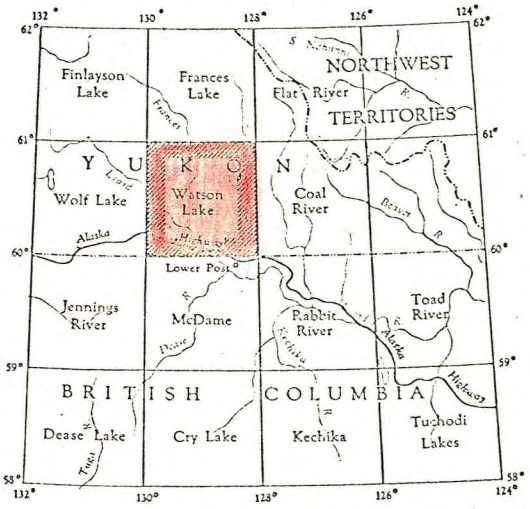
013309



SHEET 105 A

FIRST EDITION

LODE OCCURRENCES

HYLAND PLATEAU AREA

Quartz Lake

1. Redfort Prospecting Syndicate (about 60°30'N, 128°00'W) (Lead-Zinc-Silver)

NTS 105 A 8

This syndicate holds a 192 claim property located about 40 miles northeast of Watson Lake and surrounding the MacMillan property of Liard River Mining Company Limited (Green 1966, pp. 72-74). During 1966, airborne electromagnetic and magnetic surveys were conducted over the property and detailed geological mapping and prospecting programs were carried out. Rock types similar to those underlying the MacMillan property (Mississippian (?) argillite, shale, limestone, and quartzite) were mapped and the possible extension of the Black Fault, near which the MacMillan orebody lies, was traced. A crew of 4 men were employed on the operation. The property was not visited.

Participants in the Redfort Syndicate are Redstone Mines Limited, Rayrock Mines Limited and Fort Reliance Minerals Limited.

Tom Lake

#2 Mount Hundere Property (Atlas Explorations Limited) (60°32'N, 128°54'W)
(Lead-Zinc)
NTS 105 A 10

References: Poole, Roddick and Green (1960); Wheeler, Green and Roddick (1960b); The Northern Miner (11 July, 1963, p. 13); Green and Godwin (1963, pp. 33-35; 1964, pp. 44-45).

Formerly held by Frances River Syndicate, Atlas Explorations Limited acquired this property early in 1966. A total of 78 claims are held, 8 of which encompass part of the original Frances River Syndicate property. The property lies about 30 miles north of Watson Lake and is reached by a rough 12-mile access road leading from the Watson Lake-Ross River road near the bridge at Frances River. 1966

Discovered in 1962, two main lead-zinc showings (North and South showings) located about 2 miles apart, were investigated through trenching and drilling in 1963 by Canex Aerial Exploration Limited, under option agreement with Frances River Syndicate. The drilling indicated that the two occurrences were not continuous along strike and that tonnage potential was limited (Green and Godwin, 1964, p. 44).

Mineralization comprises disseminated to massive galena and sphalerite replacing skarn rocks developed at a contact between limestone and phyllite or argillite. During the 1966 season, Atlas Explorations Limited carried out a detailed geological mapping program, reconnaissance and detailed geochemical surveys, and follow-up bulldozer-trenching of geochemical anomalies. The detailed mapping suggests that a distinctive crystalline limestone horizon, up to 100 feet thick in places, is a preferential host for mineralization. The trenching operations were conducted to test a number of geochemical anomalies, principally near the original South showing, but the program was halted by adverse weather and snow conditions before it could be completed. The property was not visited.

Tom Lake NTS 105 A 10

#2 Frances River Syndicate Property (60°32'N, 128°52'W)

References: Poole, Roddick, and Green (1960); Wheeler, Green, and Roddick (1960b); The Northern Miner (11 July 1963, p. 13); Green and Godwin (1963, pp. 33-35).

Frances River Syndicate, backed by Canex Aerial Exploration Limited, Newconex Canadian Exploration Limited, Kerr-Addison Gold Mines Limited, and Anglo-Huronian Limited, holds 336 claims covering lead-zinc showings that are about 33 miles north-northwest of Watson Lake and 8 miles northwest of Tom Lake. During 1963 the property was reached either by a 12-mile access road from the Watson Lake-Ross River development road or by float plane via a small unnamed lake that is about 3 miles west of the showings. In the 1963 field season the syndicate established a camp on the above property, and up to 13 men were employed from 31 May to 25 July. In addition, three prospecting crews worked in both the southeastern corner of the Yukon and the Dawson area. 196

Two main lead-zinc showings about 2 miles apart along a ridge were found in 1962 as zones of float and frost heave. These showings are separated by a deep gulley. Trenching on these showings late in 1962 suggested large lead-zinc deposits. Early in 1963, however, geological mapping, trenching, and diamond drilling, under the direction of Canex Aerial Exploration Limited, indicated that the deposits were not persistent along strike or in depth, and that the potential tonnage was limited (The Northern Miner, 11 July 1963, p. 13). The diamond-drill program consisted of one hole with a length of 388 feet on the north showing and six holes with a total length of 1,452 feet on the south showing.

Most of the property is underlain by grey- to buff-weathering phyllite or argillite associated with bands of grey argillaceous limestone. The lithology looks similar to that at Tintina Silver Mines property (Green and Godwin, 1963, pp. 26-29) about 45 miles to the north-northwest, and to that at the Luck Group (Green and Godwin, 1963, pp. 31-32), about 60 miles to the southwest. At the Tintina property, Wheeler, Green, and Roddick (1960b) have mapped limestone (unit 1c) of Early Cambrian age and lustrous phyllite (unit 2) of Middle and Late Cambrian age (?). At the Luck Group, Poole, Roddick, and Green (1960) have mapped a limestone with minor dolomite, slate, and phyllite (unit 3b) of possible Early Cambrian age.

The south showing, elevation 4,650 feet, was exposed in a large cut and had an apparent length of about 150 feet trending S 70°E and a width of about 30 feet. The mineralization consisted of galena and light brown sphalerite in a skarn developed along a phyllite-limestone contact. This contact could be traced southwest along the hillside for about 1,000 feet, but the skarn appeared to be developed only near the showing. One skarn-rich grab specimen assayed*: trace gold and 0.38 ounces of silver per ton, 3.1 per cent lead, and 2.0 per cent zinc. One galena-rich grab specimen assayed*: trace gold and 15.5 ounces of silver per ton, 76.4 per cent lead, and 4.5 per cent zinc.

The north showing, elevation 4,850 feet, was exposed in a number of cuts, in one of which the mineralized zone appeared to strike northerly and dip 65 degrees to the west, roughly parallel to the foliation of the enclosing phyllite. The zone appeared to be up to 25 feet thick with mineralization similar to that of the south showing. Some limestone was observed in the cuts, but it may be present in the form of thin discontinuous lenses rather than as a thick limestone band. Only locally was the mineralization along a limestone-phyllite contact. One galena-rich grab specimen assayed*: trace gold and 2.46 ounces of silver per ton, and 25.0 per cent lead, and 19.9 per cent zinc. A white quartz porphyry dyke or sill was noted near the north showing.

A deeply incised lineament lies just to the west of the south showing, extends north to within half a mile of the north showing, and may continue through the latter. It may represent either a meltwater channel or a fault, although no evidence of the latter was observed where the structure is well exposed near the south showing.

LIARD PLAIN AREA

Tom Lake NTS 105 A 10

#2

Frances River Syndicate Property (60°32'N, 128°52'W)

105-1

References: Northern Miner (Nov. 1, 1962); Western Miner and Oil Review (Nov. 1962, p. 32).

During the 1962 field season, J. Hundere and P. Ritco, prospectors employed by Frances River Syndicate, discovered promising lead-zinc showings about 8 miles northwest of Tom Lake in an area that was not previously known to contain mineralization. The Syndicate, which now holds 320 claims in the area, was organized by consulting geologist A.E. Aho, of Vancouver, and backed by Canex Aerial Exploration Limited, Newconex Canadian Exploration Limited, Kerr-Addison Gold Mines Limited, and Anglo-Huronian Limited. The property is about 35 miles north of Watson Lake, Yukon, and is reached by a 12-mile access road from the Watson Lake - Ross River development road. The authors did not visit the property and the following description is drawn from published information.

1962

The two main showings were found as zones of float and frost heave 2 miles apart, each at an elevation of about 4,700 feet. They are reported to occur as replacements in a zone of limestone bands near the east margin of an intensely deformed north- to north-northwest-striking belt of phyllite and limestone 4 miles wide and about 6 miles long.

The south showing consists of a zone of galena and sphalerite with some quartz, fluorite, and skarn gangue apparently replacing gently southwest-dipping limestone. In late September, 1962, limited bulldozer stripping to permafrost exposed massive primary sulphides averaging 5.25 ounces of silver per ton and 34.4 per cent lead and 18.3 per cent zinc over a length of 170 feet and an average apparent width of 34 feet. Three trenches, about 50 feet apart and 200 feet from the first mineralized zone, revealed a residual gossan averaging 3.5 ounces of silver per ton, 11.6 per cent lead, and 5.0 per cent zinc over a length of 160 feet and apparent widths up to 50 feet.

The north showing consists of lenses of galena and sphalerite with skarn minerals replacing north-striking, steeply dipping lenses of limestone enclosed in phyllite. Nine bulldozer trenches about 50 feet apart across the zone of two or three separate lenses have indicated a length of 420 feet with an average grade of 1.2 ounces of silver per ton, 11.3 per cent lead, and 7.2 per cent zinc across an aggregate average width of 25 feet. The main sulphide lens is about 250 feet long assaying 1.3 ounces of silver per ton, 14.3 per cent lead, and 10.0 per cent zinc across a width of 42 feet. Much of the trenching is reported to be in an oxidized mineral zone, probably in the form of carbonates.

The property is in an area with relatively poor outcrop and the limits of both showings have not been fully determined. In addition, a number of other minor showings, float indications, and geochemical anomalies remain to be investigated. Plans for the 1963 field season are reported to include geochemical and geophysical surveys, bulldozer trenching, and diamond-drilling.

PLACER OCCURRENCES

NATIONAL TOPOGRAPHIC SERIES

CANADA
DEPARTMENT OF MINES AND TECHNICAL SURVEYS

FIRST EDITION

CANADA, SHEET 105 A

Surveyed, compiled, drawn and printed by the Army Survey Est. R.C.E. 1948-50.
Aerial photography by the R.C.A.F. 1948.

Universal Transverse Mercator Projection

Magnetic Declination 33° 25′ East at centre of sheet, 1950.
The declination of the compass needle is decreasing 9 minutes annually.

REFERENCE

Road, Hard Surface, Heavy Duty	3 or more Lanes	Partially completed
,, Hard Surface, Heavy Duty	2 Lanes	Route No. 12
,, Hard Surface, Medium Duty	3 or more Lanes / 2 Lanes	
,, Loose Surface, Graded and Drained	3 or more Lanes / Not less than 14 ft. wide	
Other Roads		Poor condition
Trail		
Railway, Double Track	Station	Stop
,, Single Track		
Boundary, International		
,, Provincial		
,, County or District		
,, Reservation, Military, etc.		
Electric Power Line	on Steel Towers	on Wood Poles

WATSON LAKE

YUKON TERRITORY

Scale 1 : 250,000

Approximately 4 Miles to 1 Inch.

Miles 5 0 5 10 15 20 Miles

Kilometres 0 5 10 15 20 25 30 Kilometres

Contour interval 500 Feet.

All Elevations in Feet above Mean Sea Level

Copies may be obtained from The Map Distribution Office, Dept. of Mines and Technical Surveys, Ottawa, at 25 cents each.

inches 0 1 2

centimetres 0 1 2 3 4 5

YUKON GEOLOGICAL SURVEY

This reference scale bar has been added to the original image. It will scale at the same ratio as the image, therefore it can be used as a reference for the original size.

REFERENCE

Horizontal Control Point	△	Spot Elevation, in feet	821
Contours, Elevation	1000 / 500	Wooded Areas	
,, Depression	2000 / 1500	Swamp or Marsh	
Form Lines		Cliff	
Stream, Intermittent		W.L. 631	
Dam		Mud or Sand	
Falls / Rapids		Navigation Light	
Airfield, Military, El. in feet	765	Seaplane Base	
,, Civil		Seaplane Anchorage	
,, Auxiliary			
Building	•	Fire Lookout Tower	
Church	+	Bench Mark	BM 752
School	•S	Telephone, Trunk Route	

NOTE: On the above index the sheets published are shown tinted green

SHEET 105 A
FIRST EDITION

NATIONAL TOPOGRAPHIC SERIES

ARMY SURVEY ESTABLISHMENT

FIRST EDITION

CANADA, SHEET 105 A

MINERAL SHOWINGS LOCATION MAP

LEGEND :

LODE DEPOSITS

- MINERAL PRODUCER (PAST, PRESENT OR FUTURE)
- PROSPECT
- MINERAL OCCURRENCE (SMALL OR NO INFORMATION AVAILABLE)

COLOR CODE :

- GOLD
- SILVER
- COPPER
- LEAD
- ZINC
- TUNGSTEN
- MOLYBDENUM
- IRON
- BARITE
- NICKEL
- ASBESTOS

PLACER DEPOSITS

- GOLD
- TIN

Surveyed, compiled, drawn and printed by the Army Survey Est. R.C.E. 1948-50. Aerial photography by the R.C.A.F. 1948.

Universal Transverse Mercator Projection

GRID ZONE DESIGNATION: 9V

100,000 M. SQUARE IDENTIFICATION

VT	WT
VS	WS

670

50

IGNORE the SMALLER figures of any grid number, these are for finding the full coordinates. Use ONLY the LARGER figures of the grid number, example: 450000

TO GIVE A STANDARD REFERENCE ON THIS SHEET TO NEAREST 100 METERS

SAMPLE POINT - AIRFIELD

1. Read letters identifying 100,000 meter square in which the point lies:
2. Locate first VERTICAL grid line to LEFT of point and read LARGE figure labeling the line either in the top or bottom margin, or on the line itself.
   Estimate tenths from grid line to point:
3. Locate first HORIZONTAL grid line BELOW point and read LARGE figure labeling the line either in the left or right margin, or on the line itself.
   Estimate tenths from grid line to point:

WS 1 0 6 4

SAMPLE REFERENCE: WS1064

If reporting beyond 18° in any direction, prefix Grid Zone Designation, as:

Magnetic Declination 33° 35' East at centre of sheet, 1950. The declination of the compass needle is decreasing 2 minutes annually.

REFERENCE

Road, Hard Surface, Heavy Duty	3 or more Lanes / 2 Lanes / 3 or more Lanes
,, Hard Surface, Heavy Duty	2 Lanes / Route No.
,, Hard Surface, Medium Duty	3 or more Lanes / 2 Lanes
,, Loose Surface, Graded and Drained	3 or more Lanes / Not less than 18 ft. wide
Other Roads	Poor condition
Trail	
Railway, Double Track	Station / Stop
,, Single Track	
Boundary, International	
,, Provincial	
,, County or District	
,, Reservation, Military, etc.	
Electric Power Line	on Steel Towers / on Wood Poles

WATSON LAKE

YUKON TERRITORY

Scale 1 : 250,000

Approximately 4 Miles to 1 Inch.

Miles 0 5 10 15 20 Miles

Kilometres 0 5 10 15 20 25 30 Kilometres

Contour interval 500 Feet.

All Elevations in Feet above Mean Sea Level

inches 0 1 2

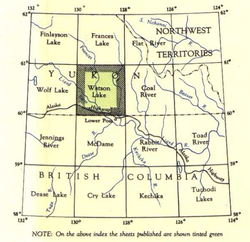
centimetres 0 1 2 3 4 5

YUKON GEOLOGICAL SURVEY

This reference scale bar has been added to the original image. It will scale at the same rate as the image, therefore it can be used as a reference for the original size.

REFERENCE

Horizontal Control Point	Spot Elevation, in feet .821
Contours, Elevation 1500 2500 3000 7500	Wooded Areas
,, Depression	Swamp or Marsh
Form Lines	
Stream, Intermittent	Cliff / W.L. 631
Dam	Mud or Sand
Falls / Rapids	Navigation Light
Airfield, Military, El. in feet 765	Seaplane Base
,, Civil	Seaplane Anchorage
,, Auxiliary	
Building	Fire Lookout Tower
Church	Bench Mark +5.14 732
School	Telephone, Trunk Route



NOTE: On the above index the sheets published are shown tinted green

Use diagram only to obtain numerical values.

APPROXIMATE MEAN DECLINATION 1950 FOR CENTRE OF SHEET

Annual magnetic change 2' westerly

TEN THOUSAND METRE UNIVERSAL TRANSVERSE MERCATOR GRID ZONE 9

SHEET 105 A

FIRST EDITION