1941, p. 99
C.I.M.M. - 1948, pp. 748-56
Can. Min. Journal - April 1962, p. 103

This mined out orebody contained 1,200,000 tons grading 4.7% copper, 2.98% zinc, 0.032 ounce of gold a ton and 0.63 ounce of silver a ton. The sulfides were massive.

11 II - Block 102 (Bedford Hill Mines Ltd. - Waite Amulet Mines Ltd.)
Cu

Q.D.M. - 1959A, p. 45
Dugas, J.; GM-11495, 1961

Diamond drilling on Bedford hill, which is a mineralized brecciated rhyolite, outlined a 255,000-ton orebody grading 1.5% copper. The ore is mainly chalcopyrite, pyrite, and, in places, pyrrhotite.

12 III - 29 (Boulder Hill Mines Ltd.)
Cu

Ingham et al. - 1949, p. 64

A 6-inch to 2-foot-wide quartz vein mineralized with chalcopyrite.

13 I - 18 (Cons. Ansley Gold Mines Ltd.)
Au, Cu

Claveau et al. - 1951, p. 32
A.W.R.; GM-872, 1950

Quartz veinlets along the Quesabe fault gave gold values over narrow widths. Minor chalcopyrite.

14 II - 22 (Millsite Mines Ltd.)
Cu, Zn

A.W.R.; GM-6848, 1957

Quartz veins containing chalcopyrite and minor sphalerite.

15 II - 2 (Mining Corp. of Canada Ltd.)
Cu

A.W.R.; GM-12734, 1962

Diamond drilling.

16 III - 5 (New Vinray Mines)
Cu

A.W.R.; GM-1506, 1951

Shown on map.

17 III - Block 126 (North West Amulet Mines Ltd. - F shaft area)
Cu

Q.D.N.R. - 1964, p. 18
A.W.R.; GM-11522, 1961
Dugas, J.; GM-11495, 1961

"A zone of disseminated mineralization, 300 feet long by about 200 feet wide, contained low copper values". (translated)

18 II - Block 99 (North West Amulet Mines Ltd.)
Cu

Q.D.N.R. - 1964, p. 18
A.W.R.; GM-11522, 1961
Dugas, J.; GM-11495, 1961

"The mineralization occurs along a fracture striking N.10°E. and does not exceed a few inches". (translated) The mineralization consists of chalcopyrite in rhyolitic breccia.

19 V - Block 30 (North West Amulet Mines Ltd.)
Cu

A.W.R.; GM-13979, 1962
Q.D.N.R. - 1964, p. 18

Diamond drilling.

20 II - 51, 52 (Phelps Gold Mines Ltd.)
Au

Ingham and Ross - 1947, p. 15

On a crest, many narrow quartz facies in granodiorite are mineralized with fine pyrite and contain some gold. A section assayed $18.09 a ton over a 4.5-foot width.

21 II - 49 (Phelps Gold Mines Ltd.)
Au

Ingham and Ross - 1947, p. 15

According to the diamond drill logs, interesting gold assays were obtained in this lot.

22 II - 48 (Phelps Gold Mines Ltd.)
Au

Ingham and Ross - 1947, p. 15

According to the diamond drill logs, interesting gold assays were obtained in this lot.

23 I - 13 (Rainville P. property)
Au, Cu

A.W.R.; GM-936, 1950

Diamond drilling.

24 I - 23 (St-Jude Gold Mines Ltd.)
Au, Cu

Ross and Asbury - 1939, p. 13
Robinson, W.G. - 1943, p. 14

Five parallel veins spaced 100 to 300 feet apart and striking N. to NE. One of these veins has been traced for a length of 1,200 feet. The quartz is mineralized with pyrite and chalcopyrite. Good gold assays have been obtained over a 600-foot length, in particular $102 over a 1-foot width.

25 I - 22 (St-Jude Gold Mines Ltd.)
Cu, Pb

Ross and Asbury - 1939, p. 13
Robinson, W.G. - 1943, p. 14

Closely-spaced quartz stringers contain pyrite, chalcopyrite and galena.

26 I - 50 (Thornhill Gold Mines Ltd.)
Au

Ross, S.H.; GM-96, 1945

One quarter of a mile NW. of the zone described at (28), a flat-lying vein contains erratic gold values.

27 I - 62 (Despina Gold Mines Ltd.)
Cu

Q.D.M. - 1959A, pp. 73-4

"... Vein No. 8, which is situated 1,300 feet north of the junction of the four townships, was explored to a depth of 700 feet. For a length of 600 feet it has an average tenor of 1.52% copper over an average width of 3.3 feet..."

28 I - 51 (Thornhill Gold Mines Ltd.)
Au

Ross, S.H.; GM-96, 1945

Northeast extension of the Elder veins. Gold is associated to pyrite disseminated in silicified zones.

29 VI - 58 (Waite Lake Mines Ltd.)
Cu, Zn

A.W.R.; GM-4492, 1956

30 V - 58 (Waite Lake Mines Ltd.)
Cu

A.W.R.; GM-4492, 1956

31 V - 62 (Waite Lake Mines Ltd.)
Cu

A.W.R.; GM-4492, 1956

DUQUET TOWNSHIP

II - J2

1 3.7 miles E. and 1.6 miles S. of NE. corner of twp.
Zn, Pb

Deland, A.-N. - 1957, p.8

"A few crystal aggregates of galena, sphalerite and pyrite were observed along the fault one mile north of Mistassini Post. Here, the shear zone is about 200 feet wide but the schistosity is not pronounced throughout. The galena and sphalerite form eyes or lenses disseminated here and there in the schistose dolomite. These sulfides account for about 1% of the exposed bedrock and are concentrated mostly in a zone 15 feet wide. A lens 1 foot long and 4 inches wide contains about 20% galena and 20% sphalerite."

DUSSIEUX TOWNSHIP

III - D3

1 1 mile W. of Goeland lake
Cu

Sproule, J.C. - 1937, p. 5

A minor amount of chalcopyrite was noted with pyrite in tuffaceous rocks.

2 At Red chute, on Waswanipi river
Cu

Auger, P.-E. - 1942, p. 16

A minor amount of chalcopyrite was noted with pyrite in sedimentary rocks.

DUVERNY TOWNSHIP

III - C6

1 V, VI - 22 to 25 (Claverny Gold Mines Ltd.)
Au, Cu

Weber, W.W. - 1947, p. 13
Dresser and Denis - 1949, p. 106

Numerous quartz veins in carbonatized granodiorite contain gold. The high tenors are erratically distributed. Two shafts of 65 feet and 216 feet were put down on vein systems. A 50-ton pilot-mill operated for a short period. The best vein, known as the No. 1, supplied 363 tons of ore to the mill, which averaged 0.154 ounce of gold per ton. The veins also contain minor amounts of chalcopyrite, rare sphalerite and galena.

2 X - 3
Cu

Wilson, W.J. - 1910, pp. 46-7

Chalcopyrite mineralization was noted under the waters of Obalski lake. The chalcopyrite is found in a narrow quartz veinlet.

3 VI - 9 to 11 (Cossette-Martel property - Duverny Cons. Gold Mines Inc.)
Au, Cu, Zn, Pb

Ross et al. - 1940, p. 27
Dresser and Denis - 1949, p. 105

Quartz veins containing erratic gold, minor chalcopyrite and sparse sphalerite and galena. The veins cut carbonatized volcanic rocks.

4 IX - 11 to 13 (Goldvue Mines Ltd. - Garneau property)
Au

Weber, W.W. - 1947, p. 8 and p. 18

Narrow quartz veins at the south end of these lots contain erratic gold.

5 VI - 15 (Dumar property)
Au

Weber, W.W. - 1947, p. 22

Quartz veinlets cutting volcanic rocks in the central part of the lot contain gold.

6 I - 13, 14 (Dumont Nickel Corporation - Wendell Gold Mines Ltd.)
Cu, Ni

Q.D.N.R. - 1961, p. 13
Weber, W.W. - 1949, p. 14

A small gabbro body has a chimney-like concentration of sulfides at its base. The sulfide mass is made up of disseminated pyrrhotite, chalcopyrite and pentlandite. It is 10 to 20 feet in diameter and at least 400 feet deep. It averages approximately 1.0% combined copper and nickel.

7 VIII - 10, 11 (Duvay Gold Mines Ltd.)
Au

Weber, W.W. - 1947, pp. 8 and 16

Narrow quartz veins in shear zones cutting through volcanic rocks at the north end of these lots contain erratic free gold and minor sphalerite. A shaft was put down and lateral work carried out on the 100-foot level. Underground results were discouraging.

8 V - 30 (Kiska Gold Mines Ltd. - Duver Creek Gold Mines Ltd.)
Au

Weber, W.W. - 1947, p. 21
Dresser and Denis - 1949, p. 106

Narrow quartz veins in shears and tension fractures within a granodiorite stock contain erratic gold, and minor sphalerite and chalcopyrite.

9 III - 3 to 5 (Eastmac Mines Ltd.)
Au

Weber, W.W. - 1949, p. 13

A quartz porphyry dike crossing these lots has been complexly fractured and contains irregular masses of quartz with erratic gold and sparse chalcopyrite, sphalerite and galena. The porphyry dike cuts through granite. A shaft was put down 120 feet in lot 3 to test the quartz within the porphyry and the adjacent granite.

10 V and VI - 16 to 21 (Fontana Mines (1945) Ltd.)
Au, Cu

Dresser and Denis - 1949, p. 105
Weber, W.W. - 1947, pp. 8 and 10

Narrow quartz veins in shears and tension fractures cutting granodiorite contain erratic gold and minor chalcopyrite, sphalerite and galena. A shaft to 300 feet and 1,200 feet of lateral work were completed.

11 VIII - 60, 61 (Gothic Gold Mines Ltd.)
Au, Cu

Weber, W.W. - 1951A, p. 23

Erratic gold mineralization over narrow widths in lot 60 was noted. The quartz veins in which the gold is found parallel a shear zone in andesitic lavas. Chalcopyrite can also be seen in a narrow tuff bed between lava flows on lot-line 60-61.

12 VIII - 12 (Mallich Quebec Gold Mines Ltd.)
Au, Cu, Zn

Ingham and Ross - 1947, p. 16
Weber, W.W. - 1947, p. 18

Visible gold occurs in narrow quartz veinlets adjacent to the Duvay shear zone. Chalcopyrite and sphalerite can be observed in and near the quartz veinlets.

13 III - 33, 34 (Monpas Mines Ltd.)
Cu, Zn, Ag

Weber, W.W. - 1949, p. 14

A sulfide deposit in tuffs and agglomerates contains chalcopyrite and sphalerite. Drilling failed to establish continuity of the deposit but showed the lenticular nature of the sulfide masses. The best intersection was 80.3 feet of 1.27 ounces of silver per ton, 2.34% copper and 0.70% zinc. The true width was calculated to be 6.0 feet. Another hole returned 1.46 ounces of gold per ton, 2.77% copper and 1.67% zinc over a core length of 39.7 feet equivalent to a true width of 22 feet.

14 VII - 28 (New Goldvue Mines Ltd. - Goldvue Mines Ltd.)
Au

Weber, W.W. - 1947, p. 15

A shaft was sunk to 1,250 feet and 6 levels established. Gold is erratically distributed in quartz veins filling fractures in a large diorite sill. The best results were found on the 350-foot level where bulk samples from a vein returned an average of 0.22 ounce of gold per ton for a length of 530 feet.

15 IV - 13; V - 15 to 20 (Newport Gold Mines Ltd.)
Au

Ingham and Ross - 1947, p. 17
Weber, W.W. - 1947, p. 22

Quartz veins at the south end of lots 15 to 20, Range V, and lot 13, Range IV, contain erratic gold. The best intersection in 10,000 feet of drilling returned 2.5 ounces of gold per ton across 1.0 foot. The quartz veins are in shear and fracture zones in quartz diorite and granitic rocks.

16 VII and VIII - 18, 19 (Silverny Mines Ltd. - Reynolds Quebec Gold Mines Ltd.)
Au

Dresser and Denis - 1949, p. 104

Narrow quartz veins in shear and fracture zones contain gold.

17 VIII - 47 to 51 (Dolsan Mines Ltd. - Soma-Duverny Gold Mines Ltd.)
Au

Ingham, W.N. - 1945, p. 47
Weber, W.W. - 1951A, p. 22

Narrow quartz veins and stringers cutting gabbro and volcanic rocks contain erratic gold.

18 VI - 32 (Southvue Mines Ltd.)
Cu, Au

Weber, W.W. - 1951A, p. 21

A zone of sulfide mineralization is exposed for a length of 175 feet and widths up to 12 feet. Pyrite and chalcopyrite are in a sheared agglomerate bed between andesitic lavas. Drilling failed to show continuity along strike. The best hole returned 1.22% copper across 18 feet. Visible gold was noted in a quartz stringer in one of the drill holes.

ENJALRAN TOWNSHIP

III - A3

1 N. part of twp., W. bank of Turgeon river (Kesagami Syndicate)
Py, Po

A.W.R.; GM-15126, 1959
A.W.R.; GM-15127, 1959

Diamond drilling. Pyrrhotite and pyrite in quartzite.

2 E. shore of central part of lake in the NE. corner of twp. (Kesagami Syndicate)
Py, Po

A.W.R.; GM-15126, 1959

Diamond drilling. Pyrrhotite and pyrite in quartzite.

3 E. shore of S. part of lake in the NE. corner of twp. (Kesagami Syndicate - Philippon showing)
Cu

A.W.R.; GM-15126, 1959

Quartz-calcite veins with chalcopyrite. Diamond drilling.

4 E. bank of Turgeon river, about 1 1/4 miles of twp. line. (Korich Mining Co. Ltd.)
Cu

A.W.R.; GM-10908, 1936

Minor chalcopyrite in gabbro.

5 SE. corner of twp. (Selco Exploration Co. Ltd.)
Po

A.W.R.; GM-8929A, 1959

Diamond drilling. Pyrrhotite and minor chalcopyrite.

ESTRÉES TOWNSHIP

III - A4

1 About 4 miles from the N. boundary of twp. and 4 miles from the E. boundary (Wawagosic Syndicate)
Cu
Py, Po, Mag

A.W.R.; GM-11302, 1961

Diamond drilling.

2 See 1.

FABRE TOWNSHIP
VI - A9

1 I and II - 35 to 41
Co, Ag

Harvie, R. - 1911, p. 30

On Quinn point, in lots 35 to 41 of Range II, there are many exploration shafts sunk on calcite veins or aplite dikes. The mineralization consists mainly of pyrite, smaltite and cobalt and nickel bloom. Silver is also reported.

2 V - 8
Cu

Ingham and Ross - 1947S, p. 2

"This vein occurs in a shear zone 15 feet wide, which is exposed for a length of 70 feet in the middle of lot 8, Range VS. The vein, confined to a basic dike, strikes S.70°E. and dips 65° to the north. It has an average width of five feet and consists of a number of pyrite veins, 1 inch to 2 inches wide, and quartz stringers mineralized with pyrite and some massive chalcopyrite.

3 V - 3, 4, 5
Cu

Ingham and Ross - 1947S, p. 5

In the south part of lot 3, Range VS, a shear zone developed in a tuff band contains abundant pyrite and chalcopyrite disseminations and quartz lenses. Samples assayed up to 3.29% copper.

"Several lenticular, milky quartz veins, varying in width from a few inches to 10 feet cut highly altered volcanics and are exposed in rock trenches in lots 4 and 5, Range VS, 2,000 feet north of the road on range-line V-VIS... A prominent quartz vein, varying in width from 1 foot to 3 feet and striking N.50°E., dips 80° to the north and is exposed along the strike for a length of 240 feet in a rock-trench... Throughout most of its length, it is well mineralized with massive and disseminated chalcopyrite and pyrite. A chip sample, taken by the writer 40 feet from the west end, assayed $3.25 in gold per ton across 16 inches of quartz well mineralized with chalcopyrite."

4 V - 5, 6
Cu

Ingham and Ross - 1947S, p. 11

Lot 6 - In the south part of the lot, pits in a shear zone. A basic dike contins quartz-carbonate stringers. The rock is impregnated with minor pyrite and chalcopyrite.
Lot 5 - In the south part of the lot, sheared tuff containing narrow quartz-carbonate lenses impregnated with pyrite and chalcopyrite. An assay gave $0.21 in gold per ton and 0.66% copper.

5 III - 32
Zn, Pb, Cu, Ag, Au

Ingham and Ross - 1947S, p. 24

"The main zone of mineralization lies in the volcanics along and near lot-line 31-32, 600 feet east of range-line II-III. Several shear zones trend east-west

at intervals across a width of 200 feet. The principal shear zone lies along the lot-line... The zone is heavily impregnated with fine pyrite and contains scattered, narrow streaks of sphalerite and galena with sparse chalcopyrite. A company sample selected from a deep test pit was reported to contain 0.001 ounce gold, 0.69 ounce silver, 0.33% copper, 2.32% lead and 8.31% zinc per ton."

North of the main zone, values of $4.76 in gold per ton and values in copper, lead and zinc were obtained.

6 VI - 6
Cu, Pb, Co

Jngham and Ross - 1947S, p. 34

"Here, several, thin, red aplitic dikelets occupy slip planes in the diabase. The rock also contains a few stringers and small patches of white calcite, some of which carry pyrite, chalcopyrite and galena. Three hundred feet to the northeast... in the dump rock there are quartz-calcite veinlets sparsely mineralized with chalcopyrite and stained with cobalt bloom."

7 VII - 8N (Jessie Fraser Copper Mng.)
Cu

Harvie, R. - 1911,. p. 28

"The chief body is a band of schist about three feet wide, impregnated with pyrite and chalcopyrite. The development work consists of two shafts, 60 and 85 feet deep respectively, with some drifting and crosscutting."

8 V - 8S
Cu, Pb

Ross and Asbury - 1939, p. 16
Harvie, R. - 1911, p. 29

"The first hole, sunk on the dip went down through a series of small lenses of galena and chalcopyrite in a gangue of quartz and calcite..."

9 IV - 25,26
Cu, Pb, Zn

Harvie, R. - 1911, p. 29

"A pit ten feet deep is sunk on a clean-cut lens-shaped mass of pyrite bearing a little chalcopyrite, and having a maximum thickness of two feet. Another pit is on a vertical joint from which start a number of small short horizontal seams filled with quartz and calcite, bearing pyrite, galena, sphalerite and chalcopyrite."

10 V - 3N
Co, Cu

Harvie, R. - 1911, p. 30

"The diabase is in contact with the Keewatin, and cobalt-bearing veins are found in both rocks. The main shaft in the Keewatin is 110 feet deep with about 100 feet of drifting and cross-cutting at the 100-foot level. The main vein is a shattered zone four or five inches wide, but containing a clean vein in places three inches thick. The filling is calcite, smaltite, hematite, chalcopyrite and fragments of aplite."

11 IV - 44
Co

Harvie, R. - 1911, p. 30

"On the "Mill" claim, lot 44 of Range IV, there are very numerous veins cutting the diabase, and a few cutting a Keewatin greenstone. These have a gangue chiefly of calcite and carry a considerable amount of smaltite. A shaft twenty-seven feet deep has been sunk on a two-inch calcite vein."

12 V - 5N
Cu, Pb
Harvie, R. - 1911, p. 31

"The dump showed the vein to have carried hematite, magnetite, chalcopyrite, pyrite and galena..."

13 VI - 18N (Koza claims)
Cu, Au

Q.D.M. - 1959A, p. 47

"... This gabbro is fractured in various directions and some of the fracture zones are mineralized with chalcopyrite... A shaft and a few test pits have been dug many years ago. Around the shaft lie a few tons of rocks containing a fair amount of chalcopyrite which occurs as streaks, mostly accompanying quartz, but also in the rock itself. A sample taken by the writer assayed 0.072 ounce of gold per ton, 0.568 ounce of silver per ton and 2.68% copper..."

FANCAMP TOWNSHIP

IV - H4

1 0.7 mile E. and 4.6 miles N. of the SW. corner of twp.
Au, Ag

Holmes, S.W. - 1959, pp. 23-7

"The principal gold-bearing veins and lodes occupy fissures and shear zones along the northeast-trending Fancamp lake fault... only that part immediately west of Fancamp lake has been mineralized. There the fault occurs in the less competent but brittle tuffs... Apparently the tuffs have been more susceptible to deformation.
Quartz is the most abundant mineral and usually composes the greater part of the veins and lodes... The most abundant variety of quartz is that which commonly forms the veins around the noses of the small drag folds, the gash veins bordering the main ore zones, and the lenticular veins cutting schistose vein material... Ankerite is second to quartz in abundance... Tourmaline is relatively abundant... Gold apparently occurs as small lobate blebs in the chalcopyrite, although some grains are large enough to share the veinlets with the chalcopyrite... The Fancamp Lake gold deposits have been extensively stripped and trenched by Teck Exploration Company and The Mining Corporation of Canada, Limited..."

FIEDMONT TOWNSHIP

V - C6

1 IX - 25, 26; X - 33, 34 (Cons. Magador - Vendome - Can. Shield Mng. Corp.)
Zn, Cu, Pb, Ni, Au, Ag

Brown, W.G. - 1958, p. 10
C.I.M.M. - 1960, p. 180
Jones, R.E. - 1964, p. 26

A zinc deposit in lots 33 and 34, Range X, was developed by a 525-foot shaft and three levels. Ore reserves are given as 1,121,000 tons grading 7.3% zinc, 0.47% copper, 0.34% lead, 1.63 ounces of silver per ton and 0.034 ounce of gold per ton. The ore is found in tuffs with pyrite and pyrrhotite. In lots 25 and 26, Range IX, nickel and copper mineralization was discovered. It is associated with the basic phase of an intrusive mass. One of the best assays was 1.08% nickel and 0.48% copper across 27.7 feet.

2 IX - 33 to 36 (Barmont Mines Ltd.)
Cu, Zn

Brown, W.G. - 1958, p. 11

Very minor amounts of sphalerite and chalcopyrite with pyrite and pyrrhotite were noted in drill holes.

3 X - 28, 29 (Barvallée Mines Ltd.)
Zn, Cu, Ag

Jones, R.E.- 1964, p. 23
Q.D.M. - 1959B, p. 10

At the north of these lots, a considerable amount of drilling outlined a zinc-copper orebody. The sulfides are found in tuffs. The reserves are given as 216,500 tons grading 5.71% zinc, 1.23% copper and 1.42 ounces of silver per ton.

4 X - 41 (Celta Dev. and Mng.)
Cu, Zn

A.W.R.; GM-1661, 1952

Very minor amounts of sphalerite and chalcopyrite were noted in drill holes.

5 IV and V - 56, 57 (Swanson claims - Jarvis mine)
Zn, Au, Cu, Pb

Tremblay, L.P. - 1950, p. 104
Dresser and Denis - 1949, p. 281
Van Loan, P.R. - 1959, p. 9

A high content of gold and zinc was found in small lenses of massive sulfides. Chalcopyrite and galena were also noted in trenches and drill holes.

6 IV - 41 to 45 (Molybia Corp.; Le Roy-Fiedmont Syndicate)
Mo, Bi, Be

Van Loan, P.R. - 1959, p. 9
Tremblay, L.-P. - 1950, p. 88

Quartz veins which cut quartz diorite contain molybdenite and bismuth. Beryl was noted in one vein.

7 IX - 7 (Martin McNeely Mines Ltd.)
Mo

Jones, R.E. - 1964, p. 24

A drill hole put down in the central part of this lot cut a 2-foot silicified zone in graywacke which contained molybdenite.

8 I - 29, 30, 32 (Spearhead Expl.)
Mo, Cu

A.W.R.; GM-3818, 1955

A few specks of molybdenite and chalcopyrite were noted in drill holes. These were found commonly in quartz-carbonate veinlets in lavas and tuffs.

9 IX - 1 (Vallée Lithium Mining Corporation Ltd.)
Li

Jones, R.E. - 1964, p. 25

Drilling in the southwest corner of the lot cut pegmatite dikes containing spodumene; the best intersection was 1.08% lithia across 34.0 feet.

10 II - 19; III - 25, 29, 34, 41, 43
Mo

Tremblay, L.-P. - 1945-46 - G.S.C. Map No. 999A, Fiedmont

Molybdenite mineralization was noted in the following locations: center of lot 19, Range II; south part of lot 25 and north part of lots 29, 34, 41 and 43, Range III.

11 III - 25
Cu

Wilson, W.J. - 1910, p. 46

Chalcopyrite mineralization with pyrite in a chlorite schist was noted.

FIGUERY TOWNSHIP

V - C6

1 VI - 33; VII - 30, 32 (Bouchard, Bolduc and Dumulon Claims)
Cu, Zn

Weber, W.W. - 1951B, p. 15

Test pits in small chalcopyrite and sphalerite showings in pyrite and pyrrhotite bands in agglomerate.

2 X - 62 to 64 (Canadian Johns-Manville - Lavoie option)
Cu

A.W.R.; GM-12776, 1963

Some chalcopyrite mineralization with pyrrhotite and pyrite was noted at the south end of lots 63 and 64, in the volcanic rocks adjacent to the ultrabasic sill.

3 IV - 54, 55 (Can. Shield Mining Corp.)
Cu, Zn

A.W.R.; GM-3496, 1955

Very minor amounts of chalcopyrite and sphalerite were noted in drill holes.

4 VI - 25 (Ciglen claims)
Cu

A.W.R.; GM-1804, 1956

A minor amount of chalcopyrite has been noted in massive pyrite and pyrrhotite in tuffaceous rocks. The highest assay gave 0.56% copper.

5 IV - 21 to 23, 33 to 35 (Copperstream Mines Ltd. - Rambull Gold Mines Ltd.)
Au, Cu

Ingham, W.N. - 1945, p. 5
Sharpe, J.I. - 1961, p. 8

Drilling in the center of lots 21 to 23 cut a carbonatized zone in tuffaceous rocks which contained gold. The assays, in ounces of gold per ton, were: 0.28 ounce across 5.0 feet; 0.21 across 5.0 feet; 0.12 across 4.0; 0.17 across 14.0 feet; and 0.13 across 15.0 feet. In lots 43 and 44, narrow fractures in a granite sill contain gold associated with pyrite and chalcopyrite. Gold has been found in two drill holes and in surface trenches in lots 33 to 35. Visible gold was seen in one drill hole and in one trench. Values in gold were low, the best bulk sample returning 0.211 ounce per ton and the best hole 0.31 ounce per ton across 0.9 foot.

6 I - 39 to 41, 44; II - 39, 40 (International Lithium Mng. Corp. Ltd.)
Li, Be, Mo, Ta

Sharpe, J.I. - 1961, p. 9
Wilson, W.J. - 1910, p. 36

Spodumene, beryl, molybdenite and columbite-tantalite have been noted in the pegmatite dikes and veins on this property. In the central part of lot 39, Range II, a pegmatite dike exposed along the river edge has been explored by diamond drilling. It contains at least 135,000 tons grading 0.95% lithia. Molybdenite was noted at the following places: on an island in the central part of lot 44, Range I; in drill holes below the island and to the southwest; in a drill hole in lot 41, Range I; in a drill hole at the north end of lot 39, Range I; in drill holes at the south end and middle of lot 40, Range II. Spodumene, beryl and tantalite have been noted at the south end of lot 40, Range I. Pegmatite dikes in the central part of lot 40, Range II, contain spodumene and beryl.

7 II - 58, 60 (Lithanium Mines Ltd.)
Cu, Mo

Sharpe, J.I. - 1961, p. 11

A minor amount of chalcopyrite was noted in two holes at the south end of lot 58. A hole at the south end of lot 60 cut 3.0 feet of a carbonate vein which assayed 3.82% molybdenite.

8 II - 11, 36 (Lithium Corp. of America Ltd.)
Li, Be, Ta

Sharpe, J.I. - 1961, p. 11
Q.D.M. - 1958, p. 18
Q.D.M. - 1956, p. 44

Spodumene, beryl and tantalite have been found in the pegmatite dikes on lot 11 and center of lot 36, and beryl at the south end of lot 36. The dike in lot 36 is at least 600 feet long and 30 feet wide and carries an estimated 20% spodumene.

9 I - 60, 61 (Northern Quebec Explorers Ltd.)
Be, Li

Q.D.M. - 1958, p. 18

Outcrops at the south end of these lots have pegmatite dikes containing minor beryl. Some dikes also have some spodumene.

10 II - 22 to 24 (Northern Quebec Explorers Ltd.)
Mo

Sharpe, J.I. - 1961, p. 14

Diamond drilling at the south end of the lots cut pegmatite dikes containing specks of molybdenite.

11 IV - 1, 4, 6 (Pacemaker Mines and Oils Ltd.)
Cu

Q.D.M. - 1958, p. 19

Holes put down in the south half of these lots cut tuffaceous rocks with pyrite, pyrrhotite and very minor chalcopyrite.

12 I - 20, 26, 27, 33 (Quebec Beryllium Co. Ltd.)
Be, Mo, Ta

Norman, G.W.H. - 1944, map 44-9A

Pegmatite dikes at the north end of lot 20 contain beryl and molybdenite. Pegmatite dikes in lots 26, 27 and 33 contain beryl and columbite-tantalite.

13 II - 46, 47
Cu

Sharpe, J.I. - 1961, p. 14

Chalcopyrite mineralization has been found with pyrrhotite in amphibolitic and graphitic tuffs.

14 IX - 8 (Sylvestre claims)
Cu, Zn, Pb

Weber and Latulippe - 1964

Minor amounts of chalcopyrite, sphalerite and galena with pyrite and pyrrhotite can be seen in old trenches.

15 II - 11, 14, 15, 16 (Jourdain-Duval claims - Que. Tan. and Lith. Mng. Co.Ltd.)
Li, Ta, Ni

Q.D.M. - 1958, p. 20
Sharpe, J.I. - 1961, p. 10

Pegmatite dikes, in the south part of lots 11 and 14, contain spodumene and columbite-tantalite. In the central part of lots 15 and 16, a zone of disseminated pyrrhotite along the edge of a peridotite mass contains low percentages of nickel.

16 I - 17, 18
Li, Be

Sharpe, J.I. - 1961, map No. 1370

Outcrops at the north end of the lots are cut by pegmatite dikes containing beryl and spodumene.

FOURNIÈRE TOWNSHIP

V - C7

1 NE. quarter of twp. (East Malartic Mines Ltd.)
Au, Ag

Dresser and Denis - 1949, p. 220
Eakins, P.R. - 1962, p. 62
Gunning and Ambrose - 1940, p. 81

A gold producer since 1938, this company extracted, up to 1963, 65 million dollars' worth of metal. The gold is found in quartz veins or mineralized bodies in diorite, porphyries and graywacke. The Cadillac break and subsidiary shears are the structural controls for the ore. The ore reserves at the end of 1962 were given as 1,835,079 tons grading 0.164 ounce of gold per ton.

2 North central part of twp. (Barnat Mines Ltd.)
Au, Ag, Te

Dresser and Denis - 1949, p. 217
Gunning and Ambrose - 1940, p. 75
Eakins, P.R. - 1962, p. 62

This company succeeded Sladen Malartic Mines in 1948. Between 1936 and 1963, a total of 32 million dollars' worth of gold was extracted from this mine. The gold is found in quartz veins and mineralized intrusive bodies in diorite, porphyry and graywacke. The emplacement of ore was structurally controlled by the Cadillac break and its subsidiary shears and fractures. The ore reserves at the end of 1962 were 1,812,353 tons grading 0.117 ounce of gold per ton. Tellurides were common in at least one of the orebodies.

3 Straddles the line between Fournière and Dubuisson townships (Malartic Gold Fields Ltd.)
Au, Ag

Dresser and Denis - 1949, p. 228
Eakins, P.R. - 1962, p. 61

One mine lies in Dubuisson and the other in Fournière. Between 1938 and 1963, the production from both mines totalled 60 million dollars. The last ore reserves were given as 150,000 tons grading 0.15 ounce of gold per ton. The ore is found in pyritized diorite masses within highly schisted rock adjacent to the Cadillac break.

4 North central part of twp. (Canadian Malartic Gold Mines Ltd.)
Au, Ag

Dresser and Denis - 1949, p. 213
Eakins. P.R. - 1962, p. 60
Gunning and Ambrose - 1940, p. 68

The first discovery in the township was made on this property in 1923. Gold production between 1935 and 1963 amounted to 38 million dollars. The graywacke ores contain a relatively high amount of silver. Gold is found in fault and fracture zones related to the Sladen break and developed in silicified graywacke and porphyries.

5 NE. quarter of twp. (Rand Malartic Mines Ltd.)
Au, As

Dresser and Denis - 1949, p. 226
Gunning and Ambrose - 1940, p. 111

Located between East Malartic and Malartic Gold Fields, this property has had considerable drilling. Gold in diamond drill holes and in surface trenching was found in graywacke, diorite and porphyry. The gold is apparently limited to quartz veins. Arsenopyrite was also noted in some of the veins.

6 IX - 24 to 27 (East Lacoma Gold Mines Ltd.)
Au

Ross et al. - 1940, p. 30

Gold was found in silicified graywacke and altered syenite porphyry. At least 13 holes were drilled. Interesting gold values were found in a surface showing and in the drill holes.

7 V - 14 (Giroux claims - Chartier property)
Be, Mo

Latulippe, M.; GM-11462, 1961
Q.D.N.R. - 1964, p. 19

A pegmatitic quartz vein exposed for a length of 130 feet and a width up to 15 feet contains beryl and minor molybdenite. From a rough visual estimate the beryl content may be between 1 and 2%.

8 V - 23 (Massicotte claims)
Cu

A.W.R.; GM-5734, 1957

A minor amount of chalcopyrite was reported from surface trenching and one drill hole. The best assay from the drill hole returned 0.52% copper.

FRANQUET TOWNSHIP

III - D4

1 VIII - 28 to 39 (Bush claims - C.M. and S.)
Au, Cu,
Py

Dresser and Denis - 1949, p. 38

A minor amount of chalcopyrite was noted in massive pyrite beds in sedimentary rocks. Gold was also reported.

2 III - 46 (Canadian Shield Mining Corp.)
Pb, Cu

A.W.R.; GM-5426, 1957

Minor amounts of galena and chalcopyrite were noted with pyrrhotite in breccia and graphitic tuffs at the south end of the lot.

3 II - 60 (New Jersey Zinc Exploration Co. Ltd.)
Cu
Py

A.W.R.; GM-4786, 1958

A minor amount of chalcopyrite was noted in a massive pyrite zone at the south end of the lot.

4 X - 69 (Mining Corp. of Canada Ltd.)
Cu

A.W.R.; GM-500, 1949

A minor amount of chalcopyrite was noted in a drill hole with pyrite and pyrrhotite in tuffaceous rocks in the north half of the lot.

5 I - 39 (Sullico Mines Ltd.)
Cu, Zn

A.W.R.; GM-12470, 1961

Minor amounts of chalcopyrite were noted with pyrite and pyrrhotite in tuffaceous rocks in a drill hole. The best assay returned 0.40% copper across 3.0 feet.

6 V - 68 (Sullico Mines Ltd.)
Cu, Zn

A.W.R.; GM-12470, 1961

Minor chalcopyrite and sphalerite were noted in a drill hole. The mineralization was in a quartz vein, graphitic schists and a fracture in dacitic lavas.

7 X - 40, 41

Au

Dresser and Denis - 1949, p. 38

Gold in quartz veins, 1,000 feet south of the north limit of the township. The veins occupy a fracture-striking north.

8 VI - 50 to 55 (Burry Campbell group)
Cu

Longley, W.W. - 1937, p. 74

Quartz veins in a strong shear zone crossing these lots contain some chalcopyrite.

GABOURY TOWNSHIP

VI - A9

1 II - 40, 42 (Houle-Boucher claims)
Au, Cu, Mo

Dugas, J.; GM-2054, 1952

No. 1 vein - lot 40N

"A quartz vein is exposed in trenches for a distance of about 350 feet. The maximum width of the vein is about 12 feet... The quartz is milky or smoky and cut by numerous pyrite and minor chalcopyrite stringers." (translated)

No. 2 vein - lot 42N

"About 1,200 feet along strike from No. 1 vein, another vein is exposed for a distance of 175 feet... At the west end, the vein is exposed in a trench over a width of 20 feet... The mineralization is approximately the same as in No. 1 vein save for the presence of molybdenite and pink barite stringers in the No. 2 vein. The barite stringers have a maximum width of 1/2" inch." (translated)

2 III - 50, 51 (Lorraine Mining Co. Ltd.)
Cu, Ni, Au

Dugas, J.; GM-12440, 1962
The Northern Miner - Nov. 21, 1963

A zone mineralized with chalcopyrite, pyrite, pyrrhotite and pendlandite at the contact of a diorite mass in volcanic rocks. The calculated reserves are 550,000 tons with a combined copper-nickel grade of 2.1% down to a depth of 800 feet. A 1,000-foot shaft has been sunk and mining is scheduled to start at the end of 1964 at the rate of 400 tons a day.

3 IV - 3 (Petosa Gold property)
Au

Gilbert, J.-E.; GM-2978, 1954

Fractures in granite are filled with quartz mineralized with pyrite. Good gold values have been obtained over short lengths.

4 IV - 29 (Petosa claims)
W

Gilbert, J.-E.; GM-2142, 1953

"The rock there is a generally sheared greenstone, probably andesite, intruded by a series of porphyry and pegmatite dikes... The porphyry has been injected apparently as lenses, the maximum width of which is close to 30 feet... The porphyry is generally fractured and, together with adjacent greenstone, it contains abundant glassy quartz in lenses or veins forming a stock work. The scheelite is more abundant in the quartz, but it is also found disseminated in the porphyry or in the greenstone... Samples... yielded between 0.5% to 23.3% tungsten."

5 South of Des Bois lake (Voyager Exploration - Silvermaque)
Mag

Dugas, J.; GM-12824, 1962
A.W.R.; GM- 12966, 1962
Iron formation. A width of about 70 feet.

GALINÉE TOWNSHIP

III - C3

1 NW. part of township (Mattagami Lake Mines Ltd.)
Zn, Cu, Ag, Au, Pb, Ni
Py, Po

Q.D.N.R. - 1962, p. 14
Q.D.N.R. - 1964, p. 22

A copper-zinc-silver mine which came into production in 1963. Ore reserves are at least 21 million tons grading 12.76% zinc, 0.68% copper, 1.31 ounces of silver per ton and 0.018 ounce of gold per ton. Minor local galena was noted in the cores. A peridotite body along the north edge of the zinc-copper sulfide masses contains nickel and copper.

2 NW. corner of twp. (Orchan Mines Ltd.)
Zn, Cu, Ag, Au, Pb
Py, Po

Q.D.N.R. - 1962, p. 15
Q.D.N.R. - 1964, p. 23

A copper-zinc-silver producer which began mining in 1963. Ore reserves are at least 4.6 million tons grading 12.41% zinc, 1.29% copper, 1.29 ounces of silver per ton and 0.015 ounce of gold per ton. A minor amount of galena was also noted in the cores.

3 Central part of the NW. quarter of twp. (Bell Allard Mines Ltd.)
Zn, Cu, Ag, Au
Py, Po

Q.D.N.R. - 1962, p. 13
Q.D.N.R. - 1964, pp. 20-1

A massive sulfide zone on this property contains 148,000 tons grading 16.44% zinc, 1.34% copper, 1.48 ounces of silver per ton and minor amounts of gold.

4 NW. quarter of twp., 1.2 miles E. of Mattagami Lake Mines shaft. (Galinée-Mattagami Mines Ltd. - Bourcier property)
Cu, Ni

Q.D.M. - 1958, p. 20

Quartz veins in volcanic and gabbroic rocks were reported to contain copper and nickel mineralization.

5 1.5 miles SE. of the Orchan Mines shaft. (Dome Exploration (Canada) Ltd.)
Cu, Au

A.W.R.; GM-8716, 1959

A hole cut, in volcanic rocks, a quartz vein 1.2 feet wide and grading 1.97% copper and 0.20 ounce of gold per ton. Disseminated chalcopyrite in volcanic and gabbroic rocks was also noted.

6 Near the SE. corner of the NW. quarter of the twp. (Bracemac Mines Ltd.)
Cu, Zn

A.W.R.; GM-9963, 1969

Minor amounts of chalcopyrite and sphalerite were noted in tuffaceous rocks with pyrite and pyrrhotite.

7 One mile NW. of the SE. corner of the twp. (Camflo Mattagami Mines Ltd.)
Au
Py, Po, Mag
Q.D.N.R. - 1962, p. 13

Quartz veins in granitized volcanic rocks were encountered in a drill hole. One intersection returned 0.175 ounce of gold per ton across 2.0 feet and another 0.16 ounce of gold per ton across 0.5 foot. Other holes cut magnetite iron formation and pyrite-pyrrhotite mineralization in sedimentary rocks.

8 SW. corner of the NE. quarter of the twp. (The Cons. Mining and Smelting Co. of Canada Ltd.)
Cu, Zn, Ag

A.W.R.; GM-9221, 1959

Drilling on this property cut lavas, gabbros and tuffs. Chalcopyrite and sphalerite mineralization was noted in a chloritized zone. The best assay returned 3.8% copper and 1.0% zinc across 26 feet of core. Silver was also present in some parts of the mineralized zone.

9 NE. part of the township (Dolmac Mines Ltd.)
Cu

A.W.R.; GM-9115, 1959

A minor amount of copper disseminated in altered gabbroic rocks or in quartz veinlets was noted in drill holes. The property is located within the Bell River complex.

10 N. part of the SE. quarter of the twp. (Marian Lake Mines Ltd. - Dominion Gulf Ltd.)
Ti, Cu, Au

A.W.R.; GM-9310, 1959
A.W.R.; GM-11267, 1961

Drilling cut gabbro with narrow sections containing up to 50% ilmenite. A minor amount of chalcopyrite was noted in quartz-carbonate veinlets cutting gabbroic rocks, and in narrow shear zones in gabbroic and volcanic rocks. A zone of quartz veinlets cutting volcanic rocks in the south-central part of the property contains gold. The best assay returned 0.28 ounce of gold across 4.0 feet.

11 In the E. central part of the twp. (Duvex Oils and Mines Ltd.)
Cu

A.W.R.; GM-7589, 1959

A minor amount of chalcopyrite mineralization in drill holes was noted in gabbroic rocks.

12 3 miles S. of Watson lake (Jellicoe Mines Ltd.)
Cu

A.W.R.; GM-10718, 1960

A minor amount of chalcopyrite was noted in a drill hole. The mineralization was in the contact zone of diorite and rhyolite.

13 S. boundary of the township. (Joburke Gold Mines Ltd.)
Cu, Zn

A.W.R.; GM-9101, 1959

A very minor amount of chalcopyrite and sphalerite was noted in holes drilled in tuffaceous rocks. Pyrite, pyrrhotite and graphite were also present.

14 On the largest island in Bell river (Korich Mining)
Cu

A.W.R.; GM-10392, 1959

Disseminated chalcopyrite was noted in drill holes in altered gabbroic rocks.

15 1/2 mile E. and 3/4 mile S. of Mile-post 31 on the E.-W. center line of the township (Lynx Yellowknife Gold Mines Ltd.)
Cu, Zn

Latulippe, M.; GM-11757, 1961
Q.D.N.R. - 1964, p. 21

A sulfide zone contains chalcopyrite and sphalerite. The sulfides are in tuffaceous rocks. The best assay returned 4.27% copper across 3.0 feet. The best zinc assay was 2.20% across 4.2 feet.

16 In the center of township (Noront Mining Syndicate)
Cu

Sharpe, J.I.; GM-9643, 1960

A minor amount of chalcopyrite was noted in volcanic and gabbroic rocks. The best intersection in drilling returned 0.62% copper across 4.1 feet.

17 Near the N. limit of the township, close to Gizzard river (Waco Petroleum Ltd.)
Cu

A.W.R.; GM-11568, 1961

A minor amount of chalcopyrite in gabbroic rocks was noted in drilling.

18 Near the NW. corner of the township (Watson Lake Mines Ltd.)
Cu, Zn

A.W.R.; GM-8032, 1959

Chalcopyrite and sphalerite mineralization was noted in drill cores as disseminations in tuffaceous rocks, and in minor amounts in quartz-carbonate veinlets crossing volcanic rocks. A few blebs of chalcopyrite were also noted in peridotite.

19 NW. corner of the township (McIntyre Porcupine Mines Ltd.)
Zn, Cu

A.W.R.; GM-8645, 1959

Drilling cut lavas and tuffaceous rocks with chalcopyrite and sphalerite mineralization.

GAMACHE TOWNSHIP

IV - H4

1 3.1 miles W. and 1.6 miles S. of the NE. corner of twp. (Flomic Chibougamau Mines Ltd.)
Au

Deland and Grenier - 1959, p. 62
A.W.R.; GM-1283B, 1952

"Seventeen diamond drill holes, totalling 8,429 feet, were drilled in basic volcanics, pyroclastic sediments and gabbro. In hole No. 12, two gold-bearing zones were intersected at footage 561 and 590."

2 1.6 miles W. and 0.7 mile S. of the NE. corner of twp. (Adnor Mines Ltd. - Wright Hargreaves Mines Ltd.)
Au

Deland and Grenier - 1959, pp. 61-2

Adnor property

"Basic, intermediate and acidic lava flows with interbands of tuff strike east-west across the property and dip steeply to the north. Shear zones are pronounced in the flows,... and most are gold-bearing... A grab sample from the second northernmost zone assayed 0.843 ounce of gold per ton. In the spring of 1953, 45 d.d. holes totalling 20,326 feet were bored, partly in search of an extension of the gold-bearing zone of Chibougamau Mines, whose holdings lie east. One of the holes cut a section one foot long that assayed 67 ounces of gold and a depth of 2,100 feet. The other holes failed to encounter any values of note."

Wright Hargreaves property

"... immediately west of Adnor's property. A shear zone that strikes N.70°W. and dips 80°N. occurs on this property, in lavas associated with sills of gabbro-diorite. The country rock near the shear zone has been silicified and carbonatized. Samples from the zone assayed 0.4 ounce of gold to the ton over a width of 3 feet."

3 1.2 miles W. and 1.2 miles S. of the NE. corner of twp. (Conwest Exploration Co. Ltd. - Meston Lake Mines Ltd.)
Au

Gilbert, J.-E., 1959, pp. 24-5

"The main showing of the property is on a small point on the north shore of Meston lake. It consists of a medium - to coarse-grained, altered, sericite granite exposed by a trench... The granite contains 3 sets of fractures trending respectively S.80°E., N.45°E. and north. Quartz tourmaline veins with some pyrite and a little free gold fill the fractures... About 1,000 feet of diamond drilling was done on the main showing on the property by Harricana Gold Mines in 1951... results were inconclusive because of the irregular distribution of the gold and the fractured nature of the granite."

4 0.3 mile E. and 0.3 mile N. of the SW. corner of twp. (New Jersey Zinc Expl. Co. (Canada) Ltd.)
Po, Py

A.W.R.; GM-8684, 1959

"A narrow (2') band of semi-massive (50%) pyrrhotite containing some pyrite and

a little chalcopyrite was found replacing a well sheared and silicified sericite schist. Both ground magnetometer and E.M. have picked-up the zone following the hornblende gneiss-biotite gneiss contact (strike S.60°E.; dip 70°N.)"

GAND TOWNSHIP

IV - F3

1 1.1 miles E. and 3.7 miles N. of the SW. corner of twp. (Gunnar Gold Mines Ltd.)
Au

A.W.R.; GM-1385, 1951

"A gold-bearing carbonate shear zone in greenstone was outlined by diamond drilling over a length of 1,500 feet, and averaging 45 feet in width. The shear zone contains considerable pyrite with numerous sections of quartz." The best gold tenors are 0.09, 0.15 and 0.09 ounce of gold a ton.

2 4.2 miles E. and 2.3 miles N. of the SW. corner of twp. (Lenmac Mines Ltd.)
Py

A.W.R.; GM-10214, 1961

A well-mineralized area was opened 4,000 feet west of Shortt Lake outlet. Andesite and agglomerates have been sheared and heavily carbonatized and cut by quartz stringers. They are mineralized for an exposed width of 50 feet with fine- to medium-grained pyrite and contain many heavily mineralized streaks. A little chalcopyrite is present but preliminary sampling detected only a low content.

3 4.6 miles E. and 2.5 miles N. of the SW. corner of twp. (Lenmac Mines Ltd.)
Au

A.W.R.; GM-10637, 1961

Gold-bearing quartz veins occur 1,700 feet NW. of the north shore of Shortt lake (800 feet NNE. of gold occurrence No. 2). The veins cut the gabbro intrusive mass. These occurrences have given assays of 0.33 ounce of gold per ton across 2 feet and 0.24 ounce of gold per ton across 14 inches.

4 4.2 miles E. and 2.0 miles N. of the SW. corner of twp. (Lenmac Mines Ltd.)
Au

A.W.R.; GM-10214, 1960

The gold-bearing showing is located 2 miles NE. of Lake Opawica outlet. The area in the vicinity of the showing has been tested by several trenches and by seven diamond drill holes over a length of 400 feet. The drilling shows that the area is underlain mainly by andesite and tuff. Channel sampling in the main trench yielded assays ranging from 0.05 to 0.39 ounce of gold per ton. Sampling of the drill core yielded tenors ranging between 0.05 and 0.980 ounce of gold per ton.

5 4.2 miles E. and 1.8 miles of the SW. corner of twp. (Lenmac Mines Ltd.)
Cu

A.W.R.; GM-10214, 1961

Half a mile west of the west shore of Shortt lake "... a low outcrop of light colored diorite is crossed by shears striking N.55°E. which are well mineralized with pyrrhotite carrying a little chalcopyrite."

6 4.7 miles E. and 2 miles N. of the SW. corner of twp. (Lenmac Mines Ltd.)
Au

A.W.R.; GM-10637, 1961
Dresser and Denis - 1949, pp. 41-2

"Gold was discovered in 1936 in two quartz veins near the north shore of Shortt lake... The veins, cutting gabbro, are two to nine inches wide and about 6 feet apart, and have been traced for nearly 100 feet along their easterly strike. The occurrence was explored by Ceres Exploration, Limited, from whose records the following data are summarized:-
Cutting the veins within a zone of 50 feet wide there are 12 faults, with individual displacements from 6 inches to 8 inches. At about the center of this zone, the south vein contains visible gold for a length of some 7 feet and assays as high as 146 ounces gold per ton were obtained across a width of 4 inches. Both eastward and westward of this high-grade section, the vein narrows, tailing out with 25 feet to the east and passing beneath drift some 35 feet to the west. The north vein is exposed for a longer distance, and a quartz vein in an outcrop 120 to 200 feet to the east may represent its continuation in that direction. In places, fine-grained pyrite occurs in fractures in the quartz vein and adjacent gabbro, and also along the fault planes. Some assays of this pyritized material have yielded high returns for gold, others only a trace."

7 4.2 miles W. and 1.9 miles N. of the SE. corner of twp. (Viney claims)
Au

A.W.R.; GM-5737, 1957
A.W.R.; GM-9218, 1960

On the north shore of Shortt lake, a gold-bearing zone was found in altered diorite showing considerable carbonate alteration and silicification and containing fine disseminated pyrite and magnetite. A few holes were drilled in this area about 12 years ago by the McWatters Gold Mines Limited but unfortunately the logs cannot be found. The best assays obtained from short unsplit sections of the drill core of 2 holes were 0.51 ounce of gold over 0.3 foot and 0.15 ounce over 1.5 feet. The presence of a little galena was noted in the northern part of this showing and a little chalcopyrite and galena were seen in the most southerly trench.

8 3.3 miles E. and 1.3 miles N. of the SW. corner of twp. (Lenmac Mines Ltd.)
Py

A.W.R.; GM-10214, 1960

The sulfide showing is located 1 mile E. of the outlet of Opawica lake. The showing consists of a narrow band of massive pyrite, 6 inches to 12 inches wide, striking N.70°E. and dipping about 45°N. Both margins are well-fractured pyroxenite and well silicified for nearly 1 foot on each side of the vein. It has been exposed in 6 trenches over a distance of 75 feet. Samples of both the mineralization and the quartz returned no gold.

9 3.4 miles W. and 1.2 miles N. of the SE. corner of twp. (Viney claims)
Au

A.W.R.; GM-5737, 1957
A.W.R.; GM-380, 1948

Gold occurs in pyritized quartz-carbonate zones with a broad band of pyro-

clastics characterized by pyrite nodules and fragments of chert and jasper. The carbonate zone strikes N.50°E. and dips vertically to steeply north. Gold was found over a length of 540 feet and over widths up to 27 feet. Assays up to 0.32 ounce per ton were obtained from channel sampling.

10 0.3 mile W. and 1.3 miles N. of the SE. corner of twp. (Lake Opawica Mines Ltd.)
Au

Claveau et al. - 1951, p. 36
Ingham et al. - 1949, pp. 75-6

"The property is underlain chiefly... by rhyolite, rhyolite breccia, and tuff, flanked on the south by lenticular bodies of anorthosite, gabbro, and diorite.

"A narrow band of coarse conglomerate, striking N.80°E., is intercalated in the volcanics... This rock is in contact with sheared, altered, acidic fragmentals to the south.

"The main showing... consists of a strong shear zone, dipping steeply to the north, which appears to follow the conglomerate-fragmental contact striking N.80°-85°E. The zone varies in width from a maximum of 90 feet at the east end... to 15 feet at the west end... It has been exposed at 100-foot intervals by... trenches... for a continuous length of 1,300 feet. The zone is characterized by a bottle-green,... alteration, mariposite, and heavy carbonatization.

"A cross-section of the zone... consists of conglomerate with 2-inch quartz pebbles, mariposite, sericite schist, and sheared acidic fragmentals. The mariposite zone, sericitic schist and sheared fragmental are cut by narrow quartz stringers well mineralized with disseminated crystalline pyrite."

A.W.R.; GM-434, 1947
A.W.R.; GM-219, 1947

During 1946-47, the zone was tested by 21 diamond drill holes for a total footage of 7,040 feet. Sampling of the core yielded assays ranging from $2.00 to $6.50 in gold per ton across widths of from 2 to 27 feet along a section 500 feet in length.

11 3.2 miles W. and 0.1 mile N. of the SE. corner of twp. (Frobisher Opawica claim groups)
Cu, Zn

A.W.R.; GM-2707, 1954
A.W.R.; GM-4051, 1956

"... One showing... consisting of sphalerite and chalcopyrite has been disclosed... in the central part of the northwest shore of Gull Island (Opawica lake). It consists of milky quartz veins that have been intruded into sericite schist paralleling the schistosity. One of the veins outcrops on a low rock point that faces east. The vein is 2 feet wide and is exposed for 8 feet, gradually disappearing under water eastward. Another 50 feet farther west along the shore a similar vein outcrops for 20 feet along the water's edge and is at least 4 feet wide. Both occurrences consist of coarsely crystallized milky quartz that has been fractured and contains streaks and patches of chalcopyrite and sphalerite dispersed sparsely throughout the vein.
It is estimated that the combined metal content would be under 1%... The sericite schist comprising the wall rock of the vein is almost barren of mineral except for the occasional small cube of pyrite. A 1,000 feet of diamond drilling was done to test the showing. Low values of copper and zinc were obtained."

GAULIN TOWNSHIP

VI - B9

1 NW. shore of lac aux Foins
Cu, Ni

Dugas, J.; GM-8949, 1959

"The mineralization consists of disseminated pyrrhotite and chalcopyrite in a rock composed mostly of hornblende and some feldspar... The average grade over 22 1/2 feet was 0.27% copper and 0.31% nickel."

GAUVIN TOWNSHIP

II - K2

1 4.2 miles S. of the NE. corner of township
Cu

Sater, G.S. - 1957, p.6

"Chalcopyrite occurs in parallel quartz veins 3 to 5 inches wide filling fractures in paragneisses near the eastern boundary of Gauvin township on the northern island of the center of File-Axe lake. A rough estimate of values indicated 2% chalcopyrite over a 4-foot-wide fracture zone. As this zone is exposed only on the shore, its extent is not known."

GLANDELET TOWNSHIP

III - C5

1 II - 37; III - 38, 39 (Kennco Explorations (Canada) Ltd.)
Py, Po

A.W.R.; GM-14570, 1958

Sedimentary rocks in these lots contain massive and disseminated pyrite and pyrrhotite. A few specks of chalcopyrite were noted in the drill cores. Graphite is common in parts of the core.

GRANET TOWNSHIP

VI - 58

1 NE. end of Granet lake (Canadian Malartic Gold Mines Ltd.)
Cu, Zn, Ni

Q.D.N.R. - 1961, p. 15

Small amounts of chalcopyrite, sphalerite and a nickel mineral were encountered in ultrabasic and sedimentary rocks. The best assays were 0.63% nickel across 4.3 feet, 3.57% zinc across 1.4 feet and 0.22% copper across 3.2 feet.

GREVET TOWNSHIP

III - E4

1 1.5 miles S. of Mile-post 72 on the Grevet-Currie township line
(Cameron property)
Au

Dresser and Denis - 1949, p. 39
MacKenzie, G.S. 1936, p. 106

Gold is reported from silicified tuffs. The best assay was given as 1.67 ounces of gold per ton across 6 inches.

2 S. limit of the township, on the N.-S. center line (East Sullivan Mines Ltd. - Giroux option)
Cu
Py, Po

A.W.R.; GM-9393, 1959

Minor amounts of chalcopyrite with disseminated and massive pyrite and pyrrhotite, in tuffaceous sedimentary rocks, were noted in drill cores and in outcrops.

3 SW. corner of the township (Sullico Mines Ltd.)
Cu
Py, Po

A.W.R.; GM-12470, 1961

Very minor amounts of chalcopyrite were noted with disseminated and massive pyrite and pyrrhotite in tuffaceous sedimentary rocks.

4 On an island near the NW. shore of Wedding lake
Au

Dresser and Denis - 1949, p. 39

Gold was reported from this locality in silicified tuffaceous rocks.

5 1.75 miles SE. of (1)
Au

Dresser and Denis - 1949, p. 39

Gold is in a silicified shear zone in volcanic rocks.

GUERCHEVILLE TOWNSHIP

IV - G4

1 1.6 miles W. and 3.1 miles N. of the SE. corner of twp. (Watson property)
Au

Remick, J.H. - 1957, p. 8
Q.D.N.R. - 1961, p. 17

"The property is situated within the greenstone belt which extends eastward from Bachelor and Opawica lakes... In 1957-58, L. Demers and Associates uncovered a sheared and mineralized zone 100 feet north of the north central shore line of Mina lake. Grab samples from this zone... have assayed up to 0.5 ounce of gold per ton."

2 3.5 miles W. and 1.9 miles N. of the SE. corner of twp. (The American Metals Company of Canada - Kennco Exploration)
Au, Ag, Zn, Cu

A.W.R.; GM-565, 1949
Remick, J.H. - 1957, p. 9

"... near Fenton lake... in the northern part, a carbonate lens trending S.20°E. cuts the lava, and is itself cut by veinlets of quartz... Mineralization consists of pyrite sphalerite and a gray carbonate. A sample from the shear zone assayed 0.091 ounce of gold, and 0.158 ounce of silver per ton, and 0.12% copper and 7.0% zinc."

3 3.5 miles W. and 1.7 miles N. of the SE. corner of twp. (The American Metals Company of Canada - Kennco Exploration)
Au

Remick, J.H. - 1957, pp. 9-10

"The southern showing, which is about 500 feet west of the central part of the lake, consists of a shear zone 50 feet long with brown weathering carbonate lenses parallel to the schistosity. Small cubes of pyrite and a little chalcopyrite were observed in the schistose lava at its contact with the carbonate lenses. A sample from this shear zone assayed 0.146 ounce of gold, 0.026 ounce of silver, and 0.09% copper... In the central showing,... a sample from this shear zone assayed 0.100 ounce of gold, 0.404 ounce of silver, and 0.09% copper."

4 3.1 miles W. and 1.4 miles N. of the SE. corner of twp.
Au, Cu, Ag

Remick, J.H. - 1957, p. 8

"A small east-west silicified zone in a greenish blue lava approximately 1,500 feet southeast of Fenton lake gave 0.145 ounce of gold per ton, 0.65 ounce of silver per ton, and 0.23% copper. The mineralized zone contains small lenses with 20 to 30% pyrite in cubes and minor chalcopyrite. Two samples of gabbro taken near the northern boundary of the lavas gave 0.00 and 0.015 ounce of silver per ton, 0.00 and 0.02% copper, and no gold."

5 3.0 miles W. and 1.0 mile N. of the SE. corner of twp. (Cominco - C.M. and S.)
Cu

A.W.R.; GM-475, 1949
Remick, J.H. - 1957, p. 9

"Just south of Fenton lake... 12 holes (by Cominco) totalling 4,000 feet drilled during May and June 1949... Mineralization consists principally of pyrite with minor chalcopyrite and some gold, about 4,000 feet southeast of Fenton lake. A sample from the zone assayed 0.062 ounce of gold, 0.048 ounce of silver, and 0.23% copper. The zone is in silicified, fine-grained, bluish, acid lava cut by quartz veinlets and a lens of schistose, medium-grained quartz porphyry. It runs N.30°W."

6 3.2 miles W. and 0.3 mile N. of the SE. corner of twp. (Lyndhurst - Anderson option)
Mo

A.W.R.; GM-9219, 1959

"One hole was drilled by that company. The showing is a few feet east of the portage to Doda lake some 1,800 feet North of Guercheville-Du Guesclin township line, on claim 3, C-113704."

GUÉRIN TOWNSHIP

VI - A8

1 I - 44 (Carlmand Mines Ltd.)
Mo

Dugas, J.; GM-10433, 1956

"two quartz veins striking S.75°E. and dipping 40°N. cut a gray and massive granite. The south vein is exposed over a distance of 70 feet and is about 2 inches wide. It contains, specially at the contacts, molybdenite lamellae...

The second vein is 20 feet farther north. It has approximately the same width and can be traced over a distance of 60 feet. It is slightly poorer in molybdenite." (translated)

2 II - 50 (Carlmand Mines Ltd.)
Mo

A.W.R.; GM-10433, 1960

"A nearly horizontal quartz vein ranging in thickness between 1 inch and 12 inches. Molybdenite is concentrated in the vein contacts. Inside the contacts, the vein appears to be barren." (translated)

3 V - South of Renard lake (Provencher claims)
Py, Po, Mag

Q.D.M. - 1959A, p. 50

"... The iron formation is mineralized with sulfides, mostly pyrrhotite and pyrite, disseminated and in stringers. Some chalcopyrite and sphalerite have also been observed. The sulfides in places constitute up to 80% of the material." The width of the iron formation ranges between one to 50 feet.

4 Des Quinze river, near the mouth of Bryson river (Polson claims)
Cu

Dugas, J.; GM-5561, 1957

Mineralization over a width of 10 feet consisting mainly of pyrite with some chalcopyrite over a width of about 2 feet. Also a few aplite dikelets mineralized with chalcopyrite.

GUETTARD TOWNSHIP

IV - G3

1 1.7 miles W. and 2.2 miles S. of the NE. corner of twp. (Diomar Mining Exploration)
Py, Po (Iron formation)

A.W.R.; GM-5158, 1957
Assad, J.R. - 1957, p. 3

"A sulfide zone... in sedimentary rocks which are sheared to quartz-mica schists. The shearing trends N.62°E. and dips 65° northwest. The sulfide zone is parallel to this shearing and has been trenched along a strike length of 600 feet. The zone is 15 to 40 feet wide with a central portion of 10 to 20 feet of heavy sulfides flanked by rock containing up to 15% sulfides. The main sulfides present are fine-grained marcasite and pyrite; they occur as stringers and blebs and in massive form in a fine-grained siliceous host. A chip sample taken by the writer from one of the trenches contained no gold, silver, copper, or nickel.

"In 1956, three diamond drill holes were drilled to explore the sulfide zone. It is reported that the marcasite-pyrite zone was intersected but it contained no interesting copper mineralization.

"The exploration work was done by Mercedes Exploration Company."

2 2.6 miles W. and 4.8 miles S. of the NE. corner of twp.
Cu, Ni

Latulippe, M.; GM-4395, 1956

"... 3,000 feet east of the easternmost bay of Lac La Trève. It consists of a small pit on the south contact of the gabbro sill. No length or width of mineralization can be seen because of overburden. A large angular block of serpentinized and mineralized gabbro-peridotite was found. Blasting under it, the mineralization was in the bedrock... Mineralization is on the south contact and that the footwall rock were conglomerates. Some of the more or less massive sulfides were found in the sediments as well as in the gabbro. There are pyrrhotite, chalcopyrite and pentlandite... Some of this mineralization is very massive."

3 1.4 miles W. and 4.4 miles S. of the NE. corner of twp.
Cu, Ni

Latulippe, M.; GM-4395, 1956

"... 1 3/4 miles northeast of the most easterly bay of Lac La Trève, on the south side of the gabbro sill. The wall-rocks are pillowed andesites. The sulfides are in streaks and flattened blebs throughout the outcrop. Chalcopyrite, pentlandite and pyrrhotite constitute about 10% to 15% of the rock."

4 1.5 miles W. and 4.3 miles S. of the NE. corner of twp.
Cu, Ni

Latulippe, M.; GM-4395, 1956

About 1,000 feet northeast of (3). A mineralized zone just outside the chilled edge of the south side of the sill. The zone is exposed almost continuously for 700 feet and for widths of 5 to 15 feet. The sulfides constitute roughly 10% of the rock in the mineralized zone. They comprise pyrrhotite, chalcopyrite and pentlandite occurring as blebs up to 2 inches across.

GUIGUES TOWNSHIP

VI - A8

1 IX - 57, 62 (Voyager Expl. Ltd.)
Py, Po, Mag (Iron formation)

Dugas, J.; GM-12824, 1962

"The center of interest is an iron formation which has been traced over a distance of about 7 miles and ranges in width between 40 and 150 feet." (translated)

2 IX - SE. corner of the township
Cu

Verbal communication.

GUILLET TOWNSHIP

VI - B9

1 E. of Chenier lake (Conway Gold Mines Ltd.)
Au

Ingham, W.N. - 1945, p. 16
Auger, P.-E. - 1952, p.42

Three quartz veins. "The first vein... is the most important. It was traced for a distance of more than 1,000 feet. It strikes slightly north of east and dips steeply to the south. The width of the vein varies from a few inches to 4 feet... The vein consists of white and blue quartz containing a small amount of sulfides, mostly pyrite, with some chalcopyrite, galena, and sphalerite..." and gold.

2 1 1/2 miles W. of twp. boundary and 1 mile N. of Highway 62 (Paquin Gold Mines Ltd. - Ortona Gold Mines Ltd.)
Au

Auger, P.-E.; 1952, pp. 46 and 48

Ortona veins - "They are well defined shear veins striking east and dipping steeply south to vertical. The veins are lenticular in shape, and some of them may be followed at the surface for a distance of 800 feet. The widths vary from a few inches to 3 feet. The veins consist of white and smoky quartz which contains in places narrow streaks or pockets of pyrite, chalcopyrite and galena accompanied by a few grains of sphalerite... Gold was found in most of the veins..."

Paquin vein - "... This vein has been opened up for a length of 1,000 feet over widths of 1 foot to 6 feet. It consists of white and bluish quartz containing small amounts of pyrite, chalcopyrite, galena and sphalerite... Good values in gold have been reported from this Paquin vein."

3 N. of road 62, 2 miles from W. boundary of twp. (Aubelle Mines Ltd.)
Au

Auger, P.-E.; 1952, pp. 44-5

"The company has sunk a vertical shaft to a depth of 500 feet and has driven more than 3,000 feet of drifts and cross-cuts on the 250-, 375- and 500-foot levels... Vein No. 1, on which all the development has been done, is essentially a conformable vein which follows a narrow break in the tuff bed at a short distance from its southern border... The vein consists of lenses of white glassy quartz containing disseminated sulfides... In places... the vein contains large quantities of sulfides. These are mostly pyrite, pyrrhotite and sphalerite, with some chalcopyrite and galena... Development to date has proved that there are ore shoots containing gold in commercial quantities in vein No. 1 but these ore shoots are small and erratic."

4 700 feet S. of road 62, 2 miles from the W. boundary of the twp. (Aubelle Mines Ltd.)
Au

Auger, P.-E.; 1952, p. 45

"Vein No. 2, directly south of vein No. 1... strikes east and dips steeply south to vertical. It has been traced at the surface in trenches and underground by diamond drill holes for a distance of more than 1,000 feet and found to have a maximum width of 9 feet..."

5 2 miles NE. of the town of Belleterre (Belleterre Quebec Mines Ltd.)
Au, Ag

Auger, P.-E. - 1952, p. 32
C.I.M.M. - 1948, pp. 796-803

The gold production from this mine between 1936 and 1958 amounted to $26,715,244. This came from 2,396,992 tons of ore, the greater part of which was extracted from vein No. 12, striking N.67°E. and dipping 57°NW. This vein is over 3,000 feet long and ranges in width between a few inches and 10 feet. It consists of blue or smoky quartz containing small quantities of pyrite, pyrrhotite, sphalerite, galena, chalcopyrite and scattered native gold.

Veins Nos. 1, 2, 20, 11, 14, 16 and 18 are also mineralized with gold and some of them have been mined.

6 See 5.

7 See 5.

8 SE. of Guillet lake (Lake Expanse Gold Mines Ltd.)
Au

Auger, P.-E.; 1952, p. 43

"Gold has been found at widely separated points along a belt of tuff and basic lava in the north central part of the property. The mineralized zones consist of quartz stringers and sulfide replacement in country rock..." The metallic minerals are pyrite, chalcopyrite, pyrrhotite, galena and sphalerite.

9 N. and S. of Guillet lake (Brenmore Quebec Mines Ltd.)
Au

Auger, P.-E. - 1952, p. 47

"Numerous veins and mineralized tuff beds north and south of Guillet (Mud) lake have been uncovered by trenching and explored by diamond drilling... Visible gold is reported to have been found in some of the veins..."

10 S. of Harding lake (Mudlac Gold Mines Ltd.)
Au

Ingham, W.N. - 1945, p. 24

Vein No. 1 - "... has been traced in trenches along a strike of N.50°E. for 400 feet. It consists of multiple veinlets up to a foot in width in a schisted zone exposed across 15 feet at one point. Company assays range from trace to $6.85 in gold per ton across 2.8 feet..."

11 N. shore of Bay lake (Quebec Platinum Mines Ltd.)
Cu, Ni, Pt

Dugas, J.; GM-13917, 1962
Dugas, J.; GM-13032, 1962
Q.D.N.R. - 1964, p. 24

Erratic blocks containing copper and platinum were found on the property and a mineralized zone containing chalcopyrite and minor nickel was located there in hornblendite. "Chalcopyrite grains or isolated pyrrhotite grains are found in this rock but a few sections of the order of 1 foot are well mineralized." (translated.

GUY TOWNSHIP

VI - B8

1 Near Delbreuil township, south of Nodier lake (Prospectors Airways Co. Ltd.)
Cu

A.W.R.; GM-9331, 1959

Copper in graphite schists.

GUYENNE TOWNSHIP

V - B5

1 IX - 3 (Chicobi Lake Mines Ltd.)
Pb, Zn

Robinson, W.G.; GM-1556, 1951

A zone mineralized with lead and zinc near the granite contact. A graphitic fault zone between tuffs on the south and graywackes on the north contains pyrite, pyrrhotite, galena and minor chalcopyrite.

2 VIII - 13 (Harrison group)
Cu

A.W.R.; GM-684, 1947

Diamond drilling.

3 IX - 36 (Housberger - Vincent group)
Pb, Ag

A.W.R.; GM-1327, 1951

Geophysical surveys

HAIG TOWNSHIP

V - E7

1 In the center of the NW. quarter of the twp. (Peacock Claims)
Cu

Bell, A.M. - 1933, p. 84

Minor chalcopyrite was noted in heavy pyrite mineralization in volcanic rocks.

HALLÉ TOWNSHIP

VI - B8

1 Between Loken and Soufflot lakes (Eastcourt Gold Mines Ltd.)
Au

Dresser and Denis - 1949, p. 318

"The first gold discovery of the whole region was made in 1933 on the Loken claims. The discovery was in Township 81 near the dam between Loken lake and the north arm of Soufflot lake. Gold occurred in a quartz vein, 13 to 16 feet wide, striking N.10°E. where exposed in excavations." (translated)

HAUY TOWNSHIP

IV - H3

1 3.1 miles E. and 2.9 miles N. of the SW. corner of twp. (Muscocho Explorations-Noranda Mines - Phillips and Dysart claims)
Ni, Cu

Holmes, S.W. - 1959, pp. 19-20
A.W.R.: GM-12988, 1963
A.W.R.; GM-11024, 1961
A.W.R.; GM-2948, 1954-57-58
A.W.R.; GM-2033, 1952

"A body of sulfide mineralization outcrops on the small island in the northeast corner of Muscocho lake. The showing strikes in an east-west direction and is about 30 feet long and 20 feet wide... The sulfides are located along both contacts of a granitic (dike) intrusion. The mineralization is mainly pyrrhotite with a little chalcopyrite, occurring either separately or together and replacing the recrystallized gabbro in irregular small zones".

The best assays in one of the representative holes are 1.69% copper over 2.6 feet and 1.87% nickel over 3 feet.

HAZEUR TOWNSHIP

IV - H4

1 2.2 miles E. and 1.6 miles S. of the NW. corner of twp. (Englewood Chibougamau Mines Limited)
Cu, Zn
Py

A.W.R.; GM-3160, 1956

In hole 1, five feet with 0.32% copper and 1.20% zinc in siliceous lava. In hole 2, four feet of massive sulfides with assays of 0.32% copper and 0.30% zinc, and three feet of massive iron pyrites with assays of 0.23 ounce of silver per ton, 0.22% copper and 0.20% zinc. The mineralized sections are in pyroclastic rocks. In hole 3, an average of 0.15% zinc and traces of copper over 3.7 feet of greenstone were obtained.

2 4.7 miles E. and 0.7 mile S. of the NW. corner of twp. (Riverside Chibougamau Mines)
Au, Ag,
Py

A.W.R.; GM-3046, 1956
Deland and Grenier - 1959, p. 63

"... in the extreme northern part of Hazeur township, on the south side of the Opawica river, just east of des Vents lake. An electric resistivity survey made in June, 1954, indicated a possible shear zone 200 feet wide, about 1,800 feet long and trending N.55°E. The first diamond drill hole... yielded one core length of 8 inches and another of 2 feet that assayed over $30.00 in gold. The latter core also contained 1.5 ounces of silver, 1% lead and some zinc."

Mineralization occurs in pyroclastics or sedimentary rocks with massive pyrite bands up to 3 feet thick at several horizons.

3 2 miles W. and 0.7 mile S. of the NE. corner of twp. (Hazeur Chibougamau Mines Ltd.)
Au

A.W.R.; GM-3900, 1957

Five holes were drilled in 1952 by Hazeur Chibougamau Mines and seven short holes, in 1956, by the same company. In hole No. 3 assays in gold of $22 a ton over 10 feet and $4 over the same footage were obtained. The gold is in pyritized blue quartz.

4 1.4 miles W. of the NE. corner of twp. (Hazeur Chibougamau Mines Ltd.)
Au

Deland and Grenier - 1959, p. 62

"The main showing is about 2,000 feet east of Mile-post VIII on the Hazeur-Rasles line. Here the lavas have been altered to carbonatized chlorite schists with average strike of N.80°W. and dip of 55° to the north... This schistose zone is cut by a north-striking fault and by a quartz vein that strikes N.10°W. A quartz sample from the northern end of the main shear zone assayed one ounce of gold to the ton. Gold was also reported about 200 feet southwest of the southern edge of the main showing."

5 2.7 miles E. and 4 miles N. of the SW. corner of twp.
Mag (Iron formation)

Deland and Grenier - 1959, p. 60

"Magnetite-rich beds are interbedded with black slates and quartzo-feldspathic layers on the south shore of Caopatina lake. They are thin (1/4 inch or less), and the contacts with adjacent beds are sharp... The beds consist of magnetite (60%) in grains averaging 0.5 mm., calcite (25%) and silicates (15%). The adjacent beds are finer-grained (0.1 mm.), and contain only about 25% magnetite and accessory calcite."

From G.S.C. map 1842G, the western tip of a strongly magnetic zone coincides with the above magnetite deposit. This zone extends easterly for a minimum distance of 12 miles. Recent prospecting activities in Gamache township have shown the zone to be caused, as in Hazeur township, by magnetite-bearing schists and gneisses.

HÉBÉCOURT TOWNSHIP

V - A6

1 I - 11 (Robb Montbray Mines Ltd.)
Au

Q.B.M. - 1936, p. 53

Quartz vein striking E. and dipping 35° S. A few spectacular gold samples have been reported.

2 III - 22, 23; 1 mile SW. of Moose lake (Thompson claims - Nealon Mines Ltd.)
Cu

Q.D.N.R. - 1961, p. 18

"Mineralized zones occur on both sides of a northeasterly-trending fault zone... at the nose of an anticline which plunges to the southwest. The mineralization is patchy and consists of pyrite, pyrrhotite and chalcopyrite. Pits have been dug along the fault in the well-mineralized areas, which extend discontinuously for 450 feet... At the margin of the Moose lake granite, 2,000 feet northeast of the zones described above, a shear zone is intruded by quartz mineralized with coarse chalcopyrite. This zone is exposed for 467 feet... The mineralization can be seen across irregular widths, the maximum being 5 feet..."

3 III, SW. of Moose lake (Thompson claims - Nealon Mines Ltd.)
Cu

Q.D.N.R. - 1961, p. 18

In the south part of the range, "A quartz vein mineralized with chalcopyrite was discovered in the eastern part of the property. It is exposed for 300 feet and has a maximum width of 1 foot".

4 IV - 38 (Thompson claims - Nealon Mines Ltd.)
Zn

Robinson, W.G.; GM-14914

"Other showings were visited about a mile east of Moose Lake. Trenching and stripping showed irregular amounts of sphalerite in a dacite rock."

5 II - 59 (Palermo Gold Mines Ltd.)
Au

A.W.R.; GM-10744, 1948

Diamond drilling.

6 VII - 60 (Peacock claims)
Au

A.W.R.; GM-12462, 1962

Shown on map.

7 VII - 52, 53 (Spence claims)
Au

Hogg, W.A.; GM-11619, 1961
Graham, R.B. - 1954, pp. 54-5
Q.D.N.R. - 1964, p. 25

A zone of carbonatized greenstone 1,600 feet long and up to 40 feet wide. The rock contains abundant quartz and black graphitic bands. The highest value reported is 0.38 ounce of gold per ton.

8 VII - 17 to 20 (Nemrod Mining Company, Ltd.)
Au

Graham, R.B. - 1954, pp. 54-5

"The Porcupine-Destor fault passes centrally across the property... Scattered values up to 0.30 ounce of gold per ton have been reported from the trenches and up to 0.15 ounce for 2-foot widths from the drilling."

9 VII - 7 to 14 (Brossard Group)
Au

Graham, R.B. - 1954, pp. 46-7

"Two intersections carrying 0.06 ounce of gold per ton over 3.5 feet and 0.11 ounce over 3.5 feet were reported from the drilling on this property."

10 III; SW. of Hébécourt lake
Cu, Ni

Dugas, J. - Personal notes

In old pits, pyrrhotite with a little chalcopyrite in diorite bordering the granite mass. Positive results with dimethylglioxime.

11 VII - 56 (Wettring Gold Mines Ltd.)
Au

A.W.R.; GM-10758, 1946

Geological mapping and diamond drilling.

12 S. shore of Hébécourt lake
Cu, Au

Personal communication.

13 East of Bayard lake
Cu

Personal communication.

HOLMES TOWNSHIP

V - E5

1 3/4 mile S. of the S. end of Holmes lake
Cu

Longley, W.W. - 1946A, p. 18

Chalcopyrite occurs in a short and narrow lens in a rust-stained schist.

ISLE-DIEU TOWNSHIP

III - C3

1 1,500 feet W. of Mile-post X on the N.-S. center line of the township. (Radiore Uranium Mines Ltd. - main deposit)
Cu, Zn, Au, Bi, Ag

Latulippe, M.; GM-11754, 1961;
Q.D.N.R. - 1964, pp. 26-7
Sharpe, J.I. - 1964, p. 12

A sulfide deposit containing chalcopyrite, sphalerite, pyrite, pyrrhotite and magnetite was discovered in 1959. The deposit is in tuffaceous rocks. It contains at least 240,000 tons grading 0.018 ounce of gold per ton, 0.90 ounce of silver per ton, 0.78% copper and 5.76% zinc. A separate copper zone has at least 40,000 tons grading 1.89% copper and 0.032 ounce of gold per ton. Bismuth and visible gold were noted locally in the sulfide masses. Three miles to the west of the above deposit, drill holes cut disseminated chalcopyrite in rhyolitic breccias and agglomerates.

2 II - 4,000 feet W. of the E. limit of the township (Radiore Uranium Mines Ltd. - East deposit)
Cu, Zn

A.W.R.; GM-11882, 1961
Q.D.N.R. - 1964, pp. 26-7

A sulfide deposit containing pyrite, pyrrhotite, sphalerite, chalcopyrite and magnetite was found in 1961. The sulfides are in tuffs. The zone contains at least 112,000 tons grading 2.61% copper and 1.35% zinc.

3 III - 2.5 miles E. of Bell river (Garon Lake Mines Ltd.)
Cu, Zn, Ag

Q.D.N.R. - 1961, p. 19

A sulfide zone contains pyrrhotite, pyrite, chalcopyrite and sphalerite. The sulfides are in tuffaceous rocks altered to hornfels. The deposit has at least 300,000 tons grading 2.1% copper. Silver and zinc are also present.

4 Central part of the SE. quarter of twp. (Bell Channel Mines Ltd.)
Cu, Zn

Latulippe, M.; GM-13916, 1961

Sulfide mineralization has been found at two locations on the property. The west deposit, below an island near the east shore of Bell river, 2 3/4 miles N. of the township boundary, is found in tuffaceous rocks and contains pyrite, pyrrhotite, chalcopyrite and sphalerite. It contains at least 90,000 tons grading 1.95% copper and 0.57% zinc. On strike, 1 1/4 mile to the east, another sulfide deposit, of lesser importance but also in tuffaceous rocks, contains disseminated pyrite, pyrrhotite, chalcopyrite and sphalerite.

5 4,000 feet N. of the mouth of Allard river (Chess Mining Corp.)
Ag, Cu
Mag

Sharpe, J.I. - 1961, p. 19

In a graphitic slate mineralized with pyrite a drill hole cut a 10-foot section which assayed 1.00 ounce of silver per ton and a minor amount of copper. The hole also cut a magnetite iron formation.

6 1 mile NE. of Watson lake (Bell Allard Mines Ltd.)
Cu

A.W.R.; GM-11357, 1961

A minor amount of chalcopyrite was noted in a drill hole. The mineralization is in carbonate veinlets cutting gabbro.

7 On the islands in Matagami lake lying N. of the mouth of Bell river (Dome Explorations (Canada) Ltd.)
Cu, Au

Longley, W.W. - 1943, p. 29

Minor chalcopyrite in quartz veinlets in volcanic rocks. One specimen of chalcopyrite assayed 0.344 ounce of gold per ton. A large boulder on an island also contains chalcopyrite.

8 In the area bounded by Gouin lake, Matagami lake and Dunlop bay (East Sullivan Mines Ltd. - Dome Explorations - Sinclair claims)
Cu, Mo, Zn, Pb

Longley, W.W. - 1943, pp. 25-31

There are numerous base-metal showings containing minor amounts of chalcopyrite, sphalerite, galena and molybdenite. A granite dike contains chalcopyrite and molybdenite. In tuffaceous rocks and some lavas, pyrite and pyrrhotite with minor chalcopyrite, sphalerite and galena are widespread.

9 At Channel rapids and to the NE. of these rapids on Bell river (Dumagami Mines Ltd. - Dumas claims)
Cu

A.W.R.; GM-9043, 1958

Minor amounts of chalcopyrite were noted in holes drilled in gabbro and volcanic rocks.

10 II - 9,000 feet E. of the township line. (Marchant Mining Co. Ltd.)
Cu

A.W.R.; GM-10035, 1960

A minor amount of scattered chalcopyrite in a hole that cut a gabbroic rock.

11 1.0 mile S. and 1.5 miles E. of the NW. corner of the township (Mattagami Explorers Corp.)
Cu

A.W.R.; GM-8912, 1959

A few blebs of chalcopyrite were noted in argillite in a drill hole.

12 A short distance W. of the town of Matagami (Mattagami Synd.)
Cu

A.W.R.; GM-12492, 1962

The drill hole cut gabbro with disseminated magnetite and chalcopyrite. Assays of 0.32 and 0.42% copper across 17.0 feet each and 0.32% copper across 15.0 feet were returned.

13 3,500 feet SW. of the S. tip of Dunlop bay (Northern Quebec Explorers Ltd.)
Au, Bi, Cu

Sharpe, J.I.; GM-13919, 1963

A set of narrow quartz veinlets contain spectacular gold. A specimen picked up by a government geologist assayed 34.44 ounces of gold per ton and 1.1% bismuth. Disseminated chalcopyrite and pyrite were also noted in a small amphibolitic outcrop, 1,400 feet northwest of the gold showing.

14 On the mainland and islands at the SW. end of Matagami lake (Roche Mines Ltd.)
Cu, Zn

Sharpe, J.I. - 1961, p. 20

Some chalcopyrite and minor sphalerite were noted in holes cutting through gabbro and volcanic rocks.

15 900 feet S. and 200 feet W. of Mile-post IV on the E.-W. center line of the township
Cu

Verbal communication.

Some chalcopyrite, with pyrite and pyrrhotite in agglomeratic rocks, was noted on an outcrop.

JOANNÈS TOWNSHIP

1 Block 13 (New Rouyn Merger Mines Ltd.)
Au

Q.D.N.R. - 1961, pp. 35-36

"... Three gold zones occurring in parallel northeast shears intruded by quartz stringers were delimited... The zones occur near the contact with andesite of an altered diorite intrusion. They all dip 60° northwest. It is estimated by the consulting geologist that the total ore indicated in the three zones is 38,500 tons grading 0.20 ounce of gold per ton."

2 VII - 14 (Teck - Hughes Gold Mines Ltd.)
Au

Gunning, H.C. - 1941, p. 98

In graywacke, a quartz vein mineralized with pyrite. The vein is about 200 feet long and 2 feet wide. The walls contain minor arsenopyrite and visible gold. The analysis of 115 pounds of ore from a hole west of the shaft is reported to have given 35 ounces of gold a ton.

3 VI - 25 (Heva Gold Mines Ltd.)
Au, Ag

Company's annual report - 1952
Ingham, W.N. - 1945, p. 31
Ingham and Ross - 1947, pp. 26-8
Claveau et al. - 1951, pp. 36-7

"In 1944 and 1945, Heva Cadillac Gold Mines Ltd. explored the break along a length of 3,600 feet with 56 diamond-drill holes. Intersections of gold-bearing quartz veins along the south or footwall side of the break were obtained for a length of 3,200 feet. Other auriferous intersections were obtained in the graywacke south of the break. The management calculated that the drill-hole intersections indicated about 300,000 tons of ore averaging 0.23 ounce of gold per ton above the 400-foot horizon. A three-compartment shaft was sunk to an inclined depth of 697 feet..."

In 1962, a total of 17,515 tons grading 0.199 ounce of gold and 0.278 ounce of silver a ton was shipped to the mill at Powell Rouyn Gold Mines Ltd.

4 X - Block 11 (Arrowhead Gold Mines Ltd.)
Au

Gunning, H.C. - 1941, pp. 54-7
Q.B.M. - 1938, p. 59

Two parallel veins about 200 feet apart contain tourmaline, pyrite and gold. A 500-foot shaft was sunk in 1936-37. Vein B, averaging 5 feet in width, has been traced for 500 feet on the 200-foot level, 70 feet on the 350-foot level and 675 feet on the 500. The average gold content was $17.60 a ton. Vein A, made up of irregular stringers and lenses, has been traced for 150 feet on the 200-foot level and for 200 feet on the 500-foot level. The average tenor is $18.20.

5 VI - 38 (Hosco Gold Mines Ltd.)
Au

Q.D.M. - 1946, p. 92
Ingham, W.N. - 1945, pp. 36-7
Ingham and Ross - 1947, pp. 31-2

A shaft inclined at 55° to the north has been sunk and levels established at depths of 350 and 500 feet. The ore occurs in silicified and weakly brecciated zones containing quartz stringers, biotite, pyrite and fine-grained arsenopyrite. Coarse native gold is seen in many places in the zone. A total of 50,567 tons of ore was treated from which were extracted 7,367 ounces of gold. In 1945, it was reported that the zone was 17.7 feet wide and 1,500 feet long and graded 0.185 ounce of gold a ton.

6 X - 34 (Barbados Gold Mines Ltd.)
Au

A.W.R.; GM-10954, 1946

Geological survey and diamond drilling.

7 VI - 48, 49, 51 (Bouzan Gold Mines Ltd.)
Au

Q.D.M. - 1946, p. 91
Ross, S.H.; GM-102B, 1946
Ingham et al. - 1949, p. 72

"... These holes, drilled north and south along range-line VI - VII, intersected a gold-bearing zone directly south of the "break" along a length of 1,140 feet... The gold-bearing diamond-drill sections consist of silicified, carbonatized graywacke, cut by quartz veins, the whole mineralized with pyrite and needle-like crystals of arsenopyrite."

8 See 7.

9 II - 7 (Doyon claims)
Zn, Cu

Gilbert, J.-E.; GM-1911, 1952

Graphitic schist with minor sphalerite and chalcopyrite.

10 X - 45 (East Sullivan Mines Ltd. - Goldfinch Mines Ltd.)
Au

Ingham and Ross - 1947, pp. 23-4

White and granular quartz in a vein, 1 foot to 1 1/2 feet wide, striking N.72°W. The vein, exposed for a length of 110 feet, is mineralized with pyrite, arsenopyrite and gold. "Visible gold was discovered... in a small gash vein of quartz... 100 feet east of lot-line 44-45 and 60 feet north of range-line IX - X..." This vein also contained some tellurides.

11 X - 49 (East Sullivan Mines Ltd.)
Au

A.W.R.; GM-9380, 1959

Diamond drilling.

12 X - 18 (Hasaga Gold Mines Ltd.)
Au

A.W.R.; GM-9533, 1960

Gold occurrence shown on map.

13 VII - 16 (Joannes Davidson Mines Ltd.)
Au

Gunning, H.C. - 1941, p. 78

"The conglomerate in the shear is highly carbonated and is cut by a few lenticular and discontinuous quartz veins. Biotite is abundant in the sheared conglomerate and occurs in some of the veins. Tourmaline is less abundant. Around the margins of the veins and disseminated in the carbonate schists are pyrite, arsenopyrite, chalcopyrite, and a little pyrrhotite... Assays varying from 0.04 to 0.20 ounce a ton have been obtained there, across widths of 3 to 6 feet. A sample from the most westerly pit returned 0.30 ounce a ton across 1.5 feet."

14 VI - 10 (Mondoux claims)
Au

Gunning, H.C. - 1941, p. 81
Ross, S.H. - 1941, p. 19

Quartz vein with tourmaline cutting a sheared diorite. The vein is 10 to 20 feet wide and 330 feet long. It is mineralized with pyrite and minor chalcopyrite. The drill logs indicate an assay of 0.55 ounce of gold over 1 foot.

15 IX - 27 (Montdono Mines Ltd.)
Zn
Py

A.W.R.; GM-10992, 1947

Massive sulfides, mostly pyrite with a little sphalerite.

16 VI - 8 (Nelson Gold Mines Ltd.)

Gunning, H.C. - 1941, pp. 86-7

"Six hundred feet south of the north boundary of lot 8, Range VI, a quartz vein is exposed in a trench... Where exposed in the trench for 140 feet it varies in width from 1 foot to 7 feet. In addition, over 50% of an area 10 by 20 feet in the southwest end of the trench is lenticular quartz stringers... Gold content reported by the company is erratic. Four samples assayed between $15 and $19 a ton, but many others assayed from nil to $2."

17 IV - 5 (New Norzone Mines Ltd.)
Au, Ag, Pb, Cu

A.W.R. - GM-15131, 1946
Dugas, J.; GM-14196, 1963

Quartz vein mineralized with pyrite, chalcopyrite, pyrrhotite and galena. Silver values were obtained.

18 VIII - 23 (Washington Gold Mines Ltd.)
Cu

Gunning, H.C. - 1941, pp. 104-6

"They are veins and vein zones of milky white, coarsely crystalline, and often drusy quartz mineralized with chalcopyrite, a small amount of pyrite and, in some places, minute amounts of sphalerite and galena." On lot 23, "the vein

zone is exposed for a length of 150 feet... across widths that vary up to 5 and 10 feet in the two pits. The quartz is irregularly but well mineralized with chalcopyrite and some pyrite."

JOSSELIN TOWNSHIP

V - D5

1 1/4 mile SE. of Mile-post V on the Josselin-Tonnancourt township line
Cu

Bannerman, H.M. - 1936, p. 22

Minor chalcopyrite was noted with quartz stringers in pyritic quartzite.

JOURDAN TOWNSHIP

VI - C8

1 On an island S. of the village of Carrière Baie
Be

Freeman, P.V. - 1957A, p.8

Scattered crystals of beryl in pegmatite dikes.

JOUTEL TOWNSHIP

III - B4

1 2 miles from the W. boundary of twp., 3/4 mile from S. boundary (Joutel Copper Mines Ltd.)
Cu, Zn
Py, Po

Dugas, J.; GM-13924, 1961
Q.D.N.R. - 1964, p. 27

The first zone, discovered in 1959, contains mainly zinc and minor chalcopyrite. In 1960 exploration started on a second zone of massive sulfides about 600 feet to the northeast of the first one. It is made up of a series of northwest-striking lenses displaced by faults. The chlorite zone which accompanies the sulfides appears to be inclined to the north. Following underground exploration, reserves were estimated at 1,408,000 tons grading 2.5% copper. The zinc zone to the south contains at least 216,000 tons grading 10.9% zinc and 0.2% copper.

2 4 1/2 miles from the W. boundary and 1/2 mile from the S. boundary of the twp. (Southwest Potash Corp.)
Cu, Zn, Ag, Pb

Dugas, J.; GM-11429, 1961

A mineralized zone bordering a gabbroic mass contains minor amounts of copper, zinc and silver. West of the property a 4-foot section has given 0.77% copper and 14.55% zinc.

3 A few feet E. of (2) (Iso Mines Ltd.)
Cu, Zn, Ag

Dugas, J.; GM-13058, 1961

In a chlorite zone, an assay of 0.46% copper and 0.78% zinc over 10 feet.

4 2 miles from the E. boundary and 2 miles from the S. boundary of the township (Cherterville Mines Ltd.)
Py

Dugas, J.; GM-13921, 1961

"The dacite... is heavily mineralized with pyrite and pyrrhotite in the form of disseminations or pockets. A few sections of the order of 10 feet contain as much as 60% pyrite." (translated)

5 W. bank of Harricana river, 1 1/2 miles from the S. boundary of the twp. (Dick group)
Au

Tanton, T.L. - 1919, p. 53

"On the west bank of Harricana river, 14 miles in a straight line below Allard portage, a rusty-weathering, gray, ferruginous dolomite was found to carry fine gold and abundant fine crystals of pyrite. The whole exposure is cut by a meshwork of tiny quartz veins. A sample of this rock assayed 3.86 ounces of gold per ton, and smaller samples of the same rock which did not include the quartz veinlets yielded 0.10, 0.10 and a trace, respectively, per ton. Chemical tests of this material revealed the presence of tellurium."

6 E. bank of Harricana river, 3 miles from the S. boundary of the twp. (Cons. Mogul Mines Ltd.)
Au

A.W.R.; GM-11950, 1961

Diamond drilling. An assay of 0.12 ounce of gold per ton over 10 feet.

7 1 mile from the W. boundary and 4 miles from the N. boundary of the twp. (Dome Explorations (Quebec) Ltd.)
Cu

A.W.R.; GM-11539, 1961

The geological map shows copper at this location.

8 4 miles from the S. boundary of the twp., N. bank of Harricana river (Equity Explorations Ltd.)
Cu, Zn, Ag

The Northern Miner - Sept. 3, 1964

A 43.4-foot section containing 4.56% copper and a little silver and zinc.

JULIEN TOWNSHIP

II - G2

1 1.2 miles E. and 3.3 miles N. of the SW. corner of twp. (Mining Corporation of Canada Ltd.)
Py, Po

A.W.R.; GM-9006, 1959

In metapyroclastic rocks, 35 to 65% sulfides in several sections ranging in width from 2 to 10 feet.

Garnets are locally present along with chlorite and graphite.

2 2.6 miles E. and 2.1 miles N. of the SW. corner of twp. (Sporran Mines Limited)
Py, Po (Iron formation)

A.W.R.; GM-7859, 1958

In hole 13, massive to semi-massive sulfides in tuff and agglomerate over a core length of 107 feet. In hole 17, similar mineralization over lengths of 32 and 60 feet.

3 4.8 miles W. and 0.1 mile N. of the SE. corner of twp. (McIntyre Porcupine Mines Limited)
Py, Po

A.W.R.; GM-11193, 1961

In one hole, 20% sulfides in tuff and pyroclastic rocks over a 50-foot section. In another hole the sulfides are reported to be present in basalt.

4 1.3 miles W. and 0.2 mile N. of the SE. corner of twp.
Cu, Ni

Latulippe, M.; GM-4395, 1956

"The sulfides are in streaks and flattened blebs... Chalcopyrite, pentlandite and pyrrhotite constitute about 10 to 15% of the rock."

KREIGHOFF TOWNSHIP

IV - F3

1 3.4 miles S. of the NW. corner of twp.
Py

Gilbert, J.-E. - 1955, p. 35

"Heavy pyrite mineralization in sheared, fine-grained, basic igneous rocks, just south of Inconnu river and on the north-south surveyed line between Montalembert and Kreighoff townships."

2 4.3 miles E. and 3.2 miles N. of the SW. corner of twp.
Cu

Gilbert, J.-E. - 1955, p. 35

"Carbonatized and sheared basic intrusive rock containing pyrite and a low tenor of chalcopyrite, 450 feet west of the northern section of Renault lake."

3 4.4 miles W. and 3.2 miles N. of the SE. corner of twp. (Northern Canada Mines-Bibis Yukon Mines)
Cu, Zn,
Py, Po

A.W.R.; GM-1405, 1951
A.W.R.; GM-8944, 1959

Following geophysical surveys, 11 holes were drilled to test two conductor zones running E.-W. and offset across strike by a distance of some 200 feet.

In the east zone, hole A-1 cut 1 foot containing about 50% pyrite, 35% pyrrhotite, small amounts of sphalerite and chalcopyrite. The same hole cut 2 feet of massive, fine-grained sulfides replacing a tuff. This section contained about 40% pyrrhotite, 30% pyrite, considerable chalcopyrite and sphalerite. It was estimated to contain approximately 2% copper and 2% zinc. Hole A-2,

drilled 50 feet east of A-1, cut 1 foot of over 90% sulfides, predominantly medium-grained granular pyrite with a lesser amount of fine-grained pyrrhotite and considerable sphalerite and chalcopyrite. This section was estimated to contain about 2% copper and 3% zinc.

In the west zone, which is some 800 feet west of the east zone, hole No. 7 cut 3 feet of 70% pyrrhotite, 10% pyrite, 5% sphalerite, 2-3% chalcopyrite. Hole No. 9, some 125 feet east of No. 7, cut 12.7 feet of 10-80% pyrite and pyrrhotite, 1% chalcopyrite and 1% sphalerite. The mineralization in both holes was in intermediate and acid tuffs.

4 1.2 miles E. and 0.8 mile N. of the SW. corner of twp.
Cu
Py

Gilbert, J.-E. - 1955, p. 35

"Small shear zone in gabbro, containing abundant quartz and carbonate with heavy pyrite and low chalcopyrite mineralization, slightly over two miles west of Renault lake and a quarter of a mile north of the southern boundary of the map-area."

LAAS TOWNSHIP

V - D5

1 VI to IX - 16 to 31 (Hudson Bay Expl.)
Cu, Zn, Mo
Py, Po

Latulippe, M.; GM-11459, 1961
Q.D.N.R. - 1964, pp. 27-8
A.W.R. ; GM-11418, 1959

Massive sulfides in tuffaceous sedimentary rocks contain pyrite, pyrrhotite and graphite. Specks of sphalerite and chalcopyrite were noted in the massive sulfides. The best assay reported returned 1.35% copper across 0.4 feet. A hole in lot 25, Range VI, was reported to have a few streaks of molybdenite on the contact of a porphyry dike.

LACORNE TOWNSHIP

V - C6

1 III - 7, 8 (Amos Lithium Corp.)
Li, Be, Mo, Nb

Q.D.M. - 1959A, p. 53

Pegmatite dikes in the south half of these lots contain spodumene, beryl, molybdenite and columbite-tantalite. The mineralization is patchy. Fourteen holes were drilled. The best value in one dike gave 2.48% lithia across 7.5 feet.

2 X - 55 (Beaumont Mining Corp. Ltd.)
Cu

A.W.R.; GM-3161, 1955

A minor amount of chalcopyrite was noted in a drill hole in the south part of the lot. The mineralization is found with pyrite and pyrrhotite in volcanic rocks.

3 VIII - 6 (Buffalo Canadian Mines Ltd.)
Be

Q.D.M. - 1958, p. 26

Pegmatite dikes contain minor beryl.

4 IX - 1, 2, 6, 32 to 35; X - 1, 9, 11, 20, 38 to 40, 42, 44 (Canadian Lithium Mining Corp.)

Li, Be, Mo, Ta

Q.D.M. - 1956, p. 56

Pegmatite dikes and quartz veins on this property contain spodumene, beryl, molybdenite and tantalite. Molybdenite was noted in the central parts of lots 42 and 44, Range X: spodumene and beryl at the south ends of lots 38 to 40, Range X; spodumene at the north ends of lots 32 to 35 and at the west end of lot 6, Range IX; tantalite at the east end of lot 1, Range X; beryl in the west part of lot 9 and the central part of lot 11 and lot 20, in Range X; and beryl, spodumene and tantalite in the central parts of lots 1 and 2, Range IX. Diamond drilling in 153 holes totalled 74,990 feet. At the north end of lots 34 and 35 a pegmatite dike has been explored for a length of 1,080 feet; it has an average width of 25 feet and an average grade of 1.12% lithia.

5 V - 1, 5 (Goyette claims - Central Metals Corp.)
Li, Mo, Bi, Be

Q.D.M. - 1958, p. 26
Q.D.M. - 1959B, p. 14
Brett, P.R. - 1960, p. 11

A pegmatite dike in lot 5 contains erratic spodumene and minor beryl. A pegmatitic quartz vein at the south end of lot 1 contains a fair amount of molybdenite and bismuth. The vein is only 3 feet wide and exposed for a length of 35 feet in schists.

6 IV - 23, 24 (Columbia Lith. Corp.)
Mo

Brett, P.R. - 1960, map No. 1338

Molybdenite was noted near the north end of the lots.

7 I - 10; II - 9, 11; III - 12 (Lithium Corp. of America - Great Lakes Carbon Corp.)

Li, Be, Mo, Nb, Bi

Tremblay, L.-P. - 1950, p. 74
Brett, P.R. - 1960, map No. 1338

Spodumene, beryl, molybdenite, bismuth and columbite-tantalite minerals have been noted in dikes located in the following places: north part of lot 11, Range I, south end of lot 9 in the central part and north end of lot 11, Range II; and in the central part of lot 12, Range III. A fair amount of drilling was carried out on the dikes in lot 11 of Range II.

8 SW. corner of township (Molybdenite Corp. of Canada)
Mo, Bi, Be

Dresser and Denis - 1949, pp. 407-13
Brett, P.R. - 1960, p. 10

The molybdenum- and bismuth-bearing pegmatitic quartz veins of this property have been mined intermittently since 1929. The 1963 ore reserves were given as 300,000 tons grading 0.32% molybdenite. The ore contains bismuth and a minor amount of beryl. A shaft is down to 1,000 feet. During the war 1,445,275 lbs. of molybdenum was produced from 208,954 tons of ore. From 1954 to mid-1962, the mine produced 6,848,000 lbs. of molybdenum and 1,058,884 lbs. of bismuth from 1,660,657 tons of ore. The value of production since 1954 is 10,356,723 dollars. A small amount of beryl is also recovered from the ore.

9 VII - 13 to 16; VIII - 11, 15 to 17 (Massberyl Lithium Co. - Héroux et al. claims)

Be, Mo, Nb

Q.D.M. - 1958, p. 27
Rowe, R.B. - 1953, p. 15
Graham et al. - 1953, p. 53

At the east end of lot 11 and the south end of lots 15 to 17, Range VIII, and in lots 13 to 16, Range VII, there are numerous pegmatite dikes containing beryl, molybdenite and columbite-tantalite. The distribution of these minerals is very irregular and the amounts are. at the present time, below economic levels.

10 IX - 13 to 15, 31, 32, 49 to 61; X - 14 to 16, 19 to 21 (Quebec Lithium Corp.)
Li, Be, Mo

Q.D.M. - 1956, pp. 57-8

A large number of pegmatite dikes in lots 49 to 61, Range IX, contain large amounts of spodumene. Ore reserves are substantial. Within a radius of only 600 feet from the shaft, in lot 54, they total 20 million tons grading about 1.15% lithia. Production began in 1956 and, to the end of 1961, totalled 17,278,555 lbs. of lithia from 831,764 tons of ore. Molybdenite is present in a dike at the north end of lot 59, Range IX. Beryl is present in the ore and also in dikes in lots 13 to 15, 31 and 32, Range IX, and lots 14 to 16 and 19 to 21, Range X

11 VI - 30; VII - 21; VIII - 21, 22, 25; IX - 17, 18 (Valor Lithium Mines Ltd.)
Li, Be, Mo, Cs

Q.D.M. - 1958, p. 28

A large but shallow mass of pegmatite at the south end of lot 22, Range VIII, contains a fair amount of spodumene and minor amounts of beryl, pollucite (a caesium mineral) and lepidolite. Other pegmatite dikes on the property have minor molybdenite and beryl. These are located at the south end of lots 21 and 25, Range VIII; the north end of lot 21, Range VII; the north part of lot 30, Range VI; and in lots 17 and 18, Range IX.

12 III - 14N.; IV - 12, 13; V - 11 to 16; VI - 8 to 13, 19
Be

Brett, P.R. - 1960, map No. 1338

Minor amounts of beryl have been noted in pegmatite dikes in these lots.

13 III - 3, 22; IV - 1; V - 8, 9, 11; VI - 8, 12 (East part)
Mo
Brett, P.R. - 1960, map No. 1338
A minor amount of molybdenite was noted at the above places.

14 V - 8, 11
Nb

Brett, P.R. - 1960, map No. 1338

A minor amount of columbite-tantalite was noted in the central parts of these lots.

LA DAUVERSIÈRE TOWNSHIP

IV - J4

1 2.1 miles E. and 1.2 miles N. of the SW. corner of twp. (Apollo Mineral Developers Inc. - Glencona Mining Co. Ltd.)
Py, Po

Graham, R.B. - 1953, pp. 5-6
A.W.R.; GM-4358, 1956
A.W.R.; GM-1895, 1952
A.W.R.; GM-1896, 1952

Disseminated to massive pyrrhotite with some pyrite and minor chalcopyrite was intersected while drilling was being made in silicified and carbonated andesitic lavas intruded by numerous quartz porphyry dikes. The best mineralized section was in hole G-3 from 379.5 to 537.7 feet with a sulfide content of 15% to massive. Numerous mineralized sections were encountered in the other holes.

2 0.6 mile E. and 0.2 mile N. of the SW. corner of twp. (Aull Metals Mines Ltd.)
Cu, Au

A.W.R.; GM-7533, 1958

The main shear zone... "occurs near the north and south contacts of a band of gabbro which outcrops over a width of from 50 to 200 feet and extends... in the southwest quarter of La Dauversière township... in a west-northwesterly direction..."

"The total length traced of the gabbro outcrop is approximately one mile. Seventeen diamond drill holes were drilled (by Uddlen Mines in 1952) across this shear... Nine of these drill holes cut a total of 25 intersections of mineralized zones with a true width of from 1.2 to 4.5 feet carrying values in copper from a trace to 1.95% with gold values running from 0.01 ounce to 0.43 ounce per ton... The mineralization consists of chalcopyrite and pyrite.

3 3.1 miles E. and 0.5 mile N. of the SW. corner of twp. (New Jersey Zinc Expl. Co. (Canada) Ltd.)

Au, Cu

A.W.R.; GM-4218, 1956
A.W.R.; GM-11714, 1962

The gold-bearing mineralized shear zone lies in a 400-foot-wide gabbro sill intruding east-west-trending andesitic flows. Acid intrusives, such as feldspar porphyry, occur in the gabbro sill and the basic lava. In most cases, gold values are bordered by these acid intrusives.

Following surface trenching, mapping and geophysical surveys, the zone was tested over a length of half a mile by 37 drill holes.

Drilling indicated that the sheared gabbro is well mineralized with pyrite, pyrrhotite with a little chalcopyrite, and some arsenopyrite. Quartz and carbonate

are the abundant gangue minerals. Interesting gold-copper values were obtained in nearly every hole. The best assays in the central zone were 0.320 ounce of gold per ton and 0.32% copper over 3.8 feet and, in the west zone, 0.130 ounce of gold per ton and 1.47% copper over 2.5 feet.

4 4.3 miles E. and 0.5 mile N. of the SW. corner of twp. (Noranda Mines Ltd.)
Au

A.W.R.; GM-1824, 1952
A.W.R.; GM-2417, 1956
Gilbert, J.-E.; 1959, pp. 23-4

"The rocks underlying the property consists of schistose basalts intruded by massive to schistose diorite and gabbro. A persistent strong shear zone, trending N.35°E., crosses the northern part of the property... To the north, there is sheared greenstone, possibly intrusive, and a vein of white quartz, 15 feet long and 4 feet wide, accompanied by a swarm of small lenses of quartz up to one foot long. The vein and the lenses of quartz and the shearing are parallel, with strike of S.65°E. and dip 75° northeast. The quartz is sparsely mineralized with pyrite, and a grab sample of it taken by the writer assayed 0.271 ounce of gold per ton."

5 1.5 miles W. and 0.7 mile S. of the NE. corner of twp. (Conwest Exploration Company Ltd.)

Cu

Imbault, P.-E. - 1959, p. 32

"This showing is on the southwest shore of the small lake that lies 7,000 feet north of Hamel lake in the northeast part of La Dauversière township. Early in the summer of 1950, a narrow trench, about 150 feet long, was opened by stripping and blasting.

"Sheared andesites and tuffs are injected and partly replaced by quartz. The zone of silicification is irregular, but probably averages 4 feet in width. Disregarding minor irregularities, the structure trends more or less east-west and dips vertically. Mineralization, which is scanty, consists of pyrite, chalcopyrite, and probably some pyrrhotite."

LA GAUCHETIÈRE TOWNSHIP

III - C3

1 Approx. 7,000 feet S. of Mile-post 32 on the La Gauchetière-Grasset township line (Northcal Oils)
Cu, Zn

A.W.R.; GM-9347, 1958

Minor amounts of chalcopyrite and sphalerite in volcanic and gabbroic rocks were noted in drill holes.

2 About 1 mile S. of Mile-post 32 on the La Gauchetière-Grasset township line (Southern Union Oils)
Cu, Zn

Latulippe, M.; GM-12145, 1962
Q.D.N.R. - 1964, pp. 28-9

A pyrite and pyrrhotite showing contains some chalcopyrite and sphalerite. The sulfide mineralization is in tuffaceous rocks. Copper assays were all low. The best zinc assay was 2.32% across 2.0 feet of core.

LAMARCK TOWNSHIP

IV - G3

1 2.3 miles E. and 2.0 miles S. of the NW. corner of twp. (Tomiska Copper Mines Ltd.)
Cu, Ni, Co

A.W.R.; GM-7521, 1957

Two nickel-copper showings were discovered 5 1/2 miles NE. of the northeasterly bay of lac La Trève at the south contact of the gabbro sill with the basic lavas. The two showings are 950 feet apart in a southwesterly direction.

Trenching and shallow rock blasting on the No. 1 showing shows that, across 12 feet at the contact, the gabbro is well mineralized with pyrrhotite with lesser amounts of chalcopyrite. The mineralization is mainly in the form of blebs up to an inch in diameter scattered through gabbro. A sample assayed 0.73% nickel, 0.65% copper, and 0.20% cobalt. A second sample assayed 0.35% nickel and 1.35% copper.

The No. 2 showing is exposed by trenching along 210 feet. Four trenches reveal the same type of mineralization as at the No. 1 showing.

Packsack diamond drilling of the showings gave an average combined value of 1.02% nickel-copper for core lengths totalling 50 feet.

2 3.6 miles E. and 1.4 miles S. of the NW. corner of twp.
Cu, Ni

Latulippe, M. - GM-4395, 1956

"... in Lamarck twp., about 6.8 miles northeast of the northeasterly bay of lac La Trève... just north of the place where Dempster creek crosses the same (lac La Trève) gabbro sill. A small outcrop 10 x 15 feet... made up of gabbro with about 15% to 20% sulfides."

The sulfides would consist of chalcopyrite, pentlandite, and pyrrhotite.

3 0.3 mile W. and 3.3 miles S. of the NE. corner of twp. (Phelps Dodge Corp. of Canada Ltd.)

Py, Po (Iron formation)

A.W.R.; GM-12701, 1963

A 1,200-foot-long electromagnetic anomaly, trending easterly and located in the SW. part of Chaleur lake was tested by two diamond drill holes collared 200 feet apart along strike. A sulfide zone, 50 to 80 feet wide in horizontal projection, was intersected in a carbonaceous and feldspar-rich sedimentary rock. The sediments are partially to completely replaced by pyrrhotite and pyrite. The sulfides occur as massive bands a fraction of an inch to 11 feet thick and also as blebs parallel to bedding.

One-half mile southwest of the above conductor there is another 1,200-foot-long electromagnetic anomaly also trending easterly. This anomaly was tested by two diamond drill holes. The conductor is like the one above and occurs over a width of 30 to 40 feet. From the G.S.C. Aeromagnetic Sheet No. 518G it is possible that these two sulfide zones are part of the same band.

4 4.7 miles E. and 3.7 miles N. of the SW. corner of twp. (Massberyl Lithium Co. Ltd.)
Py (Iron formation)

A.W.R.; GM-4003, 1956
Q.D.M. - 1958, p. 29

"The main mineralization is on a reef or small island... (Wabanook bay at the north end of lac des Deux Orignaux)... close to the northwest shore of the bay about one quarter mile across the water in a direction N.30°W. from the west end of Trailer island. When examined in August 1955, it was 40 feet long (N.40°E.) and 25 feet wide and 1 foot above the lake level. The reef consists of massive sulfides, except for a small part with about 20% rock... The sulfides are mainly two types of pyrite-marcasitic and ordinary. A few irregular stringers of vein quartz were observed. Small holes in the reef... show considerable peacock-blue bornite stain, coating fracture-planes in the pyrite. A selected sample with a stringer of chalcopyrite assayed 1.60% copper."

From drilling done in 1956 by Massberyl Lithium Co. on that island and vicinity, the area is known to be underlain by altered feldspar-rich sedimentary rocks. The pyrite reef was tested with three holes but only one ran through sulfides.

5 4.5 miles W. and 3.6 miles N. of the SE. corner of twp. (Massberyl Lithium Co. Ltd.)
Cu, Pb, Ag

A.W.R.; GM-4003, 1956
Q.D.M. - 1958, p. 29

"... a quartz vein... discovered several years ago. The vein ranges in width up to 1.5 feet and is exposed for a length of 50 feet... It carries scattered aggregates of galena and chalcopyrite, mainly along the walls and,to a limited extent, in the sheared wall-rock. A grab sample of the vein material with some attached wall-rock assayed traces of gold, 0.82 ounce of silver per ton, 0.80% copper, and 1.20% lead."

The vein occurs in an altered gabbro-diorite sill.

6 4.9 miles W. and 3.1 miles N. of the SE. corner of twp. (Massberyl Lithium Co. Ltd.)
Py (Iron formation)

A.W.R.; GM-4003, 1956
Q.D.M. - 1958, p. 30

A zone of mineralization occurs mainly in a band of feldspar-rich and carbonaceous sedimentary rock 700 feet wide that lies between two bodies of quartz gabbro. This zone is 500 to 1,000 feet southeast of Trailer island at the north end of Deux Orignaux lake.

Diamond drilling done by Massberyl in 1956 shows that the sedimentary rock was partially to completely replaced by pyrite and minor amounts of pyrrhotite and chalcopyrite in bands varying in width from a fraction of an inch to 16 feet.

7 4.3 miles E. and 2.3 miles N. of the SW. corner of twp. (Detta Minerals Ltd.)
Py (Iron formation)

A.W.R.; GM-7046, 1957

Massive sulfides were intersected over a length of 16.5 feet while drilling from a small island near the east shore of Deux Orignaux lake. The mineralization

consists of massive pyrite with very few specks of chalcopyrite. The mineralization was intersected in a graphitic, feldspar-rich sedimentary rock near the north contact of a quartz-gabbro intrusive.

LA MORANDIÈRE TOWNSHIP

V - C6

1 VII - 9, 10 (Daljo Gold Mines Ltd.)
Au, Cu

Weber, W.W. - 1951A, p. 20
Ingham et al. - 1949, p. 73

A quartz veinlet and stringers in these lots contain gold. A hole under the surface showing cut 2.5 feet of 0.325 ounce of gold per ton. A minor amount of chalcopyrite was also noted in the veinlets.

2 VI - 24 (Drolet claims)
Pb, Zn

Weber, W.W. - 1951A, p. 20

A minor amount of sphalerite and galena can be found in old trenches in silicified and carbonatized lavas.

3 VII - 30; VIII - 32, 33 (Malartic Goldfields Ltd.)
Cu, Zn, Pb

Q.D.N.R. - 1961, p. 23

Chalcopyrite, sphalerite and galena were noted in quartz stringers cutting conglomerate on lot-line 32-33, Range VIII. A glacial float with a maximum diameter of 9 inches found in lot 30, Range VII, assayed 11.5% zinc and 1.47% lead.

4 X - 4 (North Trinity Mining Corp. - Trinity Chibougamau Mines Ltd.)
Cu, Zn,
Mag

Sharpe, J.I. - 1961, p. 25

A shaft was put down 430 feet to explore a sulfide zone. The sulfides made up of pyrite, sphalerite and chalcopyrite are localized in lenzoid zones in agglomerates and chloritic volcanic rocks. The company estimated a tonnage of 147,000 grading 1.18% copper and 0.74% zinc. A magnetite iron formation was also drilled under the waters of Castagnier lake.

5 V - 24 to 28 (East Sullivan Mines Ltd.)
Cu, Zn

Latulippe, M.; GM-9514, 1959

Dacitic rocks north of a peridotite sill in these lots have amygdules which contain minor amounts of chalcopyrite. Narrow tuff beds also have disseminated chalcopyrite and sphalerite. The best assay from drill core returned 0.30% copper and 0.40% zinc across 1.0 foot.

6 VII - 19 (Fillion discovery)
Cu, Zn

Weber, W.W. - 1951A, p. 20

Irregular chalcopyrite, sphalerite and pyrite-pyrrhotite mineralization can be seen in a shear zone.

LAMOTTE TOWNSHIP

V - C6

1 V - 9 (Marbridge Nickel Mines Ltd.)
Ni, Cu

Company reports

A nickel producer since 1962. A shaft has been put down 1,200 feet and eight levels established. Production is approximately 400 tons per day. The ore grades about 2.25% nickel. The orebody is 250 to 300 feet long, a few to 20 feet wide and at least 1,200 feet deep. It is located in the contact zone of ultrabasic and tuffaceous rocks. A small amount of chalcopyrite is also present in the ore.

2 VII - 31, 33 (Ascot Metals Corp.)
Li, Mo

Q.D.M. - 1958, p. 30

Spodumene-bearing pegmatite dikes can be found at the east end of lot 31, and in the southeast corner of lot 33. Four holes into one dike gave an average tenor of 0.78% Li_2O. A hole west of the lot 31 dike cut 3.94% MoS_2 across 1.7 feet and 0.84% MoS_2 across 3.0 feet.

3 IV - 10, 13 (Ataman Claims)
Cu, Zn

Dresser and Denis - 1949, p. 126
Leuner, W.R. - 1959, p. 8

Minor amounts of chalcopyrite and sphalerite were found with pyrite.

4 V - 60 (Consolidated Negus Mines Ltd.)
Cu, Bi, Be

Q.D.M. - 1959A, p. 54

A small amount of chalcopyrite was noted in a drill hole in graywacke at the north end of the lot. Crystals of chalcopyrite, beryl and bismuth were seen in a narrow pegmatite dike in the same hole.

5 IV - 20 (Continental Mining Exploration - Cubric claims)
Ni

Q.D.M. - 1959B, p. 15
Leuner, W.R. - 1959, p. 8

A nickel occurrence was found in this lot in 1957. It is in a 5-foot breccia zone and exposed for a length of 35 feet. The highest nickel assay was 5.33% for a core length of 8 feet. The widest intersection measured 11.5 feet and assayed 2.4%.

6 II - 5 (Société Minière Utufora - Dupas)
Mo, Bi

Norman, G.W.H. - 1944, p. 6
Leuner, W.R. - 1959, p. 9

A large pegmatite dike contains molybdenite and bismuth. The mineralization appears to be in pockets within the dike. The average of five holes through the dike gave 0.29% MoS_2 and 0.02% bismuth across 10.0 feet.

7 VI - 47 (East Sullivan Mines Ltd. - Secen-Watson group)
Cu

A.W.R.; GM-3137, 1955

A sulfide zone in tuffaceous rocks contains pyrite and minor chalcopyrite. Seven holes were put down on the group.

8 IV - 16 to 19 (East Sullivan Mines Ltd. - Lamotte-Leblanc Group)
Ni

A.W.R.; GM-14571, 1958

The peridotite masses at the north end of these lots contain nickel. The tenors are low, the highest assay gave 0.35% nickel across 2.0 feet.

9 V - 1 to 5; VI - 1 to 8 (East Sullivan Mines Ltd. - Lamotte-Grégoire and Grégoire-Manchulenko groups)
Ni, Zn

A.W.R.; GM-6692, 1957

The peridotite masses contain low nickel, generally in the range 0.1 to 0.4%. The highest assay returned 0.65% nickel across 3.0 feet. One zinc intersection returned 1.20% across 1.0 foot.

10 IX - 62 (Gaitwin Explorations Ltd.)
Li

A.W.R.; GM-3234, 1955

A drill hole in the northeast corner of the lot cut a pegmatite dike containing spodumene.

11 IX - 39, 40, 42, 43 (Glenmar Lithium Mines Ltd.)
Be

A.W.R.; GM-3768, 1955

Beryl was noted in pegmatite dikes in the center of lots 39 and 40, the central part of lots 42 and 43 and at the west end of lot 42. At no place is the quantity of beryl of economic interest.

12 VII - 56 to 58, 60 to 63; VI - 58 (Goyette-Roux claims - Iso Uranium Mines Ltd.)
Li, Be

A.W.R.; GM-3089, 1955

Spodumene-bearing pegmatite dikes were uncovered in the following locations: north end of lot 58, north end of lot 56 on the lake shore, south end of lots 57 and 58, all in Range VII; center of lots 61 to 63 and the south part of lot 60, all in Range VII. The dikes in lots 57 and 58 contain some beryl. The

dikes average 2 to 6 feet in width and contain 15 to 30% spodumene by visual estimate. Seven holes were drilled. The best Li_2O values were 1.6% across 5.0 feet of core, 1.34 across 4.5 feet, 1.02 across 6.2 feet and 1.12 across 5.2 feet.

13 X - 59 to 63 (Lacorne Lithium Mines Ltd.)
Li, Be, Bi

Q.D.M. - 1959A, p. 55

There are numerous spodumene-bearing pegmatite dikes in these lots. Sixty-seven holes were drilled. The largest dike, 1,200 feet in length and averaging 20 feet in width, contains 0.38% Li_2O. Some parts of the dikes may have up to 40% spodumene. Some of the dikes also contain beryl and native bismuth.

14 VI - 62 (Martin property - Massberyl Lithium Co. Ltd.)
Li

Q.D.M. - 1958, p. 31

A spodumene-bearing pegmatite dike at the northwest end of the lot was explored by diamond drilling. The lithia content in the hole was low.

15 VII - 4 (Sevigny-Ouellette claims - Rochon claims)
Mo, Be, Ta

Leuner, W.R. - 1959, p. 10

Molybdenite, beryl and tantalite have been reported from veins at the south end of the lot.

16 I - 31 (Sullico Mines Ltd. - Savard Claims)
Mo, Bi

At the north end of the lot numerous dikes of aplite and pegmatite contain molybdenite and bismuth. The dikes cut ultrabasic rocks. Sixteen holes were drilled in an area roughly 500 feet square. Some of the best and widest sections, in percentages of MoS_2, were: 1.35 across 5.8 feet, 0.72 across 16.5 feet, 0.34 across 12.8 feet, 0.42 across 7.1 feet, 0.80 across 6.0 feet and 0.40 across 6.5 feet.

17 IX - 37, 38 (Wilrich Petroleums Ltd.)
Be

A.W.R.; GM-3813, 1956

Pegmatite dikes near the north end of lot 37, the south end of lot 37 and the center of lot 38 contain beryl.

18 A small rock island near the center of Malartic lake and the south boundary of the township.
Cu

Brett, P.R. - 1960, p. 12

Scattered chalcopyrite mineralization. Three drill holes were put down but no data are available concerning the work.

19 IX - 64 (Quebec Lithium Corp.)
Li, Be, Nb

Tremblay, L.-P. - 1950, p. 76

Narrow pegmatite dikes at the north end of the lot contain spodumene, beryl and columbite-tantalite.

LANDRIENNE TOWNSHIP

V - C6

1 IV - 55, 56; V - 59 (Fisher-Quebec Gold Mines Ltd. - Randall Mines Corp. Ltd.)
Au, Cu

Dresser and Denis - 1949, p. 107
Tremblay, L.-P. - 1950, pp. 89-92 and pp. 99-100

Quartz veins at the north end of lots 55 and 56, Range IV, contain erratic gold values. A shaft was put down 600 feet and work carried out on four levels. No ore was found. At the south end of lot 50, Range V, a shaft was put down 213 feet with work carried out on one level. Quartz veins in a shear zone contained erratic gold and local masses of chalcopyrite.

2 II, III - 9 (Marcoland Mines Ltd.)
Cu, Zn, Ag, Pb

Q.D.N.R. - 1961, p. 12

Sulfide zones at the north end of lot 9, Range II, and at the south end of lot 9, Range III, contain some chalcopyrite, sphalerite, galena and silver.

3 X - 43 (Bouvier Claims)
Ni

A.W.R.; GM-1568, 1951

Low nickel assays were obtained from an area of sulfide mineralization adjacent to a diabase dike at the north end of the lot.

4 IX - 28 (Canadian Johns-Manville Co. Ltd.)
Cu

Weber, W.W. - 1949, p. 16

To the south of an asbestos occurrence in the lot, massive sulfides in tuff contain minor chalcopyrite.

5 IX - 38
Cu

Weber, W.W. - 1949, p. 12

Minor amounts of chalcopyrite were noted with pyrite and pyrrhotite.

6 I - 6 to 8 (New Athona Mines Ltd.)

Sharpe, J.I. - 1961, p. 13

Several pegmatitic quartz veins contain molybdenite and very minor beryl.

7 I - 19, 20, 25, 26 (Augustus Exploration Ltd. - Canadian Lithium Mining Corp.)
Li, Be, Ta

Sharpe, J.I. - 1961, p. 8
Q.D.M. - 1956, p. 56
Tremblay, L.-P. - 1950, p. 77

Pegmatite dikes at the south end of lots 25 and 26 and in the center of lots 19 and 20 contain spodumene, lepidolite, beryl and columbite-tantalite.

8 I - 57, 60 (Canadian Shield Mining Corp. - Donalda Mines Ltd.)
Cu, Zn

A.W.R.; GM-11055, 1960

Minor chalcopyrite and sphalerite mineralization was noted in drill holes in the north part of the lots.

9 I - 19 (Keyboycon Mines Ltd.)
Mo, Bi

Sharpe, J.I. - 1961, p. 10

Molybdenite and bismuth mineralization in pegmatitic quartz veins was noted in two drill holes in the central part of the lot. One section of 3.0 feet returned an assay of 0.3% molybdenite.

10 I - 28 (Martin McNeely Mines Ltd.)
Mo, Li

Ingham, W.N.; GM-3879, 1956
A.W.R.; GM-3879, 1955

Diamond drilling at the south end of the lot cut pegmatite dikes containing spodumene, lepidolite and molybdenite. An 8.0-foot section of a dike assayed 1.00% lithia.

LANGLOISERIE TOWNSHIP

IV - H4

1 2.5 miles E. and 2.5 miles S. of the NW. corner of twp.
Au, Cu, Zn

Deland and Grenier - 1959, p. 63

"... at Phooey lake the main showing here was on the large point on the south shore of the lake... in 1950, ten diamond-drill holes totalling more than 3,000 feet were bored. The main zone is in a band of diorite 7 feet wide within a black hornblende schist. Both rocks are schistose and silicified... Very fine-grained pyrite, chalcopyrite and other sulfides are disseminated in both the diorite and the enclosing rock. A rusty weathering zone about 3 feet wide in the diorite shows some concentration of minerals. One grab sample taken by the writer assayed 0.270 ounce of gold per ton, 0.24% copper and 0.24% zinc. Similar values were encountered in 4 of the 10 drill holes and, in each of them, the maximum thickness of mineralization cut by the drill was 4 feet... In a total of 3,089 feet drilled, only 31 feet of mineralized rock was encountered. The average gold content of these 31 feet is 0.155 ounce of gold per ton."

These claims were held in 1950 by Lake Surprise Mines.

LANGUEDOC TOWNSHIP

V - B5

1 VI - 32 (American Metal Mines Ltd.)
Py, Po

A.W.R.; GM-7047, 1951

Pyrrhotite and pyrite. Diamond drilling

2 IV - 47 (Filteau claims)
Cu, Mo

Dugas, J.; GM-4755, 1956

Chalcopyrite stringers in chlorite schist alongside the road.

3 IX - 4 (Mining Corp. of Canada)
Cu

A.W.R.; GM-5306, 1956

Diamond drilling.

4 II - 40, 41 (Paquin claims)
Cu, Zn

A.W.R.; GM-2818, 1953

Diamond drilling.

LA PAUSE TOWNSHIP

V - B6

1 IV - 20 (La Pause Gold Mining Corp. - Hennessy La Pause Mines Ltd.)
Au

Ross et al. - 1940, p. 33
Ambrose, J.W. - 1941, p. 45

A 35-foot-wide breccia zone has been exposed over a distance of 200 feet. It has been invaded by porphyry dikelets cut in turn by quartz veinlets. A selected sample yielded $42 in gold per ton.

2 III - 19
Mo

Ross et al. - 1940, p. 33
Ambrose, J.W. - 1941, p. 47

Molybdenite was noted in the fractures of an intrusive rock composed mainly of albite.

LA PELTRIE TOWNSHIP

III - A3

1 SW. corner of the twp., S. bank of Turgeon river (Paudash Mines Ltd.)
Cu, Zn

A.W.R.; GM-11354, 1961
The Northern Miner - April 6, 1961

A hole cut 88 feet of sulfides of which a 3-foot section contained 8.2% zinc and 1.45% copper.

LA REINE TOWNSHIP

V - A5

1 IV - 29 (Du Reine Mines Ltd. - Manly Quebec Gold Mines Ltd.)
Au, W

Ross et al. - 1938, p. 3

A great number of veins. Seven of the principal veins cut the granite. The veins are poorly mineralized with pyrite and chalcopyrite. Scheelite was also noted. Some assays are reported to have given high gold values.

2 IV - 24 (Moreau claims)
Cu, Zn

Dugas, J.; GM-1417, 1951

Narrow calcite stringers contain minor zinc, copper and lead. Low nickel values were obtained in a dioritic mass.

3 VIII - 48 (Germain claims)
Zn

Mawdsley, J.B. - 1930, p. 76

Mineralization in sheared and carbonatized rhyolite cut by narrow feldspar porphyry dikes. The mineralization consists of pyrite and a few grains of sphalerite.

4 VIII - 7, 8
Ag, Pb

Tanton, T.L. - 1919, p. 56

"A pegmatite quartz vein... cuts the green schist near their contact with Abitibi granitic batholith. The mineral association includes galena, sphalerite, pyrite and fluorite. An assay of this material yielded: silver, 2.02 ounces per ton; gold, 0; lead, 0.46%."

5 II - 48 (Gervais claims)
Au

Ross et al. - 1940, p. 33

Quartz veins, 3 to 6 inches wide, cutting granite. They are mineralized with coarse-grained pyrite. Gold has been reported.

6 III - 30 (Gervais claims)
Cu

Ross et al. - 1940, p. 37

Quartz veins containing chalcopyrite.

7 IV - 52 (La Reine Gold Mines, Limited)
Mo, Au

Ross et al. - 1938, p. 4

"The molybdenite occurs in quartz veins in a gray biotite granite..." The veins strike about east-west and dip vertically. They contain pyrite in big cubes and granular aggregates. The presence of galena, chalcopyrite, barite and gold has been reported. The width of the veins ranges between 1.5 and 5.5 feet over lengths up to 150 feet.

8 IV - 34 (Moreaux claims)
Au, Cu, W

Ingham, W.N. - 1945, pp. 33-4

"... Strong sulfide mineralization consisting of pyrite with lesser chalcopyrite and pyrrhotite in the form of large crystals and small disseminated grains... in an altered granitic rock... Narrow, irregular, quartz carbonate... veinlets and lenses traverse the zone... The owner has obtained assay results up to $11.00 in gold per ton from selected samples." A little scheelite is associated to the carbonate.

9 X - 29 (Norcopper and Metal Corp.)
Cu, Zn

A.W.R.; GM-3827A, 1955

Geological report.

LA RONCIÈRE TOWNSHIP

IV - G3

1 1.7 miles E. and 1.7 miles N. of the SW. corner of twp. (Comincos)
Au

Ross, S.H. ; GM-7116, 1947
Ingham et al. - 1949, pp. 74-5

"The showings, which consist of gold-bearing, carbonatized shear zones in rhyolitic agglomerate and tuff, are cut by bluish quartz veins and stringers, heavily mineralized with disseminated pyrite... No. 3 showing is on the N.-S. claim-line, between claims 4 and 5, C.14652, 420 feet south of the north boundary of the claims. It consists of a strong shear zone in rhyolitic agglomerate intruded, parallel to the schistosity, by a bluish quartz vein, 2.5 to 5 feet in width. The zone is well carbonatized, and, in part, it is silicified and heavily mineralized with disseminated pyrite accompanied by gold... A chip sample... in trench E-3, 100 feet east of the claim line, across 4 feet of carbonatized schists heavily mineralized with pyrite, assayed $2.27 in gold per ton. The company reports visible gold from No. 1 showing in claim 3, C.17561, and panned gold from No.7 showing in claim 2, C.17561."

2 2.0 miles E. and 1.8 miles N. of the SW. corner of twp. (La Roncière Gold Mines Ltd.)
Au

Claveau et al. - 1951, pp. 38-9
A.W.R.; GM-605, 1950

A.W.R.; GM-2258, 1953
A.W.R.; GM-4736, 1956

"During 1948 some 3,000 feet of diamond drilling was carried out... on some gold showing consisting of quartz veins from 4 to 30 inches wide, in shear structures. The mineralization consists of arsenopyrite, pyrite, pyrrhotite and minor chalcopyrite. Visible gold was found in the No. 1 showing on claim 3- 48607 and gold was found from other showings on the property."

Some drilling was done by LaRoncière Gold Mines in 1958 (9 holes) and in 1960 (6 holes). Low gold assays were obtained.

3 1.3 miles E. and 0.4 mile N. of the SW. corner of twp. (New Hosco Mines Ltd.)
Cu
Py

A.W.R.; GM-6248, 1957

Hole No. 1 cut 138 feet of pyrite in quantities ranging between 20% and massive. Assay results for copper were 0.64% over 8.7 feet, 0.14% over 4.5 feet, 0.1% over 7 feet. The mineralization occurs in acid pyroclastic rocks in contact with anorthosite.

LA RONDE TOWNSHIP

IV - G4

1 4.5 miles E. of the NW. corner of twp. (Ventures Ltd.)
Mag (Iron formation)

Geol. Sur. Can. - Geophysic paper 517G, aeromagnetic sheet 32G/12, 1957
A.W.R.; GM-7756, 1958

At the east end of Tush lake along the La Ronde - La Roncière township-line, the G.S.C. map indicates a 4.5-mile-long anomaly trending E.-W.

The geological mapping done in 1958, by Ventures Ltd., shows that magnetite and ilmenite (?) underly the central portion of the aeromagnetic anomaly over a minimum length of 0.75 miles.

This magnetite iron formation could represent an igneous differentiate of an anorthositic mass.

LA SARRE TOWNSHIP

V - A5

1 IX - 50 (Windsor Mines Ltd. - Buffalo Canadian Gold Mines Ltd.)
Cu, Zn

Mawdsley, J.B. - 1930, p. 78

"Sulfides in most places compose about 60% of the zone and in places form nearly solid masses. A sample of the central massive part of the zone consists of 70% pyrrhotite, 20% chalcopyrite, 5% sphalerite."

2 I - 7 (Kerromac Mining Co.)
Cu, Ni

Q.D.M. - 1959A, p. 57

A diabase dike contains chalcopyrite and nickeliferous pyrrhotite.

3 X - 37 (MacGregor claims)
Cu

A.W.R.; GM- 3832, 1955

Diamond drilling

4 VIII - 52 (LaSarre Gold Mines Ltd.)
Py

Ross et al. - 1938, p. 4

Pyrite in graphite schists.

LAUNAY TOWNSHIP

V - B6

1 VII - 2, 4 (Alta Mines Ltd. - Roland Gold and Copper Mines Ltd.)
Au

Graham et al. - 1953, p. 25
Lang, A.H. - 1933, p. 34

Silicified, carbonatized and mineralized shear zone in granite. Good gold values and the presence of a little molybdenite are reported.

2 I - 26 (Quebec Cons. Gold Mines Ltd.)
Au

Ross et al. - 1938, p. 9

Carbonatized zone, 1,200 feet long and averaging 30 feet in width, parallel to the Privat zone. The zone contains 10 to 20% of vertical quartz veins and stringers containing pyrite and gold.

3 II - 9 (Freegold Mines, Limited)
Au

Ross, S.H. - 1939, pp. 16-20
Ross,et al. - 1938, p. 8

"The main vein lies in a band of sheared and altered lavas, mainly andesite..." The vein, which is 400 feet long, has been explored by a 125-foot exploration shaft. "Free gold, in very minute specks, is associated with the pyrite..."

4 VIII - 35, 36 (Gauthier claims)
Au

Ingham, W.N. - 1945, p. 34

"In addition to several scattered showings in the northern section of lots 34 and 35. Range VIII, two main vein-zones occur in the property." Many of these veins are gold bearing.

5 V - 55 (Quebec Asbestos Corp. Ltd.)
Ag, Pb, Zn, Au, Cu

Graham et al. - 1953, p. 15

A hole cut a 2-foot quartz-carbonate vein containing sphalerite, galena, magnetite, native gold and silver. Assays of 4.4 ounces of silver and 0.16 ounce of gold per ton have been obtained for some parts of the vein.

6 II - 4 (Quebec Gold Rock Expl.)
Au

A.W.R.; GM-468, 1945

Shown on the map.

7 X - 21 (Quebec Gold Rock Expl.)
Ag, Cu, Pb

A.W.R.; GM-468, 1945

Shown on the map.

8 IV - 10 (Rochette Gold Mines Ltd.)
Au, Cu, Pb, Zn

Ross, S.H. - 1939, pp. 20-3
Ross et al. - 1938, p. 7

A vein ranging in width between 6 inches and 2 feet occupies a fracture striking N.25-40°W. and dipping 48 to 64° to the NE. It contains pyrite, chalcopyrite, and, in the walls, very finely disseminated gold.

9 VIII - 4, 5
Au

Ross, S.H. - 1939, p. 25

A strong shear zone striking N.18°E. and dipping 70°E. has been explored. The zone is on the periphery of a small mass of hornblende granite. "... It consists of highly silicified and carbonatized rock cut by veins of coarsely crystalline quartz averaging one foot in width, and mineralized with disseminated pyrite. Some high gold assays have been reported."

LAVERGNE TOWNSHIP

III - A5

1 II - 8, 9 (East Sullivan Mines Ltd.)
Au

Verbal communication.
Visible gold in the Turgeon Lake area.

LAVERLOCHÈRE TOWNSHIP

VI - A9

1 III - 10 (Brisson claims)
Au

Denis, T.-C.; GM-11691, 1922

A 28-foot exploration hole in a quartz-ankerite vein. Gold values have been reported.

2 X - 18 (Guimond claims)
Au

Gilbert, J.-E.; GM-2381, 1953
Quartz veins filling fractures in granite. Well mineralized quartz samples have assayed 0.191 ounce of gold and 0.510 ounce of silver a ton.

3 IV - 34, 35; III - 35
Cu, Au

Henderson, J.F. - 1936, p. 32
Ross et al. - 1940, p. 34

Range IV, lot 35
"... trenching and stripping was done in the west half of lot 35, Range IV... A prominent N.-S. shear on the summit of the ridge, in the dacite, has been stripped for a length of 75 feet. The dacite along the shear zone is silicified and intruded by white quartz stringers sparingly mineralized with chalcopyrite, pyrite and fine pyrrhotite."

Range IV, lot 34
Iron formation band, 3 to 8 feet wide, with quartz lenses mineralized in places with pyrite, chalcopyrite and pyrrhotite.

Range III, lot 35, NW. corner
Quartz lens, 10 feet long and 1 foot wide, mineralized with chalcopyrite.

4 IV - 19 (Mines d'Or Bellehumeur Ltée)
Au

Ingham, W.N. - 1945, p. 38

An aplite dike cutting andesite contains quartz veinlets. Rich occurrences of visible gold have been found at the end of the dike. A few hundred tons is reported to have been mined.

5 XII - 21 (Germain vein)
Mo, Cu

Retty, J.A. - 1931, p. 86-7

In the south half of lot 21 "... a quartz vein, 27.5 feet wide, exposed along a length of 12 feet. It strikes approximately east-west... The quartz is white to glassy and here and there it encloses small patches of chlorite. It has been fractured, and small amounts of pyrite, chalcopyrite, magnetite, epidote, and a little molybdenite have been deposited along the cracks..."

6 XIII - 23; 0.5 mile E. of N. end of Clair lake (Gélinas vein)
Mo, Cu

Retty, J.A. - 1931, pp. 87-8

Quartz vein. "... Pyrite and chalcopyrite, together with a little sphalerite, molybdenite, and sericite, occur in irregular fractures in the quartz..."

LEMOINE TOWNSHIP

IV - J3

1 4.3 miles W. and 6.5 miles S. of the NE. corner of twp. (Trepan Mining Corp. Ltd.)
Mag (Iron formation)

De Montigny, P.A. - 1960, p. 9

"Concordant bands of magnetite, varying generally from 3 to 8 inches in thickness, form a more or less continuous zone immediately west of a pyroxenite (anorthosite member?). The mineralogical composition of these bands was

megascopically estimated to be 70% magnetite and 30% hornblende and chlorite. The wall rock interbanded with this iron-rich material generally also contains 5 to 10% magnetite and varies in composition from pyroxenite, somewhat gabbroic, to anorthositic gabbro.

"The magnetite-bearing zone attains at least 125 feet in width at a location 1 1/2 miles east of the Lemoine township central north-south line, but here also the western contact is not exposed. It has been traced over a distance of more than 4 miles... from the southern end of lake Cinq-Milles... It seems to decrease in width toward the southwest and apparently does not exceed 5 feet near the southern end of Cinq-Milles lake. Its average tenor is estimated to be 20% magnetite."

A.W.R.; GM-10012, 1959

In 1959, following a ground magnetometric survey, Trepan Mining Corp. Ltd. drilled five holes half a mile east of Cinq-Milles lake (central part). The zone was tested over a distance of 400 feet.

In hole T-1, a 235-foot section was found to contain approximately 30% iron and 9.5% titanium dioxide.

In hole T-2, a 100-foot section carried approximately 30% iron and 10% titanium dioxide.

In hole T-3, two 60-foot sections carried 28% iron and 10% titanium dioxide.

2 4.1 miles S. of the NE. corner of twp. (Dominion Gulf Co. Ltd. - Jalore Mining Co. Ltd.)
Mag (Iron formation)

Longley, W.W. - 1958, pp. 17-8
A.W.R.; GM-3248 and GM-3873, 1955-56
A.W.R.; GM-8571, GM-8572 and GM-11061, 1959-61

"The property is situated on the southeast limb of the northeasterly-trending, canoe-shaped gabbro-anorthosite... complex. Areas of bands of magnetite gabbro, gabbro and banded magnetite formation occur within the main anorthositic mass. Layering in the complex is well marked; it arises from variations in crystal size, concentration of ferromagnesian minerals, and the distribution of magnetite. The lands strike northeasterly and dip 70° southeast."

"During... 1955 and 1956 Dominion Gulf Company carried out... exploration works... on this property... Two main zones of titaniferous magnetite formation were outlined... The main zone is 180 feet wide and is separated from a minor zone measuring 60 feet in width by a band of host anorthositic rock 125 feet wide. The zones have a strike length of 7,200 feet. Bulk samples show an average tenor of 43.4% iron and 12.3% titanium dioxide."

Assad, J.R. - 1957, pp. 4-5

Metallurgical tests carried out by the laboratories of the Quebec Department of Mines show that concentration, after grinding to minus 48-mesh, can produce a product assaying 61% iron, 9.3% titanium dioxide and 2.6% silica.

LESCURE TOWNSHIP

IV - H4

1 3.1 miles W. and 0.2 mile N. of the SE. corner of twp. (Concord Mines Ltd. - Chesbar Chibougamau Mines Ltd.)
Cu

Py, Po (Iron formation)

Assad, J.R. - 1957, pp. 5-6
A.W.R.; GM-7065, 1949
A.W.R.; GM-4400 and GM-7534, 1957

"Between lines 56W and 58W, on the south shore of a small lake, there exists some interesting mineralization. The rocks are dominantly tuffs and agglomerates with some andesites and slaty shales. The mineralization is mainly restricted to the pyroclastics (breccia and agglomerates) which have been highly silicified, and it consists of disseminated to massive pyrite and pyrrhotite with chalcopyrite as a minor association. The mineralization where uncovered is 15 feet wide and carries 0.35% Cu. A piece of well-mineralized material from the same location yielded 2.42% Cu."

"The magnetometer survey indicates a length... 1,500 feet... (anomaly 2-B)... on the north contact of the wide basic dike."

In strike with anomaly 2-B, there is a series of short magnetic anomalies. West of anomaly 2-B, they cover a strike length of 3,200 feet, and, to the east, a strike length of 1,500 feet.

"On anomaly 2-B... in the vicinity of showing No. 3, holes 15 to 18 were drilled by Chesbar in 1958 and widespread low-grade copper mineralization was cut within the well-mineralized (pyrite and pyrrhotite) acidic tuffs and fragmental lavas. Assays in hole 15 gave 0.27% Cu over 18 feet from footage 282 to 300, and in hole 18, 150 feet west, 6 feet of 0.12% and 15 feet of 0.16% Cu respectively from 100 to 106 and from 110 to 125 (within the diorite) and 13 feet of 0.17% Cu from 137 to 150 into the acid lavas well mineralized with pyrrhotite and pyrite from 137 to 190."

One hole had been drilled on anomaly 2-B by Concord Mines Ltd. in 1948. Strong pyrrhotite with minor chalcopyrite was intersected from footage 140.0 to 155.6 and 164.5 to 175.0 in pyroclastic sediments. Assay results show only low values of copper.

2 2.0 miles W. and 0.6 mile N. of the SE. corner of twp. (Concord Mines Ltd. - Chesbar Chibougamau Mines Ltd.)
Cu

Py, Po (Iron formation)

A.W.R.; GM-7065, Que. Dept. Files, 1949
A.W.R.; GM-4400 and 7534, Que. Dept. Files, 1957

Of the number of sulfide occurrences observed on the property of Chesbar Chibougamau Mines Ltd., the most interesting ones are the copper showings 1 and 2, located 3,300 feet NW. of Des Vents lake in Lescure township. The copper showings are part of a magnetic zone (anomalies 1-A, 1-B, 1-C and 1-D) traversing the properties in a N.70°E. direction for a discontinuous length of 12,000 feet. The magnetic zone straddles the Lescure-Druillettes township line at Mile-post VII, paralleling anomalies 2-A and 2-B at some 700 feet south. "The mineralization consists of pyrite, pyrrhotite and chalcopyrite in acidic tuffs, breccia and fragmental lavas and follows the south contact area of a wide basic intru-

sive complex. It can be seen over a width of 40 feet in... showing... No. 2... and 10 feet in... showing... No. 1." Values obtained from grab and channel samples are as follows:
No. 1 showing: Grab samples range from 0.56% to 15.24% copper. A channel sample gave 1.55% copper over 2 feet.
No. 2 showing: Grab samples range from 0.22% to 3.30% copper. Channel samples gave 0.62% copper over 2.5 feet, 0.80% copper over 2 feet and 1.72% copper over 5 feet.

To explore the downward and lateral extension of the copper showings and of the anomaly 1-D, 18 diamond drill holes were drilled by Chesbar. The drilling under No. 2 showing has indicated two small ore shoots estimated to contain 15,400 tons averaging 1.88% copper. The drilling has also indicated numerous horizons of pyroclastic sediments which were partially to completely replaced by pyrrhotite, pyrite and minor amounts of chalcopyrite. These horizons vary in width from a few inches to 40 feet.

Anomaly 1-C (southwest and in strike with anomaly 1-D) was tested by two companies. Chesbar Chibougamau Mines Ltd. drilled one hole in the center of the anomaly but the hole did not intersect anything of interest. Concord Mines Ltd. drilled one hole 700 feet southwest of the Chesbar hole, at the west end of the anomaly. The mineralization and rock-types were similar to those found by Chesbar.

In anomalies 1-A and 1-B, pyrrhotite mineralization was noted by Chesbar but was not tested by diamond drilling.

3 0.7 mile W. and 1 mile N. of the SE. corner of twp. (Continental Copper Mines Ltd.)
Cu, Au

Lyall, H.B. - 1959, p. 23

"The discovery showing is on the east shore of Rane lake, just south of the portage to Des Vents lake. Here the rock is a massive highly silicified andesite cut by numerous thin carbonate stringers. A grab sample assayed $4.37 gold, $0.21 silver, 1.58% copper and traces of nickel... The pyroclastics, as a rule, contain the highest concentrations of minerals... A grab sample assayed 4.91% copper, but the copper content is generally much lower. The ore minerals occur either as disseminations or as cross-fracture fillings in association with quartz and carbonate."

4 2.5 miles W. of the SE. corner of twp. (Concord Mines Ltd. - Chesbar Chibougamau Mines Ltd.)
Py, Po (Iron formation)

Assad, J.R. - 1957, pp. 5-6
A.W.R.; GM-7065, 1949
A.W.R.; GM-4400, and GM-7534, 1957

A number of sulfide occurrences were observed in a magnetic zone comprising anomalies 3-A, 3-B, 3-C and 3-D. This zone has a minimum strike length of 12,000 feet and straddles the Lescure-Druillettes township line 1/2 mile east of Milepost VII.

Anomaly 3-D (3,000 feet long), which straddles the Lescure-Druillettes township line, was tested by two companies. Three holes were drilled by Chesbar Chibougamau Mines Ltd. Numerous zones containing 15 to 90% sulfides and ranging in

width between 2 and 15 feet were intersected in these holes. The mineralization consists of pyrite and pyrrhotite with minor amounts of chalcopyrite and is found in graphitic and feldspar-rich sediments. Concord Mines Ltd. drilled three holes west of the Chesbar holes at the west end of the anomaly. The mineralization and rocks encountered are the same as in the Chesbar holes.

Two holes, 400 feet apart, were drilled by Concord Mines Ltd., to test anomaly 3-B (2,400 feet southwest of anomaly 3-D). Numerous horizons containing 25 to 95% sulfides and ranging in width between 1 foot and 42 feet were intersected in graphitic and feldspar-rich pyroclastic sediments. The sulfides are mainly pyrite and pyrrhotite with minor amounts of chalcopyrite.

In anomaly 3-A (a few hundred feet west of anomaly 3-B), narrow bands of pyrite and pyrrhotite are exposed. Anomaly 3-C remains to be investigated.

5 2.4 miles W. and 0.2 mile N. of the SE. corner of twp. (Chesbar Chibougamau Mines Ltd.)
Py, Po (Iron formation)

Assad, J.R. - 1957, pp. 5-6
A.W.R.; GM-4400 and GM-7534, 1957

A magnetic zone consisting of anomalies 4-A and 4-B and a few short ones extends for a strike length of 6,000 feet. This zone is located 800 feet north of the Lescure-Druillettes township line and some 2,000 feet west of Des Vents lake.

The zone was tested by Chesbar by one diamond drill hole. "... Hole 17 cut anomaly 4-A on line 20-W and wide sections of 25% to 85% sulfides were found. The heavy mineralization is continuous from 174 to 325, a core length of 150 feet... The mineralization consists... of pyrite and pyrrhotite with... traces of copper... A typical 5-foot sample yielded 0.07% Cu, 37.1% Fe, and 41.0% sulfur." The mineralization is in pyroclastic rocks.

LESPÉRANCE TOWNSHIP

IV - F4

1 0.4 mile E. and 0.1 mile S. of the NW. corner of twp. (Noranda Mines Ltd. - Siscoe Gold Mines Ltd.)
Au

Ingham et al. - 1949, pp. 79-80
A.W.R.; GM-3463, 1955
A.W.R.; GM-294, 1947
A.W.R.; GM-10884, 1947

A gold-bearing carbonatized and silicified fracture zone (zone A), 750 feet south of Lespérance-Gand township line, was outlined in highly altered basic volcanic rocks. The zone has an average width of 4 feet and is exposed over 180 feet. It strikes N.12°E. and dips to the east. It consists of numerous quartz veins and stringers with massive to disseminated pyrite, chalcopyrite in small blebs and, in places, magnetite. The results of surface sampling and X-ray drilling done by Siscoe Gold Mines Ltd. are as follows:

	Length	Average Width.	Gold
Surface sampling	65 feet	4.0 feet	$6.85
X-ray drilling	125 feet	4.0 feet	$7.13

Noranda Mines Ltd. drilled three holes across the zone but apparently no core was assayed.

2 0.9 mile E. and 0.3 mile S. of the NW. corner of twp. (Siscoe Gold Mines Ltd. - Noranda Mines Ltd.)
Cu
Py, Mag (Iron formation)

Ingham et al. - 1949, pp. 79-80
A.W.R.; GM-294, 1947
A.W.R.; GM-1161, 1951
A.W.R.; GM-2905, 1944
A.W.R.; GM-3463, 1955

Two sulfide zones, 800 feet apart, were outlined in the southern part of Opawica island by trenching, diamond drilling, and electromagnetic and magnetic surveys.

Zone 1 (Zone C and the eastern part of Zone D of Siscoe Gold Mines Ltd. are included in this zone) is located 1,400 feet south of Gand-Lespérance township line. It strikes S.70°E. and extends for 6,700 feet. Trenching disclosed massive mineralization in pyroclastic sediments over widths ranging between 10 and 30 feet in the west half of the zone. The mineralization consists mainly of pyrite, pyrrhotite, magnetite and, in places, chalcopyrite. The following copper averages were obtained from the sampling of one trench (Siscoe's zone C) at the west end: 1.2% over 23 feet and 1.49% over 15.5 feet. The 13 holes drilled on Zone 1 show that the iron sulfides occur as massive stringers and disseminations over a width up to 93 feet. Within the dissemination zones there are massive bands ranging in width from 1 foot to 10 feet. Copper values, if present, were not reported.

Zone 2 (Zone E and the western part of Zone D of Siscoe Gold Mines Ltd. are included in this zone) parallels Zone 1 for a length of 5,700 feet and is 800 feet south of it. This zone contains more pyrrhotite and magnetite than Zone 1. It contains also traces of chalcopyrite. No copper content was reported.

3 3.5 miles E. and 1.1 mile S. of the NW. corner of twp. (Quebec Smelting and Refining Ltd.)
Au

A.W.R.; GM-9412, 1960

Drilling in pyroclastic sediments on the south shore of Opawica lake revealed interesting gold values in sections slightly mineralized with pyrite. The best assay was 0.20 ounce over 12.5 feet.

4 3.7 miles E. and 1.2 mile S. of the NW. corner of twp. (Opawica Explorers Ltd. - Dufour claims)
Au, Cu

A.W.R.; GM-2235, 1953
A.W.R.; GM-3492, 1956
A.W.R.; GM-11662, 1961

Two rusty zones were located on the north shore of Wachigabou lake, 2,800 feet southeast of mileage 32 of the C.N. railway. Where exposed the zones are respectively 4 feet and 6 inches wide, 10 to 20 feet long and trend N.80°E. They occur in pyroclastic sediments. The best of four channel samples gave 0.59 ounce of gold a ton and 1.04% copper over a 2-foot width.

5 0.7 mile E. and 2.0 miles S. of the NW. corner of twp. (Barbi Lake Copper Mines Ltd.)
Py, Po (Iron formation

A.W.R.; GM-5144, 1957
A 4,700-foot, southeast-trending electromagnetic conductor is located in the

western portion of the south shore of Opawica lake. This conductor, known as Zone A, is parallel to the bedding. It consists mainly of pyrite and pyrrhotite and occurs in pyroclastic sediments. It has been tested by three diamond drill holes.

6 1.2 miles E. and 2.0 miles S. of the NW. corner of twp. (Barbi Lake Copper Mines Ltd.)
Au

A.W.R.; GM-4081, 1956
A.W.R.; GM-5184, 1957

A sulfide occurrence, known as showing No. 1, was found by Barbi Lake Copper Mines on the south shore of the west end of Opawica lake. It consists of disseminated pyrite in a moderately sheared and silicified pyroclastic sediment. The mineralization is about 20 feet in width. A grab sample assayed 0.20 ounce of gold per ton.

7 2.3 miles E. and 2.3 miles S. of the NW. corner of twp. (Opemisca Explorers Ltd.)
Au

A.W.R.; GM-9736, 1959
A.W.R.; GM-9584, 1960
Q.D.N.R. - 1962, pp. 22-3

"Consolidated Mining and Smelting staked the original group in 1946 and carried out some trenching, and mapping in 1948. Two gold-bearing quartz veinlets were uncovered on claim C. 23153, claim 3. One veinlet contained visible gold. A. Fayolle acquired these claims... from the company. In 1957 Fayolle carried out 260 feet of diamond drilling in four holes on these veins. In 1959, Opemisca Explorers Ltd. acquired the Fayolle claims... It was then reported that a new discovery containing much visible gold had been made 300 to 400 feet north of the above-mentioned veinlets.

"Opemisca Explorers carried out a programme of prospecting, trenching, stripping and mapping, followed by approximately 2,000 feet of diamond drilling in 18 holes.

"The exploration work has shown that the main body of rocks is volcanic and consists of feldspathic lavas (?). These rocks trend east-northeast and dip steeply...

"The No. 1 discovery (made by Opemisca in 1959)... was described as being an easterly-striking, steeply-dipping silicified vein, 3 to 8 inches in width, with chloritic seams, containing only minor pyrite. Dense graphitic seams are associated with high tenors in silver and gold...

"Ten drill holes intersected the vein... but none penetrated a gold-bearing pocket. Veins adjoin to a dioritic dike.

"As a result of the stripping, a second narrow vein was found some 500 feet south of the first. This vein may correspond to the Fayolle vein. Five drill holes were drilled in this area and one assay across 0.8 foot returned 0.11 ounce of gold per ton."

8 3.0 miles E. and 2.1 miles S. of the NW. corner of twp. (Opemisca Explorers Ltd. - Consolidated Mining and Smelting Co.)
Au

Ingham et al. - 1949, pp. 78-9
Q.D.N.R. - 1962, pp. 22-3
A.W.R.; GM-9584, 1959
A.W.R.; GM-9786, 1959
A.W.R.; GM-7066, 1948

The showing occurs in banded tuffs striking east. "... These tuffs were drag-folded and in places the drags were filled with quartz mineralized with pyrite. These places were trenched, and the quartz sampled, but except in one very narrow small... drag, only traces of gold were received from the assays". Channel samples from that narrow drag assayed 0.19 and 0.07 ounce of gold per ton over 1.5 feet.

9 0.2 mile E. and 3.1 miles S. of the NW. corner of twp. (Barbi Lake Copper Mines Ltd.)
Au

A.W.R.; GM-5144, 1957

A sulfide occurrence, known as showing No. 3, is located one quarter of a mile east of the Lesueur-Lespérance township line and 550 feet south of the C.N. railway. This showing consists of calcite and quartz containing disseminated pyrite at the contact of a narrow band of pyroclastic sediment with andesitic lava.

"... Assays of the pyrite indicated up to 1 ounce and 2 ounces of gold."

10 0.7 mile E. and 3.0 miles S. of the NW. corner of twp. (Barbi Lake Copper Mines Ltd.)
Cu, Au

A.W.R.; GM-5144, 1957

A sulfide occurrence, known as showing No. 2, is located 0.7 of a mile east of the Lesueur-Lespérance township line, immediately south of the C.N. railway.

It is a silicified shear in basic lava; it is 1 foot to 2 feet wide, strikes S.70°E. and contains disseminated chalcopyrite with gold values. The mineralization dies away to the east and disappears under the railroad bed to the west. A channel sample yielded 1.5% copper and 0.10 ounce of gold over 1 foot.

11 1.6 miles E. and 2.9 miles S. of the NW. corner of twp. (Barbi Lake Copper Mines Ltd.)
Py, Po

A.W.R.; GM-4500, 1956
A.W.R.; GM-5144, 1957

A sulfide showing, known as Zone C, was found 1.6 miles east of Lesueur-Lespérance township line and 1,700 feet south of the C.N. railway. This zone was outlined by electromagnetic and magnetic surveys for a length of 2,000 feet in an east-west direction.

"Zone C was observed in outcrop and... exposed by... trenching... This zone consists of 20 to 30 feet of disseminated to nearly massive pyrite, pyrrhotite and chalcopyrite, along a shear in massive andesitic rock. The mineralization is widest at the bend in the shear..."

LESUEUR TOWNSHIP

III - F4

1 3.5 miles E. and 92 feet S. of the NW. corner of twp. (Rio Canadian Exploration Ltd.)
Po, Py

A.W.R.; GM-3894, 1956

A 2.9-foot graphitic band with 30% pyrrhotite and minor pyrite and chalcopyrite was intersected while drilling in tuffaceous rocks.

2 3.3 miles W. and 1.1 mile S. of the NE. corner of twp. (Chesbar Chibougamau Mines Ltd.)
Mag (Iron formation)

A.W.R.; GM-11002, 1961
A.W.R.; GM-11003, 1961
Assad, J.R.; GM-11763, 1961
Q.D.N.R. - 1964, p. 29

Chesbar Chibougamau Mines Ltd. outlined, in the eastern part of Ranges IX and X, iron-bearing horizons by magnetometer survey and diamond drilling. These horizons consist mainly of magnetite with some hematite in places. They are associated with feldspathic sedimentary rocks grading from a siltstone to a conglomerate.

Two holes were drilled in the center of a magnetic anomaly extending eastward for 7,600 feet from lot 42 to lot 50 inclusive, immediately north of range-line IX-X. Hole L-1 had an average iron content of 17.73% over 741 feet and hole L-2, averages of 16.61 over 31 feet and 20.90 over 288 feet.

Another magnetic anomaly was located between lot 31 and lot 41 in Range IX. It extends for a distance of 8,700 feet and trends N.70°E. to N.80°E. Hole L-5, located in lot 37, intersected a magnetite-rich horizon between 214 and 430 feet. The average iron content is 21.5%.

A small magnetic anomaly, 2,200 feet south of the one mentioned in the preceding paragraph, was tested by one diamond drill hole. This hole (L-3), located in lot 36, intersected a magnetite- and hematite-bearing horizon from 285.5 to 305.5 feet. The iron content was 30, 25 and 30% over respective lengths of 5, 3 and 2 feet.

3 2.4 miles E. and 4.9 miles S. of the NW. corner of twp. (Area Mines Ltd.)
Zn, Cu

A.W.R.; GM-7062, 1949

"Trenching has opened up an acidic band 15 to 20 feet wide interbedded with pillowed andesite. This band has been mineralized with pyrite, pyrrhotite, sphalerite and chalcopyrite. A little galena is noted in some trenches. General strike is N.30°E. Sphalerite also occurs in sheared andesite in the same outcrop to the west of the above occurrence." Assays up to 2.70% zinc across 5 feet and 0.90% copper across 4 feet were obtained.

4 3.0 miles E. and 5.0 miles S. of the NW. corner of twp. (Area Mines Ltd.)
Au

A.W.R.; GM-7062, 1949
A 6-inch gold-bearing quartz vein was located by trenching in an area of acidic

pyroclastic rocks. The vein strikes N.65°W. along the center of the trench. An assay of 0.24 ounce of gold across 6 inches was obtained.

5 3.0 miles E. and 4.7 miles N. of the SW. corner of twp. (Batch-River Gold Mines Ltd.)
Zn

A.W.R.; GM-10879, 1948
Graham, R.B. - 1957, pp. 16-7

"Two small deposits with zinc mineralization have been explored by means of trenching and diamond drilling... The country rock is tuff and agglomerate... The fractures contain sporadic pods of sphalerite up to 4 inches long and 3 inches wide. A sample of one of these pods of sphalerite assayed 30.66% zinc, 0.01% lead and 0.02 ounce of silver per ton."

6 1.7 miles E. and 3.6 miles N. of the SW. corner of twp. (Min. Conc. 478; Coniagas Mines Ltd.; Old Dome Mine)
Zn, Ag, Pb

Graham et al. - 1953, p. 26
Longley, W.W. - 1951, p. 29
Graham, R.B. - 1957, pp. 17-8

"The Dome zinc-lead-silver deposit... occurs as two lenses in agglomerate tuff complex 600 to 800 feet east of the gabbro-diorite intrusive. One lens, which strikes N.55°E., is 5 feet wide and is exposed for a length of 28 feet. The other lens lies 60 feet away from the first on a bearing of S.65°E. It strikes N.15°E., has a maximum width of 10 feet, and is exposed for a length of 30 feet. Both lenses dip vertically to steeply southeast."... or northwest.

Duquette, G. - Annual report, 1963

Production started in March 1961 at the rate of 300 tons per day. Reserves in July 1963 stood at 148,000 tons grading 14% zinc, 1.73% lead and 8 ounces of silver per ton. A new surface zone was found by drilling 1,000 feet northeast of the mine shaft, on strike with the Coniagas Mines ore zones. This zone would be approximately 450 feet long, 5 to 6 feet wide and would extend from surface down to a minimum depth of 150 feet.

7 2.7 miles E. and 3.9 miles N. of the SW. corner of twp. (O'Brien Gold Mines - Quebec Sturgeon Ltd.)
Au

Ingham et al. - 1949, pp. 80-81
Longley, W.W. - 1951, p. 27
Graham, R.B. - 1957, pp. 22-3
Q.D.N.R. - 1964, pp. 29-30

"The main gold deposit is in... a formation of interbedded agglomerate and tuff striking N.33°E. and dipping 80° northwest. It consists of a vein or a series of lenses of milky quartz, up to one foot in width, lying along a narrow shear zone... The quartz vein and altered rock are mineralized with pyrite, magnetite and gold. The zone has been traced for a length of 400 feet with an average width of 7.7 feet. It strikes N.50°W. which is the direction of most of the tensional fractures within the area. At the surface it dips 60° southwest, but apparently the dip decreases with depth...

"The company reports that up to November 1949, they had proved up a deposit of 235,000 tons containing 0.34 ounce of gold per ton."

Duquette, G. - Annual report, 1963

Drilling done in 1961 increased the reserves to 480,000 tons grading 0.326 ounce of gold per ton. A 1,115-foot shaft was completed in August 1963. The lateral development work has been confined to the 475-foot level.

LE TAC TOWNSHIP

III - F4

1 6 miles E. and 2 miles S. of the NW. corner of twp. (Hollinger Exploration - Louvicourt Goldfields - South Bachelor Mining Ltd.)
Cu, Au, Ag

A.W.R.; GM-1673, 1952
A.W.R.; GM-2427, 1954
Remick, J.R. - 1959, p. 12

"Gold, silver, and copper occur at two places with sulfide minerals in and near shear zones that strike northeast or northwest... The mineralized zone occurs along the northern side of a sheared, oval-shaped body of chlorite granite close to the contact with volcanic rocks. It appears to be about a mile long and several hundred feet wide. Throughout this interval small shears, fractures, joints and lenses several inches wide and several inches to several feet long separated by a great deal of barren granite contain cubical pyrite, chalcopyrite and, in places, quartz and tourmaline... Arsenopyrite was noted by Graham (1950)..."

A total of 29 holes was drilled on these claims by South Bachelor Mining.

2 2.5 miles E. and 0.1 (?) mile S. of the NW. corner of twp. (O'Leary Malartic Mines Ltd.)
Cu, Ag, Zn, Au

Longley, W.W. - 1951, pp. 33-4
Graham, R.B. - 1957, p. 24

"In Le Tac township, just south of the township line, a series of nine trenches has exposed a strong shear zone of chlorite-sericite schist for a length of 500 feet and a width of approximately 230 feet. The shearing strikes from E.-W. to N.75°E. and dips vertically to 73°N... The farthest trench to the southeast has exposed for a length of 45 feet an irregular, lenticular, milky quartz vein. The strike of the vein is N.60°E... the quartz vein, the silicified zones, and the schist adjacent to these zones are mineralized with pyrite, chalcopyrite, and, locally, sphalerite. The mineralization occurs as disseminated and narrow veinlets one to two inches wide..."

3 3.1 miles E. and 0.7 mile S. of the NW. corner of twp. (Empire Oil and Minerals, showing No. 3)
Zn, Cu, Ag

A.W.R.; GM-5305, 1957
A.W.R.; GM-1978, 1958

Diamond drilling has explored the extension of surface showing No. 3 over a strike length of 1,200 feet. The mineralized break is strong along the whole length. It has a general strike of N.72°W. and dips more or less vertically.

This drilling indicates that the most easterly 500-foot section includes an ore shoot containing 260,000 tons of 3% zinc together with low gold, silver and

copper values from surface down to 400 feet, with an average width of 13 feet. This ore shoot has a plunge towards the west. A few holes were drilled below the 400-foot level and the mineralization continues down showing the possibility of much more tonnage than estimated.

The 600-foot section of that break towards the west has not been explored in so detailed a manner but values were obtained in every hole with less zinc and a marked improvement in copper. The copper mineralization totals 63,000 tons between the 200-foot and the 500-foot levels. The grade is 0.92 ounce of silver per ton and 1.40% copper over a length of 600 feet and an average width of 4 feet. To this mineralization is to be added 33,000 tons of 2.50% zinc, with an average width of 6.5 feet over a length of 200 feet. The total tonnage so far over the whole break (showing No. 3) would be 356,000 tons.

4 3.0 miles E. and 1.2 miles S. of the NW. corner of twp. (Empire Oil and Minerals Showing No. 1)
Zn

A.W.R.; GM-1978, 1958

This showing is about 3,000 feet south of showing No. 3.

All told 13 holes were drilled. The zinc mineralization occurs in pyroclastic rocks. The best value was 2.63% over 5.5 feet.

5 3.4 miles E. and 1.6 miles S. of the NW. corner of twp. (Soma-Alta Mines Ltd.)
Zn

A.W.R.; GM-2574, 1954

"Twelve holes totalling 3,248 feet were bored on the property... On the No. 2 showing, according to drilling, there would be 35,000 tons of 2.7% zinc or 31,500 tons of 3% zinc together with low gold and silver values with an average width of 3 feet along a length of 400 feet and to a depth of 350 feet... In the two deepest intersections... the grade is over 6.6% zinc."

6 5.1 miles E. and 0.1 mile N. of the SW. corner of twp. (Noranda Mines Ltd.)
Cu, Ni

A.W.R.; GM-10502, 1960

Remick, J.H. - 1959, p. 14

"... at the southwest end of Nicobi lake... bounded by the Le Tac-Muy township line. The area is underlain by a large body of medium-grained gabbro bordered by hornblende schist to the north and biotite granite to the east... A few hundred feet of diamond drilling in two small sulfide showings, air and ground geophysical surveys...

"Showing "A" is at the east margin of the gabbro within a few hundred feet of the granite contact; showing "B" is about 4,000 feet northwest of showing "A" and showing "C" about 3,200 feet northwest of showing "B". A grab sample from showing "A" assayed 1.95% copper, and 0.14% nickel. A grab sample from showing "B" assayed 0.64% copper, 0.05% nickel and 0.03% cobalt."

LÉVY TOWNSHIP

IV - H3

1 0.7 mile W. and 3.0 miles S. of the NE. corner of twp. (Harrison Minerals Ltd.)
Au, Mo

A.W.R.; GM-4921, 1957

Two holes were drilled by Harrison Minerals. Sulfides were seen in hole No. 1 between 139.5 and 148.0 feet.

"In porphyry-purplish, somewhat sheared and brecciated, well mineralized in places, small specks of molybdenite."

2 1.0 mile E. and 3.9 miles N. of the SW. corner of twp. (Kisco Copper Mines Limited-Area Mines Limited)
Cu, Ag, Zn

Graham, R.B. - 1953, pp. 7-8
A.W.R.; GM-7776, 1958
A.W.R.; GM-2253, 1953
A.W.R.; GM-3239, 1956

A total of 31 holes was drilled on this property. Several sections of ore-grade copper, zinc and silver were cut. The mineralization occurs mainly in pyroclastic rocks.

3 2.2 miles E. and 4.0 miles N. of the SW. corner of twp. (Min. Conc. No. 405 - Opemiska Copper Mines (Quebec) Ltd. - Springer and Perry zones)
Cu

Tolman, C. - 1931, pp. 37-46
The Mining Industry in Chibougamau - 1962

The ore zones are found in a basic sill complex, intruded into pyroclastic rocks and lavas and later folded with them. The sill is differentiated into layers or members of differing composition. The contacts between these members are sharp in the upper portion of the sill and gradational in the lower portion. The sill occurs in the northern overturned limb of a syncline trending to the southeast. Superimposed on this limb is a drag-fold pitching steeply to the southeast. The orebodies of the Springer mine occur in the nose of the drag-fold, whereas those of the Perry mine occur in the northern limb of the syncline. The major fault on the property is the Campbell Lake fault, a broad zone of talc, chlorite and sericite schist striking N.60°E. and dipping steeply to the southeast. The displacement on the fault is in the order of two miles, south side east. The Springer mine orebodies are believed to bear a structural relationship to this fault. They follow east-west-trending faults dipping to the north. The Perry ore zones strike south or southeast and dip steeply east or northeast. The ore zones at the Springer and Perry mines are a combination of fracture filling and replacement with the former predominating. Chalcopyrite, the chief ore mineral, is accompanied by small but significant amounts of gold and silver. Pyrite and magnetite are also common minerals. Minor amounts of molybdenite and scheelite are present.

Production started in December 1953.
Daily rate of production (1963): 2,000 tons per day.
Reserves estimated (Dec. 1963) at 5,980,000 tons grading 3.34% copper.

4 2.7 miles E. and 4.0 miles N. of the SW. corner of twp. (Opemiska Copper Mines (Quebec) Ltd. - Perry zone)
Cu

See 3

5 4.7 miles E. and 4.2 miles N. of the SW. corner of twp. (Chiboug Copper Corp. Ltd.)
Cu

A.W.R.; GM-10991, 1960

"Copper, gold, silver, lead, zinc and molybdenum mineralization has been found at several locations on this property. Rock formations similar to those in which orebodies occur at the adjoining property of Opemiska Copper Mines (Quebec) Ltd. have been found on Chiboug Copper, in places with small amounts of chalcopyrite and some quartz carbonate veins.

"To date (1963) 81 holes, nearly 61,000 feet of diamond drilling, have been drilled on this property... Some of the best intersections are in Ventures' gabbro..."

The copper values in these intersections range between 4.2% over 9.8 feet and 0.5% over 3.5 feet.

6 2.6 miles W. and 4.6 miles N. of the SE. corner of twp. (Indian Lake Mines Ltd.)
Py, Po (Iron formation)

A.W.R.; GM-3925, 1956

This company drilled 21 holes in 1956. Pyrite and pyrrhotite mineralization was intersected in some of the holes.

7 1.8 miles W. and 3.0 miles N. of the SE. corner of twp. (Stratmat Ltd.)
Py, Po (Iron formation)

A.W.R.; GM-4834, 1957

Three holes were drilled which apparently intersected a simple sulfide band. The pyrite-pyrrhotite mineralization occurs in pyroclastic rocks and graphitic schists. A 15-foot section of core contained 60% pyrite. A section of 43 feet contained 35% pyrrhotite.

8 3.2 miles E. and 1.6 miles N. of the SW. corner of twp. (Opemisca Explorers, Ltd.)
Py, Po (Iron formation

Graham, R.B. - 1953, pp. 10-11
A.W.R.; GM-3516, 1955

The main sulfide zone contains over 2,000,000 tons of pyrite and pyrrhotite as indicated by five consecutive diamond drill holes and surface trenches. This zone is proved for a length of 1,100 feet to a vertical depth of 350 feet and an average width of 50 feet. It is open at both ends and geophysical indications show that it may have a total length of 3,000 feet.

The zone contains an average of approximately 70% sulfides of which 50% is pyrite and 50% is pyrrhotite.

Surface work and five short holes drilled in the eastwest fracture zone (east of main zone) have exposed massive sulfides over a length of 80 feet.

9 1.7 miles W. and 1.4 miles N. of the SE. corner of twp. (Purdex Minerals, Ltd.)
Py (Iron formation)

A.W.R.; GM-4911, 1957

Heavy to massive pyrite mineralization in pyroclastic or sedimentary rocks.

10 3.1 miles E. and 4.4 miles N. of the SW. corner of twp. (Opemiska Copper Mines (Quebec) Ltd. - Beaver Lake zone)
Cu

Duquette, G. - Annual report, 1963

Investigating conductor zones outlined by geophysical methods, this company found in 1962 a copper orebody measuring 450 feet in length, 15 to 20 feet in width and extending to a depth of 450 feet where it is cut off by a fault. Grade is reported to be close to 3% copper. The zone runs southeasterly and dips steeply to the south. The wall rock is a gabbro (Ventures type) similar to that of the Springer zone.

LIGNERIS TOWNSHIP

V - B5

1 VIII - 28, 29 (Atlas Chibougamau Mines Ltd.)
Mag (Iron formation)

Q.D.M. - 1959A, pp. 58-9

Iron formation consisting of narrow bands of magnetite, chert and jasper. The maximum width is less than 100 feet and the grade is slightly less than 25% iron. The formations are contorted and discontinuous.

2 VI - 25 (Ligneris Goldfields, Limited)
Au

Ingham et al. - 1949, pp. 82-4

Shear zone trending east-west, cutting volcanic rocks, and ranging in width between 50 and 100 feet. The zone has been explored over a length of 3,000 feet.

"... Quartz and quartz-carbonate lenses, veins and stringers well mineralized with pyrite accompanied by gold intrude the zone parallel to the schistosity."

LIVAUDIÈRE TOWNSHIP

III - D3

1 N. end of a small lake located N. of the NE. arm of Matagami lake (Kerr Addison Gold Mines Ltd.)
Cu

Verbal communication

Pyrite, pyrrhotite and chalcopyrite in volcanic rocks. The showing is small but assays up to 6% copper were obtained from drill core.

LOUVICOURT TOWNSHIP

V - D7

1 VII - 44, 45, 50, 51 (Bevcon Gold Mines Ltd. - Bevcourt Gold Mines Ltd. - Jowsey-Wyeth claims)
Au, Ag, Cu, Zn, Bi, Te, W

Claveau et al. - 1951, p. 41

Production began in 1950 and since then 11.5 million dollars' worth of gold and silver has been produced. The gold is found in a sheared and fractured zone along the north edge of a granodiorite plug, between the north contact and a porphyry dike. The gold is associated with quartz veins containing pyrite, minor bismuth, tellurium, minor scheelite and local minor sphalerite and chalcopyrite. Chalcopyrite is found in the south part of the property near the south edge of the granodiorite plug. A hole drilled in this area returned 0.55% copper across 4.0 feet. A small tonnage of rich ore is found within the volcanic rocks north of the granodiorite plug.

2 W. central part of the SW. quarter of the township (Akasaba Gold Mines Ltd. - Obaska Lake Mines Ltd. - Valbec Exploration Ltd. - Heisey-Cleary group - Mine Creators Ltd.)
Au, Ag, Cu, Zn, Mo

Ingham, W.N. - 1945, p. 42
Denis, B.-T. - 1939, p. 3
Q.D.M. - 1956, p. 65
Q.B.M. - 1929, p. 129
Ross et al. - 1940, p. 35

Akasaba is a gold mine which produced, from 1960 to mid-1963, approximately 1.2 million dollars' worth of gold and silver. The gold was found in a sulfide zone within dioritic and amphibolitic rocks. Pyrite, pyrrhotite and chalcopyrite are the sulfide minerals. The orebody was limited in extent and the mine closed in mid-1963. Molybdenite and sphalerite were also noted at surface and in drill holes.

3 SW. corner of the NW. quarter of the township (Dunraine Mines Ltd. - Rainville Copper Mines Ltd.)
Cu, Au, Ag, Zn

Company reports

Dunraine Mines was a copper, gold and silver producer from 1956 to 1958. A total of 280,768 tons of ore containing 7,990,189 lbs. of copper, 1,496 ounces of gold and 28,702 ounces of silver was mined. Gross value of production was 2,228,377 dollars. The sulfide ore, which contains pyrite, chalcopyrite and sphalerite, is located in tuffaceous rocks. Ore reserves at the end of production totalled 650,000 tons grading 1.22% copper.

4 NW. corder of township (Courvan Mining Co. Ltd. - Cournor Mining Co. Ltd. - Treadwell-Yukon Mines Ltd. - Bussières Mining Co. Ltd.)
Au, Ag, Cu

Bell, L.V. - 1933, p. 19
Q.D.M. - 1959A, p. 59
Bell and Bell - 1932, p. 98

Gold produced from 1933 to 1935 by Bussières Mining Co. Ltd. and from 1937 to 1942 by Cournor Mining Co. Ltd. was worth approximately 3 million dollars. The

gold came from quartz veins in the border zone of the Bourlamaque batholith. The veins contained minor chalcopyrite.

5 NW. part of the SW. quarter of the township (Louvicourt Gold Fields Ltd. - Simkar claims)
Au, Ag, Te, Bi

Ross, S.H. - 1941, p. 23

A former gold producer, this mine operated from 1947 to 1949. The ore production totalled 261,591 tons and was worth 1,121,162 dollars.

The gold was found in quartz veins in diorite and feldspar porphyry dikes. Pyrite accompanied by minor chalcopyrite was common in the quartz veins. Tellurium and bismuth were also present in very minor quantities.

6 VI - 40 to 50 (Abitibi Metal Mines Ltd. - Courageous Gold Mines Ltd. - Clement-Louvicourt Syndicate - Dunlop Consolidated)
Au, Cu, Zn

Ingham and Ross - 1947, p. 36
Bell, L.V. - 1933, p. 59

This ground, which lies south of Bevcon Gold Mines Ltd., was explored by at least 35 diamond drill holes. Copper, gold and zinc intersections were cut in some holes. The best assays are 0.14 ounce of gold a ton across 5.0 feet, 0.19 ounce of gold a ton across 2.5 feet, 3.08% zinc and 0.55% copper across 1.4 feet, and 2.25% zinc across 14 feet. The values are found along the south edge of a granodiorite plug and in the neighboring volcanic rocks.

7 VI - 34, 35, 37; VII - 37 (Abitibi Metal Mines Ltd. - Jocour Gold Mines Ltd. - Kencour Gold Mines Ltd.)
Cu, Zn

Q.D.M. - 1956, p. 63
Ingham and Ross - 1947, p. 42

Copper and zinc values were found in at least four places on the property. The most extensive zone is 350 feet long and 60 feet at its widest point. Chalcopyrite is irregularly disseminated in this zone, which lies in volcanic rocks. The best intersection was 1.00% copper across 65.0 feet. Magnetite and pyrite are common minerals and sphalerite is a minor ore. At least 47 holes were drilled on this property.

8 IX - 48 (Adelmont Gold Mines Ltd.)
Au

A.W.R.; GM-1076, 1950
A.W.R.; GM-595, 1947

Gold, in quartz veins, was cut in holes drilled at the west end of the lot. The quartz veins are in diorite. At least 28 holes were drilled. The best assay gave 0.347 ounce of gold per ton across 10.0 feet. Other assays were 0.152 ounce of gold per ton across 51.0 feet and 0.11 ounce of gold per ton across 87.3 feet.

9 V - 50; VI - 51, 60, 61 (Val d'Bell Mines Ltd.; Alta-Nemrod option; Cons. Mng. and Smlt. option; Newlund option)
Cu, Au, Zn

Q.D.M. - 1959A, p. 59
Ingham, W.N. - 1945, p. 46
Ingham and Ross - 1947, p. 42

At least 30 holes were drilled on this ground. Three areas of copper mineralization were discovered. One of the best assays gave 2.8% copper across 5.0 feet. The chalcopyrite is in lenticular masses in tuffaceous rock. Minor sphalerite and some gold are also present in lot 50, Range V.

10 III and IV - 55, 56 (Arken Gold Mines Ltd. - Hayes Cadillac - Blair-Macdonald property)
Au

Bell, L.V. - 1933, p. 58

At least 34 holes were drilled on this property. Gold in quartz veins was reported. The best gold sections were 0.183 ounce per ton across 4.5 feet, 0.183 ounce per ton across 8.7 feet and 0.3 ounce per ton across 4.7 feet.

11 W. part of the NW. quarter of the township (Beacon Mining Co. Ltd. - Le Roy Gold Mines Ltd. - Beaucourt Gold Mines Ltd. - Connell Mng. and Expl. - Louvicourt Mines Ltd.)
Au, Ag, Cu

Dresser and Denis - 1949, p. 275
Bell, L.V. - 1933, p. 6
Bell and Bell - 1932, p. 91

Numerous gold showings in quartz veins. Two shafts were put down and considerable diamond drilling and trenching were completed. The veins are along the southeast and east contact zone of the Bourlamaque batholith in granodiorite and volcanic rocks. Silver and chalcopyrite mineralization is also present in the quartz veins. Gold is generally found in the quartz veins with sulfides.

12 Center of the township (Croscourt Gold Mines Ltd. - Centrecour Gold Mines Ltd.)
Au, Cu

Ingham and Ross - 1947, p. 39
Ross, S.H. - 1941, p. 21

Gold in quartz veins within quartz diorite is found on the property. At least 40 holes have been drilled. The best assay was 0.78 ounce of gold per ton across 0.7 foot. Minor chalcopyrite was also noted in the quartz veins.

13 NW. quarter of the township (Chimo Gold Mines Ltd.)
Au, Cu, Zn

Q.D.M. - 1956, p. 64

This property is located east of Dunraine Mines. Gold, copper and zinc were cut in diamond drill holes. The rocks in which copper, zinc and gold mineralization was encountered were tuffs and agglomerates. The best assays were 1.3 ounces of gold per ton across 1.0 foot, 2.05% zinc across 2.5 feet and 2.5% copper across 1.5 feet.

14 IX and X - Central part of the NE. quarter of the township (Courtmont Gold Mines Ltd.)

Au

Ingham et al. - 1949, p. 86

Gold was found in drill holes. The best assays were 0.80 and 0.61 ounce per ton across 2.2 and 3.1 feet respectively. At least 35 holes were drilled. Gold occurs in quartz-carbonate veins in brittle volcanic rocks which are themselves surrounded by peridotite.

15 IV and V - near the NE. corner of the SW. quarter of the twp. (Dikor Mines Ltd.)
Au

Ingham et al. - 1949, p. 87

Eleven diamond drill holes were drilled here. A gold value of 0.30 ounce per ton across 1.1 feet was obtained in a hole through volcanic rocks.

16 Straddling the N.-S. center line in the N. half of the township (Dome Exploration Co.)
Au, Cu

A.W.R.; GM-11094, 1961
A.W.R.; GM-487, 1949
A.W.R.; GM-880, 1950
A.W.R.; GM-2220, 1952

At least 48 holes were drilled on this ground. Some of the better gold assays were 1.08 ounces per ton across 3.0 feet, 0.43 ounce per ton across 1.4 feet, 0.45 ounce per ton across 1.5 feet, 0.25 ounce per ton across 2.0 feet and 1.36 ounces per ton across 1.0 foot. Minor chalcopyrite was also noted in some quartz veins.

17 IV - 44 (Edwaska Mines Ltd. - Gold Belt Mining Syndicate)
Au, Cu

Ingham, W.N. - 1945, p. 40
Bell and Bell - 1932, p. 118

Quartz-carbonate veins in tuffaceous rocks contain gold and minor chalcopyrite. At least seven holes were drilled. Some of the better gold values were 0.234 ounce per ton across 8.0 feet and 0.136 ounce per ton across 2.6 feet.

18 W. central part of township (Lapaska Mines Ltd. - Metcalfe claims - Lourmet Mines Ltd.)
Au, Bi, Te, Cu

Dresser and Denis - 1949, p. 277
Bell, L.V. - 1933, p. 52
Ross, S.H. - 1941, p. 22

A gold showing with minor bismuth, tellurium and chalcopyrite in quartz veins in quartz diorite was opened up by trenching in the north part of the property. A shaft was put down on a gold deposit discovered by diamond drilling in siliceous volcanic rocks to the south of the above showing.

19 VII - Eastern limit of the NW. quarter of the twp. (Zakor Gold Mines Ltd. - Alta-Nemrod option)
Au, Cu, Zn

Ingham et al. - 1949, p. 90

At least 24 holes were drilled on the property. Copper and zinc values in tuffaceous rocks were cut in the north part of the property. Gold values in quartz-carbonate veins in diorite were obtained in the west part of the property. The best gold assays, in ounces per ton, were 0.13 across 7.0 feet and 0.17 across 5.0 feet. The best copper value was 1.10% across 9.0 feet. The best zinc value was 11.00% across 2.0 feet.

20 On the N. boundary of Bevcon Mines Ltd. (Norcourt Gold Mines Ltd.)
Au

Company reports

A total of 18,000 feet of drilling was done on this property. Gold values in quartz-carbonate veins in diorite were obtained in a few holes. Some of the assays reported were 0.134 ounce per ton across 15.0 feet and 0.152 ounce per ton across 4.5 feet.

21 Straddles range-line III - IV, near the Louvicourt-Vauquelin township line (Nubell Gold Mines Ltd. - R.E. Cleaver claims)
Au

Dresser and Denis - 1949, p. 293
Tolman, C. - 1940, p. 22
Bell and Bell - 1932, p. 122

Free gold in quartz veinlets was first reported from this property in 1931.

22 Near the SE. corner of the NW. quarter of the township (Orcour Mines Ltd.)
Au, Cu

Ross, S.H. - 1941, p. 22

At least 26 holes were drilled by Orcour. A hole cut a high gold value of 3.78 ounces per ton across 1.6 feet in a quartz vein in siliceous volcanic rocks. Other values were 0.27 ounce of gold per ton across 2.5 feet and 0.17 ounce of gold per ton across 5.0 feet. Minor chalcopyrite is also present in the quartz-carbonate veins.

23 VII - 32 to 35 (Ordala Mines Ltd.)
Cu

Company reports

Some chalcopyrite mineralization in diamond drill holes at the southeast end of the property was noted in the company logs.

24 N. central part of the NW. quarter of the township (Pascalis Gold Mines Ltd. - Cockshutt-McLeod claims)
Au

Bell, L.V. - 1933, p. 44

Gold was discovered in a quartz vein in 1931.

25 Near the NW. corner of the SW. quarter of the township (Val d'Oro Mines Ltd.)
Au, Cu, Te

Ross et al. - 1938, p. 23
Ross and Asbury - 1939, p. 42
Dresser and Denis - 1949, p. 277

Numerous gold showings on surface and many gold-bearing intersections in diamond drill cores. At least 75 holes were drilled. Chalcopyrite and tellurides were also reported. The best gold assays obtained from the drill cores were: 0.62 ounce per ton across 19.0 feet, 0.576 ounce per ton across 25.0 feet, 0.143 ounce per ton across 84.0 feet, 0.497 ounce per ton across 12.0 feet and 0.267 ounce per ton across 9.0 feet.

26 Straddling the E.-W. center line in Ranges IV, V, VI and extending 3 3/4 miles E. of the N.-S. center line (Vicour Gold Mines Ltd.)
Au, As, Cu

Dresser and Denis - 1949, p. 277
Bell, L.V. - 1933, p. 48
Ross, S.H. - 1941, p. 24

Gold on the Vicour property is found in quartz veins with pyrite, pyrrhotite, chalcopyrite and arsenopyrite. The quartz veins fill fractures in quartz diorite. A considerable amount of work was completed, including a shaft to 470 feet, 7,839 feet of drifting, cross-cutting and raising and 39,820 feet of surface and underground drilling. The company's consulting engineer estimated an ore reserve of approximately 500,000 tons containing about 0.14 ounce of gold per ton.

LOZEAU TOWNSHIP

III - D3

1 2 mi. E. of Dunlop bay, near the shore of Matagami lake (Rio Tinto Can. Expl.)
Cu, Zn

A.W.R.; GM-11480, 1959

A minor amount of chalcopyrite and sphalerite was noted in a drill hole with pyrite and pyrrhotite in tuffaceous rock.

2 W. of Garon lake and E. of the township line (Chibougamau Mng. and Smlt. Co.)
Cu

A.W.R.; GM-7593, 1958

Chalcopyrite mineralization was noted in gabbro and quartz diorite outcrops.

3 2.0 and 2.5 miles SE. of Dunlop bay (D'Aragon Mines Ltd.)
Cu

A.W.R.; GM-8791, 1958
Sharpe, J.I.; GM-9495, 1959

Chalcopyrite mineralization was noted in outcrops and drill holes cutting lavas and agglomerate.

4 3,000 feet W. of the small lake near the center of township and 6,000 feet W. of the same lake (Mattagami Syndicate)
Cu, Mo

Sharpe, J.I.; GM-9423, 1959
A.W.R.; GM-5225, 1957

Drill holes in the first location cut tuffaceous rocks with pyrite, pyrrhotite and minor chalcopyrite. Molybdenite was noted in silicified volcanic rocks in a hole 6,000 feet west of the lake.

5 1.5 mi. E. of the S. end of Dunlop bay (Mid North Engineering)
Cu

A.W.R.; GM-9188, 1959

Minor amounts of chalcopyrite were noted in drill holes cutting tuffaceous rocks with massive pyrite and pyrrhotite.

MALARTIC TOWNSHIP

V - C7

1 II - 52 to 57 (Malartic Hygrade Gold Mines Ltd.)
Au

Latulippe, M.; GM-11456, 1961

A producer since 1962, this company had extracted approximately 3/4 of a million dollars worth of gold by mid-1963. The gold is found in quartz veins cutting volcanic rocks in the central part of a drag fold. The orebodies are small but of exceptionally high grade.

2 I - 52 to 54 (Camflo Mattagami Mines Ltd.)
Au

A.W.R.; GM-12889, 1962
A.W.R.; GM-14020, 1963

Diamond drilling during the winter of 1963 disclosed a gold orebody. The company sank a shaft during the latter part of 1963. The ore reserves are given as 739,000 tons grading 0.219 ounce of gold per ton.

3 IV - 58; V - 52, 55 (West Shore Malartic Gold Mines Ltd.)
Au

Bell, L.V. - 1937, p. 4A
Ingham, W.N. - 1945, p. 8
Ross, S.H. - 1941, p. 26

Gold showings were found on these lots. The best values in the drilling were 0.10 ounce of gold per ton across 1.2 feet and 0.17 ounce of gold per ton across 1.6 feet.

4 I - 17, 20 (East Amphi Gold Mines Ltd.)
Au

Claveau et al. - 1951, p. 46

Shafts were put down in lots 17 and 20 to respective depths of 105 and 504 feet. Gold is found in silicified and pyritized diorite masses within soft schists of

the Cadillac break. The best gold concentration was on the 325-foot level where the ore graded 0.54 ounce of gold per ton over a width of 23.0 feet and a length of 120 feet.

5 II - 43, 44 (Black Cliff Mines Ltd. - Vinray Malartic Mines Ltd.)
Au

Claveau et al. - 1951, p. 49

This property covers the north half of lots 43 and 44. A shaft was put down in 1947 to 275 feet and levels established at depths of 125 and 250 feet. The limited amount of drifting on the 125-foot level delimited a zone 2.5 feet wide and at least 155 feet long. The zone averaged 0.20 ounce of gold per ton. On the 250-foot level the same width and grade of ore occurred over an opened-up length of 68 feet. The gold is found in sheared diorite and tuffs containing quartz, carbonate and pyrite.

6 V - 16 (North Malartic Gold Mines Ltd. - Malrobic Mines Ltd.)
Au

Gunning and Ambrose - 1940, p. 98
Dresser and Denis - 1949, p. 233

A shaft was sunk 260 feet and at least 800 feet of lateral work was done on two levels in 1928. Some gold values were found in a carbonate zone in the contact area between volcanic and sedimentary rocks. Little encouragement was obtained below 80 feet.

7 II - 10 to 15 (Parbec Malartic Gold Mines Ltd. - Partanen Malartic Gold Mines Ltd.)
Au

Ingham et al. - 1949, p. 103

About 100 drill holes, totalling 43,500 feet, were completed. Three gold-bearing zones and numerous scattered gold occurrences were noted in diorite and porphyry masses within the schists of the Cadillac break.

8 VI - 9 (Thompson Malartic Mines Ltd.)
Au

Gunning and Ambrose - 1940, p. 124

A shaft was put down to a depth of 40 feet. Gold-bearing quartz veins were found in sedimentary rocks and porphyries. A drill hole was reported to have a 20-inch section grading 0.37 ounce of gold per ton.

9 IV - 1 (Dominion Malartic Gold Mines Ltd. - Dempsey Cadillac Gold Mines Ltd.)
Au, As

Gunning and Ambrose - 1940, p. 76

A shaft was put down in 1937 to a depth of 275 feet. Free gold is reported to have been found in a narrow quartz vein at the shaft location. Development on two levels failed to find ore. Some of the veins contain disseminated arseno-pyrite.

10 III - 4 (Lartic Mines Ltd.)
Au, As

Gunning and Ambrose - 1940, p. 92
Dresser and Denis - 1949, p. 232

A shaft was sunk in 1928 to a depth of 270 feet in the north half of the lot. Quartz veins and veinlets in graywacke are well exposed at surface and are reported to have yielded some gold assays and to contain arsenopyrite. Arsenopyrite is also reported to be present in the graywacke.

11 VII - 18 to 23 (La Salle Malartic Mines Ltd. - Malartic Lakeshore Gold Mines Ltd.)
Au, Cu, Zn, Pb, Ag

Ingham et al. - 1949, p. 94 and p. 99
Gunning and Ambrose - 1940, p. 93 and p. 96
Ross et al. - 1940, p. 36

Gold was reported from at least two quartz veins. Chalcopyrite, sphalerite and galena were also noted in some of the quartz veins. Assays of grab and chip samples gave 0.25 ounce of gold and 7.83 ounces of silver per ton, 0.993 ounce of gold per ton across 2.0 feet and 0.112 ounce of gold per ton across 3.0 feet. At least 30 holes were drilled and the best gold intersection was 0.17 ounce per ton across 1.0 foot.

12 II - 58 to 64 (Nealon Mines Ltd. - Citralam Malartic Mines Ltd.)
Au

Ingham, W.N. - 1945, p. 3
Ingham and Ross - 1947, p. 50
Ingham et al. - 1949, p. 94

At least 40 holes were drilled. The best gold values, in ounces per ton, were 0.38 across 2.0 feet, 0.18 across 5.0 feet, 0.20 across 4.5 feet and 0.15 across 3.7 feet.

13 IV - 29 to 36 (Celta Development and Mining Co. Ltd.)
Au, Mo, Nb

Dresser and Denis - 1949, p. 235
Gunning and Ambrose - 1940, p. 71

Gold mineralization, in sheared and silicified tuffs, diorite, and granitic rocks, is widespread but the distribution is erratic. Molybdenite and columbite are also present in very minor quantities in some quartz veins in granite.

14 VI - 13 (Black River Mines Ltd. - Central Malartic Mines Ltd.)
Au, Cu

Gunning and Ambrose - 1940, p. 72

Quartz veins at the north end of the lot are reported to contain erratic gold values. One vein also contains chalcopyrite.

15 III - 41, 42 (Burbank Minerals)
Au, Cu, Mo

Gunning and Ambrose - 1940, p. 65

Quartz veins cutting diorite in the south central part of the claims contain gold, chalcopyrite and molybdenite. The best assays from drilling were 0.18 ounce gold per ton across 5.0 feet and 0.15 ounce gold per ton across 2.5 feet.

16 V - 1, 2 (Valco Cadillac Mines Ltd.)
Au, As, Cu

Gunning and Ambrose - 1940, p. 128

In the south half of the lots, free gold has been found in quartz veins cutting sedimentary rocks. The gold was noted in surface showings and in diamond drill cores. Arsenopyrite and chalcopyrite were also noted in some of the quartz veins.

17 II - 43 to 45 (Twentieth Century Mng. - Lencourt Gold Mines Ltd. - Bradnor Malartic Gold Mines Ltd.)
Au, Cu

Ingham et al. - 1949, p. 92
Q.D.N.R. - 1961, p. 29

Diamond drilling by Lencourt and Bradnor Malartic returned gold-bearing sections in quartz veins cutting andesite, diorite and tuffs. The best assays, in ounces of gold per ton, were 0.92 ounce across 1.0 foot, 0.82 across 1.0 foot, 0.36 across 5.0 feet, 0.125 across 5.0 feet, 0.10 across 20.0 feet and 0.18 across 3.5 feet. Chalcopyrite is also present in some veins.

18 I - 38, 39 (Britt Malartic Gold Mines Ltd.)
Au, Cu

Ingham et al. - 1949, p. 93

Drilling is reported to have intersected a gold-bearing vein assaying 0.12 ounce per ton across 2.8 feet. The vein also contained chalcopyrite. A speck of free gold was also seen in core from another hole. The enclosing rocks are of sedimentary origin.

19 I - 46, 47 (National Malartic - Quebec Gold Mining Corporation)
Au, As

Q.D.M. - 1956, p.66
Gunning and Ambrose - 1940, p. 109

Gold and arsenopyrite mineralization has been reported from quartz veins in volcanic rocks. The gold is erratically distributed. The highest assays were 0.63 ounce per ton from the surface showings and 0.30 ounce per ton across 1.0 foot from a drill hole.

20 II - 34, 35 (Adele Malartic Mines Ltd.)
As

Ingham et al. - 1949, p. 91
Gunning and Ambrose - 1940, p. 95

At the north end of the lots rusty schists in volcanic rock contain arsenopyrite.

21 IV - 14 to 18 (Steeber Malartic)
Au

Gunning and Ambrose - 1940, p. 94
Q.D.M. - 1946, p. 100

Gold was reported from drill holes and surface showings in these lots.

22 III - 21 to 24 (Paquette Malartic Mines Ltd. - Ankeno Mines Ltd.)
Au, As

Graham et al. - 1953, p. 29
Gunning and Ambrose - 1940, p. 107

Gold and arsenopyrite mineralization has been reported from quartz veins in surface showings and in drill holes. A grab sample assayed 0.14 ounce of gold per ton. In a drill hole, an assay of 0.26 ounce of gold per ton across 2.0 feet was obtained; free gold was noted in another hole.

23 V - 44 (Bayside Malartic Mines Ltd.)
Au

Gunning and Ambrose - 1940, p. 67

Erratic gold assays were reported from quartz veins in volcanic rocks.

24 V - 1 (Deane-Cadillac Mining Corporation)
Au

Gunning and Ambrose - 1940, p. 75
Dresser and Denis - 1949, p. 232

Drilling on the township line in this lot by Cons. Mining and Smelting in 1936-37 showed free gold contained in small veins on the contact between porphyry and tuff.

MANNEVILLE TOWNSHIP

V - B6

1 II - 22 to 24 (MacCormack claims)
Au

Cooke et al. - 1931, pp. 276-8
Ingham, W.N. - 1945, pp. 10-13

On the north side of the river, a ridge of ferruginous dolomite, colored green in places, contains a small gold content. In the north part of lot 22, quartz and calcite veins are mineralized with pyrite and pyrrhotite. These veins occur in sheared volcanic rocks. Low gold values were obtained at this place. South of the river, at the diorite contact, the volcanic rocks are heavily mineralized with pyrite and pyrrhotite. A little farther west, many shear zones contain a sulfide mineralization accompanied by minor gold.

2 See 1

MARRIAS TOWNSHIP

VI - D7

1 VIII - 42 to 46 (Dumont Nickel Corp.)
Cu, Zn, Ni, Co

Q.D.M. - 1959B, p. 17

Drilling on the north halves of these lots cut amphibolitic rocks with minor chalcopyrite, minor sphalerite and nickel-cobalt minerals. Some of the better nickel assays were 1.00% across 8.0 feet, 0.47% across 20.0 feet and 0.48% across 7.0 feet.

2 VIII - 51 (Rosenberger property)
Cu, Zn, Ni

Q.D.M. - 1959B, p. 18

Very minor amounts of chalcopyrite, sphalerite and a nickel mineral were found in drill holes at the south end of the lot.

MASSICOTTE TOWNSHIP

III - A3

1 SW. corner of twp. (Kesagami Syndicate)
Py, Po

A.W.R.; GM-15126, 1959

Pyrite and pyrrhotite in quartzite. Diamond drilling in 1959.

McCORKILL TOWNSHIP

IV - J3

1 2.5 miles E. and 0.9 mile S. of the NW. corner of twp. (Windward Gold Mines Ltd.)
Py

A.W.R.; GM-4609, 1956

This company drilled 10 holes in 1956 to test electromagnetic conductors. In hole No. 8, in black graphitic slates, the best intersection was 50 to 80% sulfides over 5 feet. In hole No. 9, in rhyolitic bedded tuffs, the best intersection was 75% sulfides over 13.5 feet.

2 4.8 miles W. and 0.8 mile S. of the NE. corner of twp.
Pb, Zn

Gilbert, J.-E. - 1958, p. 33

"Sphalerite and galena were seen, together with pyrite, in a small quartz vein filling a cross fracture in schistose volcanic rock just south of Ida lake."

3 1.8 miles W. and 1.3 miles E. of the NW. corner of twp. (Obalski (1945) Ltd.)
Au

A.W.R.; GM-10133, 1959

The better assays were obtained from northeasterly-trending quartz veins and from the wallrock near similarly-striking fractures or faults. Visible gold was found in a number of quartz veins having this direction, including the discovery vein near the west side of Francis river.

The quartz veins intrude quartz- and feldspar-rich bedded rocks.

4 4.9 miles E. and 1.2 miles S. of the NW. corner of twp. (Windward Gold Mines Limited)
Py, Po

A.W.R.; GM-4609, 1956

Drill holes cut a pyrite-pyrrhotite mineralization in pyroclastic rocks.

5 5.0 miles E. and 3.5 miles S. of the NW. corner of twp. (Orofino Mines Limited)
Py (Iron formation)

A.W.R.; GM-3862, 1956

This company drilled 20 holes in 1955 and 1956 in order to test electromagnetic anomalies.

In hole No. 1, pyrite replaces chlorite and sericite schists and, in hole No. 2, it occurs in sheared gabbro (or a volcanic rock).

6 4.0 miles N. and 1.0 mile E. of the SW. corner of twp.
Cu

Pouliot, G. - 1963, p. 11

"... in a small lens of metagabbro located 1,000 feet north of Mile IV, in Range V. Here the rock is mineralized with chalcopyrite and pyrrhotite. The sulfides occur in small grains evenly disseminated and as larger blebs reaching 5 to 8 millimeters in diameter. The exposure does not seem to have been noticed by prospectors... Two samples taken for analysis gave respectively 0.40 and 0.23% copper and no gold or silver."

7 4.5 miles N. and 2.2 miles E. of the SW. corner of twp.
Cu

Pouliot, G. - 1963, p. 11

"... on the south and west sides of the small lake north of Nepton river in the north central part of the area. The area has been pitted and trenched and the rock is a coarse meta-anorthosite containing scattered pyrrhotite and chalcopyrite. The chalcopyrite commonly occurs as coatings in fractures, whereas the more abundant pyrrhotite is scattered throughout the rock... A representative sample yielded 0.41% copper and 0.092 ounce of silver per ton and no gold."

8 3.3 miles N. and 1,000 feet E. of the SW. corner of twp.
Cu

Pouliot, G. - 1963, p. 11

"... Copper mineralization has been trenched and drilled in the western part of Range IV. It consists of chalcopyrite, pyrrhotite and pyrite in sheared and dragfolded chloritized anorthosite. The zone is 3 to 5 feet in width and logs of the drill holes indicate low values in copper. Quartz carbonate stringers are scattered throughout the exposures but silicification is not appreciable."

9 1,000 feet SW. of (8)
Cu

A.W.R.; GM-903, 1948

"Zone No. 4 is a shear zone, 30 feet wide... Trenching and blasting on a length of 300 feet... Sampling on this zone gave the following results:

Width (feet)	Gold	Copper
2.0	$1.26	6.85%
4.0	0.56	5.92%

"Zone No. 5 parallels zone No. 4, some 60 feet to the east... Trenching and blasting on a length of 180 feet. Maximum width of quartz-chalcopyrite-pyrite mineralization is 9.5 feet...

Width (feet)	Copper
7.0	1.07%
8.0	1.33%
9.5	3.61%..."

10 2.7 miles N. and 1.7 miles E. of the SW. corner of twp. (Quedon Copper Uranium Corp. - Defor Chibougamau Mines)
Cu

A.W.R.; GM-4155, 1956
A.W.R.; GM-903, 1948
Pouliot, G. - 1963, pp. 10-11

"The mineralized shear zone crossing the line between Ranges III and IV or ground held by Quedon Copper Uranium Corp. has been trenched and intersected by 38 drill holes for a total of 11,836 feet. The mineralization consists of chalcopyrite and pyrrhotite distributed mainly as thin films in the planes of a shearing. Diorite dykes are present throughout the zone, and in places are sheared and mineralized. The wall rock is a chloritized and silicified meta-anorthosite. Two grab samples taken for analyses yielded respectively 0.63 and 4.39% copper with 0.01 and 0.364 ounces of silver per ton. No gold was present."

11 1.4 miles N. and 1,000 feet E. of the SW. corner of twp.
Cu

Pouliot, G. - 1963, p. 11

"... Mineralization occurs south of Forest lake, on the property of Chibougamau Mining and Smelting Co. Inc. Here, blasting and stripping have exposed a mineralized shear zone, trending N.52°E., and dipping vertically. The meta-anorthosite is intruded by gray diorite dikes and sheared and mineralized with small amounts of chalcopyrite, pyrrhotite and pyrite. Silicification is intense but discontinuous and confined to narrow bands."

12 4.9 miles E. and 0.4 mile N. of the SW. corner of twp.
Cu

Pouliot, G. - 1963, p. 12

"In the southeast corner of the map-area, sheared and altered hornblende schists are mineralized with chalcopyrite, pyrrhotite and pyrite. The schists are contorted and contain in places thick quartz veins which follow the contortions in the rocks. The sulfides occur as small veinlets and stringers in the quartz and in the altered wallrock. A sample taken for analysis yielded 0.41% copper and 0.09 ounce of silver per ton and no gold."

McKENZIE TOWNSHIP

IV - J3

1 1.3 miles E. and 2.3 miles S. of the NW. corner of twp. (Mid Chibougamau Mines Ltd.)
Cu

A.W.R.; GM-4581, 1957

"A shear 12 feet wide in a medium-grained gabbro strikes approximately 315° and dips vertically. Chalcopyrite and malachite are present... trenching and stripping over an area of about 60 feet by 30 feet has exposed the shear for 30 feet along strike. Quartz and calcite of secondary origin are found throughout both on the shear surfaces and as crosscutting stringers and veinlets.

"Three discontinuous massive conformable sulfide veins 1/4 inch to 1/2 inch wide contain chalcopyrite. The massive sulfides are usually associated with quartz veinlets."

Assay results of three grab samples are 2.3, 1.1, and 0.25% copper

A.W.R.; GM-5123, 1957

Two holes drilled in Group No. 3 failed to intersect interesting copper mineralization at depth.

2 0.5 mile E. and 4.2 miles S. of the NW. corner of twp. (Rangeley Wolson Option - Gwillim Lake Gold Mines - McIntyre Porcupine Mines Ltd.)
Au, Cu

Ingham et al. - 1949, pp. 107-8
A.W.R.; GM-152, 1936
A.W.R.; GM-10885, 1945
Mawdsley and Norman - 1935, pp. 61-2

"... in 1934 on account of a find made 1/2 mile east of the Barlow-McKenzie township line and 2,000 feet northwest of the northwest shore of Gwillim lake. The main showing at this point... consists of a sheared zone in massive, fine-grained greenstone. Fine-grained quartz to quartz feldspar porphyry dikes that weather white... occur near the showing... The chloritic schists which form part of the shear zone... contain a few small quartz veins 1 foot or less wide, irregular carbonate stringers, and one vein-like mass of carbonate 3 feet wide. Pyrite, chalcopyrite and a little sphalerite are present in the quartz and occur to some extent disseminated in the chlorite schists. The length of the shear zone proved by trenching is at least 175 feet; its width ranges from 20 to 11 feet. The gold values are not uniform across these widths and are reported to range upwards to 0.5 ounce to the ton. The mineral zone was tested by drilling in 1935 by the McIntyre Porcupine Mines, Limited."

Between 1934 and 1964, 68 holes were drilled by four companies on this property, which is now (June 1964) held by Dauphin Iron Mines Ltd. The total length of the holes is 36,000 feet.

3 3 miles W. and 3.6 miles S. of the NE. corner of twp. (Normandy Chibougamau Mines Ltd. - Norbeau Mines Quebec Ltd.)
Cu
Py

A.W.R.; GM- 4261, 1956
A.W.R.; GM-10701, 1961
Mawdsley and Norman - 1935, pp. 63-4

"... on the north shore of Bourbeau lake, about 500 feet east of the western tip of the long peninsula south of Anxiety bay... a thickness of about 200 feet of finely banded... sediments cherty to arkosic in appearance in contact with quartz hornblende diorite (gabbro) to the northwest... The mineralization consists almost entirely of pyrite and lies in the sediments near the diorite contact. A few bands 1 inch to 1 foot wide are nearly 100% replaced by pyrite... A

little chalcopyrite with pyrrhotite and quartz forms tiny veinlets cutting the pyrite. Assay returns are not encouraging... not... a trace of gold."

In 1960, Norbeau Mines Quebec Ltd. ran a magnetometric survey on its property immediately south of the aforementioned showing. On the survey map are shown trenches and three d.d.holes exactly where the above pyrite zone occurs (that is just north of Norbeau's ground). On that same map the following assay results concerning that pyrite zone are shown as nil for silver, nil for gold and 0.30% for copper.

4 3.0 miles E. and 4.3 miles N. of the SW. corner of twp. (O'Leary Malartic Mines Ltd. - Taché Lake Mines Ltd.)
Zn, Au

A.W.R.; GM-780, 1950
A.W.R.; GM-9896, 1959
Mawdsley and Norman - 1935, pp. 62-3
Smith, J.R. - 1953, pp. 17-8

"Two sulfide zones have been located just north of Berrigan lake. One is 400 feet to 650 feet north of the center of the north shore, and will be called the north zone. The other outcrops on the north shore near the east end of the lake, and will be called the Berrigan zone.

"The north zone is a zone of shattering in otherwise massive serpentinized pyroxenite (and pyroclastics)... Shattering was evidently followed by deposition dark gray, fine-grained vein quartz and some rusty-weathering carbonate... Sulfide minerals observed are, in order of abundance, pyrrhotite, sphalerite, galena, chalcopyrite, pyrite and arsenopyrite... In the main exposure the zone is 20 feet wide. According to company estimates, diamond drilling to date (1960) has outlined 380,000 tons of probable ore containing an average of 4.45% zinc and 0.064 ounce of gold per ton.

"The Berrigan zone outcrops along the north shore of Berrigan lake for a distance of 140 feet near the east end of the lake and extends inland easterly... for a total exposed length of 1,300 feet. The wall rocks are mostly serpentinized dunite... Within the zone the rocks are altered... breccias... Pyrrhotite and sphalerite are by far the most abundant sulfide minerals... A small amount of chalcopyrite was seen in some specimens. Galena is rare or absent. The company reports an assay of 0.50% nickel, and at least one other assay of a sample containing a significant amount of that metal. The richest and widest part of the Berrigan zone is the part nearest the lake. Carbonatized and brecciated rocks there are 200 feet wide, and 40 to 100 feet of that width is sulfide-bearing... According to company estimates of 1951, diamond drilling has outlined 285,600 tons of probable ore containing 3.05% zinc and 0.017 ounce of gold per ton."

5 4.1 miles W. and 4.8 miles N. of the SE. corner of twp. (Belle-Chibougamau Mines Ltd.)
Cu, Au

Mawdsley and Norman - 1935
A.W.R.; GM-957, 1950
A.W.R.; GM-1049, 1951
Smith, J.R. - 1960, pp. 32-3

"... the main mineralized zone is exposed in a blasted rock face on the north shore of Belle bay, 600 feet west of the point where the road crosses the narrows... The country rock is a serpentinized dunite interlayered on a small scale with metapyroxenite... The sulfides occur along a thin zone of fracturing

which strikes north-northwest and dips 80° east; the zone can be traced on surface for a distance of 100 feet northward from the exposures nearest to the lake... Sulfides are in disconnected pods... the largest of which is 6 feet thick... In order of abundance, the sulfides observed are pyrrhotite, chalcopyrite, pyrite, sphalerite, the last three being present in minor amounts. A sample taken by Graham (1953, p. 32) from the main lens assayed 1.41% copper and 0.366 ounce of gold per ton; samples from two other lenses assayed respectively 2.63% copper and 0.006 ounce of gold per ton and 1.19% copper, 1.74% zinc and 1.004 ounces of gold per ton."

6 3.1 miles W. and 4.7 miles N. of the SE. corner of twp.
Cu, Mo

Mawdsley and Norman - 1935, pp. 64-5

"On the south side of Bourbeau lake immediately west of Cran Penché bay... pyroxenite and serpentine intruded by one large dike and many smaller ones of feldspar and quartz-feldspar porphyry (granophyre)... are cut by two or three small quartz veins that range from a few inches to 26 inches in width, strike in general a few degrees west of north, and dip vertically to steeply to the east. The quartz is mineralized with chalcopyrite, pyrite, small amounts of pyrrhotite, and in places molybdenite, and is reported to have unimportant values in gold."

7 2.8 miles W. and 4.5 miles S. of the NE. corner of twp. (Min. Conc. 505, Block 21, Norbeau Mines (Quebec) Ltd.)
Au

Mawdsley and Norman - 1935, pp. 65-6
Ingham et al. - 1949, pp. 108-9

"... in 1930, a gold-bearing quartz vein cutting diorite was discovered immediately south of Bourbeau lake... optioned by Noranda in 1933. Systematic trenching and 15,000 feet of diamond drilling in 45 holes by this company in 1933... The vein occurs in a strong shear zone or fault cutting across the sill-like (intrusive) masses... for a length of 1,300 feet, varying in width from 2.5 to 8 feet. It strikes N.30°E. and dips 50-55° to the southeast... The vein consists of greasy, bluish-white quartz sparsely mineralized with crystalline pyrite and occasionally arsenopyrite."

A.W.R.; GM-10702, 1960
A.W.R.; GM-10925, 1960
Assad, J.R.; GM-9764, 1960
The Northern Miner - May 24, 1962

"Following completion of 27,154 feet of diamond drilling, 1,078 of underground adit development, and 1,938 feet of underground diamond drilling in summer 1960, ore reserves in the main vein structure have been estimated by S.E. Malouf... at 359,520 tons averaging 0.409 ounce of gold per ton to a vertical depth of 1,000 feet below the lake level."

Duquette and Mathieu - 1963

The company is presently (June, 1964) building a 200-ton mill and sinking a 500-foot shaft in order to bring its property into production by the fall of 1964.

8 2.0 miles W. and 4.5 miles S. of the NE. corner of twp. (Sharpe showing)
Au

Mawdsley and Norman - 1935, pp. 67-8

"A series of short, connected, lenticular quartz veins that are alined one after the other in an easterly direction occur about 900 feet southeast of the point on the west side of Sullivan bay, Bourbeau lake... They are similar to those of Noranda (Norbeau Mines) property to the west... Free gold is visible in quartz in the most western (vein) trench... No high gold values have been obtained from these veins up to the present. A promising feature of the veins is their almost perfect alinement with the similar vein,... 3,000 feet to the west... (at Norbeau)."

9 1.3 miles W. and 4.5 miles S. of the NE. corner of twp. (Bourbeau Lake Chibougamau Mines Ltd.)
Au

A.W.R.; GM-4839, 1937
Duquette and Mathieu - 1963

In 1935, Bourbeau Lake Chibougamau drilled nine holes for a total of 2,305 feet through the ice at O'Sullivan bay, in an attempt to find the eastward extension of the "Sharpe" or "International" vein which crops out west on the adjacent Norbeau Mines property. It is reported that several holes intersected quartz veins carrying substantial gold values.

10 2.4 miles E. and 3.5 miles N. of the SW. corner of twp. (Chibougamau Mining and Smelting Co.)
Cu

A.W.R.; GM-9361, 1959

There is a calcite vein at the foot of a cliff in a fault zone. The fault strikes N.85°E. The calcite vein dips at 60° south, is about 18 inches thick and can be traced for about 6 feet before it pinches out. It carries about 4% magnetite and bornite mineralization. The assay of a grab sample yielded 19.80% copper and 0.045 ounce of gold per ton.

11 4.0 miles E. and 3.4 miles N. of the SW. corner of twp. (Royran Goldfields Ltd.-Kennco Explorations (Canada) Ltd.)
Au

A.W.R.; GM-867, 1947
A.W.R.; GM-871, 1950
Ingham et al. - 1949, pp. 106-7
Smith, J.R. - 1960, pp. 35-6

"The zone is in an easterly-trending, rusty-weathering carbonatized shear cutting metagabbro. At the exploration shaft the zone is 60 feet wide, but only 25 feet of this... is carbonatized. Two milky white quartz veins 1 foot to 3 feet thick are exposed in the shaft... The shearing dips vertically, whereas the veins and probably the zone dip 55° to 70° south. Besides quartz, the veins contain a smaller amount of coarsely crystalline ankeritic carbonate, abundant euhedral pyrite, and irregular blebs and masses of chalcopyrite in small amount. A grab sample taken by the writer, and believed to be representative of the vein material, assayed 0.326 ounce of gold per ton. A channel sample across 4.3 feet at the shaft is reported by the company to have assayed 2.8 ounces of gold per ton. The rusty shear and the veins are much thinner at short distances along strike on either side of the shaft. In a trench 60 feet west of the shaft the

rusty shear is 2 feet wide and no quartz veins are exposed. In a trench 50 feet east of the shaft the shear is 9 feet wide and a quartz vein 4 to 8 inches wide is exposed. The company reports assays of 0.45 ounce of gold per ton over a width of 0.5 foot 30 feet east of the shaft and 0.52 ounce over a width of 0.6 foot 75 feet east of the shaft. In the shaft area 14 diamond drill holes were drilled along a 400-foot section of the zone. One assay of 0.12 ounce of gold per ton over 0.9 foot is reported 1,000 feet west of the shaft. Several other occurrences of vein quartz and sulfides have been found on the property... Base metal is not high..."

The property was optioned from Royran Goldfields Ltd. by Kennco Expl. Most of the drilling (43 holes) on the property was done in 1950 by Royran Goldfields.

12 3.1 miles W. and 4.2 miles N. of the SE. corner of twp. (Brosnan Chibougamau Mines Ltd.)
Cu

Assad, J.R. - 1957, pp. 11-2
Q.D.M. - 1959B - pp. 18-9

"The main mineralized zone is in the central part of C.36953, claim 1. It strikes N.15°W. and dips steeply to the southwest. The vein is 100 feet in length, it carries interesting copper mineralization across widths varying from 1 to 5 feet.

"Diamond drilling carried out during the summer of 1958 totalled 1,400 feet in seven holes. Four of the holes were drilled in the area of the main mineralized zone. Sections mineralized with pyrite, chalcopyrite and magnetite were reported.

"In September 1958, a detailed magnetometric survey was made in the central part of C.36953, claim 1. Additional north-striking magnetic zones,similar to that of the main mineralized zone, were found in the area to the west of the main zone."

A.W.R.; GM-5289, 1957

In hole No. 1 an average of 1.48% copper over 20 feet in a silicified and carbonated gabbro.

13 0.6 mile W. and 3.6 miles N. of the SE. corner of twp. (Min. Conc. 506, Block 22, Bruneau Mines Ltd.)
Cu

A.W.R.; GM-11694, 1962
Duquette, G.; GM-13263, 1963

This property is underlain by a greenstone assemblage of easterly-trending basic volcanics interbedded with minor clastic rocks and intruded by sills of gabbro. These rocks are steeply dipping to the north and appear to occupy part of the south limb of a major syncline. Quartz-feldspar porphyry dikes cut the whole assemblage in a general north-south direction. In September 1963, Bruneau Mines decided to explore two copper zones, the A and B zones, by means of a 545-foot crosscut adit.

In February 1964, a total of 400 feet of drifting had been completed along the B zone. Average face sampling assay for the whole drift length was reported to be (Northern Miner, Feb. 1964) 2.77% copper, and 0.023 ounce of gold and 0.96 ounce of silver per ton. Approximately 200 feet of drifting has also been done on the A zone, with an average grade of 1.60% copper, 0.024 ounce of gold and 0.40

ounce of silver per ton. Mineralization in the B zone (which is the main zone), as well as in the A zone, is largely confined to a 350-foot-thick band of pyroclastics bordered by gabbro sills. Mineralization consists of chalcopyrite, pyrite and pyrrhotite. Quartz, calcite and epidote are the important gangue minerals. The two zones are approximately 350 feet apart. The A zone runs northwesterly and the B zone, north-northwesterly.

Early in the spring of 1964 exploration work was suspended.

14 6.0 miles E. and 1.4 miles N. of the SW. corner of twp. (Copper Rand Chibougamau Mines Ltd. - Baker Talc Co. Ltd.)
Sid

A.W.R.; GM-7741, 1958

There are two ages of siderite occupying carbonatized shear zones. The first occurs in the main E.-W. zone and is the one now considered. It contains a very fine-grained, siliceous massive member with distinctive amounts of pyrite and quartz stringers. This siderite alters to hematite on surface. Siderite of the second age, thought to be later than the fine-grained variety, is brown and very coarsely crystalline. It occurs with chalcopyrite and pyrite in the southeast-trending shears. Elsewhere in the Chibougamau area, these same type zones contain important copper deposits.

On the Baker Talc claims the sideritic zone (E.-W.) outcrops intermittently over a length of about 8,000 feet; widths of the zone range from only a few feet up to 190 feet. A horizon containing massive, dense siderite of the first age occurs along the north border of the east-west trending zone. Assays from samples of this material average about 35% iron and 2% manganese. The massive siderite has been observed to have a width of up to 40 feet. The remaining width of the sideritic zone is taken up by a carbonated schist which contains siderite in a lesser quantity than the massive band. Average analysis of this material is less than 20% iron.

15 6.4 miles E. and 1.4 miles N. of the SW. corner of twp. (Copper Cliff Consolidated Mining Corporation)
Cu
Sid
Mawdsley and Norman - 1935, p. 70
Allard, G. - 1960, p. 63

"... It is a zone of massive siderite with disseminated coarse blebs and small veinlets of chalcopyrite and minor pyrite... The siderite occurs along a dike in a broad northwesterly-trending shear zone which abuts against the pyrite-carbonate zone which is parallel to the Sauvage Lake fault... The siderite vein varies between 10 feet and 125 feet in width... Chloritoid is present in all of the rock types, constituting up to 60% of the wall rock of the siderite vein.

Some 8,000 feet a diamond drilling in 29 holes was completed to explore this vein. Company officials report reserves of 520,000 tons averaging 1.46% copper or 2,000,000 tons carrying 31.1% iron and manganese and approximately 1% copper."

16 6.8 miles E. and 1.4 miles N. of the SW. corner of twp.
Zn

Allard, G. - 1960, p. 64

"... 200 feet south of Towle lake. The main part of the zone has been trenched

for approximately 700 feet and tested by one diamond drill hole located at the west end of the zone. The main shear zone strikes in a northwesterly direction. The rocks are intensely sheared and carbonatized... A quartz feldspar porphyry dike is found along the south wall of the zone. The country rock is gabbro... The mineralization consists of sphalerite and minor chalcopyrite and pyrite. The sphalerite... differs from the sphalerite in the other parts of the Dore Lake area in that it is silvery white, rather than dark brown."

Company officials report that four channel samples assayed 24.7% zinc over 3.0 feet, 24.85% over 7.0 feet, 8.79% over 27 feet and 6.80% over 15 feet."

17 7.4 miles E. and 1.4 miles N. of the SW. corner of twp. (Min. Conc. 427, Copper Cliff Consolidated Mining Corporation)
Cu

Allard, G. - 1960, p. 63

"This zone... was explored by Quebec Smelting over a strike length of 460 feet by diamond drill holes totalling 7,000 feet; 17 of the holes intersected copper mineralization. The zone strikes in a northwesterly direction. The mineralization consists of chalcopyrite and siderite in a host rock of gabbro and transition rock. No outcrops of the mineralized zone were found on surface. Indicated reserves are estimated at 178,602 tons averaging 2.1% copper."

18 2.0 miles W. and 1.2 miles N. of the SE. corner of twp. (Dumond showing)
Cu

Mawdsley and Norman - 1935, pp. 83-4

"... on the middle of the east side of Cedar bay... bedrock is exposed in a 120-foot trench along the water's edge. In detail from north to south the rocks exposed are: 6 feet of anorthosite; 1 foot of dark chloritized anorthosite; 3 feet of similar rock slightly mineralized, the mineralization being similar to but less intense than that in the main mineral zone; a greenstone dike 27 feet wide, containing near its south margin a few, small gash-veins of quartz, some of which are mineralized with a little, coarse pyrite and epidote; 6 feet of dark green, chloritized rock (anorthosite) cut by quartz-sulfide veinlets; 6 feet of similar chloritic rock containing imperfectly banded quartz, calcite, siderite, chlorite, a little magnetite and an average of 20% pyrite and chalcopyrite and constituting the main mineralized zone. This zone strikes 35° south of east and dips, apparently, 75° southwest. The mineral zone is flanked on the south by 36 feet of green, chloritic rocks that are cut by a few barren quartz veinlets... These chloritic rocks are believed to be altered anorthosite and anorthositic gabbro cut by a narrow greenstone dike."

19 1.7 miles W. and 2.0 miles N. of twp. (Min. Conc. 435, Norlake Mining Corporation)
Py

A.W.R.; GM-10908, 1936

Massive pyrite in sheared anorthosite was found some 1,000 feet west of Jaculet Mine by Norlake, while electromagnetic conductors were being tested in 1936. All told 27 holes were drilled.

20 1.1 mile W. and 2.2 miles N. of the SE. corner of twp. (Norlake Mining Corporation)
Mag (Iron formation)

A.W.R.; GM-10908, 1936

"A total of 27 holes was drilled by Norlake in 1936 to test conductors outlined previously by an E.M. survey run across the bed of Dore lake from Bateman Bay to the Jaculet property.

"Several holes intersected chlorite schist carrying a considerable amount of magnetite... This chlorite schist is a border facies of the anorthosite of the Dore Lake complex."

21 1.3 miles W. and 1.9 miles N. of the SE. corner of twp. (Jaculet mine, owned by Patino Mining Corporation)
Cu

Allard, G. - 1960, p. 62
Assad, J.R. - 1957, pp. 12-3
The Mining Industry in Chibougamau - 1962

The mine is located on the western contact of the anorthosite and gabbro. This gabbro is in contact with a sheared siderite zone containing chalcopyrite mineralization which forms the No. 2 ore zone. More gabbro occurs to the south of the No. 2 zone, which is gradational to anorthosite. Approximately 600 feet south of the No. 2 zone, there occurs a narrow chloritic and sericitic shear in anorthosite which forms the No. 1 zone and is parallel to the No. 2 zone.

The No. 1 zone extends for a length of 1,700 feet and strikes between east and S.70°E. with an almost vertical dip. Mineralization consists dominantly of chalcopyrite with minor pyrite. Vertical continuity to a minimum depth of 700 feet was recorded.

The No. 2 zone extends for a known length of 2,200 feet. Its width ranges from 10 to 150 feet. The zone is composed of siderite, sericite, carbonate, saussurite and some chloritoid with very erratic dissemination or bands of chalcopyrite. The dip of the zone is 75° to the south with no apparent rake.

Start of production: 1960

Rate of mining (1962) - 250 tons a day

Reserves (proved) as at Dec. 1963 - 113,000 tons grading 2.41% copper and 0.025 ounce of gold per ton.

Mining of ore was stopped in June 1964 in order to deepen the shaft from 725 to 1,340 feet.

22 0.2 mile W. and 1.5 miles N. of the SE. corner of twp. (Min. Conc. 465, Block 14, Bateman Bay Mining Co.)
Cu

A.W.R.; GM-10908, 1936
A.W.R.; GM-3350, 1955
A.W.R.; GM-4078, 1956
A.W.R.; GM-4136, 1957
Allard, G. - 1960, p. 61 and p. 68

"The property is underlain by metagabbro, transition rock, metapyroxenite, and meta-anorthosite;... strike is slightly north of east and dip, north. Recent drilling indicated northwesterly-trending shear zones containing copper mineralization, some of which is ore grade.

"Bateman Bay completed in May 1959 a shaft deepening programme to a depth of 526 feet... and opened up 2 new levels at 375 and 500 feet.

"After completion of a large surface diamond-drilling programme (60 holes) in 1956-1957, the company announced the discovery of two chalcopyrite-bearing structures containing an estimated 565,000 tons averaging 1.8% copper, 0.115 ounce of gold and 0.47 ounce of silver per ton to a vertical depth of 600 feet, and 183,200 tons grading 1.65% copper, 0.048 ounce of gold and 0.187 ounce of silver per ton to a depth of 670 feet."

23 3.7 miles W. and 0.5 mile N. of the SE. corner of twp. (Quebec Chibougamau Goldfields mine)
Cu

Mawdslay and Norman - 1935, pp. 77-8
A.W.R.; GM-4633, 1956
A.W.R.; GM-4634, 1956
Graham, R.B. - 1956, pp. 37-9
Assad, J.R. - 1957, pp. 15-6

"Three mineralized zones are known - the main or A zone, the B, and the H zones. All three are zones of schistose and silicified anorthosite within the main anorthosite mass. "A" zone... is a shear zone of schistose anorthosite measuring up to 100 feet in width, striking N.70°W. to N.75°W. and dipping 60° southwest. The anorthosite of the shear zone is silicified and chloritized and intruded by fine- to medium-grained gray dikes measuring up to 10 feet in width. Diamond drilling of this zone has outlined a mineralized shoot 350 feet long and up to 50 feet in width. The mineralization is associated specially with dike sections within the schistose anorthosite. It consists of pyrite, chalcopyrite, and a little pyrrhotite and sphalerite in a quartz-chlorite gangue. This mineralized shoot in the A zone is estimated to contain, between surface and the 750-foot level, 811,000 tons of mineral having an average tenor of 0.107 ounce of gold per ton, 0.85 ounce of silver per ton, and 1.17% copper."

It is to be noted that,in May 1962, Copper Rand (now Patino Mining) reached an agreement whereby it will mine and mill ore on the property of Que. Chib. Goldfields. Mining started early in 1963 with the use of a 3-compartment shaft to a depth of 847 feet,with levels established at 200, 350, 650 and 800 feet. In 1963, a total of 51,243 tons of ore grading 2.01% copper and 0.083 ounce of gold per ton was extracted.

24 2.9 miles W. and 0.9 mile N. of the SE. corner of twp. (Cedar Bay mine, owned by Campbell Chibougamau Mines Ltd.)
Cu

Mawdsley and Norman - 1935, pp. 78-9
Allard, G. - 1960, pp. 61-2
The Mining Industry in Chibougamau - 1962

"The orebodies at Cedar Bay are found in the anorthosite of the Chibougamau intrusive complex... The meta-anorthosite is cut by dikes of diorite porphyry... striking in a general northwest direction and parallel the shears that contain the richest orebodies. The dikes are pre-ore... The veins are definitely hydrothermal and may be classified into two main types:

a) East-west veins in which pyrite predominates over chalcopyrite; these contain gold, silver, and some sphalerite, arsenopyrite, and a minor cobalt.

b) Northwest and north-south veins which contain more chalcopyrite than pyrite; these have a lower gold content than the first type, contain only minor arsenopyrite and cobalt, but carry rare pyrrhotite...

"The veins occurring in the northwest shears are lenticular and the thickest part occurs along the junction with the east-west veins. The width and length of the veins are quite variable. Some of the veins are less than 2 feet wide and 50 feet long, whereas others are more than 30 feet wide at places and have been followed for a length of 900 feet. The average width of the veins is 10 feet."

In production since 1958.

Rate of mining (June '62 - June '63): 560 tons per day.

Reserves (proved and probable) as at June 1963: 622,540 tons grading above 2% copper and 0.06 ounce of gold per ton.

25 3.9 miles W. and 400 feet N. of the SE. corner of twp. (Kokko Creek mine - leased from Merrill Island to Campbell Chibougamau Mines Ltd.)
Cu

Allard, G. - 1960, p. 62
Mawdsley and Norman - 1935, p. 76
A.W.R.; GM-1146, 1950
A.W.R.; GM-1145, 1951
The Mining Industry in Chibougamau - 1962

The orebody of Kokko Creek occurs in the anorthosite of the Doré Lake complex. The ore is found in an altered and fractured zone that is generally in contact with massive quartz-feldspar porphyry dikes. The ore zone strikes approximately N.45°W. and dips steeply to the north. The dikes are pre-ore. The predominant mineral is chalcopyrite with lesser amounts of pyrrhotite, pyrite and quartz. The silver content is about three times higher than the average for other mines in Chibougamau, but gold is present only in small quantities. The ore zone appears to pinch out 100 feet below the 560-foot level.

Production was stopped early in 1964 because of ore exhaustion. Ore from a few pillars remains to be salvaged, however.

Start of production: October 1959.

Rate of mining (last 6 months of 1963): 180 tons per day, grading 3.22% copper and 0.013 ounce of gold per ton.

Reserves, as at June 1964; nearly exhausted.

26 1.6 miles W. and 0.7 mile N. of the SE. corner of twp. (Min. Conc. 491 and 66, Copper Rand mine and Bouzan mine - Patino Mining Corp. Ltd.
Cu

A.W.R.; GM-1681, 1952
A.W.R.; GM-2993, 1954
The Mining Industry in Chibougamau - 1962

The Copper Rand orebody lies in a shear and alteration zone which has a width between 1,700 and 2,000 feet and strikes N.30°W. The zone straddles the Gouin peninsula and crosses Eaton bay. Wall rocks are anorthositic. A series of dikes, generally parallel to shearing, occur over a width of 400 feet in the central part of the shear zone. The ore occurs within this zone on the flanks of the dikes. The most abundant alteration type is a sericite-carbonate facies producing a fine-grained, gray, fractureless rock. Chlorite is confined to the proximity of the sulfide lenses.

The ore at the mine consists of chalcopyrite, pyrite and pyrrhotite.

Shoots dip between 60° and 85° southwards and have good vertical continuity.

A strong westerly rake of 65° occurs in all shoots. The majority of the shoots occur within a strike length of 2,500 feet.

Start of production: late in 1959.

Rate of mining (1963): 1,260 tons per day.

Reserves (proved and probable) as at Dec. 1963: 2,805,000 tons grading 2.92% copper and 0.025 ounce of gold per ton.

In July 1962, Copper Rand (now Patino Mining) bought all Bouzan ore indicated above the 1,700-foot level. This block of ore, which is the easterly and down dip extension of Copper Rand's ore zone, is estimated at 1.75 million tons grading 2.92% copper.

McOUAT TOWNSHIP

II - K2

1 4.2 miles E. and 1.0 mile N. of the SW. corner of twp.
Pb, Zn

Sater, G.S. - 1957, p. 5

"Galena with lesser amounts of sphalerite was found in the gray, bedded dolomites south of Chalifour river in the south-central part of McOuat township. The sulfides occur as replacements of the dolomite along a zone 2 feet wide, and about 4 feet long, and constitute up to 30% of the rock."

MONTALEMBERT TOWNSHIP

III - F3

1 2.5 miles W. and 2.5 miles N. of the SE. corner of twp. (N.A. Timmins (1938) Ltd.)
Au

A.W.R.; GM-911, 1949

"Coarse free-gold was found while trenching on a quartz vein 2.5 feet wide, occupying a strong N.-S. shear zone... in tuffaceous and agglomeratic rocks. The vein was... traced... for 1,100 feet and we have found gold... at irregular intervals for 525 feet. The gold occurs in cross fractures in the quartz and in the silicified schist alongside. A parallel vein system, named the Galena Vein, has been uncovered 300 feet west. It consists of a strong shear zone 20 feet wide with several quartz veins and stringers. The most continuous quartz vein is on the east side of the shear. It averages 14 inches in width and fine gold has been found over a length of 150 feet... Excluding the free gold showings, which might assay from 50 ounces to 100 ounces per ton, the sampling results were low, with the exception of some channel samples from the Galena Vein which returned 2 ounces, 3 ounces and 5 ounces." Timmins (1938) drilled 30 holes in 1950. Assay results are not available.

2 1.5 miles W. and 2.0 miles N. of the SE. corner of twp.
Py, Po, Mag

Gilbert, J.-E. - 1951, p. 44

"Sheared fine-grained gabbro in the southeast corner of the area. Heavy pyrite, pyrrhotite, and magnetite mineralization."

MONTANIER TOWNSHIP

V - B7

1 IV; Chabert lake (Laviolette claims - East Malartic Mines Ltd.)
Cu

Dugas, J. ; GM-2040, 1952
Gilbert, J.-E.; GM-3057, 1954

A zone containing quartz veinlets in silicified graywacke. The mineralization consists of chalcopyrite pockets and constitutes up to 10% of the rock.

2 VII; on the west side of Rapid II road (Wells-Lacourcière claims - Merico Expl. Ltd.)
Li, Be

Latulippe, M.; GM-14918, 1955

"A large pegmatite dike outcrops in a large hill of granite on the west side of the road. It strikes N.50°W. and perhaps it dips steeply to the south... it can be followed for a length of approximately 2,000 feet. Its width varies from 25 to 50 feet. The feldspars are the most abundant mineral followed by quartz, muscovite mica, spodumene, tourmaline and beryl... Spodumene makes up less than 5% of the dike and beryl, less than 1%."

MONTBEILLARD TOWNSHIP

V - A7

1 IV - 12, 19, 20 (N. Aubé claims)
Mo, Ni, Cu

Dugas, J.; GM-6872, 1958

Narrow mineralized zone with a high molybdenite content accompanied by pyrrhotite, pyrite and chalcopyrite. The zone is in amphibolite and biotite schists. The rock is nickeliferous. The maximum exposed width is about 4 feet. Molybdenite is also found 1,000 feet to the west, on Highway 46, in fractures. Minor molybdenite and sphalerite occur in granite near the west limit of lot 12.

2 IX - 36 (New Norzone Mines Ltd. - Diadem Mines Ltd.)
Zn, Pb, Ag

Claveau et al. - 1951, pp. 50-1

"The ore deposits occur in a large quartz vein which forms a prominent ridge in the northern part of lot 36, Range IX. The vein strikes N.60°W., is nearly vertical, and is from 40 to 100 feet wide. It has been traced by trenches for 1,200 feet and by diamond drill holes for 1,900 feet... The sulfides occur along definite lenticular zones in this vein. These zones have vuggy and banded quartz and contain sphalerite, galena, chalcopyrite and pyrite, in that order of abundance... A shaft was sunk on the west side of the vein... The management has calculated that ore reserves to a depth of 620 feet total 87,700 tons with an average content of 8.5% zinc, 0.74% lead, and 0.24 ounces of silver per ton..."

3 IV - 4 (Enright property)
Ni

Robinson, W.G.; GM-1175, 1949

"Enright put down several shallow trenches along this slope on the east side of the pyroxenite dike... The graywacke appeared to have been injected with basic material along its bedding planes and this material is probably derived from the ultrabasic dike. Both the injected material and the graywacke contain considerable pyrrhotite and some pyrite. Assays were obtained giving an average nickel content of about 0.3%."

4 IV - 20 (Cheabella Mines Ltd.)
Mo

Ross et al. - 1940, pp. 37-8

"The principal outcrop on the property is on lot 20, about 700 feet south of the road between Range III and IV. It consists of gneiss cut by pegmatite dikes, in which the molybdenite occurs... A report of the Ore-Dressing and Metallurgical Laboratories, Dept. of Mines, Ottawa, on a sample of 3,807 pounds of ore from this property... states that... the sample contained 1.94% molybdenite."

5 X - 52 (L. Morin claims)
Cu

Q.D.M. - 1959A, pp. 61-2

"... Another vein, exposed over 200 feet, strikes N.35°E. and dips vertically. This vein is mineralized with coarse chalcopyrite and some pyrite..."

6 IV - 37 (Morono Copper Mines Ltd.)
Cu

A.W.R.; GM-7841, 1958

Quartz veins with chalcopyrite.

7 IV - 33 (Giroux-Lalonde claims)
Cu

Dugas, J.; GM-4592, 1956

"Quartz veinlets carrying abundant chalcopyrite..."

8 IX - 1 (Bourrassa-Pepperess claims)
Cu, Ni

Dugas, J.; GM-10611, 1960

"A thickness of two feet is composed mainly of nickeliferous amphibole schist carrying pyrrhotite... The owners report assays of 1.60, 1.48 and 1.17% nickel... Low copper values were also obtained."

9 VIII - 38 (Shearzona Mines Ltd.)
Cu, Zn

Ingham et al. - 1949, p. 111

"A northerly trending quartz vein, somewhat similar to the vein under development at New Norzone Mines, was discovered north of the small lake in lot 38,

Range VIII... It is composed of 30% to 80% white quartz which surrounds brecciated fragments of graywacke and has minor amounts of sphalerite, galena, and chalcopyrite."

10 V - 33 (Black Bay Uranium Mines Ltd.)
Cu

The Northern Miner - Feb. 21, 1963

"Black Bay Uranium has outlined a zone, 200 feet long, to a vertical depth of 110 feet, averaging 2.60% copper over a width of 3.5 feet..."

11 IV - 35 (Tib Exploration)
Cu

The Northern Miner - Dec. 20, 1962

"... 10.8 feet averaging 8.21% copper at a depth of 92 feet and 6.8 feet averaging 5.80% copper at 132 feet. The entire section, from 91-138 feet or a core length of 47 feet, averages 2.68% assuming the intervening section to consist of barren rock."

12 VIII - 51 (Lesage claims)
Cu, Zn, Pb

Dugas, J.; GM-12815, 1962

"On the west side of the trench, the veinlets and the rock contain an appreciable quantity of chalcopyrite, sphalerite and galena." (translated)

13 I - 53
Cu

Verbal communication.

MONTBRAY TOWNSHIP

V - A6

1 VIII - 3 (Ormsby Mines Ltd.)
Cu, Ni

Q.D.M. - 1959A, pp. 63-4

"... a mineralized zone is exposed along a ridge in lot 13, Range VIII. The diorite is irregular in grain size and contains disseminated pockets of pyrite and pyrrhotite, locally enclosing chalcopyrite..."

2 VIII - 31 (Southwest Potash Corp.)
Cu

Q.D.N.R. - 1962, pp. 23-4

"A shear-fracture zone of copper mineralization having a maximum width of 18 inches and a length of 30 feet is exposed in a shallow trench... Chalcopyrite is found in discontinuous seams up to 1/2 inch thick along fractures..."

3 VI - 41 (Roche Long Lac Gold Mines Ltd.)
Cu

Hogg, W.A. - 1959, p. 8
"Scattered specks of chalcopyrite occur along narrow quartz and calcite-filled fractures in dacite..."

4 V - 23 (Tarsac Lake group)
Au

Thibault, C. - 1961, p. 14

Quartz vein at least 6 feet wide and 180 feet long containing pyrite, chalcopyrite and galena. Good gold values are reported.

5 V - 40
Cu

Hogg and Dugas - 1965

Irregular calcite veins containing chalcopyrite and malachite stains.

6 V - 61 (Eplett - Metcalfe property)
Cu, Ni

Cooke et al. - 1931, p. 227
Hogg and Dugas - 1965

A sulfide zone containing pyrite, nickeliferous pyrrhotite and chalcopyrite at the diabase contact. The mineralized zone, which has been explored in previous years by a 60-foot shaft, extends for a length of 100 feet and has a maximum width of 20 feet.

7 III - 52 (Montbray Piché property)
Cu, Zn

A.W.R.; GM-7, 1949

Hogg and Dugas - 1965

A mineralized zone in a fissure has been uncovered for a length of 100 feet and a maximum width of 20 feet. Sampling of the trenches has given, on an average width of 7.9 feet and a length of 150 feet, the following results: 0.01 ounce of gold and 0.45 ounce of silver a ton, 0.82% copper, and 1.70% zinc.

8 I - 40 (New Lorie Mines Ltd.)
Zn, Cu

A.W.R.; GM-4682, 1956
Hogg and Dugas - 1965

Andesite mineralized with sphalerite, pyrite, and minor chalcopyrite at the contact of a fine-grained quartz porphyry. A selected sample contained 1.20% copper and 13.56% zinc.

9 I - 39 (Montserrat Gold Mines Ltd.)
Au

Hogg and Dugas - 1965

A few good gold values in slightly-dipping quartz veins mineralized with pyrite.

10 I - 41
Au

Hogg and Dugas - 1965

100 feet north of the range line a sample from a quartz vein contained 0.112 ounce of gold a ton.

11 II - 55 (Inmont Copper Mines Ltd.; Robb-Montbray Mines Ltd.)
Au, Cu, Te, Zn

Q.D.M. - 1959A, p. 63
Cooke et al. - 1931, pp. 224-7
Hogg and Dugas - 1965

In 1934-35, there was shipped a total of 1,500 tons of ore grading 0.24 ounce of gold and 0.5 ounce of silver a ton and 6.5% copper. An 11-pound pocket of massive gold and gold tellurides was found at one place. Many zones of less importance were found afterwards. The ore is associated to a chlorite zone in brecciated rhyolite.

12 I - 62 (Four Corners property)
Cu, Zn

Cooke et al. - 1931, p. 227
Ross et al. - 1940, pp. 38-9
Ingham et al. - 1949, pp. 111-2
Q.D.M. - 1959A, p. 62
Hogg and Dugas - 1965

A shear zone striking N.35°W. is mineralized with pyrite, chalcopyrite, and arsenopyrite over a length of 160 feet and an average width of 10 feet.

13 V - 4 (O'Leary Malartic Mines Ltd. - Oriole Mines Ltd.)
Cu

Q.B.M. - 1928, p. 111

"... in one place the rock is a breccia and sulfides, mostly pyrite, replace its matrix. Chalcopyrite mineralization is observed at intervals over the knob and at various points within the rock trenches, and pyrrhotite is locally conspicuous..."

MONTGAY TOWNSHIP

V - D6

1 VIII - 13, 14 (Roland Gold and Copper - Taylor claims)
Au

Ross et al. - 1938, p. 29
Dresser and Denis - 1949, p. 79

Gold has been reported from quartz veins cutting a rhyolite dike within granitic rocks at the south end of the lots.

2 V, VI - 6 (Vermont Zinc - Dik Dik Expl. Co. Ltd.)
Zn, Ag, Au

Q.D.M. - 1956, p. 71
Ross et al. - 1938, p. 29

A sulfide zone in tuffaceous rocks on the range line contains sphalerite. Drilling indicated a zone 400 feet long and 7.3 feet wide grading 3.41% zinc and 1.71 ounces of silver per ton.

MONTGOLFIER TOWNSHIP

III - B3

1 North third of the township, on both sides of Harricana river (Atlin Ruffner Mines Ltd.)
Mag (Iron formation)

Q.D.M. - 1959A, pp. 64-5

The best intersection averaged 26.17% iron over a true width of 1,015 feet. The iron formations are very fine grained. They contain magnetite bands with some specular hematite and jasper along with barren or poorly mineralized bands of argillite, tuff and biotite, chlorite or sericite schist. Quartz is not abundant. The company estimates the probable reserves at 1,594,000 tons per vertical foot with an average grade of 25% iron.

2 E. bank of Harricana river, 2 miles from N. boundary of twp. (Ansil Mines Ltd.)
Mag (Iron formation)

A.W.R.; GM-9556, 1959

Iron formation. Diamond drilling.

3 E. bank of Harricana river, about 2 miles from N. boundary of twp. (Kennco Explorations (Canada) Ltd.)
Cu
Py, Po

A.W.R.; GM-9576, 1960

Diamond drilling. Pyrite, pyrrhotite and minor chalcopyrite.

4 See 3.

5 South part of township, near Aloigny township (Empire Oil and Minerals Inc.)
Mag (Iron formation)

A.W.R.; GM-6341, 1957

A magnetometer survey was carried out to determine the presence and distribution of magnetite on the property.

6 W. bank of Harricana river, central part of township (Atlin Ruffner Mines Ltd.)
Cu

Dugas, J.; GM-6233, 1958

Mineralized zone in dacite. The sulfides are mostly pyrite and minor chalcopyrite.

MONTVIEL TOWNSHIP

III - E3

1 3/4 mile N. of Mile-post XXV on the E.-W. center line (Jowsey claims)
Pb, Zn, Cu
Po, Mag

A.W.R.; GM-7548, 1958

Minor amounts of galena, sphalerite and chalcopyrite as specks or small stringers in crystalline limestone were noted in drill holes. Magnetite iron formations and massive pyrrhotite were also noted in graywacke and limestone.

MORISSET TOWNSHIP

II - K1

1 North half of the township (Albanel Minerals Ltd.)
Mag, Sid (Iron formation)

Neilson, J.M. - 1963, pp. 35-41

"... Diamond drilling... metallurgical testing of outcrops and bulk samples on nine principal orebodies of magnetic formation have disclosed a minimum reserve of 200,000,000 tons of concentrates containing 66.58% iron and 6.6% silica, dry analysis.

"The iron-bearing sequence... is referred to as the Temiscamie iron formation (Wahl, 1953). It is a typical iron carbonate iron formation. It is made up of high proportions of either iron silicates or iron carbonate, or iron oxides... The average thickness of the sequence is about 450 feet. Six ferruginous members have been recognized by Quirke (1960). The member of greatest economic interest is the... magnetitic, hematitic, sideritic chert. Magnetite occurs as masses of grains, in layers, and as disseminated crystals. In places the magnetite makes up 50% of the rock. Hematite occurs throughout, but not in significant amounts. Siderite and iron silicates are also present. A pronounced oölitic and granular texture is a distinguishing feature of the rock... This essentially-oxide member has an average thickness of about 150 feet."

Most ore deposits lie north of Latitude 51°.

NÉDELEC TOWNSHIP

VI - A8

1 VII - 26 (Laquerre claims)
Mo

Dugas, J.; GM-4325, 1956

Numerous irregular quartz veinlets in a hornblende rock. A few of these veinlets are mineralized with molybdenite, either on the walls or in the veinlets themselves.

NELLIGAN TOWNSHIP

III - F4

1 0.7 mile W. and 1.4 miles N. of the SE. corner of twp. (Wright-Hargreaves Mines Ltd.)
Au

A.W.R.; GM-478, 1949

"... An east-west-trending carbonate zone, some 2 feet in width and dipping steeply to the north, was found cutting across sheared diorite striking N.75°E."

"Samples of this quartz-carbonate material assayed as high as $4.90."

NOYON TOWNSHIP

III - C4

1 SE. part of township, on the largest island in Bell river
Cu

Béland, R. - 1950, p. 8

Carbonate veinlets cutting amphibolite contain disseminated chalcopyrite.

2 1.5 miles NW. of a small lake in the central part of the SE. quarter of township (Can. North Inca)
Cu
Py, Po

A.W.R.; GM-9027, 1958

Minor chalcopyrite, with pyrrhotite, pyrite and graphite in tuffaceous rocks, was noted in drill holes.

3 W. of (2) - (Hubert Lake Nickel Mines Ltd.)
Cu
Py, Po

A.W.R.; GM-9382, 1958
Sharpe, J.I.; GM-9817, 1960

Minor chalcopyrite was noted in holes drilled through thin beds of pyrrhotite, pyrite and graphite within tuffaceous sedimentary rocks.

OBALSKI TOWNSHIP

IV - J3

1 1.1 mile E. and 1.0 mile S. of the NW. corner of twp. (Titanic Mines Holdings Ltd.) - Newlund Mines Ltd.)
Cu

Graham, R.B. - 1956, p. 39
A.W.R.; GM-4856, 1957

Disseminated pyrite and chalcopyrite associated with chloritic and quartziferous rocks. Assay results of diamond drill core yielded low copper values.

2 3.4 miles E. and 0.5 mile S. of the NW. corner of twp. (Min. Conc. 507, Block I, United Obalski Mining Company Ltd. - Chibougamau Pioneer Mining Corp. - Eastmac Mines Ltd. - Obalski (1945) Ltd.)
Cu Au

Mawdsley and Norman - 1935, p. 70
Ingham et al. - 1949, pp. 113-4
A.W.R.; GM-1969, 1952
A.W.R.; GM-2653, 1953
A.W.R.; GM-5110, 1956
Graham, R.B. - 1956, pp. 26-7
Duquette, G.; GM-13942, 1963

"Since 1928 there have been several geological and geophysical surveys run over the property as well as a considerable amount of trenching and channel-sampling done along with approximately 90,000 feet of core collected from diamond drilling some 210 holes mostly over four mineralized zones named A, C, D, G. Also a 3-compartment shaft has been sunk between zones C and D to a depth of 277 feet with levels established at the 150- and 250-foot horizons on part of the D vein; total amount of lateral work not exceeding 1,000 feet.

"According to company's engineers the above work resulted in outlining about 300,000 tons of ore..."

3 5.7 miles E. and 1.0 mile S. of the NW. corner of twp. (Chib-Kayrand Copper Mines Ltd. - Kayrand Mining and Development Co. Ltd. - Royran Goldfields Ltd.)
Cu

A.W.R.; GM-3683, 1956
A.W.R.; GM-9887, 1959
A.W.R.; GM-624, 1950
A.W.R.; GM-872, 1950

A.W.R.; GM-11737, 1962
A.W.R.; GM-846, 1950
A.W.R.; GM-2106, 1952
A.W.R.; GM-1455, 1951
A.W.R.; GM-2906, 1954
Archibald, G.M. - 1950, p. 12
Graham, R.B. - 1956, pp. 29-31

"The copper-bearing zone... lies along a shear in anorthosite breccia... The sulfide mineralization has been traced for a length of 1,600 feet... Striking N.75°W. to N.45°W... the zone dips 70° northeast. Within the zone is a lens of sulfide mineral... of an average tenor of 2% copper, with small amounts of gold, silver and zinc. It is 600 feet long, and normal to the axis of plunge (30°-50° to the northwest),... The sulfide mineralization consists of chalcopyrite, pyrrhotite, pyrite and a little sphalerite. Small amounts of gold and silver are associated with the sulfides... They lie along fractures in quartz, which comprises most of the gangue."

4 5.9 miles E. and 0.7 mile S. of the NW. corner of twp. (Min. conc. 406, main Campbell Chibougamau mine)
Cu

Graham, R.B. - 1956, p. 8

"It is the westerly extension of the main zone of Merrill Island Mining Corporation which has been traced for 330 feet into the lake."

The Mining Industry in Chibougamau - 1962

The average strike of the Campbell Chibougamau ore zones has been N.70°W. with a tendency to a N.45°W. strike showing up in current east and west developments. The zone has been detailed for a length of 900 feet and has an average width of 36 feet to date. Dip changes are sudden and range from 60° south to 80° north.

The main zone is a sulfide deposit of the replacement type. The sulfide content is in the order of 50% with 33% pyrrhotite, 10% chalcopyrite, 5% pyrite, 2% sphalerite and a cobalt content of 2 pounds to the ton. Gold accompanies the sulfides in the free state.

The main orebody gradually decreases in size below the 1,450-foot level and pinches out at the 2,000-foot level. Another orebody was found below the 2,700-foot level. This new ore is similar to that of the main zone.

The mine has been in production since 1951.

Rate of mining is approximately 1,000 tons per day.

Ore reserves (proved and probable) as at June 1963 are 1,237,000 tons grading 1.86% copper and 0.03 ounce of gold per ton.

5 6.2 miles E. and 0.7 mile S. of the NW. corner of twp. (Min. conc. 136, Block C, Merrill Island Mining Corp. Ltd. - Blake Chibougamau Mining Corp. - Black Mining Syndicate Ltd.)
Cu

A.W.R.; GM-813, 1927
A.W.R.; GM-812, 1927
Mawdsley and Norman - 1935, pp. 74-5
A.W.R.; GM-636A and B, 1950
A.W.R.; GM-971, 1950
Graham, R.B. - 1956, pp. 31-3
The Mining Industry in Chibougamau - 1962

The Merrill Island orebodies lie along the same complex shear and dike structure that contains the main Campbell Chibougamau deposit. Nodular-textured meta-anorthosite underlies all of the mine area. The localization of ore is dependent on relations between dikes and shear or fault zones.
In production since 1957.

Rate of mining (1963): 525 tons per day.

Ore reserves (proved) as of July 1st, 1963: 162,600 tons grading 2.34% copper and 0.02 ounce of gold a ton.

6 6.6 miles E. and 0.5 mile S. of the NW. corner of twp. (Quebec Chibougamau Goldfields Ltd.)
Cu

A.W.R.; GM-640, 1950
Graham, R.B. - 1956, pp. 37-9

"A copper-zone... under the northeast tip of Merrill Island has been traced for 400 feet by diamond drilling. It strikes N.38°W. and dips steeply to the northeast...

"The sulfide mineralization consists of pyrrhotite and pyrite with coarse chalcopyrite and locally sphalerite and a little galena. Small amounts of gold and silver are reported to be associated with the sulfides. The sulfides occur as stringers, massive lenses and disseminations replacing schistose anorthosite and the matrix of only weakly schistose brecciated anorthosite.

"The company estimates that the sulfide zone contains 500,000 tons of mineral with an average of 2.2% copper and 1.2% zinc."

7 9.8 miles E. and 0.7 mile S. of the NW. corner of twp. (Yorkan Exploration Ltd.)
Cu

A.W.R.; GM-5651, 1957

Hole T29, collared 1,500 feet W. and 3,800 feet S. from the NE. corner of the township, cut two sections in anorthosite grading 0.6 and 0.59% copper.

8 3.6 miles E. and 2.5 miles S. of the NW. corner of twp. (Central Mining Corporation - Grand Chibougamau Mines Ltd. - Chibougamau Mining and Smelting Co.Ltd.)
Mag (Iron formation)

A.W.R.; GM-10793, 1947
A.W.R.; GM-1712, 1952
A.W.R.; GM-3957, 1956
A.W.R.; GM-4521, 1955
A.W.R.; GM-5240, 1956
Graham, R.B. - 1956, pp. 20-22, 28-29

"A zone of magnetite-bearing gabbro... which lies between Caché lake and Doré lake, has been traced for a length of 2 miles in a north-south direction. It is 100 to 500 feet wide and averages 300 feet... The magnetite formation lies along the contact between gabbro and transition rock which separates the gabbro from the anorthosite. It dips to the west under the gabbro at angles of 20° to 50°... The magnetite formation consists of sheets of nearly massive magnetite rich gabbro conformable to the segregational banding in the gabbro and to the strike of the contact between the gabbro and the transition zone. The alternating sheets of magnetite and magnetite-rich gabbro range in width up to 1 foot. On surface exposures the magnetite stands out as black ridges in the gabbro.

"In 1952, seven diamond drill holes having a total footage of 3,110 feet were drilled (by Grand Chibougamau Mines Ltd. in the northern part of the iron formation) along a length of 1,800 feet... The drilling indicated the tenor of this body to be approximately 20% iron and 3 to 4% titanium over widths of 70 to 200 feet, although considerable magnetite is present over widths up to 400 feet."

In the southern part of the iron formation, drilling for an approximate length of 1 mile was done by Chibougamau Mining and Smelting Co.

9 5.0 miles W. and 1.7 miles S. of the NE. corner of twp.
Cu

Chibougamau Mining Commission - 1911, p. 210
Mawdsley and Norman - 1935, p. 85

"Knoll island, which lies off the southwest end of Merrill island, is about 50 feet in diameter... The somewhat sheared, chloritized, dark granite that makes up the island is cut by an irregular mass of glassy quartz from which there are a few, short offshoots. This mass trends northerly, is 50 feet long, and, where best developed, 12 feet wide. A little pyrite, chalcopyrite, and tourmaline are associated with the quartz. Although an unpromising-looking showing, assays by three independent parties have shown high values in gold. It was drilled through the ice by Prospectors Airways during the winter of 1933. The results obtained were disappointing."

10 0.6 mile N. of the SE. corner of twp. (La-Chib Mines Ltd.)
Cu

A.W.R.; GM-8690, 1959
A.W.R.; GM-8274, 1959

Mineralized quartz stringers and veins in sheared gabbro. The mineralization consists predominantly of pyrite, in places massive, with minor amounts of chalcopyrite.

11 4.5 miles W. and 0.4 mile N. of the SE. corner of twp. (Icon syndicate)
Cu

Verbal communication - 1964

A total of six short holes was completed in July 1964 by Icon Syndicate to test a magnetic and electromagnetic anomaly running ESE. just west of Inlet bay. Quartz and feldspar(red)-rich rocks (granite) were intersected. The best mineralization occurs across a 3-foot width with a copper content running between 1 and 2%. Magnetite is reported to be locally associated with the chalcopyrite. Pyrite and quartz are also abundant in the copper-bearing zone.

OPÉMISCA TOWNSHIP

IV - H3

1 4.7 miles W. and 2.3 miles S. of the NE. corner of twp. (Pennbec Mining Corp.)
Cu
Po (Iron formation

A.W.R.; GM-3584, 1955
A.W.R.; GM-4291, 1956
A.W.R.; GM-5134A and B - 1956
Archibald, G.M. - 1959, pp. 15-7

"The main sulfide zone outcrops in C.85393, claim 2, about 800 feet south of the center of a small lake. It consists of a sulfide-bearing, easterly-striking zone about 400 feet wide containing a width up to 150 feet of massive pyrrhotite with subordinate amounts of pyrite and chalcopyrite. The zone is... along... "the south"... contact between tuffs and basalt and has been mapped over a length of 12,900 feet (2.4 miles). It has been explored by trenches." Geophysical and geological surveys and diamond drilling have been carried out.

The zone was tested by 45 diamond drill holes for a total of 19,585 feet.

2 4.7 miles E. and 2.4 miles S. of the NW. corner of twp. (Pennbec Mining Corp.)
Cu

A.W.R.; GM-3584, 1955
A.W.R.; GM-4291, 1956

"In the central portion of C-89082, claim 1, veinlets and disseminations of chalcopyrite in basalt were noted. The mineralization occurs along a length of 30 feet and across a maximum width of 5 feet. The over-all copper content of this zone would be less than 1%."

3 4.5 miles E. and 2.6 miles S. of the NW. corner of twp. (Mid-Chibougamau Mines Ltd.)
Py, Po

A.W.R.; GM-4890, 1956

"A mineralized zone... in altered andesite (?) striking about 70°. Mineralization includes pyrite, pyrrhotite and a small amount of chalcopyrite. Trenching for 40 feet across the strike of this zone has exposed three bands, 2 to 3 inches wide, in which the sulfides compose about 75% of the rock. The mineralization is in the form of discontinuous fracture fillings and disseminated rocks... low values in copper."

4 4.5 miles E. and 3.0 miles S. of the NW. corner of twp. (Pennbec Mining Corp.)
Cu

Archibald, G.M. - 1959, p. 16

"Two new areas of sulfide mineralization... one of which contains a high-grade copper occurrence... were investigated by trenching and packsack drilling. The occurrence, which is located 925 feet north and 130 feet west of Post No. 3 of C-89095, claim 1, is in an altered and sheared basalt trending about N.60°E. and dipping to the southeast... One grab sample from the main trench... assayed 5.53% copper, 0.02 ounce of gold and 0.288 ounce of silver per ton."

5 3.6 miles W. and 2.6 miles S. of the NE. corner of twp. (Dadson Lake Chibougamau Mines Ltd.)
Cu

A.W.R.; GM-5308, 1957
A.W.R.; GM-7296, 1958

"Sulfide mineralization is known to occur... in, or adjacent to, quartz stringers as veinlets in weakly sheared diorite or occurs disseminated in the diorite. This occurrence has been traced for a length of 80 feet. It strikes N.20°W. and dips vertically. A grab sample from this occurrence assayed 2.30% copper, 0.01 ounce of gold per ton, and 0.10 ounce of silver per ton."

6 1.8 miles E. and 4.2 miles S. of the NW. corner of twp. (Opemiska Copper Mines (Quebec) Ltd.)
Cu

A.W.R.; GM-4470, 1956

"Disseminated pyrite, pyrrhotite and chalcopyrite were intersected in feldspathic sediment in contact with altered andesite striking approximately S.70°E. The mineralization was observed on a small island and on the shore of Michwacho

lake. The best value obtained from the packsack drilling was 1.60% copper over 2 feet.

O'SULLIVAN TOWNSHIP

II - J2

1 2.8 miles W. and 1.9 miles N. of the SE. corner of twp. (Chibougamau Mining and Smelting Co. - Malartic Goldfields Ltd. - Blondeau Option - Opemiska Copper Mines)
Cu

A.W.R.; GM-11191, 1961
A.W.R.; GM-9379, 1959

Approximately 4,100 feet west of the east end of Outlet bay (rapids) of Waconichi lake, a pyritized quartzite of the Chibougamau Series with minor chalcopyrite was drill-tested by six X-ray holes.

A.W.R.; GM-3436, 1955

Lorenzo Blondeau's copper showing had previously been tested by three holes numbered W-S1 to 3. The best intersections, all 1.5 feet in length, were 0.80, 2.10, 0.6, and 0.6% copper. The mineralization occurs in arkose of the Waconichi Series.

2 2.0 miles W. and 2.0 miles N. of the SE. corner of twp.
Cu

Gilbert, J.-E. - 1958, p. 33

"Large crystals of chalcopyrite were seen in altered arkose just below the falls at the outlet of Waconichi lake and along the portage on the south bank. Here, trenching has exposed an altered, medium-grained, pink arkose containing small patches and veinlets of quartz and calcite with which chalcopyrite is closely associated; this copper mineral is also found disseminated in the enclosing arkose. Large, mineralized, arkosic boulders of the same type are seen along the portage."

Similar mineralization occurs 300 feet north of the aforementioned showings, along the west shore of Waconichi river.

3 1.0 mile W. and 3.2 miles N. of the SE. corner of twp. (Chibougamau Mining and Smelting Co. - Bouzan Mines Ltd.)
Cu

A.W.R.; GM-11191, 1961
A.W.R.; GM-3643, 1955
Gilbert, J.-E. - 1958, p. 34

"On the north shore of the... "Waconichi"... river, slightly less than 1 1/4 miles below the falls, the writer found what appears to be the extension of this (northeast) shear zone. Chalcopyrite is seen here in small veinlets bordering deeply weathered chert-carbonate veins and filling fractures within the adjacent broken and slightly mineralized graywacke."

Seventeen holes were drilled by Bouzan Mines Ltd. in 1955.

PALMAROLLE TOWNSHIP

V - A6

1 VIII- 57, 58 (Noranda Mines Ltd.)
Cu

A.W.R.; GM-5682, 1957
Q.D.M. - 1959A, pp. 65-6

"On lot 58, a shear zone in graywacke, striking N.10°E. and dipping 75° NW., carries stringers and pockets of chalcopyrite along the plane of schistosity... The maximum width of the mineralization is 5 feet and the exposed length is 40 feet."

2 IX - 33 (Wilsey - Coghlan Mines Ltd.)
Cu

A.W.R.; GM-12660, 1962

Diamond drilling.

3 II - 12 (Kerr Addison Gold Mines Ltd.)
Au, Cu, Zn, Pb

A.W.R.; GM-9327, 1937

Map and J. Dugas personal notes.

PASCALIS TOWNSHIP

V - D7

1 Near the SW. corner of the township (Perron Gold Mines Ltd.)
Au, Ag, W, Te, Cu

Ames, H.G. - 1948, p. 893
Dresser and Denis - 1949, p. 267

During the period 1936-1951, a total of 16 million dollars' worth of gold was mined from this property. The ore deposits were located along the east edge of the Bourlamaque batholith. A steeply-dipping shear zone cuts into the eastern edge of the batholith. This shear is barren of gold, but numerous subsidiary sets of nearly flat-lying fractures are well mineralized with gold. Silver was a by-product of gold mining. A small amount of scheelite was extracted from the ore during the war. The quartz veins also contained a minor amount of telluride and chalcopyrite.

2 SW. corner of the township (Courvan Mining Co. Ltd. - Beaufor group)
Au, Ag, W, Te, Cu

Dresser and Denis - 1949, p. 270

A total of 2.5 million dollars' worth of gold was extracted from 1934 to 1942. One third of this production came from the Louvicourt group. The mine is located on the eastern edge of the Bourlamaque batholith. The vein system is the same as that found on the neighboring Perron mine.

3 Near the SW. corner of the township (New Pascalis Gold Mines Ltd. - Pascalis Gold Mines Ltd.)
Au

Dresser and Denis - 1949, p. 271

The New Pascalis property is adjacent to Perron Gold Mines and Courvan Mining. Gold-bearing quartz veins are found in granodiorite of the Bourlamaque batholith. The geology is similar to the above two properties. A shaft was sunk to 1,565 feet. The war prevented the company from entering the ranks of producers.

4 E. of the Bourlamaque batholith (Pascalis Gold Mines Ltd.)
Au

Bell and Bell - 1932, p. 105
Bell, L.V. - 1933, p. 31

A mineralized zone in volcanic rock to the east of the Bourlamaque batholith. In the vicinity of this zone some of the quartz lenses and veinlets contain visible gold.

5 IX - 42, 43
Au

Bell and Bell - 1934, p. 57

Visible gold and chalcopyrite were noted in quartz veins within the Pascalis-Tiblemont batholith.

6 II - 52 (Lafontaine claims)
Zn

A.W.R.; GM-14572, 1948

Sphalerite mineralization was noted in two holes drilled in 1948.

7 I - 54 (Can. Shield Mng. Corp. - Geoffroy property)
Cu, Zn, Ag

Q.D.M. - 1959A, p. 66

Seventeen holes were drilled on this property. Values in zinc and copper were generally low. A hole drilled in the northeast part of the lot cut 2.1 feet of 9.75% copper and 2.81 ounces of silver per ton.

8 II - N. of (1) (Resenor Gold Mines Ltd. - Senore Gold Mines Ltd.)
Au

Dresser and Denis - 1949, p. 275
Ross et al. - 1938, p. 21

A gold deposit located in the northwest corner of Range II. The gold is found in quartz veins within a shear along the east side of the Bourlamaque batholith. A shaft was sunk to a depth of 500 feet and lateral work was performed on the 200- and 500-foot levels. Four gold-bearing shoots were partly developed.

9 III - 14 (Senim Gold Mines Ltd.)
Au

A.W.R.; GM-14573, 1945

Free gold was found in the south part of the lot. The quartz veins are in volcanic rocks. The showing was noted on a company plan.

10 I - E. of (1) (Pasgil Gold Mines Ltd. - Mining Corporation of Canada Ltd. - Manwell claims)
Cu, Au

Bell, L.V. - 1933, p. 31
Q.B.M. - 1933, p. 98

Gold with some chalcopyrite in quartz veins in volcanic rocks was discovered in 1932.

PERRON TOWNSHIP

III - A5

1 II - 9 (Beaupré Base Metals Mines Ltd.)
Cu, Zn

Q.D.M. - 1956, pp. 73-4

"... the results suggested the presence of a pyrite zone of some possible economic significance with somewhat scattered zinc and copper mineralization over wide areas of the northwesterly-trending zone."

2 III - 29 (Dolan Grenier claims)
Cu

A.W.R.; GM-4393, 1956

Diamond drilling. Chalcopyrite in quartz.

3 VII - 30 (Norcopper and Metals Corp.)
Cu

Q.D.M. - 1959A, p. 67

A discontinuous quartz vein following a shear zone striking N.10°E. on the west side of a diabase dike. At one place the vein is 2.5 feet wide and contains coarse chalcopyrite.

4 VII - 26
Mo

Dresser and Denis - 1949, p. 70

"Molybdenite has been reported in a quartz vein, 12 to 15 feet wide, in lot 26, Range VII."

5 I - 47 (Quebec Diversified Mining Corp. Ltd.)
Au

Q.D.M. - 1956, pp. 74-5

Lenses or stringers of quartz in a shear zone averaging 3 feet in width. Gold tenors up to 0.51 ounce of gold a ton have been reported.

6 V - 27 (Piedmont Mines Ltd.)
Cu, Zn

A.W.R.; GM-2039, 1952

Shown on map.

7 IV - 31
Cu, Zn

A.W.R.; GM-2039, 1952

Shown on map.

8 Near the provincial boundary, 1 mi. S. of Bill lake (Stratmat option)
Mag (Iron formation)

A.W.R.; GM-11477, 1961

"... A quartzite-magnetite iron formation which would appear to run as high as 30% Fe in the vicinity of the anomaly."

PERSHING TOWNSHIP

V - D7

1 1 mile E. of Garden Island lake (Croinor Pershing Mines Ltd.)
Au, Cu

Claveau et al. - 1951, p. 53
Ingham, W.N. - 1945, p. 15

Gold is found in a mineralized diorite dike. A shaft was sunk to 640 feet and four levels were developed. The company states that enough ore was found to operate a 300-ton mill for about two years. Average grade is about 0.28 ounce of gold per ton.

2 Near the NW. corner of the township (Ansley Gold Mines Ltd.)
Au

Claveau et al. - 1951, p. 51
Ingham, W.N. - 1945, p. 13

Low gold values were found in a diorite sill in volcanic rocks. The best value recorded in the drilling was 0.19 ounce of gold per ton across 1.4 feet.

3 2 miles E. of Garden Island lake (Camflo Mattagami Mines - McIntyre Porcupine Mines Ltd.)
Au

Dresser and Denis - 1949, p. 297
Bell and Bell - 1932, p. 121

Work by previous owners uncovered, in quartz-feldspar porphyries, quartz veins containing gold.

4 2.5 miles E. of the N. end of Guegen lake (Twentieth Century Mng. Co. Ltd. - Cons. Mng. and Smlt. Co. of Canada Ltd. - Anderson group)
Au

Ross and Asbury - 1939, p. 45

A shaft was put down 137 feet and work completed on the 125-foot level. The quartz veins have erratic free gold.

5 W. shore of Matchi-Manitou lake (East Sullivan Mines Ltd. - Cons. Mng. and Smlt. Co. of Canada Ltd.)
Zn, Cu

Bell and Bell - 1932, p. 122
Dresser and Denis - 1949, p. 296

Sulfide mineralization in tuffaceous rocks contains sphalerite and minor chalcopyrite. A grab sample taken by a government geologist assayed 9.97% zinc.

6 W. of (1) (Kenda Pershing Mines Ltd.)
Au, Cu

Ingham and Ross - 1947, p. 5
Ingham, W.N. - 1945, p. 21

Numerous quartz veinlets contain erratic gold. One of the better core assays returned 0.25 ounce of gold per ton across 2.3 feet. Minor chalcopyrite was noted in some veins.

7 Near the center of the SE. quarter of the twp. (Packard Pershing Mines Ltd.)
Li, Cu
Mag, Po

A.W.R.; GM-11421, 1946

Magnetite iron formations were tested for gold. Spodumene was noted in pegmatite dikes in the drill core. Some chalcopyrite was noted in quartz veins and iron formations. One assay returned 1.05% copper across 2.4 feet in magnetite iron formation with disseminated pyrrhotite.

8 E. of Garden Island lake and S. of (1) (Pershon Gold Mines Ltd.)
Au

Ingham and Ross - 1947, p. 8

Gold in surface showings and drill holes. The best assay was 0.19 ounce of gold per ton across 7.5 feet of core.

POIRIER TOWNSHIP

III - B4

1 On the N. limit of the township and 1.5 miles from the W. limit (Les Mines de Poirier Inc.)
Cu, Zn, Ag, Au

Dugas, J.; GM-14304, 1961
The Northern Miner - Aug. 20, 1964

A shaft was sunk to a depth of 1,250 feet. Surface and underground drilling has outlined a minimum of 3,500,000 tons of ore grading 1.74% copper, 3.63% zinc and 0.5 ounce of silver a ton.

2 0.5 mile from the N. limit of the township, halfway between the E. and W. limits (Northern Exploration Ltd.)
Zn, Cu, Ag

The Northern Miner - Mar. 26, 1964

"Three concentrations of sulfides have been indicated, all predominantly zinc zones carrying minor copper and silver values. In addition, there are a number of minor copper zones generally narrow in width but with values ranging from 1% to 6% copper over widths ranging from a few to as high as 20 feet... Surface drill hole evidence has given officials the feeling that the largest of the three zinc zones may make approximately half a million tons grading 9.0% zinc, 0.6% copper and 1 ounce of silver."

3 2.5 miles from the N. limit of the township, central part (East Sullivan Mines Ltd. - Southern Union Oils Ltd. - Augustus Exploration Ltd.)
Cu

Dugas, J.; GM-10563, 1961
Q.D.N.R. - 1964, p. 30

"One of the holes cut a 28.7-foot section mineralized with disseminated chalcopyrite and another one, a 28.8-foot section. The best assays were 1.45% copper over 5 feet... In addition to chalcopyrite, minor sphalerite and galena were noted in the fractures." (translated)

4 4 miles from the W. limit of the township, central part (Broulan Reef Mines Ltd.)
Cu, Zn

A.W.R.; GM-11705, 1961

Diamond drilling.

POULARIES TOWNSHIP

V - A6

1 VII - 60 (Preston East Dome Mines Ltd. - Magoma Mines Ltd.)
Au

The Northern Miner - June 27, 1963

"Recent surface sampling of the find has returned some excellent values over a length of about 150 feet."

2 VIII - 48 (Arjon Gold Mines Ltd.)
Cu

The Northern Miner - June 27, 1964
Dugas, J.; GM-14352, 1964

The mineralization occurs in andesite along the fractures, around the pillows or in pockets. It consists mostly of pyrrhotite with minor pyrite and very minor chalcopyrite.

PREISSAC TOWNSHIP

V - B6

1 VIII - 6 (Kerwin property)
Pb, Zn

A.W.R.; GM-7132, 1949
Norman, G.W.H. - 1944, map 44-9A

Shear zone mineralized with sphalerite and galena. A few silver values.

2 X - (Block F, Height of Land Mining Co. Ltd.)
Mo, Bi, Be

Cooke et al. - 1931, p. 290
Norman, G.W.H. - 1944, p. 10

"1,200 pounds of molybdenite ore is reported to have been cobbed and shipped." A 74-foot shaft and some lateral work have indicated a 3-foot pegmatite dike containing a few big molybdenite crystals, minor bismuthinite and a few beryl crystals.

3 IX - (Block E - Denommé property)
Mo

A.W.R.; GM-7226, 1958

Diamond drilling.

4 X - (Block F - Height of Land Mining Co. Ltd.); X - 22 (Authier claims)
Mo, Be

A.W.R.; GM-11718, 1961
Cooke et al. - 1931, p. 290

A shaft was sunk to a depth of about 50 feet in pegmatite in the north part of the property. A little to the south, two ore pockets containing molybdenite crystals up to 2 inches in diameter and big beryl crystals have been mined. A total of 500 pounds of molybdenite is reported to have been obtained from one of these pockets.

5 V - 9 (Preissac Molybdenite Mines Ltd.)
Mo, Bi

Q.D.M. - 1959A, p. 71
Norman, G.W.H. - 1944, pp. 6-8
Financial Post Survey of Mines - 1964

Quartz veins mineralized with molybdenite in a schist zone separating the biotite granite from the muscovite granite. There are two main veins with widths ranging between 3 and 20 feet. Reserves are estimated at 1,500,000 tons grading 0.36% molybdenite. Production began in August 1964.

6 III - 9 (Steeloy Mining Corp.)
Mo

A.W.R.; GM-683, 1944

Diamond drilling.

7 III - 11 (Anglo American Molybdenite Mining Corp.)
Mo

Q.D.N.R. - 1962, p. 27

Quartz vein with molybdenite.

8 III (Block E - Anglo American Molybdenite Mining Corp.)
Mo, Bi

Q.D.N.R. - 1962, p. 25
Financial Post Survey of Mines - 1964

The molybdenite and bismuthinite mineralization occurs in a north-striking pegmatite dike and a series of east-striking quartz veins. Estimated reserves at the end of 1962 were 3,369,500 tons grading 0.36% molybdenite and 0.052% bismuth. Production is planned for the end of 1965.

9 VII - 54
Be

Norman, G.W.H. - 1944, pp. 10-11

A pegmatite dike exposed on a length of 500 feet and a width of some 20 feet contains tantalite and minor beryl.

10 III - 4 (H. Authier claims)
Mo

A.W.R.; GM-11445, 1961

Diamond drilling.

11 VI - 40 (Dumont Nickel Corp.)
Ni

The Northern Miner - July 4, 1963

"One of the assessment drill holes returned 20 feet in peridotite averaging just under 1% nickel, while a second hole returned about 50 feet of core averaging just under 2% nickel."

PRIVAT TOWNSHIP

V - B6

1 III - 9 (Bergeron claims)
Cu

Dugas, J.; GM-9049, 1959

Shear zone in a conglomerate altered to sericite schist and cut by carbonate veinlets which in turn are cut by quartz stringers. The schistosity planes show malachite splotches at many places over a width of about 50 feet and a length of 200 feet. Chalcopyrite can be seen in places.

2 IV - 8 (Bergeron claims)
Cu, Au

Gilbert, J.-E.; GM-3398, 1955

Quartz-calcite veins in sheared andesite containing chalcopyrite and pyrite splotches and some tourmaline. Gold values up to $4.40, a little zinc, and 2% copper have been obtained in the assays.

3 I - 2 (Canalynda Copper Mines Ltd.)
Py

Q.D.M. - 1959A, p. 72

"... One of the holes intersected a zone of almost massive pyrite with graphite for a length of 200 feet."

4 V - 59 (Caron claims)
Cu

Dugas, J.; GM-3288, 1955

A mineralization consisting of almost massive pyrrhotite, of pyrite and chalcopyrite, and minor sphalerite. The mineralization occurs in felsic tuffs cut by numerous quartz stringers. The mineralized zone is 15 feet wide and exposed for 50 feet.

5 III - 43 (Commando Gold Mines Ltd.)
Au

Ingham and Ross - 1947, p. 12

Gold-bearing carbonate zone in tuffs. The zone strikes N.59°W. and is accompanied by numerous aplite dikes and quartz lenses. Visible gold was reported.

6 II - 52, 53 (Isabell claims - Bolgo Gold Mines Ltd.)
Au

Ross et al. - 1938, p. 7

"A shear zone, 1,200 feet long and 75 feet wide, in altered tuffs and lavas, has been intruded by a series of parallel veinlets and veins, from one-quarter of an inch to ten feet wide, of ferruginous quartz... The veins contain some tourmaline, pyrite and chalcopyrite, and values of $3 to $4 in gold per ton across a width of nine feet have been reported..."

7 V - 28 (Pinnacle Gold Mines Ltd.)
Au

Robinson, W.G.; GM-13265, 1948

Many sections yielded low gold assays, the best one being $4.20 over 2.5 feet.

8 III - 46 (Roulette Gold Mines Ltd.)
Au

Robinson, W.G.; GM-7417, 1948

The best gold tenor was $3.85 over 15 inches.

9 IX - 55 (Roy-Chalifour claims)
Mo, Cu

Ross et al. - 1938, p. 6

Quartz veins have been introduced into fractured granite. "... Five of these veins, three of them carrying molybdenite, have been explored by trenching. The veins vary in width from 2 to 8 feet, and they have been traced over lengths from 200 to 2,000 feet... The molybdenite is associated with pyrite, chalcopyrite, and tourmaline..."

10 IV - 41 (Trojan Gold Mines Ltd.)
Au

Ingham and Ross - 1947, pp. 14-7

Sheared tuff bands striking N59°W. and intruded parallel to the schistosity by aplite dikes and quartz veins. "... The quartz veins and stringers generally contain small amounts of ... pyrite and, occasionally, tourmaline. Visible gold associated with pyrite occurs in narrow, tourmaline-bearing quartz stringers cutting the aplite dikes and carbonatized tuffs..."

QUÉVILLON TOWNSHIP

III - D5

1 S. limit of the township at Cedar rapids on Bell river (Quebelle Mines Ltd.)
Au, Cu

Q.D.M. - 1942, p. 71

A shear zone in volcanic rocks contains pyrite, chalcopyrite and gold.

2 0.5 mile W. and 2,000 feet S. of Mile-post V on the N. boundary of the township (East Sullivan Mines Ltd.)
Cu, Zn, Ag,
Py, Po

A.W.R.; GM-12470, 1962
A.W.R.; GM-12733, 1962

A hole in graphitic tuffs returned assays of 1.32% copper, 3.68% zinc and 1.34 ounces of silver per ton across 7.5 feet. Another hole cut 14.65% zinc across 1.6 feet. The other holes had minor amounts of chalcopyrite and sphalerite with massive pyrite and pyrrhotite.

QUEYLUS TOWNSHIP

IV - J3

1 1.8 miles E. and 1.6 miles N. of the SW. corner of twp. (Cantin-Lortie claims)
Au, Cu

A.W.R.; GM-4074, 1956
A.W.R.; GM-994, 1959
Imbault, P.-E. - 1959, pp. 30-1

"The original discovery, the west showing, is at the head of the small U-shaped bay on the west side of Calmor lake... The mineralization is mainly auriferous pyrite with subordinate chalcopyrite.

"The second occurrence, the east showing, is about 900 feet north of the north-east end of Calmor lake... The vein is mineralized with auriferous pyrite and chalcopyrite mostly concentrated in the vicinity of the tourmaline and schist."

These claims were held in 1959 by Calmor Mines and optioned in that same year by Teck Exploration Corp. Ltd.

2 2.5 miles E. and 1.0 mile S. of the NW. corner of twp. (Valco Mines Ltd.)
Cu

A.W.R.; GM-5298, 1957

Following magnetic and electromagnetic surveys, Valco drilled three holes to test the anomalies. The holes disclosed nearly commercial grade in copper. There seems to exist a genetic relation between the copper and the magnetite mineralization.

RAGEOT TOWNSHIP

II - H2

1 4.5 miles E. and 3.0 miles N. of the SW. corner of twp.
Mag (Iron formation)

Gillett, L.B. - 1957, p. 4

"Iron formation about 300 feet thick is exposed in the southern half of Rageot township. It is characterized by a high magnetite content in some layers, and by lesser amounts of disseminated pyrite and siderite in others. Beds of the siliceous slate two inches to two feet thick regularly alternate with arkosic or quartzitic beds two or three times as thick. The blue slate, rich in finely disseminated magnetite, contains 32.3% Fe and 48.5% SiO_2.

According to G.S.C. aeromagnetic Map 548G (Crinkle Creek), this iron formation would extend strikewise for a minimum length of 3 miles. Farther to the east, close

to and east of the Rageot-Vienne twp. line, a similar magnetic anomaly could be interpreted as being caused by a reappearance of the same iron formation.

RAINBOTH TOWNSHIP
III - B4

1 NE. corner of the township (Kingwa Quebec Mining Co. Ltd.)
Cu

A.W.R.; GM-11552, 1961

Diamond drilling. Chalcopyrite in pyrrhotite.

RASLES TOWNSHIP
IV - H4

1 0.9 mile W. and 0.2 mile S. of the NE. corner of twp. (Dominion Gulf Company)
Au

Q.D.M. - 1956, pp. 15-6
A.W.R.; GM-2870, 1954

"... mineralized zone occurs in a tuff horizon flanked on the south by highly altered intermediate... lava. The general trend of the... zone is N.55°W. and was trenched across a width of 28 feet. The predominant sulfide is pyrite with minor... pyrrhotite. Great variation in the amount of silicification and mineralization can be observed crossing the... zone. In places quartz veins and stringers form 70% of the rock, whereas a short distance away quartz veins are negligible and the silicification less intense. In places unreplaced tuff fragments occur in the highly silicified zone, giving it the appearance of a breccia.

"The best gold tenors occur in a section 12 feet north of the tuff-lava contact. At this point a 3-foot channel sample assayed $10.15 and the adjoining 2-foot section returned $4.95. A grab sample taken 9 feet north of the contact assayed $5.95 in gold per ton."

2 2.6 miles W. and 1.8 miles S. of the NE. corner of twp. (Noranda Mines Ltd.)
Cu, Ni

A.W.R.; GM-2387, 1953
Holmes, S.W. - 1959, pp. 14-23

Sulfide replacement bodies consisting mainly of pyrrhotite with associated pentlandite and chalcopyrite were found on two adjacent islands in central Eau-Jaune lake.

"The sulfides are disseminated in irregular bodies scattered along a zone that parallels the contact of the greenstone and the Eau-Jaune intrusive for nearly 5,000 feet long. Drilling has shown that the bodies form shallow pods extending 25 to 30 feet below the surface."

"Grab samples taken systematically from different parts of the mineralized zones..." were as follows:

1) Silicified gabbro with pyrrhotite and chalcopyrite: 0.20% Cu, 0.02% Ni
2) Unsilicified . . . . . : 1.37% Cu, 0.28% Ni
3) Quartz stringer . . . . . pyrite : 2.20% Cu, 0.01% Ni
4) Wall rock close to sulfide mineralization . . . : 0.37% Cu, 0.20% Ni

3 4.7 miles E. and 3.5 miles N. of the SW. corner of twp. (Canadian Nickel Co. Ltd.)
Po Py

A.W.R.; GM-4373, 1956

"A 3-foot section of 40% pyrite-pyrrhotite was intersected at footage 250.6 in an agglomeratic horizon while drilling on the east shore of Irène lake."

4 2.2 miles E. and 0.7 mile N. of the SW. corner of twp. (Lodex Limited)
Au

Lyall, H.B. - 1959, p. 24

"The... showing is on the south end of a small island on Des Vents lake near the southwest corner of claim C.59183, cl. 3. Here, a highly sheared and carbonatized andesite contains several sigmoidally folded quartz lenses and stringers trending slightly north of east parallel to the direction of shearing. One of these lenses is composed of quartz and tourmaline and contains visible gold as disseminated flankes and as small lumps up to one-half by one-quarter inch. The rubble in the vicinity of this outcrop pans high values of gold."

RAYMOND TOWNSHIP

III - A3

1 NE. corner of the township (Lambton Copper Mines Ltd.)
Mag (Iron formation)

A.W.R.; GM-7649, 1958

Two strong anomalies were outlined by a magnetometer survey carried out in 1957.

ROCHEBAUCOURT TOWNSHIP

V - D6

1 X - 32 (Aldous property)
Au, Cu

Ingham et al. - 1949, p. 116

A shear zone in volcanic rocks is intruded by siliceous dikes and quartz veins. Gold and minor chalcopyrite can be found for a length of 180 feet and a width of 6 to 21 feet in the silicified part of the shear zone.

2 IX - 56 to 62 (Nemrod Mining Co. Ltd.)
Py, Po, Mag

Q.D.M. - 1959B, p. 20
Pyrite, pyrrhotite and magnetite mineralization in sedimentary rocks.

3 II - 40 (Cremac Surveys)
Cu
Py, Po

Latulippe, M.; GM-15829, 1964

A minor amount of chalcopyrite was noted in a carbonate vein within andesitic lavas in a drill hole. Pyrite, pyrrhotite and graphite in tuffaceous sedimentary rocks were also noted.

ROHAULT TOWNSHIP

IV - J4

1 0.2 mile E. and 250 feet S. of the NW. corner of twp. (Montgomery Mining Co. Ltd.)
Au

Graham, R.B. - 1953, p. 17
A.W.R.; GM-2364, 1953

Gold-bearing quartz stringers in a sheared tuffaceous rock. The gold is confined to the quartz which ranges from 4 to 27 inches in width. Montgomery Mining drilled 19 holes in 1952 to test this gold-bearing and easterly running pyroclastic zone.

The best assay was 0.13 ounce of gold over 0.9 feet.

2 0.3 mile E. and just S. of the NW. corner of twp. (Galloway Chibougamau Mines Ltd.)
Py, Po

A.W.R.; GM-10715, 1961

Sulfides making up 15 to 20% of the host rock and consisting mainly of pyrite and pyrrhotite with minor amounts of chalcopyrite were intersected in a sheared gabbroic rock.

3 1.3 mi. E. of the NW. corner of twp. (Min. Conc. 420, Anacon Lead Mines Ltd. - Chibougamau Explorers Ltd.)
Au, Cu

Graham, R.B. - 1953, pp. 15-6
Gilbert, J.-E.; 1959, pp. 21 and 28

"Anacon Lead Mines took control of Chibougamau Explorers at the end of 1954 and... ore reserves above the 900-foot horizon were estimated on February 1956 (date at which the 500-ton-daily-capacity mill... started operating) at 546,725 tons averaging 0.30 ounce of gold per ton and 0.93% copper."

A.W.R.; GM-1370, 1951

"The main showing consists of narrow, quartz-filled, gold-bearing cross fractures in schistose gabbro and diorite."

Financial Post Survey of Mines - 1964

Operations were suspended on Aug. 31, 1960, to conserve ore reserves pending financing for further underground development. Ore reserves, estimated at Dec. 31, 1959, were 324,000 tons averaging 0.206 ounce of gold per ton and 0.39% copper.

4 2.5 miles E. of the NW. corner of twp. (Rohault Mines Ltd.)
Au

A.W.R.; GM-8011, 1959
Q.D.M. - 1956, pp. 77-8
Graham, R.B.; GM-4606, 1956

"The property is underlain by interbanded series of sediments and basic volcanics, intruded by granites, diorites, gabbros, and lamprophyres.

"Diamond drilling in the west central portion of the property... indicates a series of... easterly-trending shear zones mineralized with pyrite and chalcopyrite to varying degrees. Some of these shear zones are gold-bearing across

narrow widths."

One of the best core assays was 0.245 ounce of gold per ton and 0.42% copper.

5 2.8 miles E. and 1.2 miles S. of the NW. corner of twp. (Noranda Mines Ltd.)
Po, Py (Iron formation)

A.W.R.- GM-2373, 1953

Massive sulfides were intersected in two holes in a graphitic mica schist.

ROQUEMAURE TOWNSHIP

V - A6

1 IX - 43 (Area Mines Ltd.)
Ag

A.W.R.; GM-11835, 1961
The Northern Miner - Sep. 21, 1961

Diamond drilling. A 7.5-foot core length contained 16.8 ounces of silver a ton.

2 IX - 40 (Area Mines Ltd.)
Cu

A.W.R.; GM-11835, 1961

Chalcopyrite in quartz.

3 II - 57
Cu

Dugas, J.; GM-13072, 1963

Chalcopyrite mineralization in a water hole drilled by the Department of Agriculture and Colonization.

ROUSSEAU TOWNSHIP

III - A5

1 II - 17 (Conwest Expl. Co. Ltd.)
Cu
Py, Po

Dugas, J.; GM-9839, 1959

Discontinuous mineralized zone containing pyrrhotite and minor chalcopyrite at the contact between an iron formation and hornblende schist. The zone is about 100 feet long. The copper content is low.

2 I - 52 (Bordeleau-Bissonnette claims)
Au

Q.D.M. - 1958, p. 38

A quartz vein in granite with an average width of one foot. The vein strikes N.75°W. and dips steeply to the NE. It is found again at a distance of 125 feet. Visible gold and assays up to 4.04 ounces a ton have been reported.

ROUYN TOWNSHIP

V - A7

1 Block 204 (New Marlon Gold Mines Ltd.)
Au

Bell, L.V. - 1937, p. 18
Ingham et al. - 1949, pp. 126-7
Claveau et al. - 1951, p. 58

"The main vein follows a weak shear that strikes N.15°W. and has an average dip of 70° east... The vein was tested with diamond drill holes, and gold-bearing intersections were obtained over a length of 2,500 feet. Underground exploration was started in 1946 and the vein was ultimately developed on six levels. The company purchased the mill at the Francoeur mine, and started milling in July 1947... During the two years of operations 108,188 tons of ore was treated and 19,170 ounces of gold produced..."

2 Block 35 (Anglo Rouyn Mines Ltd. - Pontiac Rouyn Mines Ltd.)
Au, Cu

Ingham et al. - 1949, p. 118
Claveau et al. - 1951, p. 54
Wilson, M.E. - 1941, pp. 132-5

The main vein, striking N.15°W. and dipping 60°E., occurs in a weakly sheared zone. The main minerals are quartz, white carbonate with pyrite and minor chalcopyrite, and tourmaline. Between 1948 and 1951, a total of 145,700 tons of ore was mined. The ore grades 0.24 ounce of gold a ton. Subsequent drilling has indicated two copper zones.

3 Block 60 (Powell Rouyn Gold Mines Ltd.)
Au, Ag

C.I.M.M. - 1948, pp. 739-47
Wilson, M.E. - 1941, pp. 125-32

Quartz vein, the greater part of which cuts the Powell granite. The vein strikes N.30°W., dips approximately 60°W., and follows a basic dike. The most common mineral is pyrite. Minor specularite and chalcopyrite are also found. Gold values occur in the vein and in the wall rock. From 1937 to 1955, the mine produced 3,084,647 tons containing an average of 0.13 ounce of gold per ton and some silver.

4 Block 98 (Joliet Quebec Mines Ltd.)
Cu

Annual report (Noranda Mines) - 1963
Wilson, M.E. - 1941, pp. 144
Ingham and Ross - 1947, pp. 26-7
Ingham et al. - 1949, pp. 125-6

Copper zone in rhyolitic breccia. This deposit is exploited by Noranda Mines Ltd. The ore is used as flux. In 1963, the reserves were 1,352,000 tons grading 1.0% copper.

5 Block 144 (Don Rouyn Gold Mines Ltd.)
Cu, Mo

Wilson, M.E. - 1941, pp. 144-5

Disseminated chalcopyrite in the Powell granite mass. The silica-rich rock is used as flux by Noranda Mines Ltd. Minor molybdenite is found in the deposit.

6 Block 80 (New Senator Rouyn Ltd.)
Au, Ag

Ross and Asbury - 1939, p. 23
Wilson, M.E. - 1962, p. 65
C.I.M.M. - 1948, pp. 159-62

From 1940 to 1955, this mine produced 1,837,807 tons of ore grading about 0.13 ounce of gold a ton. The ore is associated to a NW.-striking fault which dips 50°NE. and cuts quartz diorite. The ore occurred in a carbonate zone cut by quartz veins. This zone had a maximum width of 75 feet and a length of 600 feet.

7 Block 41 (Bagamac Rouyn Mines Ltd. - Tribay Mining Co. Ltd.)
Au.

Q.D.N.R. - 1964, pp. 31-2
Graham et al. - 1953, p. 47
Q.D.N.R. - 1961, p. 36
Wilson, M.E. - 1941, p. 146

"In the openings along the Bagamac fault, zones of disseminated pyrite up to 18 inches wide... were noted in places. The company reports that gold was found in some of the prospect pits but not in a deposit of workable grade and extent". A 270-foot shaft was sunk in 1933.

8 Block 1 (Noranda Mines Ltd. - Chadbourne)
Au

Annual report (Noranda Mines) - 1963
Wilson, M.E. - 1941, p. 97
Q.B.M. - 1933, pp. 82-3

Rhyolitic breccia mineralized with pyrite and gold. The reserves are 1,550,000 tons grading 0.13 ounce of gold per ton.

9 Block 15 (Noranda Mines Ltd.)
Cu, Au, Ag, Te, Se

Wilson, M.E. - 1941, pp. 82-98
C.I.M.M. - 1948, pp. 763-72

Massive sulfide deposit. Up to Jan. 1, 1964, the mine had produced 49, 171, 769 tons of ore and the reserves at this date were 6,195,500 tons grading 2.39% copper, 0.18 ounce of gold a ton and containing also minor silver and selenium. This does not include the reserves mentioned in (5) above.

10 Blocks 185 to 187 (Quemont Mining Corp. Ltd.)
Cu, Au, Ag, Zn

Annual report (Quemont) - 1963
C.I.M.M. - 1948, pp. 773-76
C.I.M.M. - 1957, pp. 405-13

Massive sulfide deposit. At the end of 1963, the mine had produced 11,520,737 tons of ore grading 0.166 ounce of gold a ton, 0.94 ounce of silver, 1.42% copper and 2.52% zinc, and the reserves were 3,360,000 tons grading 0.168 ounce of gold, 1 ounce of silver, 1.27% copper and 2.86% zinc.

11 Block 205 (Donalda Mines Ltd.)
Au, Ag .

Can. Min. Journal - Mar. 1955
Financial Post Survey of Mines - 1964
Claveau et al. - 1951, p. 55

The vein strikes N.60°W. and the dip of the various segments is 25°SW. The vein was mined for a length of 2,700 feet and down to a depth of 725 feet. The vein comprises quartz, about 5% pyrite, and minor fine-grained chalcopyrite. It contains also minor sphalerite and galena. A second vein was explored but not mined. It contains 520,000 tons grading 0.26 ounce of gold per ton. From 1948 to 1956, the mine produced 692,094 tons assaying $5.85 in gold per ton. Some silver was also recovered.

12 Block 32 (Wiltsey - Coghlan Mines Ltd.)
Au

The Northern Miner - June 19, 1958

"The quartz vein was intersected in seven holes to show a continuous length of 700 feet and was tested down to a depth of 1,100 feet. The holes indicated an average grade of 0.325 ounce of gold per ton across a core width of 3.8 feet."

13 Block 8 (Cheskirk Mines Ltd.)
Au

Ingham et al. - 1949, p. 121

"... Gold-bearing veins were intersected in both formations (granite and acid flows). The values were erratic but some were of ore or near ore grade..."

14 Block 197 (Stadacona Mines Ltd.)
Au, Ag

Hawley, J.E. - 1932, pp. 47-50
Wilson, M.E. - 1962, p. 69
C.I.M.M. - 1948, pp. 776-82

The ore zone occurs along the Stadacona fault striking northeast. It comprises parallel and cross-cutting quartz-ankerite veins. The maximum width of the zone is 20 feet but it rarely exceeds 8 feet. Beside quartz and ankerite, the zone contains tourmaline, free gold, petzite, arsenopyrite, chalcopyrite, galena, talc and chrome-bearing mica.

Between 1936 and 1958, the mine produced 3,053,420 tons grading 0.16 ounce of gold a ton.

15 X - 42 (South Dufault Mines Ltd.)
Cu, Zn

Q.D.M. - 1959A, p. 89
Q.D.N.R. - 1962, p. 27

"... The mineralization occurs in an altered acid fragmental rock and consists of chalcopyrite, in general disseminated or in stringers, but in places massive, with associated pyrite and sphalerite. According to company estimates, the deposit contains 50,000 tons with a tenor of 1.6% copper..."

16 X - 43 (South Dufault Mines Ltd.)
Au

Q.D.N.R. - 1962, p. 26

"A zone of gold mineralization 350 feet long in a northerly-trending quartz vein was outlined..."

17 Block 32 (Wilsey-Coghlan Mines Ltd.)
Cu

Ingham and Ross - 1947, p. 31
The Northern Miner - June 19, 1958, and Jan. 24, 1963

A zone of disseminated sulfides. Sections of 72.8 and 55 feet are reported to contain respectively 1.25 and 1.49% copper.

18 IX - 34, 35 (D'Eldona Gold Mines Ltd.)
Au, Zn, Ag, Cu, Pb

Annual report (Eldona) - 1952
Ingham and Ross - 1947, p. 22
Q.D.M. - 1956, p. 79
Claveau et al. - 1951, pp. 56-8

"Intersections obtained near the diabase dike gave favorable assays in gold, silver and zinc and it was decided to explore this area with underground workings... The shaft was deepened and four orebodies were developed from workings on the 700-, 850- and 1,000-foot levels. These orebodies are calculated to have 192,000 tons of ore with an average content of 0.14 ounce of gold per ton, 3.14 ounces of silver per ton and 4.3% zinc... The ore consists of disseminated and massive pyrite with sphalerite, small amounts of chalcopyrite and galena and minor amounts of visible gold, electrum and native silver..." In 1952, a total of 85,000 tons of ore containing 7.7% zinc, 0.17 ounce of gold per ton, approximately 2.5 ounces of silver per ton, minor copper and lead was shipped to the McWatters mill.

19 X - 19 (Lamarche claims)
Cu

Dugas, J.; GM-11493, 1961

Calcite veinlets mineralized with chalcopyrite.

20 VI - 61 (New Rouyn Merger Mines Ltd.)
Au

C.I.M.M. - 1948, pp. 789-96
Wilson, M.E. - 1962, p. 107

This mine came into production in 1948. Reserves were then estimated at 359,000 grading 0.21 ounce of gold per ton. In the course of seven months, a total of 32,233 tons of ore grading 0.116 ounce a ton was shipped. The ore occurs at the contact between sedimentary and volcanic rocks and forms a lens 600 feet long and 20 to 90 feet wide which is made up of carbonatized graywacke or conglomerate cut by tourmaline-bearing quartz-carbonate veins.

21 Block 196 (McWatters Gold Mines Ltd.)
Au, Ag, W, As

C.I.M.M. - 1948, pp. 783-91
Hawley, J.E. - 1934, pp. 33-44
Wilson, M.E. - 1962, pp. 97-106

Between 1934 and 1943, this mine produced 368,013 tons containing 0.33 ounce of gold per ton. The ore occurs in sheared conglomerate and graywacke and in the adjacent volcanic rocks. Quartz veins make up auriferous zones up to 40 or 50 feet in width and 400 feet long. This deposit is located between the Cadillac fault to the north and the Bowes fault to the south.

22 Block 191 (Granada Gold Mines Ltd.)
Au

Hawley, J.E. - 1932, pp. 26-43
Wilson, M.E. - 1962, p. 77

From 1930 to 1935, this mine produced 180,000 tons of ore grading 0.283 ounce of gold per ton. Quartz veins associated with a quartz-bearing syenitic porphyry mass follow the schistosity planes in conglomerate and dip 55° north. Molybdenite has been reported to occur in fractures.

23 I - 51 (Pregent property)
Cu, Zn, Ni

Dugas, J.; GM-4752, 1956
Geo. Sur. Can. - Prel. map 52-6 (MacLaren, 1952)

A mineralization of chalcopyrite, nickeliferous pyrrhotite, pyrite, and sphalerite in a shear zone. The maximum mineralized width is 5 feet.

24 VI - 4 (Abbeville Gold Mines Ltd.)
Au

Ross and Asbury - 1939, pp. 22-3

Shear zone between porphyritic rhyolite and agglomerate. "The shaft is sunk in the mineralized shear zone to a depth of 125 feet and the zone has been explored by drifting east 225 feet and west 110 feet from the shaft. Good values in gold are reported over a length of 200 feet in the fractured and silicified rhyolite, across widths up to 16 feet and averaging 6 feet. It is stated that the best gold values occur in the narrow quartz stringers mineralized with pyrite; the wide quartz veins are less valuable."

25 III - 27, 28 (Aukeko Mines Ltd. - Northern Quebec Gold Mines Ltd.)
Au

Hawley, J.E. - 1934, pp. 55-6
Wilson, M.E. - 1962, p. 81

Quartz veins and stringers cutting syenitic porphyry dikes, graywacke and conglomerate. Gold was found in some of the veins and particularly in the main vein over a 200-foot length.

26 IV - 1 (Cinderella Gold Mines Ltd.)
Au

Hawley, J.E. - 1932, pp. 50-2
Wilson, M.E. - 1962, pp. 59-60
Ingham et al. - 1949, pp. 121-2

"According to diamond drill logs, the fault zone has an average width of 175 feet and consists of chlorite-talc schist and green carbonate. Gold assays up to 0.13 ounce per ton over narrow widths were reported. The gold occurs associated with pyrite and small amounts of arsenopyrite."

27 IV - 15 (Astoria Rouyn Mines Ltd.)
Au

Q.B.M. - 1929, p. 73

"Free gold has been found in some narrow quartz veins in the south part of the group."

The Cadillac fault crosses this property and is exposed for almost all its width.

28 V - 8 (Pelletier Lake Gold Mines Ltd.)
Au

Ross et al. - 1940, p. 41
Wilson, M.E. - 1962, p. 64

"West of the south bay of Pelletier Lake deformation has been more intense than farther east. Eleven diamond drill holes put down in this area intersected numerous gold-bearing veins of quartz and zones of pyritic, carbonatized schist at intervals for 1,400 feet along the strike and for widths up to a maximum of 400 feet."

29 V - 3 (Claims M.L. 1850 - Pelletier Lake Gold Mines Ltd.)
Cu

Wilson, M.E. - 1962, p. 64

"Nine pits ranging in size from shallow blastings to openings 30 feet long, 20 feet wide, and 10 feet deep were also excavated. The wall-rock in all these is diorite highly fractured mainly in a northeasterly direction. Many of the fractures have been filled predominantly with pyrrhotite, but also with pyrite and in places chalcopyrite."

30 V - 43 (Pepmont Gold Mines Ltd.)
Au

Q.B.M. - 1934, p. 57
Wilson, M.E. - 1962, p. 86
Ross and Asbury - 1939, pp. 25-6

"Several quartz veins, up to 5 feet in width, are exposed in cross-trenches in the graywacke and conglomerate. They strike easterly and dip north... Small amounts of pyrite, arsenopyrite, and chalcopyrite are occasionally present in both the quartz and schist. Free gold occurs in the quartz and on shear planes in the accompanying schist, usually in the absence of sulfides. In general, all the free gold occurs in the schists."

31 V - 43 (Dovercliff Gold Mines Ltd. - Kinojévis Mining Co. Ltd.)
Au

Wilson, M.E. - 1962, p. 87
Hawley, J.E. - 1934, pp. 44-7

"The Shaft vein strikes N.50°E. and dips about 40°S. It consists of white to gray quartz with a dull luster. It has a width of one foot to eight inches and occurs in carbonated rhyolite and rhyolite-breccia, the walls of which are mineralized with fine pyrite and chalcopyrite. Free gold occurs in the quartz. The length of vein-matter exposed in trenches is 170 feet."

32 V - 49 (Clerno Mines Ltd.)
Au

Wilson, M.E. - 1962, p. 92

"The underground developments on the Clerno property were undertaken at the No. 1 shaft to further explore a gold-bearing zone that diamond drilling has shown to occur along the conglomerate-volcanic contact on the north limb of the

McWatters syncline, and at No. 2 shaft to follow downward a zone of schistosity in Temiskaming graywacke including gold-bearing pyritic veins of quartz."

33 III - 48 (Adanac Quebec Mines Ltd.)
Cu, Au

Wilson, M.E. - 1962, p. 96
Hawley, J.E. - 1934, pp. 60-3

"The mineral deposits are of two main types. One consists of graphitic, schistose zones in the sedimentaries, mineralized heavily in places with pyrrhotite, pyrite, and, locally, a little chalcopyrite... The other type of deposit appears to be later than, though perhaps related to, the first, and consists of quartz veins and lenses, in places cutting graphitic schists. They are mineralized slightly with sulfides, and in a few of them free gold has been found."

A 500-foot shaft has been sunk.

34 IV - 51 (Beauchamp property - Lemire claims)
Au

Hawley, J.E. - 1934, pp. 57-60
Wilson, M.E. - 1962, pp. 106-7

Quartz veins in graywacke and conglomerate containing pyrite, tourmaline and arsenopyrite.

"It is reported that systematic sampling of the veins exposed in the property showed gold to be present locally in considerable amount but the average grade was too low for the gold to be profitably mined."

35 X - 35 (Dourad Mines Ltd.)
Au

Ingham, W.N. - 1945, p. 29

"... Hole No. 4 in southern lot 35 intersected a silicified shear zone from which a core length of 3.5 feet assayed 0.11 ounces of gold per ton."

36 VIII - 62 (East Bay Gold Ltd.)
Au

A.W.R.; GM-14917, 1945
Ingham et al. - 1949, p. 129

Shear zone containing quartz lenses and veinlets in a diorite mass. Both quartz and schist are mineralized with pyrite and arsenopyrite. Erratic gold values are reported either in the quartz or in the schist.

37 IX - 46 (El Pen Rey Oils and Mines Ltd. - Guardian Gold Mines Ltd.)
Au

Ambrose, J.W. - 1941, pp. 43-4

"The main showing consists of two large quartz veins near the south side of claim R-27142. The northern and best exposed vein strikes north 50° east and dips vertically. It has been exposed in a series of cross-trenches at intervals of 20 to 50 feet over a length of 300 feet. In this length its width ranges from 18 to 48 inches and will probably average 24 inches... Channel sampling

of the main vein gave $13 over mineable widths in places, but the average was disappointingly low."

Galena is also mentioned.

38 VII (Glencona Mines Ltd.)
Au

A.W.R.; GM-652, 1950

Diamond drill logs.

39 Block 59 (Héré Fault Copper Ltd.; Powell-Rouyn Gold Mines Ltd.)
Cu

Wilson, M.E. - 1941, p. 128
Q.D.N.R. - 1961, p. 34

"... The mineralized zones consist of copper-bearing quartz veins and disseminated sulfide zones in the volcanic rocks..."

40 Block 204 (Marcon Mines Ltd.)
Pb

A.W.R.; GM-13972, 1962

Shown on geological map.

41 VI - 3 (Miller claims)
Cu, Ni

Dugas, J.; GM-10981, 1960

"The rock (diorite) is generally mineralized with disseminated patches of pyrrhotite and chalcopyrite up to one inch in diameter."

42 III - 27 (Pantan Mines Ltd. - Northern Quebec Gold Mines Ltd.)
Au

A.W.R.; GM-2385, 1952
Hawley, J.E. - 1934, pp. 64-6

"... forest fires and trenching have exposed a large number of syenite-porphyry dikes along the contact between Temiscamian conglomerate and graywackes, and in or near some of these, quartz veins containing spectacular showings of free gold have been found."

43 IV - 9 (Dransfield claims)
Au

Hawley, J.E. - 1934, pp. 49-51

"A large number of white or gray, vitreous quartz veins occur in the sediments, paralleling the bedding... The majority consist of quartz with a little white sericite and are apparently barren, but a few contain tourmaline, pyrite, arsenopyrite, pyrrhotite, and gold. In vein No. 17, free gold was reported in two places..."

44 VII - 15 (Red Gold Mining Co. Ltd.)
Au

A.W.R.; GM-11938, 1937
A.W.R.; GM-11339, 1962

Diamond drill logs.

45 III - 35 (Regent Gold Mines Synd. Ltd.)
Au

Ross, S.H. - 1941, p. 30

"... The sediments are sheared and cut by several quartz veins and stringers mineralized with pyrite accompanied by gold." A 225-foot shaft was sunk on one of these veins.

46 VIII - 49 (Dallaire claims; Séguin claims)
Au

Q.B.M. - 1933, part A, p. 75
Hawley, J.E. - 1934, pp. 64-5

"Here, in low out crops of Keewatin agglomeratic and tuffaceous rocks, 800 feet north and about 500 feet west of the prominent olivine-gabbro (diabase) dike which parallels the southeast shore of Rouyn lake,free gold occurs in thin seams of quartz."

47 Block 26 (Tribag Mining Co. Ltd.)
Au, Cu

Dugas, J.; GM-12799, 1963

"One of these holes having cut some sections mineralized with chalcopyrite, the zone was explored with holes drilled on the 1,000- and 1,250-foot levels... A hole drilled at the corner of Pelletier and Gamble streets assayed 0.91 ounce of gold over 2 feet." (translated)

48 V - 14 (Wright Rouyn Mines Ltd. - Shaw claims)
Au

Wilson, M.E. - 1962, p. 68
Q.B.M. - 1932, p. 95

"Fine disseminated pyrite is associated with the quartz, and some free gold has been found."

ROY TOWNSHIP

IV - J3

1 3.4 miles E. and 0.5 mile S. of the NW. corner of twp. (Atlas Chibougamau Mines Ltd.)
Cu

Archibald, G.M. - 1959, pp. 16-17

"The claim group is underlain mostly by easterly-trending andesites and feldspathic sedimentaries...

"The mineralization discovered on the Atlas Chibougamau property prior to 1956 consisted of a chalcopyrite-bearing easterly-trending shear zone."

2 4.5 miles E. and 2.3 miles S. of the NW. corner of twp. (Atlas Chibougamau Mines)
Cu
Po (Iron formation)

A.W.R.; GM-4879, 1957
Duquette, G. - 1964, pp. 15-16

"... a copper-bearing zone was found, prior to 1956, in sheared andesite at a point located approximately 2,000 feet north of Oreille lake (east). Trenching and drilling of 27 holes for a total of 1,140 feet were undertaken, late in 1955, to test the possible extension of this mineralized shear zone.

"Early in 1956, a resistivity survey was carried out over the property and, later in the year, some of the anomalies outlined by the survey were investigated by a total of 9,982 feet of drilling distributed over 21 holes.

"Early in 1956, the company undertook a new programme of surface exploration, which led to the discovery of three new copper-bearing zones in sheared andesite. According to engineers' report, the main showing is located about 1,200 feet south of the western tip of Oreille lake (east), on claim 4, C-88325. The mineralization is reported to consist of chalcopyrite, enargite, azurite, and malachite. However, two X-ray holes... failed to intersect the zone at depth."

3 3.6 miles W. and 4.9 miles S. of the NE. corner of twp. (O'Leary Malartic Mines Ltd.)
Cu

A.W.R.; GM-11579, 1961
Assad, J.R.; GM-10577, 1960

The showing consists of pyrrhotite and chalcopyrite mineralization in moderately fractured but otherwise massive pyroxenite. The pyroxenite is moderately uralitized and the sulfides occur both as fine dissemination in the rock and as small concentrations in fractures. In general the chalcopyrite occurs most commonly as a coating along fracture surfaces.

In all, five holes,distributed over a strike length of 1,000 feet, were drilled in 1960 by O'Leary Malartic.

4 0.1 mile W. and 2.7 miles S. of the NE. corner of twp. (Montreal Trust Co.)
Cu
Po (Iron formation)

A.W.R.; GM-3229, 1955
Mawdsley and Norman - 1935, pp. 91-92

"A mineralized zone occurs in the volcanics on Rapid river, 3,000 feet west of the Roy-McCorkill township line. The zone can be followed for about 250 feet along the river... Volcanics (massive greenstone and banded siliceous rocks) across a width of 20 feet are heavily stained due to the weathering of sparsely disseminated sulfides, but the mineralization is moderately intense only across a width of 6 feet. The sulfides are principally pyrrhotite, with a little pyrite, chalcopyrite and probably sphalerite."

Nine holes were drilled by Montreal Trust in 1955 over the band of pyroclastic rocks in contact with ultrabasic rocks just north of Rapid river.

5 1.1 miles E. and 4.1 miles S. of the NW. corner of twp. (Quebec Smelting and Refining Limited)

Cu

A.W.R.; GM-4543, 1957
Duquette, G. - 1964, pp. 13-14

"... A total of eight thousand feet was drilled over 13 holes. The majority of these holes were drilled to test the possible extension of two copper showings located 1,200 feet northwest and 1,100 feet northeast of the point of junction of the main road with the road leading to the Mt. Cummings R.C.A.F. station. In both places, sulfides consisting mostly of pyrrhotite with a little chalcopyrite have replaced tuffaceous rocks... in contact to the north with basic intrusions. Drilling results were apparently disappointing."

6 3.6 miles S. and 3.2 miles E. of the NW. corner of twp.
Zn, Cu

Duquette, G. - 1964, p. 12

"Copper-zinc mineralization was encountered in pyroclastic rocks of the Lac Blondeau formation at a point located 1,800 feet east and 1,100 feet north of Mile-post 2 on range-line VI-VII. Two grab samples collected by (A. Mathieu in summer 1962 assayed:)

Specimen	Weight of Sample	Copper %	Zinc %
62F.-5563B.	1/2 lb.	0.26	3.13
62F.-6654C.	3 oz	0.09	2.36

7 0.4 mile W. and 4.0 miles S. of the NE. corner of twp. (Taché Lake Mines Ltd.)
Po (Iron formation)

A.W.R.; GM-4776, 1957

In 1956, Taché Lake Mines drilled four holes to test a conductor previously outlined by geophysical methods, and located 3,500 feet ENE. of Lymburner lake. One of these holes intersected a copper-bearing sulfide zone in fine-grained tuffaceous rock. The mineralization consisted of massive pyrrhotite and light chalcopyrite in short brecciated sections and fractures. The average tenor over 36 feet of core was 0.22% copper and 0.029% nickel.

A grab sample collected by A. Mathieu in 1964 while mapping for the Department and assayed at the provincial laboratories gave 0.042 ounce of gold and 0.963 ounce of silver per ton, 3.77% copper, 0.00% nickel and 0.74% zinc.

8 2.0 miles E. and 3.3 miles N. of the SW. corner of twp. (Grandines Mines Ltd. - Roybar Chibougamau Mines Ltd.)
Cu, Mo

A.W.R.; GM-2130, 1952
Ingham et al. - 1949, p. 134

"The main zone consists of a lenticular sulfide replacement deposit in albite-oligoclase granite... The zone... explored by several rock trenches along a length of 300 feet, averages 36 feet in width... averages 3% copper and 0.03 to 0.05 ounce in gold per ton... The mineralization consists of pyrite, chalcopyrite, and minor amounts of molybdenite. The zone is cut by quartz stringers and specularite veins 1/2 inch thick."

Locally considerable magnetite is associated with the pyrite.

Horscroft, F.D.M. - 1958, p. 13

"The main deposit, known as the Grandines sulfide zone, occurs in granite at 700 to 1,000 feet north of Portage bay. A zone with copper-gold-molybdenum mineralization trends northerly and dips to the east. According to Company reports of September 1956 indicated ore is estimated at 450,000 tons averaging 2.25% copper and 0.03 ounce of gold. Pyrite occurs extensively in light-colored tuff and acidic lava flows for a distance of 1,500 feet east of the Grandines sulfide zone."

9 3.2 miles W. and 5.5 miles S. of the NE. corner of twp. (O'Leary Malartic property)
Po, Py (Iron formation)

Gaucher, E.H. - 1959, pp. 9-10
A.W.R.; GM-7934, 1956

The zone measures 1,300 feet in length and ranges in width from 85 feet to 185 feet. It strikes N.50°W. and dips 80° to the southwest. The sulfides occur in a tuff in contact with an amphibolitic basic rock. Although the whole sulfide zone would not contain more than 10% pyrrhotite, pyrite and minor chalcopyrite, a band of sulfides, lying immediately adjacent to the basic rock, was estimated to contain 50% sulfides. The width of this band varies from 15 to 30 feet and is within the main sulfide band. Ten holes totalling 4,493 feet were put down to test the sulfide body. Graphite is locally present in great quantity.

10 1.0 mile W. and 5.8 miles S. of twp. NE. corner (Taché Lake pyrrhotite zones - Swanson Mines Ltd.)
Po

Gaucher, E.H. - 1959, p. 10
Mawdsley and Norman - 1935, pp. 90-1

"The Taché Lake (north and south) mineralized zones strike about south 60° west... The mineralization occurs in massive, chloritic rocks... and consists largely of pyrrhotite occurring in veinlets and disseminated in the country rock. The chalcopyrite... in places forms 5% of the rock. The chalcopyrite occurs as tiny, irregular seams with the pyrrhotite and in places with quartz and pyrrhotite in small veinlets."

A.W.R.; GM-4870, 1956

Two major sulfide zones were found on the Swanson property. The South zone strikes N.65°E. and is 33 feet wide at the surface and approximately 680 feet long. The mineralization consists of massive sulfides containing pyrite, pyrrhotite and small amounts of chalcopyrite. The North zone strikes N.70°E. It is 400 feet long and averages 35 feet in width at the surface. The mineralization in this zone consists of pyrite, chalcopyrite and pyrrhotite. Sulfides are not as massive as those shown in the southern zones.

Only traces of nickel were found associated with the pyrrhotite.

Seventeen holes were drilled in 1956 to test these two sulfide zones. Best results were seen in Hole 53, where 0.35% copper was obtained from a 20-foot section consisting of disseminated chalcopyrite in sheared gabbro.

11 1.0 mile E. and 7.3 miles S. of the NW. corner of twp. (Min. Conc. 28, Block B, Portage island (Chibougamau) Mines Ltd.; North zone)
Mag (Iron formation)

A.W.R.; GM-8618, 1959

This company investigated two magnetite zones in 1958. A preliminary estimate of the metallic content in the North zone was 25.64% iron and 1.20% titanium dioxide. The South zone is described in (19) of this township.

12 2.2 miles E. and 7.0 miles S. of the NW. corner of twp. (Min. Conc. 29, Block C, Portage Island (Chibougamau) Mines Ltd.)
Cu

A.W.R.; GM-4013, 1956
A.W.R.; GM-7861, 1959

Considerable drilling was carried out in Hematite bay, on the northeast shore of Portage island, to test favorable structural conditions combined with known copper occurrences. Several copper-bearing zones have been outlined. Of these, the "A", "C", and "D" zones have been the most completely outlined. They strike east to N.70°E. and dip from 75 to 50° south. All mineralizations occur as replacement in volcanic agglomerate adjacent to granite.

A combined length of 1,280 feet of sulfide zones with 2% copper across widths from 8 to 13 feet has been indicated by diamond drilling in the A, C, and D zones.

13 2.3 miles E. and 7.9 miles S. of the NW. corner of twp. (Min. Conc. 29, Block C, Portage Island (Chibougamau Mines Ltd.)
Cu

Chibougamau Mining Commission - 1911, pp. 193-203
Mawdsley and Norman, 1935, p. 87

"... Work on this property, consisting of twenty-five cuts and pits and a shaft 35 feet deep, was completed before 1910... Rocks in the vicinity of the workings are altered gabbroic rocks that are marginal to anorthosite. Along the borders of the quartzose deposits... the rock is sheared to a schist... the schist in places is high in chlorite; in others it is heavily impregnated with iron carbonate... and in still other places it contains an appreciable amount of pyrite, occasionally with some chalcopyrite... The quartz occurs in lenses, spurs from the lenses, and stringers... A bulk sample from this deposit, assayed by the commission, yielded 0.07 ounce of gold to the ton, 47% of which was free-milling. One selected sample of granular pyrite from cells in quartz ran as much as 2.0 ounces in gold, to the ton, but various other samples gave much lower returns. A little silver, as well as copper, is also present."

Assad, J.R. - 1957, pp. 23-4
A.W.R.; GM-7861, 1957

Three holes were drilled by Portage Island (Chibougamau) Mines Limited on the old McKenzie quartz vein. One hole gave 0.04 ounce of gold and 1.2% copper over 6 feet. Another hole gave 0.05 ounce of gold and 1.3% copper over 2 1/2 feet and 0.13 ounce of gold and 3.4% copper over 1 foot.

14 2.6 miles E. and 7.9 miles S. of the NW. corner of twp. (Min. Conc. 29, Block C, Portage Island (Chibougamau) Mines Ltd.)
Cu

Chibougamau Mining Commission - 1911, p. 203
Horscroft, F.D.M. - 1958, p. 15
Mawdsley and Norman - 1935, p. 87

"At Copper Point anorthosite is shattered and mineralized with chalcopyrite, pyrrhotite, and pyrite. The sulfides occur in veinlets and also disseminated in the rocks adjacent to the veinlets. The mineralization is exposed by stripping and trenching over an area approximately 30 feet in diameter. It is irregularly distributed, lacks any definite trend, and nowhere is it concentrated in amounts of economic importance. The relative abundance of the three sulfides vary. Some veinlets are almost pure chalcopyrite with very little granular quartz. The Chibougamau Commission reports that the selected samples of chalcopyrite assayed 0.12 ounce of gold and 1.34 ounces of silver per ton, and that selected samples of pyrrhotite carried gold 0.06 ounce and silver 0.33 ounce a ton, and nickel 0.48%."

A.W.R.; GM-7860, 1959

Protage Island (Chibougamau) Mines drilled that zone in 1959. Two of the best intersections were 2.70% copper and 0.057 ounce of gold per ton over 18.5 feet and 1.21% copper and 0.14 ounce of gold per ton over 17.5 feet.

15 5.0 miles W. and 2.5 miles N. of the SE. corner of twp. (Sulfur Converting Corporation)
Po (Iron formation)

Horscroft, F.D.M. - 1958, pp. 16-17
Mawdsley and Norman - 1935, pp. 88-9

"A sulfide replacement deposit consisting of masses of pyrrhotite with a little chalcopyrite and pyrite occurs along the contact of the volcanics and serpentine (related to anorthosite) 2,000 feet south of Bear Bay, on claims held in 1934 by Noranda Mines Limited and Consolidated Chibougamau Goldfields. The deposit was thoroughly explored by trenching and drilling in 1929-30 by Dome Mines Limited... Brown, heavily rust-covered outcrops indicate that the mineralization extends eastward from the trenches for a further distance of 1/2 mile, the total length of the mineralized zone being at least 4,000 feet and possibly more. The mineralization is not of uniform intensity throughout the zone, since sulfide replacement is bunched in lenses separated by sparsely mineralized intervals."

Graham, R.B.; GM-1723, 1952

"A typical cross-section of the pyrrhotite-rich part of this easterly running zone is exposed in a trench 850 feet west of the bare knob of Sorcerer Mountain...

"The chalcopyrite content of the mineralized zone is low everywhere and in the trench here above described does not average more than 1 to 2% across any appreciable width. A little sphalerite accompanies the other sulfides in a few places. Very little if any quartz introduced.

"Drill cores exhibit the same general type of mineralization at depth (500-foot depth) as seen on the surface, showing clearly that mineralization is not confined to the volcanics, but occurs also in the serpentine for many feet away from the contact."

This band of pyrrhotite does not appear to have been tested systematically for nickel.

16 4.2 miles W. and 2.4 miles N. of the SE. corner of twp. (Roycam Copper Mines Ltd.)
Po (Iron formation)

Gaucher, E.-H. - 1959, p. 9

"North of Magnetite bay, the zone is located along the contact between the magnetite formation and the basalt on top of Sorcerer Mountain. Drill holes put down on this property intersected a 30-foot zone containing between 10 and 50% pyrrhotite. The true extent of the zone was not outlined, but well mineralized outcrops were found along the eastern contact, as far as the fault displacing the iron formation. The mineralized zone extends westward to the ground held by Sulphur Converting." It is the easterly extension of the Sulphur Converting pyrrhotite zone.

A.W.R.; GM-5190B, 1957

Three holes were drilled by Roycam Copper Mines over that pyrrhotite zone in 1957. Low copper assays and traces of nickel were obtained.

Assad, J.R. - 1957, pp. 24-5

"... The mineralized zone... appears to be steeply inclined. The mineralization represents a massive replacement of sheared volcanic rocks by pyrrhotite, pyrite, some magnetite and minor chalcopyrite. Grab samples... reported to have assayed 0.6 to 1.0% copper. At the east end the mineralized shear zone appears to be confined to a band of crumpled basic tuffs adjacent to the serpentine, whereas at the west end the mineralization extends into, or occurs wholly within, the magnetite-bearing serpentine."

A systematic search for nickel in that pyrrhotite band has apparently not been carried out.

17 5.0 miles E. and 2.2 miles N. of the SW. corner of twp. (Cambridge Syndicate - North deposit of Magnetite bay)
Mag (Iron formation)

A.W.R.; GM-1222, 1951

Sampling was carried out in 1950 by the Cambridge Syndicate over the entire length and width of the magnetite showing. The samples were assayed at the provincial laboratory. This iron formation represents an ultrabasic differentiate of the Chibougamau anorthositic mass.

Archibald, G.M.; GM-5537, 1957

Roycam Copper Mines drilled six holes in 1957 for a total length of 2,956 feet. Twenty-foot lengths of core were taken at 100-foot intervals and analysed. The results gave an average of 28% iron and 1.07% titanium dioxide.

A.W.R.; GM-4600, 1956

The average width of the iron formation is 512 feet over a length of 5,500 feet. This is an area of 2,816,000 square feet. From a tonnage factor of 9 cubic feet per ton, the tonnage per vertical foot is 311,780 tons. To a depth of 500 feet there would be 155 million tons.

The South deposit of Magnetite bay is described in (23) of this township.

18 0.1 mile W. and 2.7 miles N. of the SE. corner of twp. (Campbell Chibougamau Mines Ltd. - Consolidated Mining and Smelting - Chevrette showing)
Cu

Allard, G.; GM-7645, 1957
Gaucher, E.-H. - 1959, p. 8

"Many mineralized shear zones occur in the anorthosite of the area. The most important of these appears to be the one which was explored by Chibougamau Mining and Smelting Co., (3 holes in 1957), north of Nepton bay. This zone contains, over an approximate length of 50 feet and an average width of 2 feet, a mixture of pyrrhotite and quartz grading about 4% copper. A representative sample collected from this zone assayed 3.12% copper, 0.094 ounce of gold, and 0.16 ounce of silver per ton."

19 8.8 miles S. of the NW. corner of twp. (Bateman Bay Mining-Portage Island (Chibougamau) Mines Ltd.; South zone)
Mag (Iron formation)

A.W.R.; GM-4078, 1956

A magnetite deposit occurs in a gabbroic phase of the transition zone on the south shore of Gouin peninsula.

A drill hole through this deposit cut a continuous mineralized core length of 45 feet. This zone has an indicated length of 4,800 feet and a width of from 50 to 500 feet.

A.W.R.; GM-8618, 1959

The investigation of the south magnetite zone of Portage Island (Chibougamau) Mines Limited was completed in 1958. A preliminary estimate of the metallic content is 22.71% iron and 1.27% titanium dioxide.

A.W.R.; GM-7861, 1959

Eight samples were taken from the south zone and sent to Lakefield Research Ltd. for concentration tests.

20 2.2 miles E. and 8.2 miles S. of the NW. corner of twp. (Min. Conc. 466, Block J, and 493, Block L.; Henderson mine - owned by Campbell Chibougamau Mines Ltd.)
Cu

The Mining Industry in Chibougamau - 1962

The orebodies lie in the anorthosite member of the Chibougamau intrusive complex. The anorthosite has been more or less completely saussuritized and is termed meta-anorthosite. With the exception of a few dikes, this is the only rock type encountered in the mine.

The dominant structural control of the Henderson orebodies is a strong shear zone measuring 50 to 200 feet in width, striking between N.20°E. and N.45°E. and dipping 25° to 45° to the east.

Two types of orebodies have been outlined. Both are hydrothermal but quite different in character.

The "A" orebodies are in a fracture zone with an intense brecciation along the footwall that grades into weak shattering along the hanging-wall. The "G" and "B" orebodies are massive replacements within the northeast shear zone.

The "A" zone is considered a copper zone, whereas the "G" and "B" zones are copper-gold zones with appreciable cobalt.

In the "A" zone, chalcopyrite and pyrrhotite are predominant and pyrite is fairly abundant. The chief gangue minerals are quartz, green chlorite, apatite, actinolite and calcite.

In the "G" and "B" zones, pyrite is the most abundant metallic mineral. It contains appreciable amounts of gold, cobalt and nickel. This is followed by chalcopyrite, pyrrhotite, cobaltite and magnetite. Ankerite is the most abundant gangue mineral, followed by quartz and chlorite.

Start of production: mid- 1960.

Rate of mining (1963) - 1,000 tons per day.

Reserves, as of June 1963:
proved ore - 1,594,338 tons grading 2.29% copper and 0.077 oz. Au.

probable ore - 5,941,530 tons grading 2.43% copper and 0.059 oz. Au.

21 1.8 miles E. and 8.6 miles S. of the NW. corner of twp. (Min. Conc. 462, Block I, Portage mine - owned by Patino Mining Corp.)
Cu, Au

The Mining Industry in Chibougamau - 1962

The deposit occurs in a zone of intense alteration in meta-anorthosite. The zone varies in horizontal width from 75 feet to 700 feet. It has an average strike of N.45°E. and an average dip of 45° to the east.

The main structural feature of the deposit is a strong shear zone with the same average dip and strike as the alteration band. The shear ranges in horizontal width from 40 to 200 feet. Generally this shear occurs in the more intense alteration where it has a core of quartz-carbonate but it does enter the outer zone of altered anorthosite in places.

Mineralization occurs as: a) replacements in the shear zone and in quartz-carbonate zones; b) as fault-filling; c) as disseminations and as fracture-filling in the shattered gabbro zone (east end of zone). The sulfides consist of chalcopyrite, pyrite, pyrrhotite and minor sphalerite and arsenopyrite. Appreciable gold values occur throughout the deposit and are found in association with pyrite. A fair amount of nickel is locally present.

Start of production: mid-1959

Rate of mining (1963): 700 tons per day.

Reserves (proved and probable) as of December 1963: 1,086,000 tons grading 2.11% copper and 0.183 ounce of gold per ton.

22 3.1 miles E. and 0.8 mile N. of the SW. corner of twp., Marguerite island (Quebec Smelting and Refining Limited - Baker Talc Mines Ltd.)
Mag (Iron formation)

A.W.R.; GM-4543, 1956
A.W.R.; GM-5206, 1958

Drilling has revealed disseminated and elongated narrow magnetite bands in serpentinized peridotite which is related genetically to the Chibougamau anorthosite.

23 6.0 miles E. and 1.3 miles N. of the SW. corner of twp. (Campbell Chibougamau Mines Ltd. - South deposit of Magnetite bay)
Mag (Iron formation)

A.W.R.; GM-12965, 1962

Preliminary studies of the magnetic profiles have indicated a zone 9,000 feet long and 500 feet wide containing 20 to 25% iron.

This iron band, as well as the one 1 mile to the north of it (see 17), is serpentinized ultrabasic layers related genetically to the Chibougamau anorthosite.

24 1.8 miles N. and 2.6 miles W. of the SE. corner of twp. (Campbell Chibougamau Mines Ltd. - Lempira Mines Ltd.)
Ag, Cu, Zn

A.W.R.; GM-12073, 1962
A.W.R.; GM-10482, 1960
Gaucher, E.-H. - 1959, pp. 8-9

"Near the southern limit of the property of Lempira Mines Limited, numerous gray dikes have intruded a shear zone. Sphalerite, pyrrhotite, and pyrite were found in a trench along this zone. Samples collected by the writer showed an average grade of 0.9% copper, 0.7% zinc, 0.01 ounce of gold, and 1.4 ounces of silver per ton. According to the company reports, a vein that was intersected in deep diamond drilling of the zone assayed up to 100 ounces of silver per ton for a rather limited width. Native silver was seen in some of the samples of core."

A.W.R.; GM-4565, 1957

New York Honduras and Rosario Mining drilled seven holes on that silver zone.

Specks of native silver, blebs of sphalerite and sparse fine chalcopyrite comprise 99% of the metallics. A little galena and pyrrhotite are locally present and, in one instance, magnetite.

The host rock is anorthosite. In general the greater the silver content, the weaker is the alteration.

25 1 mile W. and 1.9 miles N. of the SE. corner of twp. (Duvex Oils and Mines Ltd.)
Cu

Gaucher, E.-H. - 1959, p. 9
Assad, J.R. - 1957, pp. 21-2

"In 1952, 5,600 feet of diamond drilling was carried out on a small island in the southern part of C.48642, claim 3, to explore a mineralized shear on the northwest side of the island. In the winter of 1955-56 an E-M survey of the property was made. This was followed by additional drilling to the amount of 4,016 feet in eight holes. All of these last holes, except No. 5, were drilled on or near the small island mentioned above.

Hole No. 1 intersected a schistose zone of anorthosite intruded by a gray dike. Quartz-chalcopyrite mineralization is present in the area of the dike with the intersection 167.8 feet to 174 feet (6.2 feet) assaying 1.57% copper.

Hole No. 6 intersected a mineralized zone in sheared anorthosite between 240 feet and 290 feet with the best portion, 260 feet to 275 feet (15 feet), assaying 0.85% copper. Chalcopyrite is the chief sulfide; it occurs as fine stringers and as a dissemination. Quartz, minor pyrite, and pyrrhotite, and conspicuous molybdenite are associated minerals."

ROYAL-ROUSSILLON TOWNSHIP

V - A5

1 IV - 39 (Caron claims)
Au

Ross, S.H.; GM-10603, 1941

A 1.5-foot quartz vein parallel to the schistosity planes in andesite.

2 IV - 6 (Cartier Exp. Co. Ltd. - Quebec United Mines Ltd.)
Cu, Au

Ross et al. - 1938, p. 5
Gilbert, J.-E.; GM-2497, 1953

A shear zone, 4 to 45 feet wide, occurs at the contact between syenite and volcanic rocks. The zone is mineralized with sulfides consisting mostly of massive pyrite with chalcopyrite in places. A 12-pound sample assayed 3.33% copper and 0.15 ounce of gold a ton.

3 I - 39 (Denis claims)
Ag, Pb, Cu

Dugas, J.; GM-13947, 1962

Three quartz veins, 4 to 10 feet wide, in a schist zone. The veins are mineralized locally with pyrite and minor chalcopyrite. Silver values have been obtained.

4 VI - 58 (Roy claims)
Py, Po

Q.D.M. - 1956, p. 81

"... In one trench massive sulfides can be seen across a width of 9 feet."

SAINTE-HÉLÈNE TOWNSHIP

III - B3

1 NE. corner of the twp., Subercase river (Noranda Mines Ltd.)
Cu

A.W.R.; GM-10193, 1960
Q.D.N.R. - 1964, p. 32

Low copper values in graphitic sedimentary rocks and diabase.

2 See 1.

3 See 1.

SAINT-LUSSON TOWNSHIP

II - K1

1 3 miles W. and 6 miles N. of the SE. corner of twp., Mistassini area
Pb, Zn

Wahl, W.G. - 1953, pp. 27-8

"Galena and sphalerite... occur in the dolomite on both sides of Temiscamie river near the southern boundary of the map-area... in dolomite... near faults... The fragments of dolomite in the brecciated zones are surrounded by a coarse-grained, buff-weathering carbonate, and all of the observed mineralization is in these zones. On the west side of the river, eight occurrences of lead-zinc mineralization were seen in a half-mile exposure of the brecciated dolomite. Galena is the dominant mineral, with some sphalerite. In places, the sulfides form irregular masses as much as a foot in diameter. The galena commonly protrudes above the enclosing rock and weathers white. On the east side of the river, two occurrences of sphalerite and galena were found. In these, dark, red-brown sphalerite forms irregular masses as much as a foot in diameter."

SAUSSURE TOWNSHIP

IV - G3

1 1.1 miles E. and 4.9 miles S. of the NW. corner of twp. (Ridgefield Uranium Mining Corp. Ltd.)
Py

A.W.R.; GM-4711, 1957

Three sulfide zones were outlined by magnetometer survey and diamond drilling near the junction of Obatogamau and Chibougamau rivers. The mineralization consists of narrow bands of disseminated to nearly massive pyrite and/or pyrrhotite with minor amounts of chalcopyrite. The mineralization occurs in schistose feldspathic sedimentary rocks trending easterly.

SCOTT TOWNSHIP

IV - H3

1 2.6 miles W. and 1.0 mile S. of the NE. corner of twp. (McKay (Quebec) Exploration Ltd., William Lake group - Scott Chibougamau Mines Ltd. - Chibougamau Copper Corporation Ltd.)
Cu

Q.B.M. - 1937, p. 101

On the south shore of William lake, just below water level, a 6-inch lens of massive chalcopyrite was found in greenstone intruded to the south by a narrow band of anorthosite by McKay (Quebec) Exploration Ltd. in 1935. The drilling done by the above company showed quartz-chalcopyrite-pyrite mineralization with associated carbonate, over narrow widths in a sheared greenstone. A core assay of 0.31 ounce of gold per ton was reported.

A.W.R.; GM-2520, 1953
A.W.R.; GM-12762, 1963

In 1956, Chibougamau Copper Corporation Ltd. did almost 16,000 feet of drilling in the vicinity of the showing. Several holes cut sections of ore-grade copper. Two of the best sections returned 3.39% copper over 6.4 feet and 2.85% copper over 5.0 feet.

2 1.6 miles W. and 0.7 mile S. of the NE. corner of twp. (Bar-Le-Duc Chibougamau Mines Ltd.)
Cu

A.W.R.; GM-2578, 1954

Disseminated pyrite and chalcopyrite were intersected while drilling granitic rocks in contact to the north with the Chibougamau anorthosite and felsitic tuffs about 1 mile north of David lake. One hole yielded 3.85% copper over 1 foot and 1.36% copper over 0.5 foot.

3 0.6 mile W. and 0.5 mile S. of the NE. corner of twp.
Zn

Mawdsley and Norman - 1935, pp. 69-70

"A mile north of lake David... in a black quartz-bearing rock... a shear zone... strikes N.87°W. and dips 72°N... In the dark quartz-bearing rock, a zone of two feet, rich in carbonate contains four stringers rich in sphalerite ... Stringers... are sinuous... strike about N.50°E. and they dip 80° to the northwest. The veins probably contain: 5% pyrite...; 70% light-colored sphalerite, containing minute particles of chalcopyrite; and 25% white granular quartz."

4 2.8 miles W. and 2.2 miles S. of the NE. corner of twp. (Chibougamau Mining and Smelting Co. Inc.; Group "O")
Cu, Au

A.W.R.; GM-4052, 1957

Diamond drill hole O-2 cut a 0.5-foot section of 1.70% copper and 0.040 ounce of gold a ton. The hole was drilled 1/2 mile east of the north end of Simon lake in granitic rock.

5 1.2 miles W. and 1.5 miles S. of the NE. corner of twp. Ramsay showing - O'Leary Malartic Mines Ltd. - Scott Chibougamau Mines Ltd. - Millkirk Chibougamau Mines Ltd.)
Au, Cu, Ag

A.W.R.; GM-60, 1936
A.W.R.; GM-2192, 1953
A.W.R.; GM-3687, 1956

The Ramsay showing is an east-west shear zone in granite containing quartz, pyrite, pyrrhotite, chalcopyrite, sphalerite and gold. It is exposed on a granite hill, north of David lake, and disappears beneath a swamp to the east. For 230 feet west of the swamp the zone returned interesting values in gold and copper with a small amount of zinc over widths of 0.8 to 4.5 feet. The best values obtained in surface sampling were 1.905 ounces of gold per ton, 3.38% copper and 0.25% zinc over a width of 2.7 feet.

Millkirk drilled nine holes in 1956 to test five geophysical anomalies. In hole No. 4, a 1.5-foot intersection at footage 410.1 gave 0.640 ounce of gold per ton, 5.00 ounces of silver per ton, and 5.99% copper.

6 4.2 miles W. and 3.4 miles S. of the NE. corner of twp. (McKay (Quebec) Exploration Ltd. - Laurentide (Chibougamau) Mines Ltd. - Deschênes Island showing)
Au, Cu

Q.B.M. - 1937, pp. 99-100

A gold-copper-bearing quartz-carbonate zone was outlined by trenching and drilling in the anorthositic complex of Chibougamau at the north end of Deschênes island of Simon lake.

"Trenching over a north and south distance of 700 feet or so had disclosed quartz veins within the northern 500 feet of this length. All the veins vary in

width along their length and some of the quartz is in irregular patches rather than in distinct veins. In the central 200 feet of the vein zone there are several fairly persistent, successive and parallel veins, some of them joined by branches of quartz. In places, nearly 50% of the rock over widths up to 20 feet consists of quartz, in parallel veins from a few inches to 3 feet wide; but in other places only narrow stringers of quartz occur. At the north end of the trenching, at the lake shore, there is a vein or mass of quartz, 10 feet wide in an E.-W. direction, which narrows to a few small stringers within 15 feet or so both to the north and to the south. About 25 feet to the SE. of this vein, another vein, 1 to 4 feet wide, has a length of 50 feet. Its direction varies from SE. to nearly NE. The veins along the main N.-S. zone usually trends from N. to nearly NE. Most of them dip about 45° to the W...

"Much of the vein appears barren, but locally it is... mineralized with pyrite (and minor chalcopyrite)... Free gold has been observed in the quartz and (gold and copper) values have been obtained from assays of the quartz and the mineralized wall-rock."

Eight holes were drilled on the property prior to 1936.

A.W.R.; GM-900, 1950
A.W.R.; GM-4660, 1956

Laurentide (Chibougamau) Mines Ltd. drilled four holes for a total of 176 feet. The best hole gave 0.05 ounce of gold and 0.25% copper over a core length of 14.1 feet (0.9 foot to 15.0 feet). Two grab samples from trench No. 4 gave 0.25 ounce of gold and 0.65% copper, and 0.070 ounce of gold and 4.75% copper.

7 1 mile E. and 4.7 miles S. of the NW. corner of twp. (McKay (Quebec) Exploration Ltd.; Scott Lake group - Lambton Copper Mines Ltd.)
Cu

Q.B.M. - 1937, pp. 101-2
A.W.R.; GM-5736, 1957

Following completion of magnetic and electromagnetic surveys, Lambton Copper Mines drilled 8,445 feet over 14 holes in 1956. One hole cut a 1/2-foot section of 9.80% copper, in anorthositic rock. Disseminated pyrite and chalcopyrite in quartz-carbonate shear zones within the anorthositic complex of Chibougamau were also located on one of the big islands at the south end of Scott lake.

8 3.8 miles E. and 4.7 miles N. of the SW. corner of twp. (Crown Chibougamau Mines Ltd. - Chibougamau Miners Syndicate)
Zn, Cu, Au

A.W.R.; GM-4462, 1956
A.W.R.; GM-3325, 1955

In the south end of Simon lake, an outcrop forms an island of 20 by 10 feet, and contains a shear zone with stringers, 1/2 inch to 4 inches in width, of quartz, pyrite, yellow sphalerite, and traces of chalcopyrite. The shear zone is exposed over the length of the island and has a width of 6 feet. The strike is N.50°E. and the dip is 65° to 20° SE. A sample taken across a 4-inch quartz-sulfide vein gave 0.14 ounce of gold per ton, 0.24% copper, and 11.28% zinc.

9 3.2 miles W. and 4.7 miles S. of the NE. corner of twp. (Smith Claims - Gibson Chibougamau Mines Ltd. - McKay (Quebec) Exploration Ltd.)
Au

Q.B.M. - 1937, p. 100
A.W.R.; GM-4022, 1956
A.W.R.; GM-10840, 1936

"A gold-bearing quartz-carbonate vein striking N.15°W. and dipping 50°W. was located in the transition zone of the anorthositic complex of Chibougamau at about 3/4 mile west of the south end of David lake. The vein was traced by McKay (Quebec) Exploration for a length of 380 feet, but is barren of gold where intersected by drill holes and trenches, except for a 20-foot length section containing spectacular free gold. Two samples yielded 87.13 and 14.44 ounces of gold per ton."

The property was acquired in 1956 by Gibson Chibougamau Mines, which did during that year some more surface work (resistivity and magnetometric). In 1963, two X-ray holes were drilled by that company.

10 2.5 miles W. and 4.8 miles N. of the SE. corner of twp. (Cnibougamau Miners Syndicate)
Cu, Mo

A.W.R.; GM-3377, 1955

Half a mile south of David lake, small veins of quartz, pyrite, chalcopyrite and molybdenite occur in shear zones of the Chibougamau anorthositic complex.

A grab sample of the best mineralization gave 1.60% copper.

11 4.2 miles W. and 2.3 miles N. of the SE. corner of twp. (Chibougamau Mining and Smelting Co.; Phelps Dodge Corp. of Canada Ltd. Option - Amalgamated Mining Development Corp. Ltd. - Chibougamau Mining and Smelting Co.)
Cu

A.W.R.; GM-9231, 1959
A.W.R.; GM-10633, 1960
A.W.R.; GM-10339, 1960

A crescent-shaped band of magnetic highs, which can be traced southeasterly for 10 miles from the Campbell Lake - Gwillim Lake fault, was investigated by the Phelps Dodge Corp. of Canada Ltd. during 1958-59 and by Amalgamated Mining Development Corp. Ltd. during 1960-61.

From the G.S.C. geological mapping and the diamond drilling done by the above companies, the magnetic trend appears to be underlain to the north by gabbro and diorite of the Chibougamau anorthosite complex, and to the south by quartz-hematite-magnetite-bearing granite. These rocks are altered and shattered.

In the eastern portion a zone of copper mineralization has been traced by Amalgamated Mining Development Corp. Ltd., for a strike length of 2,200 feet by diamond drilling. Some mineralization has also been encountered some 7,200 feet farther west. In both places the mineralization consists mainly of magnetite with pyrite and chalcopyrite along fractures.

Phelps Dodge Corp. of Canada Ltd., also did some diamond drilling in the eastern portion of the magnetic anomaly.

12 3.8 miles E. and 2.8 miles S. of the NW. corner of twp.
Au

Norman, G.W.H. - 1941, map 401A (East half)

A gold-bearing quartz occurrence is indicated on Norman's map at the rapids

between Scott and Simon lakes. "Most of the gold-bearing quartz veins and shear zones in the map-area carry pyrite and they may also contain pyrrhotite, chalcopyrite and,rarely, sphalerite. Associated non-metallics include iron-rich carbonate, green mariposite(?) and tourmaline. A few veins contain arseno-pyrite."

13 4.2 miles E. and 4.2 miles S. of the NW. corner of twp.
Au

Norman, G.W.H. - 1941, map 401A (East half)

A gold-bearing quartz occurrence is shown on Norman's map. It is on a small island in the Western portion of Simon lake. "Most of the gold-bearing quartz veins and shear zones in the map-area carry pyrite and they may also contain pyrrhotite, chalcopyrite and rarely sphalerite. Associated non-metallic minerals include iron-rich carbonate, green mariposite(?) and tourmaline. A few veins contain arsenopyrite."

SENNETERRE TOWNSHIP

V - D6

1 IV - 61 (Gilligan claims)
Mo

Latulippe, M.; GM-5808, 1957

Quartz veins in the contact area of granitic and volcanic rocks contain molybdenite.

2 III - 62 (Bush claims)
Cu

Bell and Bell - 1934, p. 70
Dresser and Denis - 1949, p. 79

In the center of the lot quartz veins along a siliceous dike in volcanic rocks have chalcopyrite mineralization.

3 I - 39, 40 (Dubuisson Mines Ltd.)
Au

Q.B.M. - 1946, pp. 65-6

Gold has been found in lots 39 and 40, Range I, Senneterre township.

4 I - 38 (Transterre Exploration Co. Ltd.)
Au

Company reports

At least 50 holes were drilled in lots 35 to 38 to explore gold-bearing feldspar porphyry dikes cutting andesitic rocks. Numerous assays of economic interest were reported by the company engineer from lot 38.

5 II - 23 (Fortin claims)
Zn, Au

Bell and Bell - 1934, p. 70
Dresser and Denis - 1949, p. 79

Sphalerite with pyrite can be seen in tuffaceous rocks. Gold was also noted in a quartz vein.

6 II - 14, 15 (Italia Copper Ltd.)
Cu

A.W.R.; GM-3962, 1956

Chalcopyrite mineralization, filling fine fractures in volcanic rocks and disseminated in chlorite schist and the contacts of quartz veins, was noted at the west end of the lots.

7 VII - 39; VIII - 38, 39 (Grenier-Bilodeau claims)
Mo, Bi

Q.D.M. - 1959A, p. 76

Molybdenite mineralization was noted in quartz veins, in tuffaceous rocks, and in granite. Bismuth was also noted.

8 V - 35; VI - 36 (Lavoie-Simard claims)
Mo, Zn, Cu

Q.D.M. - 1956, p. 82

Numerous scattered veinlets of quartz in pyritized tuffs contain molybdenite, sphalerite and minor chalcopyrite. The best value in a drill hole was 3.32% molybdenite across 1.1 feet.

9 VII - 17 (Senneterre Metals, Gas and Oils Ltd.)
Cu, Zn

A.W.R.; GM-3708, 1955

A minor amount of chalcopyrite and sphalerite in a drill hole at the south end of the lot.

10 V - 29, 21 (Thibault claims)
Mo, Cu

Q.D.M. - 1959B, p. 21

Minor chalcopyrite with pyrite and pyrrhotite mineralization in tuffs was noted at the north end of lot 29. Molybdenite mineralization, in quartz veins and bedding planes, can be seen in at least two places at the north end of lot 31.

SENNEVILLE TOWNSHIP

V - C7

1 II - 61 (Perron Gold Mines Ltd. - Matthews Gold Mines Ltd.)
Au, Cu

Bell, L.V. - 1933, p. 41

A small incline shaft was sunk on a quartz vein carrying visible gold in the granodiorite of the Bourlamaque batholith. Chalcopyrite is also present in the vein.

2 III - 61 (Resenor Gold Mines Ltd. - Coffin Mining Co. Ltd.)
Au, Cu, Mo

Bell, L.V. - 1933, p. 29

Small silicified fractures in the granodiorite of the Bourlamaque batholith are mineralized with free gold, chalcopyrite and molybdenite.

3 I - 62 (Sladen Somers claims)
Cu

Ross, S.H.; GM-8504, 1941

A fair amount of chalcopyrite in a diamond drill hole was noted in the south part of the lot. The mineralization is in an altered and silicified zone in granodiorite.

4 IV - 39 to 42 (Senvil Mines Ltd.)
Au, Cu, Zn

Ingham et al. - 1949, p. 136

Visible gold in one spot and minor chalcopyrite and sphalerite were seen in quartz veinlets within diorite in drill holes. A fair amount of pyrrhotite was also noted in the diorite.

5 IV - 33 to 37; V - 34, 35 (Hudson Bay Expl. and Dev. Co. Ltd.)
Cu, Zn, Au, Ag

A.W.R.; GM-14574, 1962

Chalcopyrite and sphalerite disseminations in the volcanic rocks. These generally occur as veinlets with quartz and other sulfides. Silver and gold are present in some veinlets. Visible gold was noted in one of the six diamond drill holes put down on these claims.

6 B - 10, 11 (Crangold Mines Ltd.)
Cu, Zn

Claveau et al. - 1951, p. 62

Chalcopyrite and sphalerite mineralization was noted in two diamond drill holes in volcanic rocks at the east end of the lots.

7 III - 37, 39; IV - 19 to 23 (Celta Que. Expl. Co. Ltd.)
Au, Cu

Ross et al. - 1938, p. 16
Dresser and Denis - 1949, p. 258

Gold was found in a quartz vein within a feldspar porphyry dike on lots 19-23. On lot 37 drilling cut the sheared and mineralized contact between granodiorite and volcanic rocks. The mineralization consisted of chalcopyrite and pyrrhotite. A small auriferous vein was cut by a drill hole in lot 79.

SOISSONS TOWNSHIP

III - C4

1 IV - 4
Cu

Tiphane, M. - 1948, p. 10

Chalcopyrite mineralization in small quantities was noted at the south end of the lot.

SURIMAU TOWNSHIP

V - B7

1 Across Rapid VII road, 2.5 miles S. of the N. limit of the township (Surimau Minerals Ltd.)
Ni, Cu, Zn, Mo

Q.D.N.R. - 1961, p. 37

"The main mineralization occurs in an east-west shear which has been traced by trenching and stripping for 1,400 feet... The mineralization is irregularly distributed along the shear zone. It consists mostly of pyrrhotite, pyrite and, locally, some chalcopyrite and sphalerite. Graphite is also present... The drilling shows a consistent low grade zone, generally below 0.25% copper-nickel and 3% zinc... Molybdenite is also reported in a pegmatite dike."

2 Central part of the township, west of Rapid VII road (Victoria Copper Zinc Mines Ltd.)
Cu, Zn, Ni

Q.B.M. - 1956, p. 86

"... A large easterly-striking body of basic to ultrabasic rock which extends across the southern part of the group of claims... Two main zones of metallic mineralization have so far been discovered on the property; they are confined to the north and south contacts of the intrusive body and the sedimentary rocks. Pyrite and pyrrhotite with small amounts of chalcopyrite, sphalerite and pentlandite are the main metallic minerals... The value of combined zinc, copper and nickel varies between $2.00 and $3.00 per ton..."

3 3/4 mile E. of Mile-post 16 on the N.-S. center line of the township (Lacoursière-Darveau property)
Be

Q.D.N.R. - 1964, pp. 32-3

Beryl crystals in pegmatite dikes. The distribution is erratic.

TAVERNIER TOWNSHIP

V - D7

1 SE. corner of township (Lacoma Gold Mines Ltd.)
Au, Cu

Dresser and Denis - 1949, p. 289
Bell, A.M. - 1933, p. 79
Bell, L.V. - 1937, p. 83

The gold is found in a system of quartz-carbonate veins in volcanic rocks. A shaft was put down 263 feet. The gold is erratically distributed in quartz-carbonate veins which are discontinuous lenses in highly carbonatized volcanic rocks. Minor chalcopyrite was noted in some veins.

2 Central part of the NW. quarter of the township (Clark - McHoull claims)
Au

Dresser and Denis - 1949, p. 289
Bell and Bell - 1934, p. 71

Gold was discovered in quartz veins in and along a 5- to 10-foot-wide porphyry dike cutting volcanic rocks.

THÉMINES TOWNSHIP

III - D5

1 I - 37 to 39; II - 26 (Hudson Bay Expl. and Dev. Co. Ltd.)
Cu, Zn

Latulippe, M.; GM-11458, 1961
A.W.R.;GM-11419, 1960

Minor amounts of chalcopyrite and sphalerite were noted in drill holes at the south end of lot 26 and the north end of lots 37 to 39. The chalcopyrite and sphalerite occur as specks in thin massive pyrite and pyrrhotite beds.

TIBLEMONT TOWNSHIP

V - D7

1 On the largest island in the NW. corner of the township (Tiblemont Cons. Gold Mines Ltd. - Tiblemont Island Mining Co. Ltd.)
Au, Te, Bi, Mo

Dresser and Denis - 1949, p. 284
Bell, L.V. - 1937, p. 71
Ross and Asbury - 1939, p. 43
Ross et al. - 1940, p. 43
Bell and Bell - 1934, p. 49

The gold is in quartz veins in granodiorite and diorite within the Pascalis-Tiblemont batholith. A shaft was put down to 515 feet. Plans were drawn up to begin production but the last war intervened. The gold is coarse and erratically distributed. For open-pit mining it was calculated that 250,000 tons of ore is available averaging approximately 0.09 ounce gold per ton. There are other gold-bearing veins only partly explored on the property. Bismuth, tellurium, chalcopyrite and molybdenite were noted in very minor amounts in the quartz veins.

2 NE. end of Tiblemont lake (Smith-Tiblemont Mines Ltd. - Jacob Smith and Associates)
Au

Dresser and Denis - 1949, p. 283
Bell and Bell - 1934, p. 51
Bell, L.V. - 1937, p. 78

Quartz veins along the edge of a granodiorite mass contain gold. A shaft was sunk to 170 feet and approximately 600 feet of lateral work was carried out. A vein was opened up which gave 0.226 ounce of gold per ton for a length of 75 feet and a width of 2.5 feet. There are other parallel vein systems that contain gold.

3 E. central part of the NW. quarter of the township (Vianor Malartic Mines Ltd. - Wahu Mines Ltd. - Wood claims - Romac Mines Ltd.)
Au, Cu, Bi, Ag

Dresser and Denis - 1949, p. 284
A.W.R.; GM-3045, 1955

Quartz veins in granodiorite along the north edge of the Tiblemont-Pascalis batholith contain gold and chalcopyrite, bismuth and silver. A shaft was put down to 117 feet. The gold was erratically distributed in the veins.

4 Along the western limit of the SE. quarter of the township (South Tiblemont Mining Co. Ltd.)
Au, Zn, Bi, Te

Dresser and Denis - 1949, p. 285
Bell and Bell - 1934, p. 58

Quartz veins within granodiorite and diorite of the Tiblemont-Pascalis batholith contain coarse gold, minor sphalerite and tetradymite (bismuth telluride). The gold was erratically distributed in the quartz veins. A shaft was sunk 240 feet.

5 Central part of the SE. quarter of the township (Blairdon Gold Mines Ltd.)
Au, Cu, Pb

Dresser and Denis - 1949, p. 286

Gold in quartz veins in the granodiorite near the east edge of the Tiblemont-Pascalis batholith was discovered in the early thirties. A shaft was put down 100 feet. The two best veins have 0.45 ounce of gold per ton across 15 inches for a length of 55 feet. Minor chalcopyrite and galena were also noted in the veins.

6 On the N. shore of the most easterly island in the E. bay of Tiblemont lake (Reeve claims)
Au

Bell and Bell - 1934, p. 42 and p. 54

Free gold was found in a quartz veinlet.

7 6,000 feet W. and 3,500 feet S. of the township centre-post
Au

Geological compilation map - SW. quarter of Tiblemont twp.

Free gold was found in a quartz veinlet by a government geologist in 1954.

8 SE. part of the SW. quarter of township (Reeve claims, South group)
Au, Cu

Bell, A.M. - 1933, p. 88

Quartz veins within the granodiorite of the Tiblemont-Pascalis batholith contain gold and chalcopyrite.

9 2 miles S. of Cons. Tiblemont mine shaft, in the NW. quarter of the township
Mo

Bell and Bell - 1934, p. 55

Molybdenite was reported in granitic rocks within the Tiblemont-Pascalis batholith.

10 W. central part of the SE. quarter of township (Martyn-Sweet claims)
Au, Pb

Dresser and Denis - 1949, p. 286
Bell and Bell - 1934, p. 60

Gold with minor galena in quartz veins within the granodiorite of the Tiblemont-Pascalis batholith was reported.

6 VII - 49 (Mallich claims)
Cu, Zn, Pb

Q.D.M. - 1959A, p. 78

"... The host rock is rhyolite and rhyolite breccia with patches of altered chloritic rock... The mineralization occurs mainly in the chloritic rock and in the rhyolite, and consists of pyrite, pyrrhotite, chalcopyrite, sphalerite and sparse galena..."

7 IX - 46 (Maxim Mining Corp. Ltd.)
Cu, Zn

Q.D.M. - 1956, p. 87

"The main prospect is located just south of the central part of lot 46, Range IX. It consists of schistose dacite intruded by a branching, northwesterly-trending feldspar porphyry dike and containing an easterly-trending zone of pyrite, chalcopyrite and sphalerite..."

8 VI - 62 (Northcliffe Mines Ltd.)
Au

Robinson, W.G.; GM-7177, 1946

Visible gold.

URBAN TOWNSHIP

IV - G5

1 3.3 miles W. and 0.8 mile N. of the SE. corner of twp. (Claims Honsberger-Stee)
Au

A.W.R.; GM-7192, 1947
Ingham et al. - 1949, pp. 138-9
Milner, R.L. - 1943, pp. 17-20

"In alternating bands of acidic schists (rhyolite and tuff) and basic volcanics cross the property in a general N.70°E., dipping steeply north... on the south shore of Rouleau lake, a mineralized zone occurs at the southern margin of a wide band of highly sheared siliceous tuff... Mineralization appears to have been associated with quartz.

"The following assay results of channel sampling have been taken from Company report:

Trench No. 1... $2.85 in gold per ton over 34 feet.
Trench No. 2... $2.84 " " " " " 32.6 feet..."

2 1.1 miles E. and 1.4 miles N. of the SW. corner of twp. (Aumacho River Mines Ltd.)

Cu

A.W.R.;GM-11304, 1961

This company drilled four holes during the winter of 1960-61.
Several quartz-carbonate sections in andesitic rock were intersected while drilling 2,000 feet east of Macho river. Two of these sections from holes collared 500 feet west of the Milner shear zone are mineralized with pyrrhotite and chalcopyrite.

3 1.3 miles E. and 1.5 miles N. of the SW. corner of twp. (Aumacho River Mines Ltd. - South Robin showing)
Au

A.W.R.; GM-11742, 1962

Fourteen holes were drilled by Aumacho in 1961 over the Milner shear zone (South Robin Showing) which is a zone of carbonatized and quartz-injected andesite some 800 feet wide and 7,000 feet in length. Mineralization is sparse and where present is restricted to the more highly-injected portions, which in places yield a pyrrhotite-chalcopyrite association, generally silver-gold bearing to some extent.

4 1.1 miles E. and 2.1 miles N. of the SW. corner of twp. (Jack Wood property - Robin Showing - Aumacho River Mines Ltd.)
Au

A.W.R.; GM-11742, 1962

Ore grade values in the Robin showing are restricted to a narrow vein occupying an east-west fracture in a rock which appears to be a quartz-feldspar tuff.

5 1.5 miles E. and 3.0 miles N. of the SW. corner of twp. (Milner gold zone; North and Farchell showings - Aumacho River Mines Ltd.)
Au

Claveau et al. - 1951, pp. 64-5

"The Farchell vein consists of a group of complex structures... in... a... more or less continuous shear of general southerly trend extending 100 feet through a series of trenches with possibly an extension southward of an additional 100 feet... The Farchell vein appears to be the southward extension of the North shear. The Farchell vein being not quite in line with the North shear, a fault is assumed along NE. where... lies an acid dike... The main shear of the Farchell vein is occupied by a narrow quartz vein varying in width from 10 to 2 inches... The only assay results available on the main shear at the time of the visit gave values in gold of 8.84 ounces per ton across 4 inches, 0.10 ounce across 18 inches, 8.33 ounces across 2 inches, and 0.19 ounce from a grab sample." Host rock is tuff.

A.W.R.; GM-11742, 1962

The 1948-49 trench and drilled records indicate that the ore does not extend either laterally or to depth.

6 0.5 mile E. and 3.0 miles N. of the SW. corner of twp. (Quebec Smelting and Refining Corporation)
Au

Ingham et al. - 1949, pp. 139-40

Shear zones were located between the Macho and Panache rivers in the altered andesitic lavas north of the granite intrusive. These shears, striking N.45°E. to N.75°E., are usually mineralized with pyrrhotite and pyrite, minor chalcopyrite and molybdenite.

Auriferous quartz lenses occur where these shears were deformed. Gold also occurs in quartz-filled tension fractures subsidiary to these shears. The gold values are generally erratically distributed and low, but samples from some of these showings have returned high assays.

URFE TOWNSHIP

III - E3

1 2.5 miles N. of the SE. corner of the township (Osisko Lake Mines Ltd.)
Cu

Po

A.W.R.; GM-9220, 1959
A.W.R.; GM-9213, 1959

A minor amount of chalcopyrite was noted in surface showings and drill holes. The mineralization is mostly massive and disseminated pyrrhotite in sedimentary rocks.

VALRENNES TOWNSHIP

III - B4

1 4.0 miles W. and 2.5 miles N. of the SE. corner of the twp. (Conwest Exploration Ltd.)
Cu, Zn

A.W.R.; GM-10727, 1960

Diamond drilling.

2 3.5 miles W. and 4.0 miles N. of the SE. corner of the twp. (Conwest Exploration Ltd.)
Py,Po

A.W.R.; GM-10730, 1960
A.W.R.; GM-6616, 1958

Diamond drilling.

3 2.5 miles W. and 3.0 miles N. of the SE. corner of the twp. (Massval Mines Ltd.)
Cu, Zn, Ag

A.W.R.; GM-11447, 1961

Diamond drilling.

4 About 1 mile NE. of (3) (Philippon Syndicate)
Cu

The Northern Miner - Nov. 28, 1963

Surface showing

VANIER TOWNSHIP

III - B5

1 V - 1
Pb

Personal observation (Dugas, J.)

A few specks of galena in graywacke.

2 I - 40
Cu

Ross, S.H. - 1959, p. 13

"... Sulfide minerals are exposed in a prospect pit 5 feet deep; they consist of pyrite and chalcopyrite concentrated in a band 2 feet wide which strikes N.65°E. and dips steeply to the southeast."

VASSAL TOWNSHIP

V - C5

1 IV - 1
Cu

Longley, W.W. - 1946B, p. 18

A large irregular quartz vein at the southeast end of Vassal lake contains scattered pockets of chalcopyrite.

2 I - 20 to 28 (Dolsan Mines Ltd.)
Mag

A.W.R.; GM-7546, 1958

Magnetite iron formations and sedimentary rocks with pyrite can be seen in these lots. Two holes were drilled through the formations. The best intersection was 18.72% iron across 67 feet.

VASSAN TOWNSHIP

V - C7

1 SW. corner of township (Norlartic Mines Ltd. - Norbenite Malartic Mines Ltd.)
Au, Ag

Ingham, W.N. - 1945, p.6
Ingham et al. - 1949, p. 101
Claveau et al. - 1951, p. 65

Total production between 1959 and 1963 was worth 2.5 million dollars. The ore reserves at the end of 1962 were given as 394,000 tons grading 0.15 ounce of gold per ton. Most of the gold is found in quartz veins filling fractures in a strong shear zone which cuts diorite and syenite.

2 I - 39 (Siscoe Gold Mines Ltd.)
Au, Ag, W

Dresser and Denis - 1949, p. 240
Auger, P.-E. 1947, p. 23

This property straddles the township line Dubuisson - Vassan. Mining was done in both townships. During the period 1929-1949, 30 million dollars' worth of gold was extracted. The gold was found in quartz veins in a granodiorite plug which is probably an apophysis of the Bourlamaque batholith. Gold was also found in a strong shear zone on this lot.

3 I - 42 to 49 (North Siscoe Gold Mines Ltd. - Siscoe Extension Gold Ltd. - Stanley Siscoe Gold Mines Ltd.)
Au, Cu

Auger, P.-E. - 1947, p.32
Dresser and Denis - 1949, p. 255

A shaft was put down 750 feet in lot 43, Range I. Gold was found in lenticular masses of sulfides containing pyrite, chalcopyrite and pyrrhotite, and in quartz veinlets cutting diorite, granodiorite, porphyry masses and volcanic rocks.

4 In the S. part of the township (Western Quebec Mines Ltd. - Dorval-Siscoe Gold Mines Ltd. - Camp Bird Mines Ltd.)
Au, Cu, Pb, Zn

Dresser and Denis - 1949, p. 254
Auger, P.-E. - 1947, p.34
Ingham, W.N. - 1945, p. 37
Ingham et al.- 1949, p. 143

This property is located on islands and in the bed of DeMontigny lake. A shaft was put down 343 feet and 3,700 feet of lateral work on the 300-foot level was completed. Gold is found in quartz veins cutting granodiorite, diorite and porphyry. Chalcopyrite, galena and minor sphalerite are found in some of the quartz veinlets.

5 I - 54 to 56, 62 (Crangold Mines Ltd.)
Au, Cu

Q.D.M. - 1956, p. 83

Gold is found in quartz veinlets in fractures in a small granodiorite mass. The best assay was 1.8 ounces of gold per ton across 10 inches. Chalcopyrite mineralization was noted in a hole drilled in the southeast corner of lot 62, on the west shore of Blouin lake, by a former owner of the property.

6 I - 6 to 11 (Amlartic Gold Mines Ltd.)
Au

Ingham et al. - 1949, p. 141

Thirty-seven holes were drilled. Two auriferous zones were discovered on the property. Some of the better values in ounces of gold per ton were 0.164 across 11.3 feet, 0.187 across 4.6 feet, 0.33 across 4.0 feet, 0.24 across 4.8 feet, 0.14 across 5.3 feet, 0.12 across 9.2 feet and 0.83 across 1.2 feet.

7 II - 1 to 7 (Nealon Mines Ltd. - Citralam Malartic Mines Ltd.)
Au

Ingham et al. - 1949, p. 94

At least 18 holes were drilled on the Vassan part of the property. The best intersection across 11.0 feet of quartz vein returned 0.12 ounce of gold per ton.

8 II - 41 (Nemrod Mining Co. Ltd. - Higginson Gold Mines Ltd.)
Au

A.W.R.; GM-2225, 1952
A drill hole through volcanic rocks cut 3.2 feet of quartz vein mineralized with pyrrhotite and chalcopyrite. The gold content assayed 0.19 ounce per ton.

9 III - 62 (Brossard claims)
Cu

A.W.R.; GM-2504, 1953
A.W.R.; GM-2505, 1953

Chalcopyrite mineralization can be seen at surface in trenches at the south end of the lot. The best grab assay gave 4.92% copper.

10 III - 12 (Noranda Exploration Ltd. - Barnes-Leach option - Dome Exploration Ltd.)
Au

Graham et al. - 1953, p. 52

Visible gold was noted in a hole drilled in 1937 at the south end of the lot.

11 II - 11 (Proteus-Burbank property)
Au

A.W.R.; GM-13412, 1963

Located in Range II of Vassan township, and covering the south part of lot 11 and the six adjacent water claims. A hole drilled in the lake assayed 0.14 ounce of gold per ton across 1.0 foot and 0.40 ounce per ton across 0.5 foot.

VAUQUELIN TOWNSHIP

V - D7

1 N. central part of the NW. quarter of the township (Aurora Mines Ltd. - Bruell Gold Mines Ltd. - Avocalon Mining Syndicate Ltd. - Spence-Burton claims)
Au

Tolman, C. - 1940, p. 16
Bell, L.V. - 1937, p. 78
Ross et al. - 1938, p. 25

Gold, in quartz veins within volcanic rocks and feldspar porphyry dikes, was discovered in the early thirties. Three shafts were sunk. One of these, 125 feet deep, had 1,000 feet of lateral work completed. At least 68 diamond drill holes were put down.

2 NW. corner of the SW. quarter of the township (Val d'Bell Mines Ltd. - Blair-McDonald claims)
Cu, Au

Bell, A.M. - 1933, p. 91

Chalcopyrite with pyrite can be found in tuffaceous rocks on this property.

3 NW. corner of the NE. quarter of the township (Blair-McDonald discovery)
Au

Bell and Bell - 1934, p. 61

Gold was found in quartz veins in granitic rocks.

4 S. central part of the SW. quarter of the township (Raymond Tiblemont Gold Mines Ltd. - Blue Grass option)
Au, As

Tolman, C. - 1940, p. 14
Ross et al. - 1938, p. 26
Ross et al. - 1940, p. 44

Free gold with arsenopyrite mineralization in quartz veins within sedimentary rocks was round. The gold is erratically distributed. In drilling the best value was 0.26 ounce of gold per ton across 5.0 feet.

5 NE. quarter of the township (Boycon Pershing Mines Ltd. - Storey claims)
Au

Claveau et al. - 1951, p. 67
Dresser and Denis - 1949, p. 295

Free gold in quartz veins within sedimentary and dioritic rocks was found. Fifty-two drill holes were put down. The values from this work were low except for two 6-inch sections of 1.20 and 0.97 ounces of gold per ton. Chalcopyrite and arsenopyrite were also reported.

6 5 miles E. and 1 mile N. of the SW. corner of the township (Chimo Gold Mines Ltd. - Quemartic Mines Ltd.)
Au, As

Ingham et al. - 1949, p. 145
Tolman, C. - 1940, p. 15
Latulippe, M.; GM-15140, 1964

Numerous quartz veins mineralized with arsenopyrite, sparse chalcopyrite and visible gold were found in surface trenching and in drill holes. To mid-1964, a total of 55,000 feet of drilling in 89 holes had been completed. A 600-foot shaft was being sunk in the last half of 1964. An ore-bearing zone, at least 2,700 feet long and 500 feet wide, was partly tested by drilling. It begins at Range-line I-II on the north-south center line of the township. A magnetite iron formation is the characteristic rock type with gold-bearing quartz veins along its edges. The best lens within the zone was estimated to contain 175,000 tons grading 0.517 ounce of gold per ton.

7 W. central part of the SW. quarter of the township (Nubell Gold Mines Ltd. - Cleaver claims)
Au

Dresser and Denis - 1949, p. 293
Ross et al. - 1938, p. 24
Bell, L.V. - 1937, p.68

Gold in quartz stringers in volcanic rocks and in feldspar porphyry dikes has been reported.

8 One mile S. of the E. bay of Vauquelin lake (Cons. Mng. and Smelting - Forsans claims - Black River Mng.)
Au, As

Bell, L.V. - 1937, p. 78
A.W.R.; GM-15338, 1964

Quartz veinlets in quartz-feldspar porphyry dikes on this property have free gold. At least 26 holes were drilled. Some of the better results, in ounces of gold per ton, were: 2.02 across 2.1 feet, 0.72 across 6.6 feet, 0.32 across 10.9 feet, 0.30 across 4.3 feet and 0.12 across 10.2 feet.

9 NW. quarter of the township; SE. block of ground between Bell river and the S. part of Gueguen lake (Rayon d'Or Mines Ltd. - Dalquier Mining Syndicate)
Au

Bell, L.V. - 1937, p. 78
Ingham and Ross - 1947, p. 36

Some gold was reported in quartz veins at the west end of the property near bell river. At the east end of the property, on the shore of Gueguen lake, a hole gave 0.10 ounce of gold per ton across 3.5 feet.

10 Along S. limit of the SW. quarter of the township (Insmill Mines Ltd.)
Au, As, Cu

Claveau et al. - 1951, p. 68

Gold, arsenopyrite and chalcopyrite mineralization in a porphyry dike was discovered by drilling. The best intersection in the dike was 0.22 ounce of gold per ton across 5.0 feet. A tuffaceous zone mineralized with pyrite, chalcopyrite, arsenopyrite and quartz contained free gold, but assays were generally low. Eighteen holes were drilled on the property.

11 Central part of the SW. quarter of the township (Simon Lake Mines Ltd. - McDonough Mining Syndicate - Maniwaki Mines Ltd.)
Au, Zn

Tolman, C. - 1940, p. 11
Dresser and Denis - 1949, p. 293

Quartz veins in tuffs and feldspar porphyry contained free gold and sphalerite in surface trenching. Drilling failed to show values below the surface exposure.

12 S. central part of the SE. quarter of the township (Nordeau Mining Co. Ltd. - Oneonta Pershing Mines Ltd. - Vauquelin Iron Mines Ltd.)
Au, As
Mag

Q.D.M. - 1959B, p. 23

A magnetite iron formation which crosses the property has a west zone calculated by Nordeau Mining to contain 25 million tons of iron ore with an average of 29% iron, and an east zone of 75 million tons of 24% iron. A gold-bearing structure which lies along the south edge of the iron formation has been explored by seven drill holes. Three parallel quartz veins have given the following averages: 0.184 ounce of gold per ton across 5.5 feet for a length of 450 feet, 0.133 ounce of gold per ton across 5.8 feet for a length of 250 feet, and 0.122 ounce of gold per ton across 3.0 feet for a length of 250 feet. Arsenopyrite is also present in some of the quartz veins.

13 Straddling the Louvicourt-Vauquelin township line at Range VII (Regcourt Gold Mines Ltd.)
Au

Ingham et al. - 1949, p. 88

Gold was discovered on this property in a small granodiorite plug. Thirty holes were drilled in this mass and a shaft was sunk to 544 feet with lateral work on three levels. Two hundred and twenty feet of vein was exposed in 959 feet of lateral work, which averaged 0.24 ounce of gold per ton across 2.5 feet.

14 NE. part of the SW. quarter of the township (The Russian Kid Mining Co. Ltd.)
Au, Cu, Zn, Ag

Ingham et al. - 1949, p. 150
Tolman, C. - 1940, p. 20

The property has two gold showings and one zinc-silver showing. The gold is erratically distributed in quartz veins. Chalcopyrite is also present in some quartz veinlets.

VERNEUIL TOWNSHIP

III - E5

1 SE. corner of the township (Labonté showings)
Au, Cu, Ni

A.W.R.; GM-632, 1950
Verbal communication (Latulippe)

A long and wide shear zone in the contact area of volcanic and granitic rocks is silicified and mineralized with gold, pyrite and minor chalcopyrite. Altered porphyry dikes in the shear are also mineralized with pyrite and gold. The zone has been traced for 3,000 feet. Gold is well distributed in the zone. The best part of the shear, 400 feet long and 9.0 feet wide, averaged 0.135 ounce of gold per ton. A basic intrusive mass on the property contains minor copper and nickel.

2 About 2 miles N. of Mile-post 24 on the Verneuil-Holmes township line (Midrim Mining Co. Ltd. - Moneta Porcupine Mines Ltd.)
Au, Cu, Zn, Pb, Ag

A.W.R.; GM-4559, 1956

Quartz-carbonate veins in sheared volcanic rocks are mineralized with gold, pyrite, chalcopyrite, sphalerite, galena and silver. The best assays from drill core returned 2.28 ounces of gold per ton across 1.1 feet and 2.75 ounces of silver across 1.5 feet.

3 NW. corner of township (Sullico Mines Ltd.)
Cu

A.W.R.; GM-12470, 1961

Very minor chalcopyrite, with disseminated pyrite and pyrrhotite in tuffaceous sedimentary rocks, was noted in drill core.

VEZZA TOWNSHIP

III - C4

1 SE. part of the township, on Allard river (St. Francis Mining Co. Ltd.)
Zn, Au
Mag

Béland, R. - 1953, p. 22

Magnetite iron formations were drilled. Sphalerite was noted in quartz carbonate veinlets. Gold is also reported from quartz veinlets cutting pyroclastic rocks.

VIGNAL TOWNSHIP

III - E3

1 Along the shore of Goeland lake, about 1.5 miles N. of Waswanipi river
Pb

Claveau, J. - 1953, p. 27

A few specks of galena were noted in some sedimentary beds.

2 On the E. shore of the long bay S. of Ramsay bay
Cu

Claveau, J. - 1951, p. 42

A minor amount of chalcopyrite with pyrite was noted in the contact zone of granitic and volcanic rocks.

3 NE. shore of Ramsay bay
Cu

Claveau, J. - 1951, p. 42

A minor amount of chalcopyrite with pyrite was noted in a shear zone in volcanic rocks.

VILLEBON TOWNSHIP

VI - D7

1 III - 31, 32; IV - 32 (Bonville Gold Mines Ltd.)
Au, Zn, Pb, Cu

Claveau et al. - 1949, p. 153

Visible gold was noted in quartz veins cutting amphibolite in these lots. The veins also have small quantities of sphalerite, galena and chalcopyrite.

2 III and IV - 48 (Aldous showings)
Cu, Zn

Q.D.N.R. - 1962, p. 38

In the northern part of the lot, three trenches expose sulfide zones 3 to 8 feet wide. The zones are made up of graphite, graphitic slate, chert, quartzite and amphibolite with magnetite, pyrite, pyrrhotite, sphalerite and minor chalcopyrite. At the south end of the lot, another trench in graphitic slate, quartzite and amphibolite contains pyrrhotite and minor chalcopyrite.

3 III - 53 (Céré showings)
Cu

Q.D.N.R. - 1962, p. 37

In the northwest corner of the lot well-bedded quartzites, amphibolites and magnetite iron formations contain pyrite, pyrrhotite and chalcopyrite.

4 IV and V - 32, 33 (Cooper Lake Gold Mines Ltd.)
Au, Cu

Dresser and Denis - 1949, p. 299
A.W.R.; GM-14576, 1945

Gold in quartz veins cutting amphibolitic rocks was noted in surface showings and in drill holes. Chalcopyrite was also noted in the quartz veins. Gold values are erratic. The best value in drilling was 0.48 ounce of gold per ton across 3.0 feet.

5 VIII - 54, 55 (Dean-Oakley property)
Cu
Py

A.W.R.; GM-14575, 1948

Minor chalcopyrite was noted in a sulfide zone 700 feet long and 35 to 45 feet wide at the south end of the lots.

6 II - 33, 34 (Kayrand Mining and Development Co. Ltd.)
Cu, Zn

Ingham and Ross - 1947, p. 43

Sparse chalcopyrite and sphalerite were noted in a shear zone on the lot line at the north end of the range.

7 V - 35 to 38 (Twin Fault Gold Mines Ltd.)
Au

Ingham et al.- 1949, p. 156

The best gold assay from drilling at the south end of the lots returned 0.165 ounce per ton across 1.5 feet.

8 IV - 33 (Villebona Gold Mines Ltd.)
Au, Cu, Zn, Pb

Ingham et al. - 1949, p. 156

Gold, chalcopyrite, sphalerite and galena mineralization in a silicified shear zone was explored by 40 diamond drill holes. Assays were erratic. The best part of the large zone averaged about 0.23 ounce of gold per ton for a length of 120 feet and a width of 5.4 feet.

VILLEMONTEL TOWNSHIP

V - B6

1 I - 34 (Lavandin Mining Co. Ltd.)
Mo

Dugas, J.; GM-7736, 1958

A pegmatite dike containing molybdenite has been cut in graywacke near the granite contact.

2 I - 33 (Lavandin Mining Co. Ltd.)
Be

Dugas, J.; GM-7736, 1958

Beryl has been noted in this lot.

3 I - 27 (Ranger claims)
Mo

A.W.R.; GM-6434, 1959

Diamond drilling

TOWNSHIP 1003

I - A2

1 About 7 miles N. of range line, on the east side of Harricana river
Mo

Remick, J.H. - 1964, p. 11

"Molybdenite and pyrite occur in small rusty patches in an irregularly shaped light pink pegmatite along the east shore of Harricana river. The molybdenite flakes are 1/8 to 1/4 inch in diameter and are surrounded by several inches of rusty weathering rock."

2 About 2 miles N. of range line, on the east side of Harricana river.
Be

Remick, J.H. - 1964, p. 11

In a pegmatite dike, less than 1% green beryl in crystals 1/2 to 3/4 inch in diameter and up to 2 inches in length.

TOWNSHIP 1102

I - A1

1 About 3 miles N. and 2 miles W. of the SE. corner of the projected township
Be

Remick et al. - 1963, p. 19

Five small beryl-corundum-bearing pegmatites occur in granite on the west shore of Seven Mile Island. The pegmatites occur as veins and dikes 1 inch to 14 inches wide and up to 18 feet long. They contain 2 to 4% brown mica, up to 4% beryl and about 2% corundum. Beryl occurs as yellow crystals 3/4 inch long.

TOWNSHIP 1122

II - H1

1 0.5 mile W. and 0.3 mile S. of the NE. corner of twp.; Frotet area (Chibougamau Mining and Smelting Co. Ltd.)
Cu, Ni

A.W.R.; GM-10222, 1960
A.W.R.; GM-10629, 1960

Boulders of coarse-grained pyroxenite and mafic-rich gabbro. The boulders contain considerable disseminated chalcopyrite with associated pyrite and nickel-

iferous pyrrhotite.

The discovery of these floats sparked a staking rush to the Frotet area in 1958.

2 2.3 miles W. and 1.6 miles S. of the NE. corner of twp.; Frotet area (Canadian Nickel Co. Ltd.)
Ni
Py, Po

A.W.R.; GM-13559, 1963

A packsack drill hole was made in a bedded quartzitic sediment to test a conductor zone outlined by airborne electromagnetic and magnetic methods. A 30-foot section contains 30% to 50% pyrite and pyrrhotite. A 10-foot section was reported to assay 0.23% nickel.

TOWNSHIP 1125

II - J1

1 3.2 miles E. and 0.8 mile S. of the NW. corner of twp.; Frotet area
Cu

Moyer, P.T. - 1961, p. 7

"... the principal metallic minerals are pyrite and chalcopyrite. These sulfides occur in discontinuous layers and lenses from less than 1/2 inch to about 4 inches thick, and as disseminated grains... The Breccia Lake zone is less estensive..." than the metallic occurrence 2 miles farther NNE.

2 0.8 mile N. and 8.0 miles E. of the SW. corner of twp.; Lake Mistassini area
Pb, Ag

Kindle, E.D. - 1942, p. 9

"A vein of galena and pyrite is exposed in the wave-washed Mistassini limestone on the west shore of Lake Mistassini about 1 mile north of Punichuan Bay and about 1,000 feet south of the first inflowing stream. The vein strikes north 25° west and dips 65° southwest. It is exposed for 30 feet... It splits near its north end to form two veins, each 1 inch to 2 inches wide... A grab sample of the sulfides assayed: gold, a trace; silver, 1.52 ounces a ton; lead, 52.70%."

TOWNSHIP 1209

I - C1

1 About 3 miles N. and 1 mile W. of the SE. corner of the projected township
Cu, Mo

Remick and Gillain - Map 1510, 1963
Remick, J.H. - 1963, p. 21

"One outcrop of meta-gabbro contains a small pocket of chalcopyrite and pyrrhotite; about 1% molybdenite was noted in a small brecciated pegmatite nearby."

TOWNSHIP 1210

I - D1

1 About 2 miles N. and 3 miles E. of the SW. corner of the projected township
Py, Po
Remick and Gillain - Map 1510, 1963
Remick, J.H. - 1963, p. 21

"A few large rusty zones... one of which is at least 1,000 feet long and consists of lenses rich in pyrite in a quartz vein; pyrrhotite was noted in the adjacent wall rock."

TOWNSHIP 1215

I - F1

1 2.7 miles W. and 3.6 miles S. of the NE. corner of twp.; Broadback river (Osisko Lake Mines Ltd.)
Cu

Py, Po (Iron formation)

The Northern Miner - Feb. 8, Mar 22 and June 7, 1962
A.W.R.; GM-12656, 1962

On the east shore of Scott lake, a copper-bearing sulfide zone has been outlined by geophysical surveys. The zone is at least 4,000 feet long and occurs in the sediments of the Broadback Series. The sulfides consist of pyrrhotite and pyrite with minor amounts of chalcopyrite. Trenching and diamond drilling show the mineralized zone to average 20 feet in width.

Rock trenches have exposed sulfide mineralization with values of copper running from low to over 5%. A selected sample from one pit assayed 5.30% copper and 1.15 ounces of silver. Diamond drilling (more than 15 holes in winter 1961-62) has proved the zone for a strike length of 1,200 feet. Values running over 1% copper were found in places.

TOWNSHIP 1219

II - G1

1 1.8 miles E. and 1.1 miles N. of the SW. corner of twp.; Assinica Lake area (Sirmac Grubstake Syndicate - Sirmac Mines Ltd.)
Li, Be

A.W.R.; GM-9428, 1960
A.W.R.; GM-10551, 1960

A number of spodumene-bearing pegmatite dikes intruding the sedimentary rocks (probably of volcanic origin) of the Broadback Series were found by the Sirmac Syndicate about 9 miles northwest of Assinica lake. These dikes generally trend north-northwest and dip vertically.

One of these dikes stands out some 100 feet above the surrounding area and forms a prominant ridge of over 1,000 feet in length and an average exposed width of over 120 feet. Detailed examination of the dike, supplemented by a sampling program, indicates the presence of lithia-bearing minerals and of other economically important minerals, such as beryl. The average for this dike (No. 5) is 2.63% Li_2O over a length of 43.2 feet. The sampling program work was followed by some diamond drilling, the results of which were apparently disappointing.

TOWNSHIP 1222

II - H1

1 2.1 miles E. and 0.9 mile S. of the NW. corner of twp.; Frotet area (Muscocho Explorations Ltd.)
Cu, Zn

Duquette, G. - 1963

A copper-zinc discovery was made by Roméo Coulombe in 1961 at approximately 500 feet northeast of Anne lake. The sulfides, mostly chalcopyrite, sphalerite and pyrrhotite, occur in schistose and brecciated acidic pyroclastic rocks which run northeasterly and dip steeply to the northwest. Muscocho Explorations drilled fifteen holes to test the original showing and a number of electromagnetic and magnetic anomalies close by.

2 1.9 miles E. and 1.1 miles S. of the NW. corner of twp.; Frotet area (Muscocho Explorations Ltd.)
Li

Duquette, G. - 1963

More then 20 spodumene-bearing pegmatite dikes have been found in 1963 in the vicinity of Anne lake. The essential mineral constituents are white feldspar, light green spodumene, quartz and muscovite. Spodumene may represent from 25 to 40% of the rock volume.

3 3.7 miles W. and 3.0 miles S. of the NE. corner of twp.; Frotet area (Bilson Quebec Mines Ltd. - Falconbridge Nickel Mines Ltd.)

Cu, Zn, Pb

A.W.R.; GM-12473, 1962
A.W.R.; GM-11764, 1961
Duquette, G. - 1962

A copper-zinc showing was found on the west shore of a peninsula in Moléon lake, which is the southwestern extension of Frotet lake.

The mineralization is in a gray tremolite-actinolite rock. The hanging wall-rock is a chlorite schist interlayered with quartzo-feldspathic thinly-bedded rock. The sulfides are pyrrhotite, chalcopyrite, sphalerite, and galena. Diamond drilling was done on this showing during the winter of 1961-62 and also at the beginning of 1965.

4 0.3 mile W. and 1.0 mile N. of the SE. corner of twp.; Frotet area (Chibougamau Mining and Smelting Co. Ltd.)
Py, Po

A.W.R.; GM-12052, 1962

One hole intersected three horizons of semi-massive sulfides in bedded felsitic sediments. The sulfides consist of pyrite and pyrrhotite containing low nickel values.

TOWNSHIP 1223

II - H1

1 3.0 miles E. and 3.8 miles S. of the NW. corner of twp.; Frotet area (Jacobus Mining Corp. Ltd.)
Zn

A.W.R.; GM-10795, 1961
Assad, J.R.; GM-9766, 1960

The sulfide showing occurs about 800-900 feet north of the east end of Chester-

ville lake, along a structurally disturbed and even discordant contact between massive and silicified graywacke to the northeast and a graphitic slate horizone to the southwest. These rocks strike S.70°E. and dip 70° to the southwest.

Massive sphalerite veins measuring up to a few feet in width are found along the graywacke-slate contact and within the massive graywacke. The adjacent sheared and crumpled slates contain pyrrhotite, pyrite and chalcopyrite as a dissemination or as small veinlets.

TOWNSHIP 1224

II - J1

1 1.3 miles E. and 1.5 miles N. of the SW. corner of twp.; Frotet area (Canadian Northwest Mines and Oils Ltd.)
Py, Po

Assad, J.R.; GM-9767, 1960

Following completion in 1958 of airborne magnetic and electromagnetic surveys, Canadian Northwest examined four conductor zones by drilling.

The rocks intersected at the various drill locations are generally of a similar type, being gray to dark green, banded and fine-grained graywacke or argillite. Interbanded slaty horizons are present and these are commonly graphitic. Only traces or minor amounts of chalcopyrite are present. The nature of the mineralization is suggestive of sulfides deposited syngenitically with the sedimentary rocks.

TOWNSHIP 1225

II - J1

1 4.5 miles E. and 0.9 mile N. of the SW. corner of twp.; Frotet area
Cu

Moyer, P.T. - 1961, p. 7

"The principal metallic minerals are pyrite and chalcopyrite. These sulfides occur in discontinuous layers and lenses from less than 1/2 inch to about 4 inches thick, and as disseminated grains. The more northern mineralized zone is about 30 feet wide and can be traced for 1,000 feet."

TOWNSHIP 1226

II - J1

1 2.3 miles N. and 0.7 mile E. of the SW. corner of twp.; Lake Mistassini area
Pb, Zn, Ag

Kindle, E.D. - 1942, pp. 9-10

"Six small quartz veins are exposed in the limestone on the west shore of a bay of Lake Mistassini, 13 miles north of Punichuan bay. These veins lie parallel, have an average width of 2 inches, are from 4 to 5 feet apart, and each is less than 25 feet long. They strike north 30° east and dip vertically. The gangue of quartz and calcite carries galena and sphalerite. A representative sample assayed: gold, a trace; silver, 0.5 ounce a ton; lead, 11.22%; zinc, 4.46%.

Several hundred feet south of the last-described veins there is a flat-lying

vein following a bedding plane in the limestone and composed of coarse pyrite. The vein is 1 inch thick and is exposed at intervals for 200 feet along the shore. A representative sample of the pyrite assayed only a trace of gold."

TOWNSHIP 1304

I - B1

1 About 1 mile W. and 2 miles N. of the SE. corner of the projected township (Noranda Exploration Co. Ltd.)
Au

Remick and Gillain - Map 1510, 1963
Remick, J.H.; GM-14898A, 1962

In a volcanic zone, northeast-southwest-trending quartz and quartz-carbonate veins. They are 5 to 140 feet long and 3 to 36 inches wide. A few of them carry native gold and small amounts of sulfides. They are believed to follow faults or fractures. Chip samples indicate trace to 0.745 ounce of gold per ton and trace to 0.09 ounce of silver per ton. Small amounts of chalcopyrite, sphalerite, pyrrhotite, pyrite, arsenopyrite and magnetite occur in shear zones or fracture zones in the metamorphosed volcanic rocks and basic intrusive rocks in the same area.

TOWNSHIP 1315

I - F1

1 5 miles E. of the NW. corner of twp.; Broadback River area (Consolidated Mogul Mines Ltd.)
Mag (Iron formation)

A.W.R.; GM-11038, 1961
A.W.R.; GM-11037, 1961

On the West (North) group, the iron formation consists of banded siliceous material with a fine crystalline magnetite, interrupted by bands of more argillaceous material with little or no magnetite. The country rock is an amphibolite.

On the South group (3 miles S. of the west end of Théodat lake), the iron formation has been traced for a strike length of 4,400 feet. The average width is about 40 feet.

The iron formations of both groups appear to be free from significant amounts of sulfides. According to company reports, they presently do not lend themselves to an economic open pit operation.

TOWNSHIP 1322

II - H1

1 0.4 mile W. and 3.2 miles S. of the NE. corner of twp.; Frotet area (Mining Corporation of Canada Ltd.)
Cu, Zn, Ag

Duquette, G.; GM-12136, 1962
Q.D.N.R. - 1964, pp. 35-6

Sulfides are found in highly drag-folded, acidic and thinly-bedded sedimentary rocks which may be of pyroclastic origin. The schistose rocks run N.65°E. and are vertical.

The mineralization is essentially of the replacement type. It consists of pyrite,

chalcopyrite, sphalerite and minor galena. Where good mineralization is seen the rock is silicified, sericitized and locally carbonaceous.

Mining Corp. conducted, in the summer of 1962, detailed geological, magnetometric, and electromagnetic surveys over its whole property (129 claims). This was followed by 11 drill holes.

TOWNSHIP 1323

II - H1

1 4.4 miles E. and 2.5 miles S. of the NW. corner of twp.; Frotet area.
Mo

Assad, J.R.; GM-12872, 1962

A high-grade molybdenite-bearing acidic intrusive float was found by Mining Corporation in the Troïlus lake area during the summer of 1961.

Early in 1962, three holes were drilled in the vicinity of the area where the float had been found in an attempt to trace the mother rock. A similar rock-type containing only traces of molybdenite was intersected.

2 3.3 miles W. and 3.6 miles S. of the NE. corner of twp.; Frotet area (Dauphin Iron Mines Ltd.)
Ag, Cu

A.W.R.; GM-10636, 1963

In the summer of 1959, following completion of mag. and E.-W. surveys, Dauphin Iron Mines drilled 12 holes over several geophysical anomalous areas and showings located east of Troilus lake. Two silver-bearing zones were found. The mineralization occurs in altered gabbro and peridotite and in quartz veins cutting mottled granite. The mineralization comprises some copper.

3 1.1 miles W. and 2.4 miles N. of the SE. corner of twp.; Frotet area (L. and S. Grubstake Syndicate)
Cu

Confidential Plan; Que. Dept. Files, Chibougamau office, 1963

Native copper and chalcopyrite with pyrrhotite were found by Stewart Staunton in the fall of '63 in the SE. quarter of the township. The copper mineralization occurs in sheared greenstone. The showings are east of Frotet Lake (south part).

In March 1964, the syndicate did a very limited amount of drilling to test these showings.

4 3.8 miles W. and 1.0 mile N. of the SE. corner of twp.; Frotet area (L. and S. Grubstake Syndicate)
Mo

Confidential Plan; Que. Dept. Files, Chibougamau office, 1963

A quartz vein float with rich seams of molybdenite was found by Stewart Staunton while prospecting in the summer of 1963 for the L. and S. Grubstake Syndicate. The boulder was found along the south shoreline of a long spur of land projecting westward into Frotet lake.

TOWNSHIP 1408

I - C1

1 NE. of Chabouillié lake
Cu, Ni

Remick and Gillain - Map 1510, 1963
Remick, J.H. - 1963, p. 20

Chalcopyrite. pyrrhotite and pyrite in small rusty areas in metagabbro and also in the metasedimentary rocks included in the metagabbro. The rusty zones are 10 to 40 feet wide and up to 100 feet long. The sulfide minerals occur in small, widely separated lenses or patches several inches to a foot long within these zones. The mineralization is of the replacement type and was noted in about a dozen places within the metagabbro northeast of Chabouillié lake. Four samples each taken from better mineralized parts of four rusty patches assayed 0.00 to 0.007 ounce of gold per ton; 0.075 to 0.265 ounce of silver per ton; 0.37 to 0.98% copper; 0.05 to 0.30% nickel and 0.01 to 0.10% zinc.

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