

GEOLOGICAL
SURVEY
OF
CANADA

DEPARTMENT OF MINES
AND TECHNICAL SURVEYS

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PAPER 63-18

ROCKS AND MINERALS FOR THE COLLECTOR:
SUDBURY TO WINNIPEG

Ann P. Sabina



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By

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CONTENTS

	Page
Introduction.....	1
A brief geological history	1
Collecting along the route	3
Section 1: Sudbury — Sault. Ste. Marie	4
Sudbury nickel deposits	4
Vermilion River placers	4
Falcon gold mine	5
Northern Kyanite Mines Limited.....	5
Owen property	6
Elizabeth Lake deposit	6
McMillan Mine	7
Rock exposure (staurolite)	7
Massey mine	8
Rock exposure (staurolite)	8
Pronto uranium mine	9
Cheney mine	9
Rock exposures (jasper conglomerate).....	9
Havilah mine	10
Clear Lake deposit	10
Rock exposure (jasper conglomerate).....	11
Bruce mine.....	11
Stobie mine.....	12
Rock exposures (jasper conglomerate).....	12
Jardun mine	12
Section 2: Sault Ste. Marie — Lakehead	14
McNabb property	14
Harmony Bay beach deposit	14
Batchawana mine	14
Rock exposures (chalcedony, zeolites, etc.).....	15
Copper Creek deposit	15
Mamainse mine	16
Camray mine	16
Beach deposit	17
Consolidated Ranwick Uranium Mines Limited.....	17
Agawa River deposit.....	17
Rock exposure (epidote).....	18
Michipicoten Island deposits.....	18
Grace mine.....	19
Algoma Steel Corporation Limited	19
Rock exposures (epidote).....	19
Rock exposures (syenites, bastnaesite, parisite).....	20

CONTENTS (cont.)

	Page
Slate Islands deposit	21
Schreiber gold mines	21
Rock exposures (fluorite, epidote)	22
Nipigon Bay Islands deposits	22
Rock exposures (amethyst, fluorite, etc.)	23
Jackfish River deposit	23
Enterprise mine	23
Silver Lake deposits	24
Loon Lake molybdenum deposit	24
Pass Lake Road quarry	26
Silver Islet mine	26
Edward Island arsenic deposit	27
Edward and Porphyry Islands copper	27
Silver Harbour deposits	27
Section 3: Lakehead — Ontario/Manitoba Border	29
Thunder Bay mine	29
Shuniah (Duncan) mine	29
Current River	30
Gorham and Lakehead mines	30
Oliver Road quarries	31
Prince's mine	31
Victoria, Beaver Junior, West Beaver, Climax, Badger and Silver Mountain mines	31
Rock exposures (concretions)	33
Rock exposures (jasper, chert)	34
Rock exposure (quartz crystals, pyrite, jasper)	34
Rock exposures (jasper)	35
Tip Top mine	35
Huronian (Ardeen) mine	36
Tabor and Sakoose mines	36
Rock exposures (basalt porphyry)	38
Newlund Mines Limited	38
Pidgeon Molybdenum Mines Limited	39
Central Manitoba mine	39
North Pines Pyrite mine	40
Rock exposures (jasper)	40
Soapstone deposits	41
Rock exposures (garnet)	41
Lun-Echo Gold Mines Limited	42
Rock exposures (tourmaline, beryl)	42
Bonanza, Redeemer, League mines	42
Rock exposures (garnet)	43
Baden-Powell, Grace, Eldorado, Golden, Eagle, Fournieri mines	43

CONTENTS (cont.)

	Page
Eagle Lake quarry	45
Medicine Lake deposit	45
Horseshoe, Neda, Bully Boy mines	46
Sultana, Ophir, Pine Portage, Keewatin, Gold Hill, Black Jack, Stella, Wendigo mines.....	46
Cameron-Earngey copper deposit	48
Allie Island mine.....	49
Mikado mine.....	49
Evenlode Mines Limited	50
Section 4: Ontario/Manitoba Border — Winnipeg	52
Fuchsite deposit	52
Silver Leaf property (Bear or Bob claim)	52
Huron claim	53
Annie claim	53
Greer Lake quarry.....	54
Grace claims	54
Rock exposures (garnet)	54
Bernic Lake mine.....	55
East End Bernic Lake deposits	55
Birse Lake deposit.....	57
Shatford Lake deposit	57
Bird (Oiseau) Lake deposit	58
Bird River copper-nickel deposits	58
Cat Lake deposits.....	59
Garson and Tyndall quarries	59
Further information for the collector.....	61
Amateur mineral clubs	61
Mineral, rock displays	61
Addresses	62
References to Geological Reports.....	63
Index of Minerals and Rocks	68
Maps	
1 Silver Lake deposits	25
2 Stanley area	32
3 Dinorwic area (northern part).....	37
4 Eagle Lake area	44
5 Kenora area	47
6 Winnipeg River area	51
7 Bernic Lake area	56

ROCKS AND MINERALS FOR THE COLLECTOR: SUDBURY TO WINNIPEG

INTRODUCTION

With the completion of the Lake Superior section of the Trans Canada Highway the road between Sudbury, Ontario and Winnipeg, Manitoba has become a well-travelled and popular tourist route. This booklet has been prepared to meet a continuing demand from tourists and amateur collectors for information on the rock and mineral occurrences that are accessible from the highway. Many of the deposits described in this booklet were visited by the writer in the summer of 1962 assisted by Judith A.C. Carson.

You may have to walk a short distance to some of the localities, but rarely more than two miles. You will need a boat to visit some of the others. Boats can be rented at most of the lakeside villages, but you will have to take your own to the more isolated lakes. Parts of Lake Superior can be hazardous in a small boat and if you have any doubts, hire a local guide.

Most of the localities can be readily found from the description in the text; seven maps are included to cover some of the places that are more difficult to find. The official road maps of Ontario and Manitoba are free (see p. 62) and are adequate for most purposes. More detailed information is shown on the maps of the National Topographic Series (see p. 62).

Field examination of localities was facilitated by information received from Dr. E.G. Pye, resident geologist, Ontario Department of Mines, Port Arthur, from Dr. J.C. Davies, resident geologist, Ontario Department of Mines, Kenora, and from Dr. H. Quackenbush of the Thunder Bay Lapidary Club. This generous assistance is gratefully acknowledged.

A BRIEF GEOLOGICAL HISTORY

Except for the Tyndall limestone deposits, the entire collecting area is within the Canadian Shield — an immense shield-shaped body of Precambrian rocks which occupies more than half of Canada and part of northern United States. During Precambrian time there were repeated cycles of inundation, sedimentation, mountain-building, intrusion and erosion producing a variety of igneous, metamorphic and volcanic rocks. Within these rock formations are contained a variety of minerals and rocks much sought after by the amateur collector and lapidarist.

At the close of the Precambrian, a long period of erosion - often called the Lipalaeon interval - reduced the Shield to a peneplain and set the stage for uplift, inundation and the deposition that took place during the long Palaeozoic era that followed. Unlike many of the Precambrian rocks, those of the Palaeozoic are readily

TABLE I

AGE (Millions of Years)	ERA	PERIOD	ROCKS FORMED	WHERE TO SEE THEM		
60	Cenozoic	Pleistocene	Gravels, sand, till	North of Lake Huron; along Lake Superior, Wabigoon Lake, Sioux Lookout, Eagle Lake, Winnipeg River areas.		
230	Mesozoic		Not represented in area			
600	Palaeozoic	Ordovician	Dolomitic limestone	Tyndall - Garson - East Selkirk area.		
		Cambrian	Sandstone	Lake Superior shoreline (Mica Bay to Sault Ste. Marie).		
2,440	Proterozoic	Keweenawan	Syenite	Marathon - Coldwell area.		
			Diabase	White River, Lakehead, Dryden, Lake of the Woods areas.		
		Huronian	Basalt	Islands in Nipigon Bay, Michipicoten Island, Lake Superior (Mica Bay to Pancake Bay).		
			Conglomerate, shale, sandstone	Sibley Peninsula, Loon Lake - Pearl area.		
		Temiskaming	Volcanics	Sudbury, Espanola areas.		
			Quartzite, conglomerate	Blind River, Bruce Mines areas.		
			Iron Formation	Port Arthur - Loon Lake area; Kakabeka Falls; Whitefish Lake area.		
			Shale, tuff, taconite	Lakehead area.		
		3,200	Archaean	Keewatin	Granite, diorite	Agawa River, Wawa - White River, Rosspoint, Sioux Lookout, Dryden - Kenora areas.
					Conglomerate, arkose, greywacke	Lake Superior shoreline (vicinity of Michipicoten Harbour); east of Marathon; north of Port Arthur (between MacKenzie and Loon Lake).
3,200	Archaean	Keewatin	Slate, greywacke, quartzite	North of Lake Superior (east of Hemlo, between Jackfish and Middleton); Wawa, Dryden, Winnipeg River, Bernic Lake areas.		
			Volcanics	Shreiber, Dryden, Eagle Lake, Sioux Lookout, Lake of the Woods, Winnipeg River, Bernic Lake, Cat Lake areas.		

PRECAMBRIAN ERA

recognized as sediments; great thicknesses were deposited in the area of the Shield and still remain around the margins.

Much more recently - during the Pleistocene Ice Age - great ice sheets spread southwards across the Shield scouring out the landscape as we know it today and leaving behind it accumulations of sand, gravel and till.

Table I gives some idea of the diverse geological history of of the region and relates the rocks to places where they may be seen.

COLLECTING ALONG THE ROUTE

The route is divided into four sections: (1) Sudbury to Sault Ste. Marie; (2) Sault Ste. Marie to the Lakehead; (3) Lakehead to Ontario/Manitoba border; (4) Ontario/Manitoba border to Winnipeg.

Information on each collecting locality is systematically listed in the text as follows: mileage along the highway travelling west and starting from the beginning of each section; name of the locality or deposit; minerals or rocks of interest to the collector - shown in capital letters; mode of occurrence; brief notes on the locality with specific features of interest to the collector; location and access; references to other publications, indicated by a number and listed at the end of the book, references to maps of the National Topographic series.

Many of the localities are on private property and the fact that they are listed in this book does not in any way imply permission to visit them. Please respect the rights of property owners at all times.

SECTION 1

SUDBURY — SAULT STE-MARIE

Mile 0 - Sudbury

Sudbury Nickel Deposits

PENTLANDITE, PYRRHOTITE, CHALCOPYRITE, PYRITE, MARCASITE, CUBANITE, GERSDORFFITE, NICCOLITE, VIOLARITE, PRECIOUS METALS.

In quartz-diorite dykes and norite.

The ores occur along the perimeter of the Sudbury Basin, an elliptical body 37 miles long and 17 miles across, the inner area consisting of volcanics and sediments believed to have been formed during the Huronian period. The numerous mines in the area have been producing nickel, copper and other metals since 1887; at one time (1917-1933) they accounted for 90% of the world's nickel output. The first indication of the magnetic orebody was obtained in 1856 by the provincial land surveyor, A.P. Salter, while engaged in running the meridian line. The orebody was revealed during the building of the Canadian Pacific railway in 1883 and led to a prospecting rush in the next two years. The characteristic rusty gossan (weathered pyrrhotite) on the rock outcrops served as an indicator of the orebody.

Access to the mines is by road from Sudbury; permission to visit must be obtained by writing to the mining companies concerned.

Refs: 9 pp. 1, 6-8, 12-34; 14 pp. 14-17; 25 pp. 30-44.

Maps: 41 I/6 E, W; 41 I/7 W; 41 I/10 E, W; 41 I/11 E, W.

Sudbury district

Vermilion River Placers

NATIVE GOLD.

As fine dust, scales and tiny flattened nuggets in gravel.

The short-lived gold rush to the area began in 1898, the summer following the staking of a number of claims near Capreol. A few years earlier, gold was first panned in the Vermilion River north of Capreol by a chore boy from the lumber camp nearby.

The gold-bearing gravels are along the Vermilion River and its tributaries between Capreol and Meteor Lake 50 miles to the north. Some of the locations worked were Dawson City - a lumber camp on the Vermilion River 8 miles west of Capreol, Onwatin Lake, Marshy Lake,

Ross Lake, Fraser Lake to Post Lake, Onaping Lake and Meteor Lake. Relatively coarse gold was found in the Post Lake gravels.

Refs: 12 pp. 151-159.

Maps: 41 N.E.

Sudbury district

Falcon Gold Mine

PYRITE, ACTINOLITE, TALC.

Pyrite-quartz-calcite veins cutting actinolite-talc-calcite schist.

The pyrite cubes and pyritohedra (rare) measure up to 1 inch across. Actinolite is fibrous. The highest gold values were obtained from the coarser pyrite.

A 6 1/2 mile road leads north from Wanapitei (on Highway 17 about 15 miles east of Sudbury) to the abandoned mine on the east side of Emery Creek (west side of the road at a point 750 feet north of the bridge over the creek).

Refs: 42 pp. 17-20.

Maps: 41 I/10 E.

Sudbury district

Northern Kyanite Mines Limited

KYANITE, GARNET, SILLIMANITE.

In coarse kyanite-gneiss.

Kyanite occurs as blue blade-like crystals up to 3 inches long, garnet as pink crystals up to 3 inches across, sillimanite as white lenses. Attractive specimens consisting of blue kyanite crystals in white quartz may be obtained from quartz veins, but the kyanite-quartz association is not as common as the kyanite gneiss.

Pits and trenches are near Highway 17 at 2 places: 1. 200 yards south of the highway at a point 2.6 miles east of the bridge at Wanapitei; 2. 100 yards north of the Canadian Pacific railway on the north side of the highway 1/4 mile east of the first occurrence.

Refs: 41 pp. 26, 32-37.

Maps: 41 I/7 W.

Mile 42.3 - Junction Highway 68 (Espanola district)

Owen Property

MAGNETITE, SERPENTINE, ICELAND SPAR.

In a vein cutting peridotite.

Magnetite is in botryoidal and mamillary form with radiating structure. Cream-coloured, fine-grained, compact serpentine coats the magnetite.

The property, near the north shore of Bass Lake, belongs to Mr. Owen of Espanola.

Road log from Espanola

Mile 0 - Highway 68 bridge over Spanish River at Espanola. Proceed south along highway.

- 1.7 Turn right (west) leaving highway.
- 2.6 Turn left (south) onto Aspey Lake road.
- 6.2 Fork; take left fork going south.
- 7.6 Fork; take right fork south.
- 8.5 Fork; turn right onto rough single-lane road (not recommended for cars with low clearance).
- 9.2 Road crosses a clearing at top of a low ridge; there are two old buildings to the left and one to the right of the road. At top of ridge walk west 50 yards to the pit.

Refs: 33 pp. 387-390.

Maps: 41 I/4 W.

Espanola district

Elizabeth Lake Deposit

COBALTITE.

In coarse brownish-grey dolomitic rock.

Cubes and pyritohedrons of cobaltite measure up to 1 inch across.

Deposit is near the west end of Elizabeth Lake.

Road log from Espanola

Mile 0 - Highway 68 bridge over the Spanish River at Espanola; proceed south along highway.

1.7 Junction Penage Lake road; turn left (east).

6.7 Turn left (north) continuing to a camp near west end of Elizabeth Lake.

8.0 Camp-site; proceed north along bull-dozed road.

9.0 (approx.) Tunnel; continue a short distance to the pit on a rise of land just beyond tunnel.

Maps: 41 I/4 E.

Espanola district

McMillan Mine

ARSENOPYRITE, PYRRHOTITE, CHALCOPYRITE, PYRITE.

In quartz-calcite veins cutting Huronian argillite and quartzite.

Some of the pyrite occurs as coarse crystals in vugs. The mine is on the north shore of the west end of House (Moyle) Lake and was worked for gold between 1926 and 1937.

Access is by a 2 1/2 mile road leading west from Highway 68 at a point 13.2 miles south of the bridge at Espanola.

Refs: 32 pp. 42-46.

Maps: 41 I/4 W.

Mile 45.0 - 46.0

Rock Exposures

STAUROLITE.

In schist.

The staurolite crystals up to 2 or 3 inches long and often in cruciform twins, make up a prominent part of the rock.

Outcrops are 440 yards east of Webbwood station, and near Highway 17 at points 2 to 3 miles east of Webbwood.

Refs: 44 pp. 20-21.

Maps: 41 I/5 W.

Mile 61.6 - Turnoff to Massey Mine

Massey Mine

CHALCOPYRITE, PYRITE, SPECULAR HEMATITE.

In greywacke, arkose and quartzite.

Malachite, azurite and bornite occur as alteration products of chalcopryrite. The mine was worked for copper at intervals between 1900 and 1916.

Road log from Massey

Mile 0 - Highway 17 bridge over River aux Sables in Massey; proceed west along highway.

3.0 Turn right (north) onto branch road.

5.0 Fork; follow right (east fork)

5.5 Mine is on east side of road.

Refs: 32 pp. 28-31.

Maps: 41 J/1 E.

Mile 83.8

Rock Exposures

STAUROLITE.

In muscovite schist.

Twinned crystals measure an inch or more in length.

Exposures are on south side of Highway 17 at a point 4 1/2 miles east of Spragge.

Refs: 1 p. 5.
Maps: 41 J/2 E.

Mile 91.3 - Turn-off to Pronto Uranium mine

Pronto Uranium Mine (Rio Algom Mines Ltd.)

PITCHBLENDE, BRANNERITE, RUTILE, ANATASE, MONAZITE,
PYRITE.

In conglomerate of well-rounded white or grey translucent quartz pebbles 1/2 to 2 inches across in a fine-grained sericite-pyrite matrix.

Uranium-bearing minerals pitchblende and brannerite, occur as tiny grains visible only under a high-power microscope. The conglomerate takes a high polish resulting in a fairly attractive stone. The property, originally a gold prospect, was worked for uranium in the 1950's.

Access is by a 1-mile road leading north from Highway 17 at a point 3 miles west of Spragge.

Refs: 1 pp. 7-9.
Maps: 41 J/2 E.

Mile 134.3 - Junction Highway 129, Thessalon

Cheney Mine

CHALCOPYRITE, PYRITE, SPECULAR HEMATITE, SIDERITE OR
ANKERITE, BARITE, CALCITE.

In quartz veins cutting conglomerate, quartzite, argillite and diabase.

Vugs lined with quartz crystals occur in the specularite-rich veins. The mine was formerly worked for copper.

West side of Highway 129 at a point 25 miles north of Thessalon (or, 7.2 miles north of the junction of Highways 129 and 554).

Refs: 32 pp. 10-15.
Maps: 41 N. E.

Mile 143.5

Rock Exposures

JASPER CONGLOMERATE.

The rock is composed of rounded pebbles, usually less than an inch long, of bright red to brown, mauve, green or black jasper in a cream-coloured quartzite matrix. It takes an excellent polish and makes a striking ornamental stone. The corner-stone of the Geological Survey building in Ottawa was cut from a boulder of this rock.

Exposures are along the side of Highway 17, 2.6 miles east of the junction with Highway 561. Similar occurrences of this rock will be seen as we proceed westward.

Maps: 41 N.E.

Mile 146.1 - Junction Highway 561, Bruce Mines

Havilah Mine

NATIVE GOLD, CHALCOPYRITE, PYRITE.

In quartz-carbonate veins cutting Keweenawian diabase and Huronian quartzite.

Native gold has been found as specks visible to the naked eye. When weathered the carbonate tarnishes to a rich bronze-red. The mine was worked between 1892 and 1912.

Road log from Bruce Mines

Mile 0 - Junction Highways 17 and 561; proceed north along Highway 561.

13.5 Highway swings sharply eastward; continue north along branch road passing through Ophir village.

15.5 Turn right (east) onto mine road.

16.6 Havilah mine at end of road.

Refs: 15 pp. 116-118.

Maps: 41 J/5 E.

Mile 146.1 - Junction Highway 561, Bruce Mines

Clear Lake Deposit

COBALTITE, NATIVE BISMUTH, QUARTZ CRYSTALS.

Quartz-calcite veins cutting diabase.

Cobaltite and bismuth, usually as small masses; some of the bismuth forms thin sheets coating quartz crystals up to an inch in diameter.

A pit and stripping are near the extreme eastern end of Clear Lake (southeast quarter of the south half of lot 1, concession 4, Otter township), immediately east of Saunders Lake.

Road log from Bruce Mines

Mile 0 - Junction Highways 17 and 561; proceed north along Highway 561.

19.3 Dunn's Valley P.O.; turn right proceeding east.

24.6 Road swings north (in 1961 the road from this point was accessible only by jeep).

28.7 Fork; take right (east) fork.

34.0 East end of Clear Lake.

Refs: 8 p. 196.

Maps: 41 N.E.

Mile 146.2

Rock Exposures

JASPER CONGLOMERATE.

Boulders on both sides of Highway 17 just west of the junction with Highway 561, and along the slope of a low hill behind the tennis court in Bruce Mines village.

Maps: 41 J/5.

Mile 146.3 - Bruce Mines

Bruce Mine

CHALCOPYRITE, BARITE, CALCITE.

Quartz veins cutting Keweenawan diabase.

Deposit was discovered in 1846; prior to 1875 it was one of the most important producers of copper in the world. Production ceased in 1876.

The mine is in Bruce Mines village.

Refs: 28 pp. 231-235.

Maps: 41 J/5 W.

Mile 151.8 - Turn-off to Gordon Lake.

Stobie Mine

HEMATITE.

Veins traversing Huronian quartzite.

Both the dull red earthy and the specular varieties of hematite occur. The mine was worked in the 1870's and abandoned in 1894.

Road log from Bruce Mines

Mile 0 - Proceed west along Highway 17.

5.5 Junction Gordon Lake road; turn right (north)

13.8 Fork; turn right (east).

14.1 Mine workings on hillside on north side of road.

Refs: 15 p. 133

Maps: 41 J/5 W.

Mile 159.7 - Junction Highway 548.

Rock Exposures

JASPER CONGLOMERATE.

Outcrops are on both sides of Highway 17 at points 0.2 mile west and 0.6 mile east of the junction with Highway 548.

Maps: 41 K/8 E.

Mile 177.6 - Garden River village

Jardun Mine

GALENA, CHALCOPYRITE, PYRITE, SPHALERITE, SPECULAR

HEMATITE, JASPER.

In quartz veins and chlorite schist.

Good crystal specimens of chalcopyrite have been obtained from this deposit, formerly known as the Victoria and Cascade mines. It was worked for lead, silver and zinc intermittently between 1875 and 1957.

Access by a 9-mile road north from Garden River village.

Maps: 41 K/8 E.

Mile 186.0 - Sault Ste. Marie

SECTION 2

SAULT STE-MARIE — LAKEHEAD

Mile 0 - Sault Ste. Marie

Mile - 10 Junction Highway 556 to Bellevue.

McNabb Property

GALENA, ARSENOPYRITE, CHALCOPYRITE, PYRITE, SPHALERITE,
QUARTZ.

In quartz-carbonate veins cutting greenstone.

The galena is coarsely crystalline; quartz crystals line vugs in the vein. The deposit, also known as the Kirby-Legge property, was worked in 1927 and again in 1951-52.

The property is in lot 10 concession 3 Deroche township and is reached from Bellevue by a wagon road.

Refs: 26 pp. 72-73; 53 p. 43.

Maps: 41 K/9 E.

Mile 40.0 - Harmony Bay

Harmony Bay Beach Deposit

AGATES.

As pebbles.

The pebbles are not of a particularly good colour and are difficult to find.

Maps: 41 K/16 W.

Mile 45.7 - Junction with Highway 563.

Batchawana Mine

SPECULAR HEMATITE, JASPER

In gneiss, greenstone and schist.

The deposit was worked for a short time after its discovery in 1865.

Access is by an old, 3-mile trail leading north from Highway 17 at the junction of Highway 563.

Refs: 31 pp. 77-78.

Maps: 41 K/15 E.

Mile 53.0 - 66.0

Rock Exposures

CHALCEDONY, ZEOLITES, JASPER, HEMATITE, CHLORITE, CALCITE, NATIVE COPPER.

In amygdaloidal cavities in Keweenawan basalt.

Chalcedony is colourless, white or greyish and usually occurs with one or more of the other minerals producing concentric or banded patterns. The zeolites include salmon-red stilbite, peach-coloured heulandite, pink laumontite and white prehnite. Some of the calcite fluoresces pink. Most of the cavities are less than an inch across; occasionally cavities 2 or 3 inches by 1/2 to 1 inch furnish sufficient material for cutting. In 1936, a 147-pound specimen of almost pure native copper was found at mile 55 when the highway was being built. It is believed that native copper was found at Mamainse Point in 1798 by the explorer David Thompson. The road-side sign "Agate Sand Acres" refers to a cottage development on the lakeshore, and is not a collecting area for agates.

The rock exposures are along a 13-mile stretch of Highway 17 beginning about 2 miles west of the entrance to Pancake Bay Provincial Park, and along the adjacent shoreline of Lake Superior.

Refs: 52 pp. 1, 19.

Maps: 41 N.W.

Mile 58.9 - Turn-off to Copper Creek deposit.

Copper Creek Deposit

NATIVE COPPER, CHALCOCITE, CHALCOPYRITE, BORNITE, MALACHITE, SPECULAR HEMATITE, EPIDOTE.

In a fault zone in Keweenawan conglomerate and lava flows.

Fine specimens of native copper were found in the dumps in 1952.

Access is by a 1 1/4-mile road leading east from Highway 17 at

mile 58.9.

Refs: 52 pp. 18-23

Maps: 41 N.W.

Mile 62.0

Mamainse Mine

NATIVE COPPER, CHALCOCITE, CHALCOPYRITE, BORNITE,
MALACHITE, SPECULAR HEMATITE, EPIDOTE.

In a fault zone in Keweenawan conglomerate and lava flows.

Abandoned workings are on both sides of Highway 17 at Mile 62 (500 yards north of the turn-off to the Munising Wood Products property). The vein is exposed on the shore of Lake Superior 400 feet northwest of the workings.

Refs: 52 pp. 18-23

Maps: 41 N.W.

Mile 71.8 - Turn-off to Theano Point (Camray mine)

Camray Mine

PITCHBLENDE, HEMATITE, CALCITE, PYRITE, GALENA.

In fractures in granite.

Yellow secondary uranium minerals coat the weathered ore specimens. The presence of a radioactive orebody at Theano Point was first established in 1847; a century later, Mr. Robert Campbell discovered pitchblende at a cove on the west side of the Point and staked a number of claims. The property has been idle since 1952.

Access is by a 1 1/2-mile dry weather road leading west from Highway 17 at Mile 71.9 (5.2 miles south of the Montreal River bridge). A similar deposit was worked on the south side of this road at a point 1/2 mile from the highway.

Refs: 39 pp. 15-19

Maps: 41 N.W.

Mile 77.1 - Montreal River Harbour

Beach Deposit

EPIDOTE.

As pebbles and small boulders

Pebbles suitable for polishing are composed mainly of pistachio-green epidote traversed by pink to orange-red feldspar veinlets producing attractive contrasting patterns; tiny, dark specks are due to deep green chlorite.

Found along the beach of Lake Superior in the vicinity of the Montreal River harbour.

Maps: 41 N.W.

Mile 79.6 - Turn-off to Consolidated Ranwick mine.

Consolidated Ranwick Uranium Mines Limited

PITCHBLENDE, GALENA, CHALCOCITE, CALCITE, HEMATITE, SECONDARY URANIUM MINERALS, MOLYBDOMENITE (personal comm.: J.A. Mandarino).

Veins in diabase.

The mine was worked from 1949 to 1951; for the past few years it has been open to the public for tours of its underground workings. Ore specimens are available to collectors.

Access is by a road leading south from Highway 17 at a point 2.6 miles east of the Montreal River bridge (at Mile 77.0).

Refs: 39 pp. 25-26

Maps: 41 N.W.

Mile 90.1 - Bridge over Agawa River

Agawa River Deposit

EPIDOTE (similar to the deposit at Montreal River harbour).

As pebbles.

In the bed of the Agawa River where it is bridged by Highway 17, and along the shore of Lake Superior at the Agawa Bay picnic site.

Maps: 41 N.W.

Mile 101.0 - Entrance to Coldwater River picnic site.

Rock Exposures

EPIDOTE.

Coating joint planes in pink granite; as pebbles.

The coating is up to 1/2 inch thick and sometimes shows dark streaks due to chlorite inclusions.

Exposures are along the series of road cuts just north of the entrance to the Coldwater River picnic site; pebbles are found along the shore of Lake Superior at the picnic site.

Maps: 41 N.W.

Mile 138.0 - Turn-off to Michipicoten Harbour.

Michipicoten Island Deposits

AGATE, JASPER, CHALCEDONY, AMETHYST.

As nodules and seams in Keweenawan lava; as beach pebbles.

Among the specimens found are: banded and moss agate, chalcedony of various colours, carnelian, amethyst banded with white chalcedony and/or crystalline quartz, jasper, jasper-agate, pink thomsonite. The largest nodules measured about 10 inches long and a few inches across. Some nodules, due to their peculiar carrot-shape, are popularly referred to as "spike amygdules".

The collecting sites are along the western, southern and eastern shores of the island. Among the localities which have yielded good specimens are: Quebec Harbour, Agate Islet, Schafer Bay, Cozens Harbour, Channel Lake and the vicinity of the old Quebec Mine. An outcrop at the shoreline near the Quebec Mine exposes weathered "chlorastrolite".

The island is about 40 miles southwest of Michipicoten Harbour where arrangements for boat rental and guide services may be made.

Refs: 54 pp. 438-442, 451.

Maps: 41 N.W.

Mile 138.0 - Turn-off to Grace mine.

Grace Mine

NATIVE GOLD, PYRITE, CHALCOPYRITE, ARSENOPYRITE,
PYRRHOTITE, SIDERITE, TOURMALINE.

In quartz-calcite veins cutting dark green porphyrite.

Spectacular specimens of native gold were obtained from near the surface at the beginning of mining operations. The mine, now idle, was the chief producer of gold in the Michipicoten area in the early 1900's.

A 5-mile road leading east from Highway 17 at the Michipicoten Harbour (Mission road) turn-off leads to the mine.

Refs: 20 pp. 30-34.

Maps: 41 N.W.

Mile 141.9 - Turn-off to Wawa

Algoma Steel Corporation Limited

SIDERITE, HEMATITE, GOETHITE, MAGNETITE, PYRITE, CHALCOPYRITE.

In banded siliceous iron formation.

The most important ore mineral - siderite - occurs as yellowish, grey, brown or nearly black dense masses. Mining began in 1900 at the Helen mine which for a time was the most important iron mine in Canada. This and other properties near Wawa are currently operated by Algoma Steel Corporation Limited. The company conducts guided tours to the mine site for tourists; the tours start from Wawa.

Refs: 34 pp. 83-118.

Maps: 42 S.W.

Mile 167.0 - 197.0; 220.0; 229.0

Rock Exposures

EPIDOTE

Coating surfaces on granite.

The occurrences are similar to the deposit near the Coldwater River picnic site.

The rock is exposed in the following road-cuts along Highway 17; in a series extending from a point 25 miles north of Wawa to the White River turn-off; east of the entrance to White Lake Provincial Park (23 miles west of the White River turn-off); in a series extending from 2 miles east to 3/4 mile west of the junction of Highway 614.

Maps: 42 S.W.

Mile 246.0-273.0

Rock Exposures

NEPHELINE, AUGITE and HORNBLLENDE SYENITES, MAGNETITE, PARISITE, BASTNAESITE.

The three varieties of syenite are suitable for building or ornamental stone. Both augite and hornblende syenites have been quarried for building stone. The nepheline syenite is composed of a white to grey nepheline-feldspar matrix with long, lath-shaped black hornblende crystals and blotches of a deep orange coloured alteration product of the nepheline (mostly natrolite). The orange patches are in striking contrast with the white matrix. The rock can easily be recognized by a chalky-white pitted appearance on the weathered surface. The augite syenite is a brownish-black, greenish-tinged, medium to fairly coarse-textured rock. It takes a high polish and exhibits a dark bluish schiller due to the feldspar laths. It resembles the famous Norwegian laurvikite which is used extensively as a monument and ornamental stone. In the road cuts, it is recognized by the greenish tinge, by the bright lustre of the feldspar on the fresh surface, and by a dull, somewhat greasy appearance on the weathered surface. The hornblende syenite is composed of a brick-red feldspar matrix enclosing jet black crystals of hornblende, some are 5 inches long and about 1 1/2 inches across. It is closely associated with the other syenites and can be seen at nearly all the road-cuts mentioned below.

The deposits are exposed in the following road-cuts along Highway 17:

Nepheline syenite - between the Heron Bay turn-off (Mile 246) and the Little Pic River; it is most abundant in the vicinity of the Coldwell turn-off (Mile 265.5).

Augite syenite - between the Marathon turn-off (Mile 254.2) and a point about 1 mile east; in a series of cuts extending from 2.2 to 3.7 miles west of the Marathon turn-off; 0.7 mile west of the Coldwell turn-off; from the east side of the Little Pic River (Mile 271.7) to a

point 1 mile west of the bridge.

Hornblende syenite - road-cuts 1.0 and 1.3 miles west of the bridge over the Little Pic River furnish particularly coarse rock.

Magnetite (titaniferous) - gabbro and augite syenite rock-cuts which extend westward 1 1/2 miles from the Little Pic River.

Parisite, bastnaesite - in a road-cut 1 mile south of the Marathon turn-off, i.e: Mile 253.2. (Personal Comm.: J.A. Mandarino).

Refs: 55 pp. 3, 5-6.

Maps: 42 S.W.

Mile 300.0 - Terrace Bay

Slate Islands Deposit

JASPER.

As pebbles in green Huronian schist.

The pebbles are bright red; some are over a foot across.

Outcrops are along the western shores of the largest of the Slate Islands. Small exposures of banded jasper are found in various parts of the islands. The Slate Islands are in Lake Superior, about 8 miles south of Terrace Bay. Arrangements for renting boats may be made at Terrace Bay or Schreiber.

Refs: 13 pp. 137-138.

Maps: 42 S.W.

Mile 305.4 - Turn-off to Schreiber gold mines

Schreiber Gold Mines

NATIVE GOLD, PYRITE, CHALCOPYRITE, SPHALERITE, PYRRHOTITE, MAGNETITE, TELLURIDES.

In quartz-carbonate veins cutting Keewatin lava.

In some veins, visible gold has been found in coarse pyrite cubes. Radiating groups of tourmaline have been reported from the Schreiber Pyramid mine. The mines were worked about 30 years ago.

The road to the mines goes north from Highway 17 about 3 miles east of Schreiber.

Gold Range Mines Limited - on the face of a cliff on the north side of the highway, near the junction with the mine road.

Harkness-Hays Gold Mines, Limited - immediately west of the Gold Range mine.

Schreiber Pyramid Gold Mines, Limited - 4 miles by road north of the Gold Range mine.

Refs: 22 pp. 17-23

Maps: 42 S.W.

Mile 314.0

Rock Exposures

FLUORITE, EPIDOTE.

As a coating on fracture planes in granite.

Fluorite crystals are deep purple, less than 1/4 inch across, but well-formed. The epidote coating is usually about 1/4 inch or less in thickness.

Road cuts are just west of Billy Lake, about 9 miles east of RosSPORT.

Maps: 42 S.W.

Mile 323.0 - Turn-off to RosSPORT

Nipigon Bay Islands Deposits

AGATES, PREHNITE, PUMPELLYITE (ZONOCHELORITE), "THUNDER EGGS".

As nodules in Keweenaw lava or scattered along the beaches.

The agate is mostly blue, grey and green, sometimes in geodes measuring up to 6 inches across. Pumpellyite (zonochlorite), locally known as RosSPORT or Nipigon Bay "greenstones" may also occur in geodes. "Thunder eggs" are reported from only one locality (Agate Point).

The following localities are known to yield agates, prehnite, etc.:
Copper Island - half way along the south shore; Wilson Island - south shore near the east end, and near the west end at Greenstone Beach; Salter Island - at beach just west of the opening of Old Man's Pocket Harbour, and in the headland to the west of the harbour; Harry Island -

in tiny cove at the west end; Simpson Island - along south shore (except east end to beyond Morn Harbour), and the shore west of McKay Cove; small islet - south of Simpson Island; Bowman Island; Agate Island; Agate Point on the east shore of Black Bay peninsula. The islands are accessible by boat from Rossport where arrangements may be made for guides and rental of boats.

Refs: 54 pp. 434-451.

Maps: 42 S.W.

Mile 330.0

Rock Exposures

AMETHYST, FLUORITE, BARITE.

In fracture planes in pink granite.

Seams up to 1 1/2 inches wide are filled with medium-deep purple to colourless quartz crystals (some coated with a thin film of jasper), deep purple fluorite cubes (about 1/4 inch across) and salmon-pink platy barite crystals.

The road cuts extend 1 1/2 miles westward from a point 6.8 miles west of the western turn-off to Rossport.

Maps: 42 S.W.

Mile 359.0 - Bridge over Jackfish River

Jackfish River Deposit

AMETHYST, BARITE, GALENA, SPHALERITE, CHALCOPYRITE, PYRITE.

In quartz-calcite vein cutting pegmatitic granite gneiss.

There are trenches on the east bank of the Jackfish River, 1 1/2 miles above the Canadian Pacific Railway bridge; Highway 17 bridges the river just south of the railway bridge, about 9 miles east of Nipigon. There is no trail to the deposit; but it is accessible by boat.

Refs: 49 p. 182.

Maps: 42 S.W.

Mile 401.3 - Junction Road No. 69-13.

Enterprise Mine

AMETHYST, SMOKY QUARTZ, BARITE, GALENA, CHALCOPYRITE, CALCITE.

In sedimentary rock, granite and diabase.

The quartz crystals, up to 1/2 inch across, vary from colourless to pale purple, smoky to black; barite forms orange-red, radiating platy crystals; galena cubes measure up to 1/2 inch across; calcite fluoresces pink. The deposit was discovered in 1865 and was worked from 1870 to 1876. The lead ore was shipped from Black Bay directly to Swansea, Wales.

Road log from junction Highway 17/11 and Road No. 69-13 (6 miles south of Ouimet; 1.5 miles north of Pearl).

Mile 0 - Turn left (east) onto Road No. 69-13.

0.7 Canadian National railway crossing; walk north 300 yards along tracks to the mine dump on the west side of the railway.

Refs: 49 pp. 168-169.

Maps: 52 A/10 E.

Mile 406.6 - Turn-off to Silver Lake

Silver Lake Deposits

AMETHYST, GALENA, SPECULARITE, FLUORITE, PYRITE, SPHALERITE.

In quartz-calcite veins cutting Keweenaw sandstone and red tuff.

Galena cubes measuring up to 2 inches across have been found in a vein on the west side of the peninsula on the south side of the lake 1000 feet east of its west end; specular hematite in pits at the west end of the lake; deep purple fluorite exposed in the vein on the north shore of the lake, 300 feet from its west end. The deposit was explored for silver and lead in the 1860's.

Most of the pits are near the south shore of the western half of Silver Lake (see Map 1). The Silver Lake road leads east from Highway 17/11 at a point 3.8 miles south of Pearl.

Refs: 49 pp. 162-164.

Maps: 52 A/10 E.

Mile 407.0 - Junction East Loon Road

Loon Lake Molybdenite Deposit

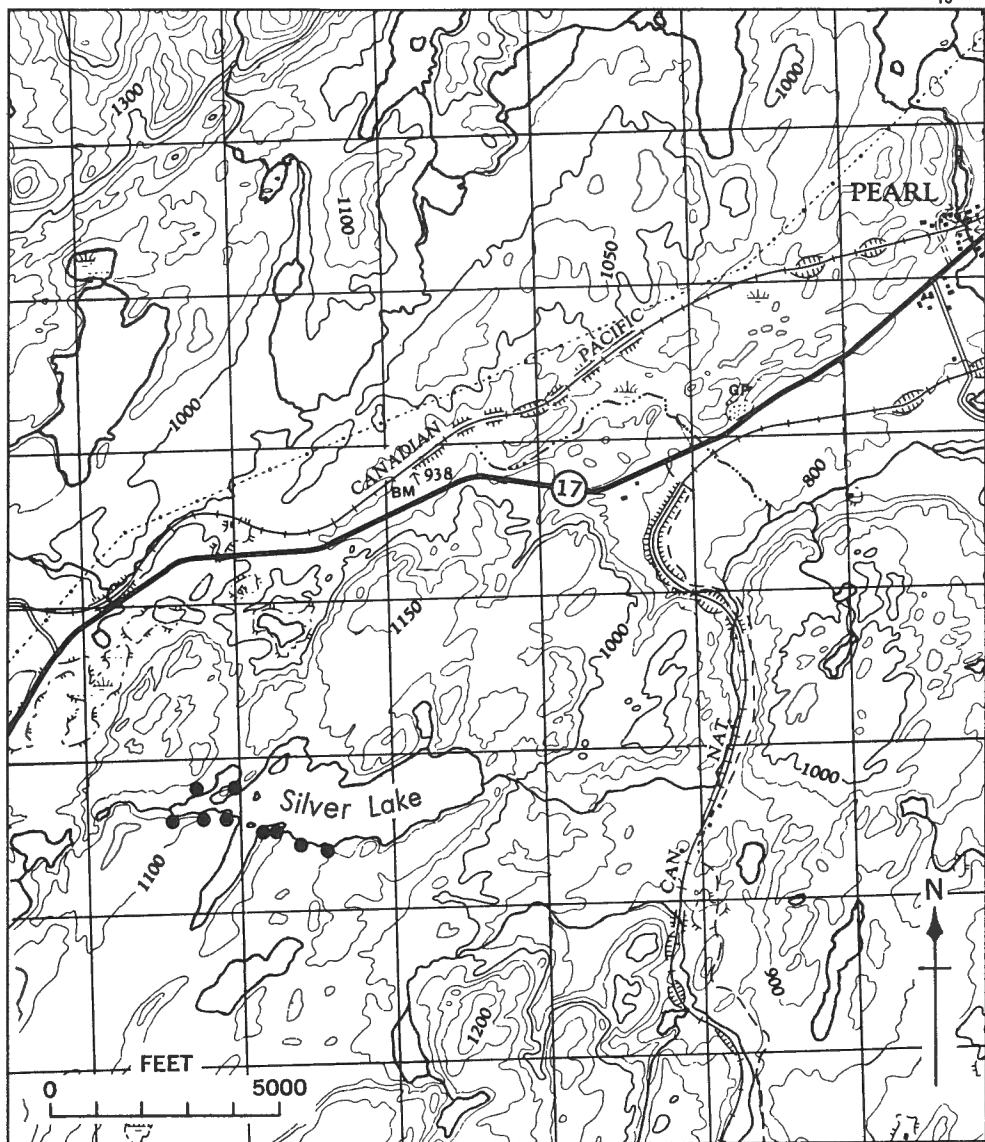
MOLYBDENITE, MUSCOVITE.

In quartz stringers and in pegmatite.

The molybdenite crystals measured up to 5 inches in diameter, and muscovite crystals up to 1 1/2 inches across.

Access is by a 2 3/4 mile road leading north from the East Loon road just east of the point where Anderson Creek enters Loon Lake. The

Part of N. T. S. Map 52 $\frac{A}{10}$ E.



Map 1. Silver Lake deposits (pits)

East Loon road leaves Highway 17/11 at a point 4 1/4 miles southwest of Pearl.

Refs: 24 pp. 82-83.

Maps: 52 A/10 W.

Mile 410.2 - Junction Highway 587 (Silver Islet district).

Pass Lake Road Quarry

CONCRETIONS.

In thinly laminated black carbonaceous shale of Huronian age.

The concretions composed mostly of black carbonaceous shale and, usually, calcite and pyrite, are shaped like oblate spheroids. They are similar to, but more massive than, the enclosing rock.

Quarry is on Pass Lake road (Highway 587) 2.2 miles east of its junction with Highway 17/11.

Refs: 43 p. 34.

Maps: 52 A/10 W.

Silver Islet district

Silver Islet Mine

NATIVE SILVER, BARITE, ARGENTITE, NICCOLITE, GALENA, SPHALERITE, MARCASITE, COBALTITE, SMALTITE, DOMEYKITE, CHALCOPYRITE, TETRAHEDRITE, PYROLUSITE, CERARGYRITE, ANNABERGITE, ERYTHRITE.

In quartz-carbonate veins cutting Animikie shale.

The native silver was found in the form of wires, leaves, nuggets and veinlets. The deposit was discovered in 1846 and first mined in 1868 after silver had been found west of the Lakehead. Mining was interrupted for brief periods due to storm damage. Operations were finally suspended when a cargo of coal failed to arrive. The mine was considered to be the richest silver deposit in the area having yielded masses of very rich ore.

The mine is at the southwest end of Silver Islet, a tiny island (about 80 feet wide and 1/8 mile long) 3/4 mile south of the southern tip of Sibley Peninsula. Access is by boat from Silver Islet Landing.

Refs: 49 pp. 92-104.

Maps: 52 A/7 W

Silver Islet district

Edward Island Arsenic Deposit

NATIVE ARSENIC, NATIVE SILVER, LAUMONTITE, SPHALERITE, CHALCOPYRITE, GALENA, ARGENTITE.

In calcite veins cutting granophyre.

The deposit was explored for silver and arsenic in the 1880's and in 1921. A few hundred pounds of specimens rich in native arsenic (as reniform masses) were distributed to mineral collectors.

Shafts are near the shore, on the south shore of the island east of Horseshoe Cove. The island is accessible by boat from Silver Islet Landing, a distance of about 8 miles.

Refs: 49 pp. 186-187.

Maps: 52 A/7 E.

Silver Islet district.

Edward and Porphyry Islands Copper

NATIVE COPPER, ZEOLITES, CHLORITE, AGATE, CALCITE.

In amygdules in basic lava.

The native copper is in the form of tiny nuggets up to 1/10 inch in diameter.

Rock exposures are near the north end of Edward Island, and along the west shore of Porphyry Island. Both islands are accessible by boat from Silver Islet Landing.

Refs: 49 p. 195.

Maps: 52 A/7 E.

Mile 421.5 - Junction Silver Harbour road.

Silver Harbour Deposits

AMETHYST, SPHALERITE, GALENA, PYRITE, CHALCOPYRITE, JASPER.

In quartz-calcite veins at the contact between granite and Animikie sediments. Jasper in siliceous iron formation of Huronian age.

Amethyst crystals are pale to medium deep in colour and about 1/2 inch across. The deposit was worked for silver sometime before 1887. The jasper shows concentric structures.

Road log from junction Highway 17/11 and Silver Harbour road (11.3 miles southwest of junction with Highway 587) to amethyst occurrence.

Mile 0 - Take Silver Harbour road.

0.2 Canadian National railway crossing; turn left and walk north along tracks.

0.8 Rock cut; pits are in this outcrop, about 50 feet east of the tracks.

The jasper exposures are along the Silver Harbour road, and along the Canadian National railway cut just north of Green Point (about 5 miles southwest of the railway crossing on the Silver Harbour road).

Mile 434.0 - Port Arthur

SECTION 3

LAKEHEAD - ONTARIO/MANITOBA BORDER

Mile 0 - Port Arthur

Thunder Bay Mine

NATIVE SILVER, ARGENTITE, GALENA, SPHALERITE, CALCITE, QUARTZ.

In cherty carbonate rocks and shale.

Native silver and argentite were found as leaves and grains in pockets measuring up to 18 inches thick and 40 feet long. The opening of this mine in 1866 marked the beginning of silver mining in the Lakehead area; it was worked until 1869 and again in 1874.

Mine is on the south slope of a hill 1000 yards northeast of the northeastern corner of the golf course in the northeast section of Port Arthur.

Refs: 49 pp. 155-156

Maps: 52 A/6 E.

Port Arthur district

Shuniah (Duncan) Mine

AMETHYST, SMOKY QUARTZ, FLUORITE, GALENA, SPHALERITE, CALCITE, NATIVE SILVER, ARGENTITE.

Vein traversing shale, diabase, schist, granite.

Quartz crystals vary from colourless to smoky to medium-deep purple; calcite is white and lilac-coloured (fluoresces pink). During mining operations (1868 to 1881) rich pods of native silver and argentite in leaf form were found.

Road log from Port Arthur

Mile 0 - Boulevard Lake Scenic Lookout (north end of Port Arthur);
proceed north along a single lane road.

0.5 Radio tower; bear left following trail north.

0.6 Shuniah mine dump.

Refs: 49 pp. 153-155.

Maps: 52 A/6 E.

Port Arthur district

Current River

CHERT.

In bed of river.

Varieties include: oolitic chert containing concentrically banded round granules composed of chert, hematite and magnetite; algal chert exhibiting finely banded patterns.

Deposit is in Current River between Boulevard Lake and the Black Bay bridge; this part of the Current River is easily accessible from the parkways on either side of the river or from the foot of the bridge.

Refs: 43 p. 70

Maps: 52 A/6 E.

Port Arthur district

Gorham and Lakehead Mines

NATIVE GOLD, PYRITE, CHALCOPYRITE.

In quartz-ankerite veins cutting Keewatin sediments, tuffs and agglomerates.

The two adjoining properties were worked about 30 years ago.

Road log from Port Arthur

Mile 0 - Junction Highway 17A/11A and Hildale Road at Jumbo Gardens (northwest end of Port Arthur); proceed north along Hildale Road.

3.3 Fork; continue north 2 1/2 miles to the Lakehead mine; take right (east) fork for Gorham mine.

4.3 Junction Onion Lake road; turn left (north).

7.0 Gorham mine on west side of road.

Refs: 30 pp. 12-15.

Maps: 52 A/11 E.W.

Port Arthur district

Oliver Road Quarries

Concretions (similar to Pass Lake road occurrence).

Along Oliver road (Highway 130), about 4 miles west of the junction with Highway 17/11.

Refs: 43 p. 70

Maps: 52 A/6 W.

Mile 5.1 - Fort William

Prince's Mine

AMETHYST, BARITE, SPHALERITE.

In quartz-calcite veins.

The mine, worked in 1846 or 1847, is the oldest mine in the area.

Road log from junction Highway 61 and Jarvis Bay road (3 1/4 miles south of Jarvis River; 24 miles south of Fort William).

Mile 0 - Take Jarvis Bay Road.

5.5 Jarvis Bay summer resort. Follow shoreline (on foot or by boat) to the headland of Prince Bay, opposite Spar Island.

7.0 Mine at side of hill about 60 yards from shore; at the shore there is an exposure of amethyst-quartz-calcite veins.

Refs: 49 pp. 193-194.

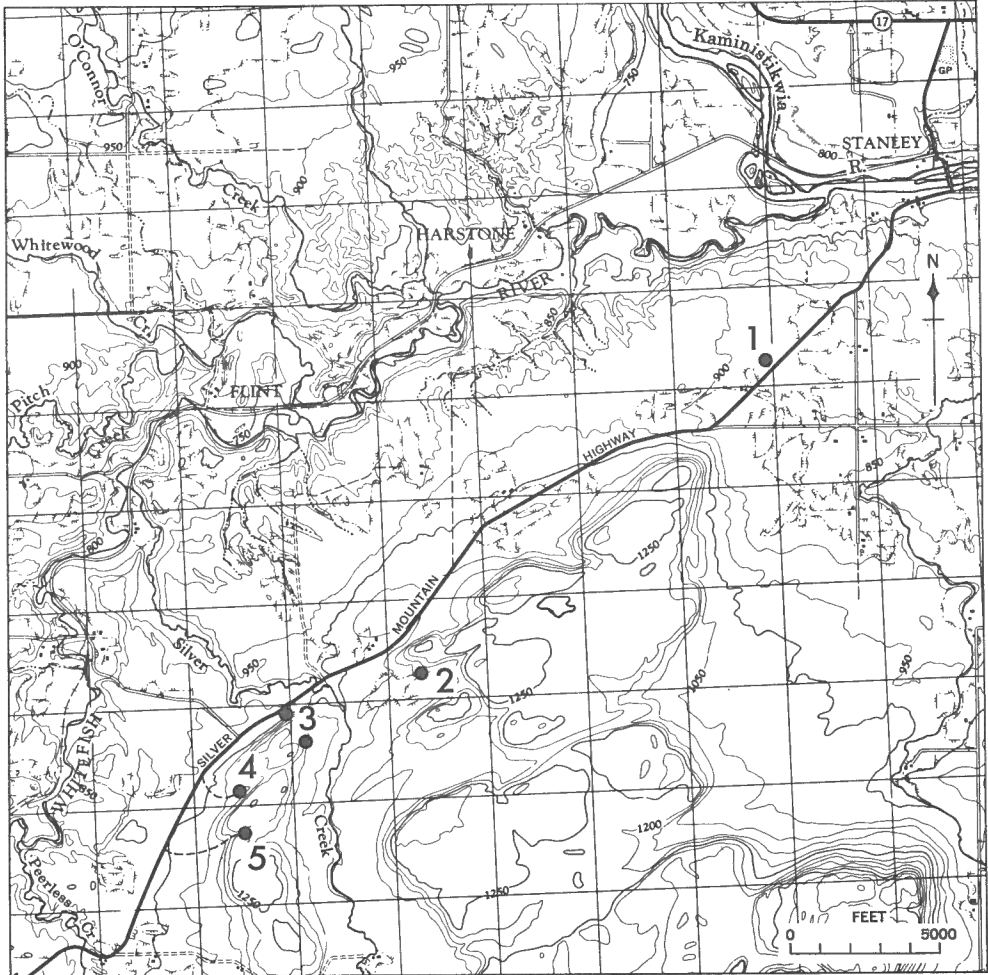
Maps: 52 A/3 W.

Mile 19.7 - Turn-off to Stanley (Silver Mountain district).

Victoria, Beaver Junior, West Beaver, Climax, Badger and Silver Mountain Mines

AMETHYST, BARITE, FLUORITE, GALENA, PYRITE, SPHALERITE, ARGENTITE (rare), NATIVE SILVER (rare), ROSE QUARTZ.

Part of N. T. S. Map 52 $\frac{A}{5}$ E.



Map 2. Stanley area:

1. Victoria mine; 2. Beaver Junior mine; 3. West Beaver mine;
4. Climax mine; 5. Badger mine

In quartz-calcite veins cutting Animikie shale (Huronian age) and/or diabase.

Amethyst crystals are pale to medium-deep purple and usually less than 1/2 inch across; fluorite is purple or green; sphalerite is black or yellow. Much of the calcite fluoresces pink. Among the less common occurrences reported are: transparent, well-formed barite crystals (up to 1 1/2 inches in diameter) in a matrix of creamy white crystalline barite at the Beaver Junior mine; rose quartz and pyrrhotite in the south workings of the West Beaver mine; smoky and pink-tinged quartz crystals at the Badger mine; white crystalline barite at the Silver Mountain mine. The deposits were worked for silver between 1885 and 1912. In the period 1898-1903, the Silver Mountain mine was the chief silver producer in the district; it was reworked (1924-1927) for calcite which was used for stucco material, and for black shale which was used for road metal.

Access is by roads or trails branching from the Silver Mountain highway (Highway 588) at points southwest of Stanley Village; mileages referred to below are measured from the south end of the bridge over the Kaministikwia River at Stanley (see Map 2): Victoria mine - 100 feet north of the highway at Mile 1.7. Beaver Junior mine - near the base at the south side of the mesa-like hill, about 400 yards southwest of the highway at Mile 4.9. West Beaver mine - north workings are near the base at the north side of the mesa about 150 feet south of the highway at Mile 5.7; south workings are on east side of the same hill about 450 yards away. Climax (Keystone) mine - a 1/2 mile road leads south from the highway at Mile 6.3. Badger mine - 3/4 mile road leads west from the highway at Mile 6.7. Silver Mountain mines - at west and east sides of Silver Mountain, the two are connected by an overgrown trail about a mile long.

Road log to mine at west side of Silver Mountain.

Mile 0 - Junction Highways 588 and 593; proceed south along Highway 593.

1.1 Turn left (east) onto road to Silver Mountain.

1.5 Clearing at top of the mountain; bear left following trail east 150 yards to the mine.

Refs: 49 pp. 115-117, 126-134.

Maps: 52 A/4 W.

52 A/5 E.W.

Silver Mountain district

Rock Exposures

Concretions (similar to Pass Lake Road occurrence p.26).

On south side of the Stanley-Slate River Valley road about 5 miles southeast of Stanley, and along the Slate River 1 1/2 miles south of its junction with the Kaministikwia River.

Refs: 36 pp. 14-16.

Maps: 52 A/5 E.

52 A/6 W.

Silver Mountain district

Rock Exposures

JASPER, CHERT (algal).

As pebbles, boulders, outcrops.

Jasper has a beaded or granular appearance due to streaks and specks of chert in various shades of red and of black metallic hematite in a deep red fine-grained matrix. Deep green jasper with red specks - bloodstone - is also found in the area, but is not abundant. The algal chert consists of contorted very fine red (various shades) and white bands, and may contain red or black oolitic granules of chert, hematite or magnetite; it forms cauliflower-shaped concretionary structures 1 to 2 feet in diameter and cabbage or biscuit shaped structures up to 6 inches in diameter. Both the jasper and chert are attractive when polished.

Localities for chert and jasper are: in the bed of the Whitefish River near Nolalu and where it is bridged by Highway 588 (1.8 miles west of Nolalu and 2.0 miles east of Nolalu); in the bed of Peerless Creek where it is bridged by Highway 588 (8 miles southwest of Stanley); along the east and west sides of Mink Mountain - a mesa-like hill on the north side of Highway 588, 17 miles west of Nolalu; in exposures extending northward from the northeast corner of Mink Mountain to the south bank of the Whitefish River; beneath the diabase sill at the southeast end of Divide Ridge - a flat topped ridge on the north side of Highway 588, 7.5 miles west of Nolalu; pebbles and boulders along the shores of Arrow Lake (58 miles west of Nolalu).

Refs: 21 pp. 51-53; 35 p. 8.

Maps: 52 S.E.

Mile 22.8 - Kakabeka Falls.

Rock Exposure

QUARTZ CRYSTALS, PYRITE, JASPER.

Quartz and pyrite in fracture seams in chert-carbonate; jasper as pebbles in conglomerate.

Quartz crystals are white and about 1/4 inch across; fine-grained pyrite forms peculiar botryoidal, colliform masses.

Road cut is on west side of Highway 17/11 just north of its junction with Highway 590 at Kakabeka Falls Provincial Park.

Maps: 52 A/5 E.

Mile 29.3 - Turn-off to Mokomon Station

Mile 30.0 - Junction Highways 17/11 and 17A.

Rock Exposures

JASPER.

In iron formation.

Varieties include ordinary red jasper, banded jasper with chert and banded jasper with magnetite, often complexly folded into attractive patterns.

Occurrences of these varieties are as follows: (1) in the creek bed behind Mokomon station (Canadian National Railway), and along the railway track about a mile north of the station; (2) in outcrops east of Gold Lake, to the east and north of Binabick Lake (about 4 1/2 miles west of Mokomon), and along the small creek entering the Kaministikwia River from the west at a point about 600 yards south of the southern tip of Everell Island; (3) in outcrops along a ridge east of a small lake situated about 3/4 mile southeast of Binabick Lake (south half lot 7, concession 6, Conmee township); on the east bank of the Kaministikwia River about 300 yards south of the mouth of Strawberry Creek (about 3/4 mile south of Kaministikwia village); at various places along the west bank of the Kaministikwia River; along the Canadian National railway between Dot and Everell islands which lie respectively 3/4 mile and 1 1/4 miles south of Kaministikwia village.

Refs: 13 pp. 129-130; 29 pp. 60-61; 43 p. 72.

Maps: 52 A/5 E.W.

52 A/12 E.W.

Mile 45.3 - Junction Highway 11 (Kashabowie district)

Tip Top Mine

CHALCOPYRITE, PYRITE, PYRRHOTITE, BORNITE, MALACHITE.

In quartzite, quartz porphyry and felsite.

The mine, now abandoned, was worked for gold and copper.

Access is by a 6 1/2 mile road leading south from Highway 11 at a point 2 1/2 miles west of Kashabowie.

Refs: 56 pp. 109-127.

Maps: 52 B.

Kashabowie district

Huronian (Ardeen) mine

NATIVE GOLD, CHALCOPYRITE, GALENA, SPHALERITE, PYRITE.

In quartz veins cutting schist, feldspar porphyry and andesite.

The deposit, opened in 1882, was the first gold mine in western Ontario; it was reworked in the 1930's.

Access is by an 11 mile road leading southwest from the Tip Top mine.

Refs: 56 pp. 109-127.

Maps: 52B

Mile 195.5 - Junction Highway 603.

Tabor and Sakoose Mines

NATIVE GOLD, PYRITE, SPHALERITE, CHALCOPYRITE, GALENA,

With quartz in felsite and feldspar porphyry.

The properties, first worked prior to the turn of the century and again in the 1950's, are in an area formerly known as the New Klondike gold region. The Sakoose mine has also been referred to as the Van Houten, Munro, Watson and Golden Whale mine.

Road log from junction Highways 17 and 603.

Mile 0 - Proceed south from junction.

2.5 Fork; follow right (west) fork 3 miles to the Tabor mine;
follow left (east) fork 2 miles to the Sakoose mine.

Refs: 5 pp. 72-73, 75; 46 pp. 1-2.
Maps: 52 F.

Mile 209.0 - Junction Highway 72 (Sioux Lookout district)

Rock Exposures

BASALT PORPHYRY

The rock is composed of closely spaced, semi-transparent, grey or white rounded feldspar phenocrysts (1/4 to 1 1/2 inches across) in a dark green basalt matrix. The phenocrysts have frayed rather than sharply defined edges; when weathered they become milky white. The rock, also referred to as "leopard rock", is suitable as an ornamental stone.

Exposures have been noted as follows: along the west shore near the outlet of Kabikwabik Lake; on a hill between the northwest end of Kabikwabik Lake and the south end of Red Pine Bay of Minnitaki Lake; about midway between the northwest end of Keikewabik Lake and the more northerly of the two small lakes to the west; near the southwest end of Split Lake (6 miles east of Superior Junction); in a series of exposures extending northeastward from the east side of Diamond Lake to the Troutfly Lake portage leading east from the south end of the lake to Highway 72 (at a point 12.5 miles from its junction with Highway 17); in high outcrops about 800 feet north of the bay at the centre of the north shore of Crossecho Lake (lot 2, concession 2, Echo township); on the south side of Crossecho Lake about 800 feet east of the mouth of Kathryn Creek; between Notmuch Lake and the northwest end of Crossecho Lake; on the east shore of Dinorwic Lake about 3/4 mile south of the mouth of Battle Creek.

There are no roads leading to these occurrences; see Map 3 for locations.

Refs: 3 pp. 9-10; 27 pp. 9-11, 33; 45 p. 16.
Maps: 52 F
52 J

Sioux Lookout district.

Newlund Mines Limited

NATIVE GOLD, PYRITE, CHALCOPYRITE, ILMENITE,
SPHALERITE, GALENA, ALTAITE, SCHEELITE, CARBONATE,
TOURMALINE, QUARTZ, ALBITE.

In fractures in granodiorite.

Interesting specimens reported from the deposit include: crystals of pyrite up to 1/2 inch across; coarse native gold; coarse brown-weathering crystals of carbonate; black tourmaline needles in quartz. The property was worked from 1942 to 1952.

Access is by a 2 mile road leading west from Highway 72 at a point 17 1/2 miles north of Dinorwic. (see Map 3).

Refs: 11 pp. 3-5.

Maps: 52 F

Sioux Lookout district

Pidgeon Molybdenum Mines Limited

MOLYBDENITE, PYRITE, BISMUTHINITE, MAGNETITE,
TOURMALINE, MUSCOVITE.

In granite, pegmatite and aplite.

Crystal specimens include: pyrite as cubes up to an inch across and as coarse crystalline aggregates; well-formed hexagonal crystals of molybdenite; bismuthinite (rare) as prismatic crystals 1/16 inch across and up to an inch long; tourmaline as black radiating crystals.

Strippings and trenches are near the east end of Lateral Lake, (see Map 3); access is by a road, 6.3 miles long, leading west from Highway 72 at a point 19.9 miles north of Dinorwic.

Refs: 46 pp. 29-30.

Maps: 52 F.

Sioux Lookout district

Central Manitoba Mine

NATIVE GOLD, PYRITE, GALENA, FUCHSITE.

In quartz stringers cutting andesite.

Patches of coarse gold were found.

Trenches are in Neepawa Island (northeastern part of Minnitaki Lake) about 1/2 mile east of the west end. Access is by boat from Sioux

Lookout (about 9 miles) via Pelican Lake up Frog rapids to Abram Lake, then up Abram chute into Minnitaki Lake, or from one of the tourist camps on Pickeral Arm of Minnitaki Lake about 25 miles north of Dinorwic. Boats may be rented at Sioux Lookout or at tourist camps on Pickeral Arm.

Refs: 11 pp. 8-9.

Maps: 52 G.

Sioux Lookout district

North Pines Pyrite Mine

PYRITE, PYRRHOTITE, MAGNETITE, CHALCOPYRITE,
SPHALERITE, LIMONITE, MELANTERITE.

In shear zone in Keewatin lavas.

The pyrite is mostly massive; some small crystals may be found. During mining operations (1905 to 1921), this was the largest pyrite deposit ever worked in Ontario.

The mine is at the north end of Botham Bay. Access is by a 5-mile road leading northwest from Highway 72 at a point 5 miles south of Sioux Lookout.

Refs: 27 pp. 28-30.

Maps: 52K

Sioux Lookout district

Rock Exposures

JASPER.

In iron formation consisting of jasper, chert, magnetite and slate.

Outcrops are found at the following localities: in a wide band extending from the northwest end of Southeast Bay west southwest to Twin Bay (both bays are on the northeast side of Minnitaki Lake and are accessible by boat from Sioux Lookout); on the south side of the Vermilion River extending for a distance of 1 1/2 miles beginning from a point 2 1/2 miles southwest of Pelican Lake (access is by boat from Sioux Lookout via Pelican Lake, then to Vermilion River); at the Golden Rod pyrite property which is about midway between Highway 72 (at a point 19.2 miles north of Dinorwic) and the west shore of Pickeral Arm.

Refs: 27 pp. 27-28.

Maps: 52F

52G

52K

Mile 214.6 - Wabigoon

Soapstone Deposits

SOAPSTONE.

As masses associated with gabbro.

The soapstone is dark, greenish-grey and contains brown carbonate rhombs.

Overgrown pits and trenches are on a hill in the peninsula forming the western boundary of Barritt Bay (Wabigoon Lake), just west of Wabigoon village; a 500 yard trail leads from the Canadian Pacific Railway tracks to the deposit. Outcrops occur along the southeast and northwest shores of Mile Lake (south of the southwest end of Wabigoon Lake), and on the two islands - No. 246 and No. 249 - at the outlet of Trap Lake (south of Mile Lake). Both Mile Lake and Trap Lake are accessible by boat from Dryden (about 10 miles away) via the Wabigoon River to Wabigoon Lake through Contact Bay to Mile Lake, then Trap Lake.

Refs: 45 pp. 53-55.

Maps: 52F

Mile 222.0, 228.0

Rock Exposures

GARNET.

In biotite schist.

The garnet crystals measure up to 1/2 inch across.

Exposures are found along the northwest, west and south shores of Thunder Lake (Highway 17 parallels the south and west shores of the lake 6 to 8 miles east of Dryden); along the Canadian Pacific railway 1 1/4 miles west of the railway bridge over the Wabigoon River in Dryden; along Highway 17 at the eastern limits of Dryden.

Refs: 45 pp. 23-25.

Maps: 52F

Mile 222.2 - Turn-off to Lun-Echo mine

Lun-Echo Gold Mines Limited

SPODUMENE, TOURMALINE, APATITE.

In feldspar-quartz pegmatite dyke cutting schist and amphibolite.

The spodumene is pale green or white but is dark green or buff when altered. Black tourmaline and blue apatite are minor constituents of the dyke.

The property is 10 miles northeast of Dryden; access is by a side road leading north from Highway 17 at a point 6 miles east of Dryden.

Refs: 37 p. 16

Maps: 52F

Mile 223.0 - 224.5

Rock Exposures

TOURMALINE, BERYL (rare)

Tourmaline in pegmatite and in schist; beryl in pegmatite.

Tourmaline occurs as well-developed black crystals, some measuring 1 by 3 inches. Small green beryl crystals have been reported from one dyke (see locality 2 below).

Outcrops are: (1) in lots 15 to 19, concession 7, Zealand township. To reach area, leave Highway 17 at a point 4 3/4 miles east of Dryden; proceed north to end of road (about 1 mile). Exposures are in the general area extending about 1 mile north and 1 1/2 miles east of the terminal point of the road. (2) in lot 17 at the boundary of concessions 7 and 8, Zealand township. Leave Highway 17 at a point 3 3/4 miles east of Dryden and proceed north 2 miles, then east one mile to the area exposures.

Refs: 45 pp. 25-26, 39-40, 55

Maps: 52F

Mile 228.3 - Dryden

Bonanza, Redeemer, League Mines

NATIVE GOLD, SPHALERITE, PYRITE, GALENA.

In quartz veins cutting Keewatin volcanics.

The mines have been inactive since the 1920's.

Road log from Dryden

Mile 0 - Bridge over Wabigoon River at Dryden; proceed west.

0.2 Fork; take left (south) fork.

0.9 Fork; turn right (west).

3.6 Fork; turn left (south).

5.9 Intersection; turn left (east).

6.3 Fork; turn right (south) onto trail to Twingrass Lakes.

8.2 Fork; turn left (east).

8.9 Fork; follow left fork 260 yards to Bonanza mine; follow right fork 700 yards to Redeemer mine, then continue 550 yards to League mine.

Refs: 7 pp. 39-42; 45 pp. 48-51.

Maps: 52F

Mile 258.0 - Vermilion Bay (Eagle Lake district)

Rock Exposures

GARNET.

In chloritic schist or tuff.

Large crystals of garnet have been found.

Outcrops are along the shore of Garnet Bay at the northwest end of Eagle Lake. Access is by boat from Vermilion Bay (about 20 miles) or from tourist camps near Eagle River (about 15 miles).

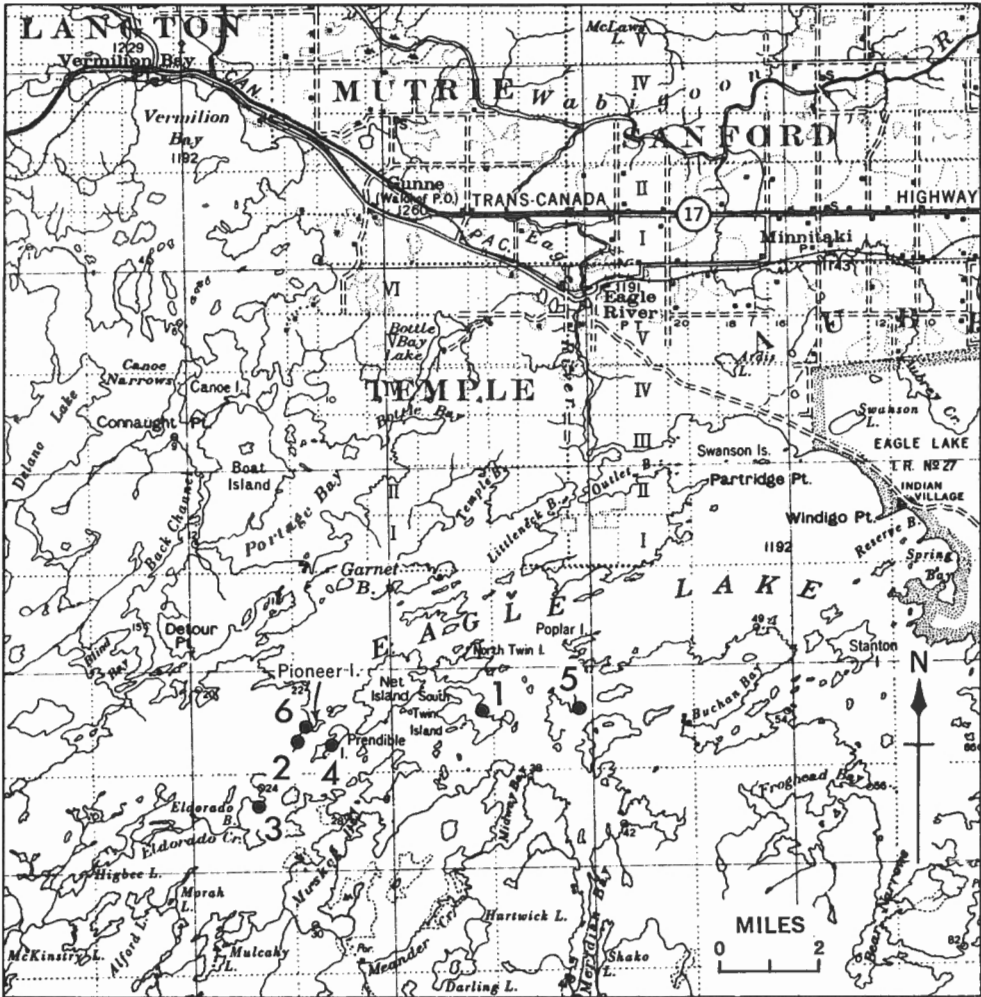
Refs: 35 p. 7

Maps: 52 F.

Eagle Lake district

Baden-Powell, Grace, Eldorado, Golden Eagle, Fournieri Mines

Part of N. T. S. Map 52 F



Map 4. Eagle Lake area:

1. Baden Powell mine; 2. Grace mine; 3. Eldorado mine;
4. Golden Eagle mine; 5. Fournieri mine; 6. Eagle Lake quarry

NATIVE GOLD, GALENA, SPHALERITE, PYRITE, PYRRHOTITE, CHALCOPYRITE, BISMUTHINITE (?).

In quartz veins.

Gold was remarkably coarse at the Baden-Powell mine, and occurred in unusual quantity at the Grace mine. At the Fournieri mine, drusy cavities in crystalline quartz were found coated with pyrite octahedra and occasional grains of native gold; a silvery columnar mineral believed to be bismuthinite was also found. The Grace mine was last worked in 1922; the others have been inactive since 1912.

The mines are at the southwest end of Eagle Lake (see Map 4): Baden-Powell mine - on the north shore of a small bay on the east side of South Twin Island; Grace mine - at a tiny bay on the west shore of Eagle Lake, southwest of Pioneer Island; Eldorado mine - near the extreme southeast tip of the promontory forming the north shore of Eldorado Bay; Golden Eagle mine - in the middle of Prendible Island; Fournieri mine - on the east shore of Fournieri Bay on the south central shore of Eagle Lake. To reach these mines follow directions given for Garnet Bay occurrence.

Refs: 35 pp. 21-25.

Maps: 52F

Eagle Lake district

Eagle Lake Quarry

SOAPSTONE.

The soapstone is dark bluish-green with veinlets and lenses of carbonates (probably calcite and ankerite) containing talc, chlorite and sulphides; it weathers white. The deposit has not been worked since 1927.

Quarry is on the west shore of Eagle Lake opposite Pioneer Island and 1/4 mile north of the Grace gold mine (see Map 4).

Refs: 35 pp. 21-25.

Maps: 52F

Mile 276.4 - Junction Gordon Lake Road

Medicine Lake Deposit

BERYL, GARNET, CLEAVELANDITE, MUSCOVITE, QUARTZ.

In pegmatite.

Beryl was found as yellow crystals up to 2 inches across; red and black garnets and black quartz were also noted. The deposit belongs to Mr. E. Zabeski of Kenora.

Trenches and strippings are near the cabin on the east shore of Medicine Lake; follow the Gordon Lake road for 1 1/2 miles from its junction with Highway 17 (just west of Octapus Lake) to the cabin.

Refs: 38 p. 22

Maps: 52F

Mile 302.7 - Junction Highway 71 (Whitefish Bay district).

Horseshoe, Neda, Bully Boy Mines

NATIVE GOLD, TOURMALINE, PYRITE, CHALCOPYRITE, SPHALERITE.

In quartz-carbonate veins at or near the contact between Keewatin greenstones and granite.

Small amounts of native gold were encountered during mining operations between 1895 and the 1930's.

The mines are located along or near Highway 71 in the vicinity of Whitefish Bay as follows: Horseshoe (Regina or Kenland) mine - south shore of Regina Bay and on the north side of Highway 71 at a point 3 1/2 miles southeast of the Sioux Narrows bridge (39.1 miles from the junction of Highways 17 and 71); Neda mine - south of the Horseshoe mine; access is via a 1/2-mile road leading south from Highway 71 at a point 3 1/2 miles southeast of the Sioux Narrows bridge; Bully Boy mine - on the east side of Highway 71 at a point 5 1/2 miles south of the junction with Highway 17 (2 1/4 miles northwest of the point where the highway passes by the southern tip of Girard Lake).

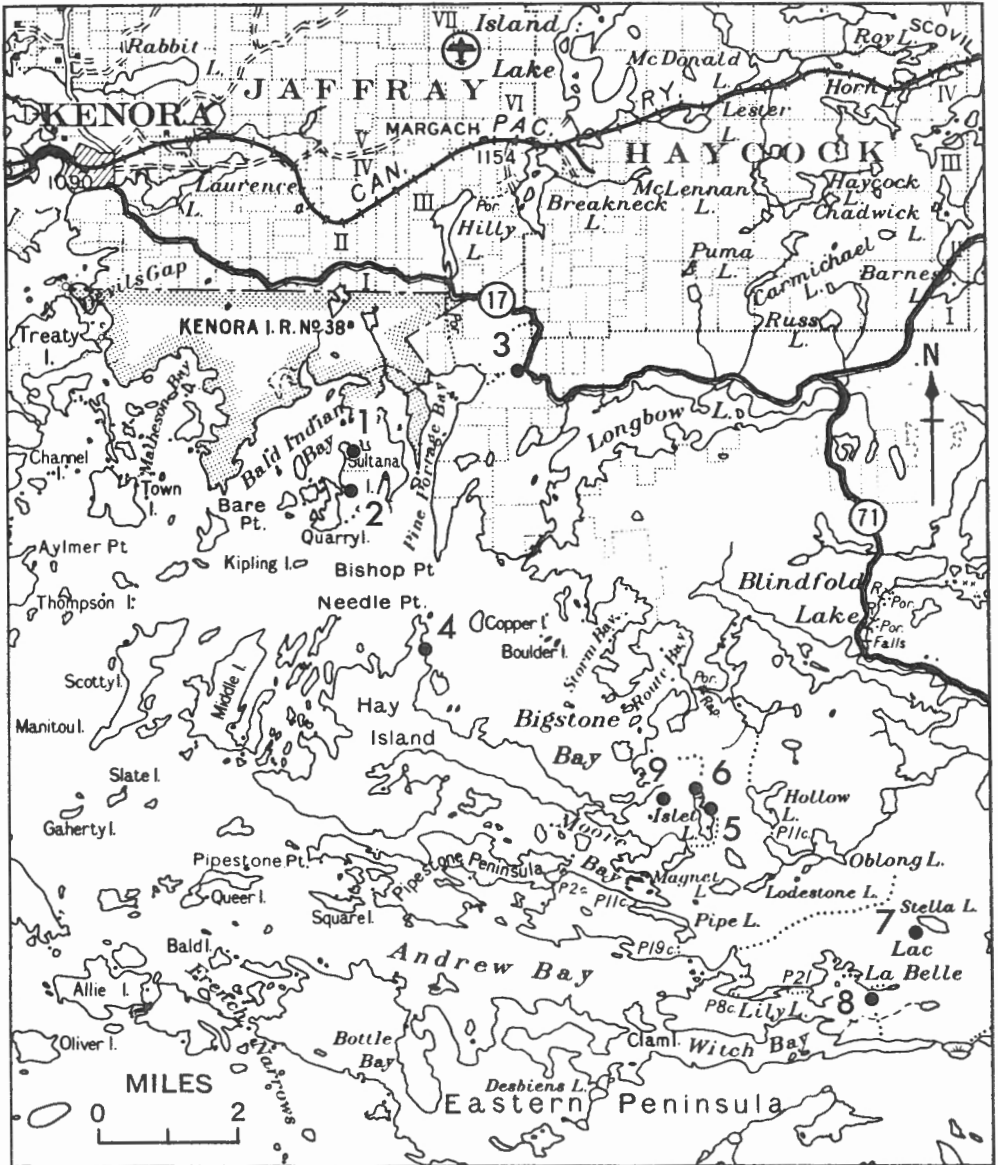
Refs: 19 pp. 14-14; 51 pp. 30-33.

Maps: 52E

Mile 316.0 - Kenora

Sultana, Ophir, Pine Portage, Keewatin, Gold Hill, Black Jack, Stella, Wendigo Mines

NATIVE GOLD and SILVER, PYRITE, ARSENOPYRITE, CHALCOPYRITE, SPHALERITE, GALENA, TELLURIDES.



Map 5. Kenora area:

1. Sultana mine; 2. Ophir mine; 3. Pine Portage; 4. Keewatin mine;
5. Gold Hill mine; 6. Black Jack mine; 7. Stella mine;
8. Wendigo mine; 9. Cameron-Earney mine

In quartz-dolomite veins at the contact between granite and schist.

The deposits were worked at intervals from the 1880's to the 1930's. In 1884, the Pine Portage mine was the most important mine in the Bigstone Bay region and, between 1891 and 1906, the Sultana was the foremost gold mine in Ontario.

The mines are at the northeast end of Lake of the Woods, 7 to 16 miles southeast of Kenora (see Map 5). Access: from Kenora by boat to Bald Indian, Bigstone and Andrew bays, then by trail to the mines, or from Highway 71 (about 9 1/2 miles south of its junction with Highway 17) via a 5-mile road leading west to the Wendigo mine, then by boat and trail to the other mines. Boats may be rented at Kenora or at the tourist camp near the Wendigo mine. Sultana mine - near the west shore of the central part of Sultana Island in Bald Indian Bay. Ophir mine - at the southwest end of Sultana Island, about 770 yards directly south of the Sultana mine. Pine Portage mine - about 1/2 mile east of the north end of Pine Portage Bay and approximately 600 yards south of Highway 17 at a point 5 miles west of its junction with Highway 71. Keewatin mine - on the south shore of a bay on the east side of the promontory at the north end of Hay Island, about 1/2 mile south of Needle Point. Gold Hill mine - about 220 yards north of the northeast end of Islet Lake; an old trail beginning at Bigstone Bay (east of Fish Island) leads to Islet Lake and to the Gold Hill and Black Jack mines. Black Jack mine - about 400 yards northwest of the Gold Hill mine and the same distance north of Islet Lake. Stella mine - 650 yards southwest of Stella Lake; a 2 1/2 mile trail leads west to Andrew Bay. Wendigo mine - between Lac LaBelle and the north shore of Witch Bay to which it is connected by a 3/4-mile trail.

Refs: 48 pp. 68-71; 51 pp. 35-43.

Maps: 52E

Kenora district

Cameron-Earngey Copper Deposit

EPIDOTE, DOLOMITE, PYRITE, CHALCOPYRITE, MALACHITE.

In quartz veinlets and lenses in greenstone.

Epidote occurs as elongated crystals in sugary dolomite; some of the dolomite forms crystals up to 1 inch across.

The deposit is 225 yards from the southeast end of Bigstone Bay, and about 1200 yards due west of the Black Jack mine (see Map 5).

Refs: pp. 69-70.

Maps: 52E

Kenora district

Allie Island Mine

NATIVE COPPER

In decomposed chlorite-serpentine rock.

The copper occurs as small pellets and octahedrons up to 1/4 inch in diameter; they are not readily visible in the rock, but become apparent when the rock is crushed and panned. The deposit was worked about 50 years ago.

Shafts are on the south side of Allie Island, in Lake of the Woods about 12 miles directly south of Kenora from which it is accessible by boat.

Refs: 40 pp. 175-176.

Maps: 52E

Mile 344.3 - Turn-off to Shoal Lake

Mikado Mine

NATIVE GOLD, PYRITE, CHALCOPYRITE, GALENA,
MOLYBDENITE, BISMUTHINITE.

In quartz veins traversing granite and Keewatin lavas.

Fine specimens of gold in quartz and pockets of extremely rich ore were encountered during mining operations conducted intermittently between 1893 and the 1920's. The mine was the largest gold producer in the west Shoal Lake area, but the true production estimated to be \$500,000 is not known because much of the rich ore was believed to have been stolen by miners in the early days.

The mine is on the south shore of Bag Bay at the northeast end of Shoal Lake. Access is by an 11-mile road leading south from Highway 17 (4 miles east of the Manitoba border) to an Indian Reservation on Shoal Lake, then by boat to the mine (about 7 miles). Docking facilities, boat taxi and boat rental are available at the Reservation. Another abandoned gold mine - the Olympia - is 900 yards directly south of the Mikado.

Refs: 7 pp. 3-9.

Maps: 52E

Mile 345.3 - Turn-off to Evenlode mine

Evenlode Mines Limited

MOLYBDENITE, PYRITE, CHALCOPYRITE.

In quartz veins, traversing porphyry.

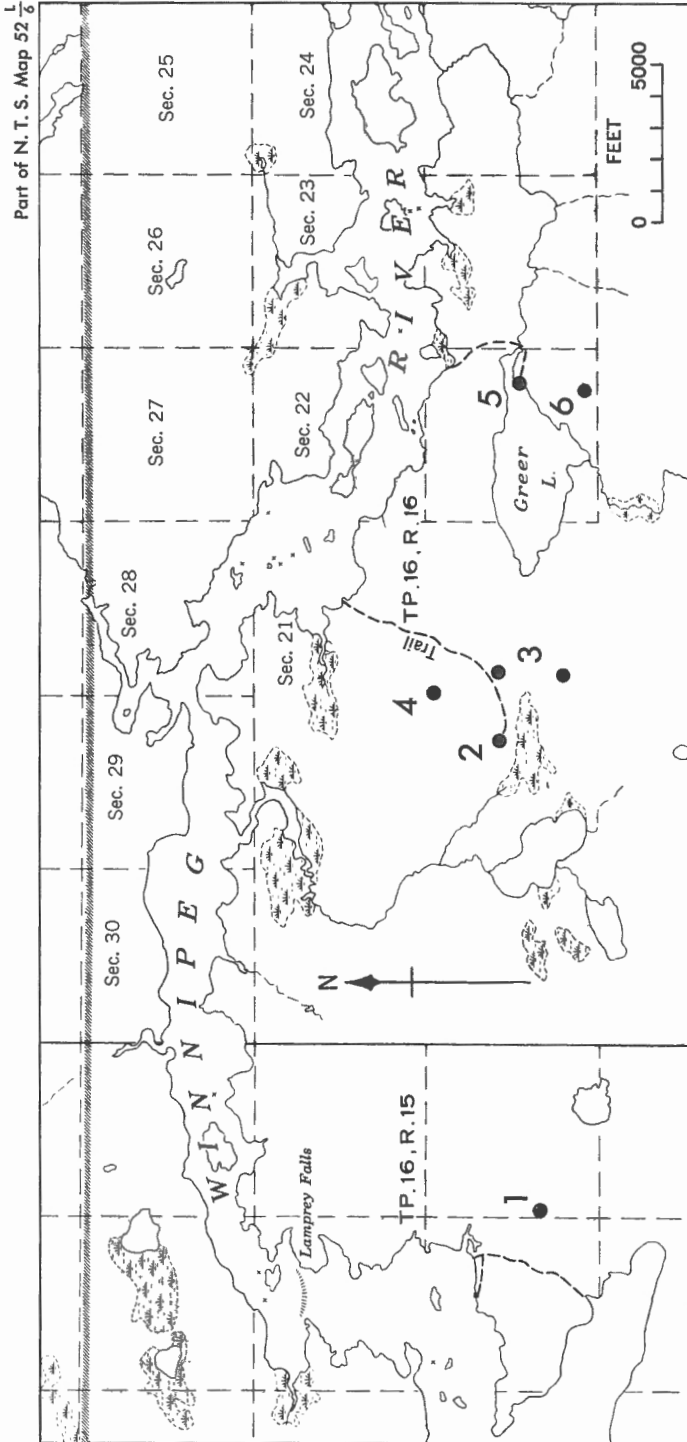
The deposit was prospected in 1960 for molybdenite.

Deposit is at northeast end of High Lake; access is by a 3 3/4 mile trail leading south from Highway 17 at a point 3 miles east of the Ontario/Manitoba border.

Refs: 58 p. 215

Maps: 52E

Mile 348.3 - Ontario/Manitoba border.



Map 6. Winnipeg River area:

1. Fuchs site quarry; 2. Silverleaf claim; 3. Huron claim; 4. Annie claim;
5. Greer Lake quarry; 6. Grace claim

SECTION 4

ONTARIO/MANITOBA BORDER — WINNIPEG

Mile 0 - Ontario/Manitoba border

Mile 55.0 - Junction (north) Highway 11 to Winnipeg River, Bernic Lake and Cat Lake districts (boats are needed for most of the occurrences - enquiries regarding rental of boats should be made at Lac du Bonnet).

Winnipeg River district

Fuchs site Deposit

FUCHSITE ROCK.

The rock is composed of bright emerald green lenses and streaks in a siliceous matrix. The rock was quarried in 1926 for use as stucco dash. It is reported to be suitable for ornamental purposes.

Located 1 1/2 miles south southeast of Lamprey Falls (in Winnipeg River) and midway between the river and a small lake to the southeast (see Map 6). Access is via the Winnipeg River by boat from Pointe du Bois, about 10 miles away.

Refs: 17 p. 24

Maps: 52L/6

Winnipeg River district

Silver Leaf Property (Bear or Bob claim)

SPODUMENE, LITHIUM MICAS, AMBLYGONITE, LITHIOPHYLLITE, TOPAZ, BERYL, GARNET, COLUMBITE-TANTALITE, CLEAVE-LANDITE.

In feldspar-quartz-muscovite pegmatite.

The lithium micas include coarse curvilamellar lilac-coloured mica, radiating pale lilac-coloured mica, grey zinnwaldite and fine scaly purple lepidolite; crystals of garnet and of columbite-tantalite were found embedded in zinnwaldite. Topaz usually occurs as grey, blue or green turbid crystals and crystalline masses. Small amounts of clear sky-blue topaz and a few pale pink transparent beryl crystals have been found, but neither is abundant as gem material. Most of the beryl is very pale or white. Greyish to white spodumene occurs as fine blades intergrown with quartz. The deposit was worked for lithium in the 1920's and again in the 1950's.

Located at the side of a hill 1 1/4 miles south of the Winnipeg River (see Map 6). The trail to the deposit leaves the Winnipeg River at a point 4 3/4 miles (by boat) east of Lamprey Falls which in turn is about 9 miles by boat from Pointe du Bois.

Refs: 17 pp. 22-23; 18 pp. 148-157; 47 pp. 10-11.

Maps: 52L/6

Winnipeg River district

Huron Claim

BERYL, COLUMBITE-TANTALITE, EUXENITE-POLYCRASE,
ZOISITE, MONAZITE, URANINITE, TOPAZ, CLEAVELANDITE.

In albite-quartz-mica pegmatite.

Notable among the specimens obtained from the deposit are: green or yellow beryl crystals up to 18 inches across; flat, platy crystals of columbite-tantalite (1/10" x 4") in pink feldspar; zoisite as dark grey granular masses and as delicate honey-coloured crystals; cinnamon-brown monazite; greyish to aquamarine masses of topaz; black vitreous quartz. The uraninite was used to establish the age - 2500 million years - of Archaean rocks of the Canadian Shield. About 30 years ago, 500 pounds of columbite-tantalite were removed from the deposit. The property is held by Canhart Mines Limited as a beryl prospect.

Located 600 yards east of the Silverleaf deposit (see Map 6).

Refs: 17 pp. 17-18; 38 p. 21; 47 p. 11.

Maps: 52L/6

Winnipeg River district

Annie Claim

CASSITERITE, BERYL, LITHIA MICA.

In cleavelandite-quartz-mica pegmatite.

The beryl occurs as white crystals. The property now belongs to Canhart Mines Limited; it was formerly worked for cassiterite.

Located about 1250 feet north northwest of the Huron and 2000 feet northeast of the Silverleaf deposit (see Map 6).

Winnipeg River district

Greer Lake Quarry

BISMUTHINITE, MICA.

In albite-microcline-quartz-mica pegmatite.

Minor amounts of bismuthinite and large books of mica have been recovered. Feldspar was quarried here between 1933 and 1935.

Located on the east shore of the northeast end of Greer Lake, 1200 yards south of the Winnipeg River (see Map 6). A trail leads south from the Winnipeg River at a point 6 1/4 miles east of Lamprey Falls.

Refs: 17 p. 24; 47 p. 14

Maps: 52 L/6

Winnipeg River district

Grace Claims

BERYL, TOURMALINE, COLUMBITE-TANTALITE (rare).

In albite-microcline-quartz-mica pegmatite.

The beryl occurs as pale green crystals, a few up to 10 or 12 inches across. Tourmaline is black. The property is held by Canhart Mines Limited.

Near the southeast end of Greer Lake, 2000 feet south of the feldspar quarry (see Map 6).

Refs: 17 pp. 18-19; 47 p. 11.

Maps: 52 L/6

Winnipeg River district

Rock Exposures

GARNET.

In fine clayey rock and pillow lava.

Garnet occurs as well-developed deep red crystals up to 1/2 inch in diameter. In places the garnet makes up 75 per cent of the rock.

The outcrops extend eastward along the south shore of the Winnipeg River from a point 3 miles east of Lamprey Falls in the area directly north of the Silverleaf, Huron and Annie claims (sections 21, 28, 29, range 16, township 16); other exposures are at the west end of the large island in the Winnipeg River (section 24, range 16, township 16) 1 1/4 miles east of the point where the trail to the feldspar quarry joins the river (see Map 6).

Refs: 57 pp. 63, 100.

Maps: 52 L/6.

Bernic Lake district

Bernic Lake Mine

POLLUCITE, BERYL, SPODUMENE, AMBLYGONITE, LEPIDOLITE, TOURMALINE, COLUMBITE-TANTALITE, APATITE, ZINNWALDITE, LITHIA MICAS, PETALITE, CASSITERITE, RHODOCHROSITE, LITHIOPHYLLITE, PYRITE, MOLYBDENITE, BISMUTHINITE.

In quartz-albite-cleavelandite-mica pegmatite.

The mine is on the site of the old Jack Nutt tin property, worked about 1930. Reopened in the mid 1950's for lithium and caesium, it is currently owned by Chemalloy Minerals Limited (P.O. Box 70, Lac du Bonnet, Manitoba).

Access by a road leading south from the Bird Lake road at a point 25 1/2 miles from its junction with Highway 11 north of Lac du Bonnet (see Map 7).

Refs: 6 pp. 19-30; 17 pp. 25-26.

Maps: 52 L/6.

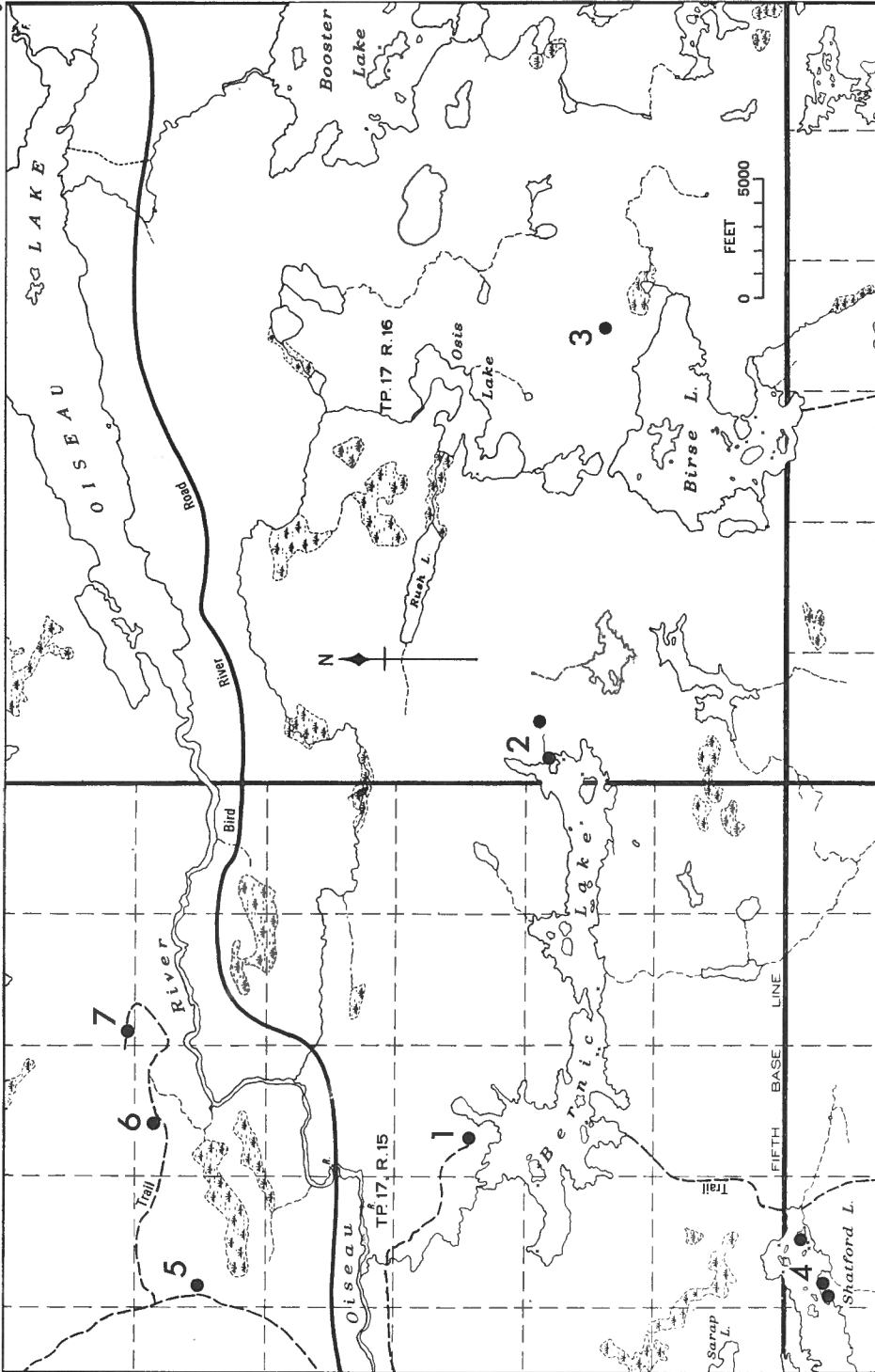
Bernic Lake district

East End Bernic Lake Deposits

BERYL, LEPIDOLITE, PETALITE, AMBLYGONITE, TRIPHYLLITE, SPODUMENE, PURPURITE, APATITE, TOURMALINE.

In quartz-albite-mica pegmatite.

The property (Buck and Coe claims) is held by Lithium Corporation of Canada Limited.



Map 7. Bernic Lake area.
1. Bernic Lake mine; 2. East end Bernic Lake deposit; 3. Birse Lake deposit; 4. Shatford Lake deposit; 5. Wento claim; 6. Martin-Devlin claim; 7. Chance claim

East end of Bernic Lake, 2 3/4 miles east of the Bernic Lake mine; a small pit is near the shore and an open cut is about 600 yards from the shore (see Map 7).

Refs: 16 pp. 40-42.

Maps: 52 L/6.

Bernic Lake district

Birse Lake Deposit

ROSE QUARTZ, TOPAZ.

In pegmatite.

The rose quartz is somewhat opalescent and of an attractive colour and has been used as an ornamental stone. Topaz occurs in minor amounts.

Deposit is 700 yards north of the north shore of Birse Lake at a point 500 yards west (along lake shore) of the outlet of the creek at the east end of the lake. Birse Lake is 2 miles east of Bernic Lake; there are no roads leading to it (see Map 7)

Refs: 47 p. 14.

Maps: 52 L/6.

Bernic Lake district

Shatford Lake Deposit

BERYL, LITHIA MICA, TOPAZ, MONAZITE, COLUMBITE-TANTALITE, EUXENITE, GADOLINITE (rare), CASSITERITE.

In pegmatite.

Beryl occurs as white to yellow crystals up to 2 inches in diameter. Most of the topaz found was altered. In the 1920's an attempt was made by the Manitoba Tin Company to work a deposit at the northwest end of the larger island in the east end of the lake.

Beryl-bearing pegmatite is exposed along the south shore of Shatford Lake about 3500 feet west of the east end. Shatford Lake is about 1 3/4 miles south and slightly west of Bernic Lake to which it is connected by a trail. (see Map 7).

Refs: 17 pp. 23-24; 38 p. 20.

Maps: 52 L/6.

Bernic Lake district

Bird (Oiseau) Lake Deposit

GARNET, CORDIERITE, PYRRHOTITE.

In quartz-biotite rock and in greywacke.

Egg-shaped masses of cordierite (1 1/2" by 1/2") occur with grains of pink garnet in the dark-grey quartz-biotite rock; the cordierite masses may contain inclusions of quartz, biotite and/or garnet. Pink garnet crystals up to 2 inches across occur in greywacke, in places making up 75 per cent of the rock; pyrrhotite may occur with the garnet.

Cordierite-bearing rock is exposed along the south shore of Bird River near Bird Lake, and along the south shore of Bird Lake. The garnet-bearing greywacke outcrops on a small island near the south shore of Bird Lake about 2 miles east of the outlet of Bird River, and along the shore of the lake east of the island. Boats may be launched from the camp site on the south side of Bird Lake (on north side of Bird Lake road).

Refs: 16 pp. 11-12.

Maps: 52 L/6.

Bernic Lake district

Bird River Copper-Nickel Deposits

PYRRHOTITE, CHALCOPYRITE, PYRITE, CUBANITE, MAGNETITE, PENTLANDITE, VIOLARITE.

As grains, solid masses or stringers in peridotite, hornblendite, gabbro and andesite.

The deposit includes the Martin-Devlin and Chance claims (Maskwa Nickel Chrome Mines Limited) and the Wento claim.

Strippings and trenches are on the north side of the Bird River, about 2 3/4 miles north of the Bernic Lake mine (see Map 7).

Road log from junction Bird River road and tractor road leading north (at a point 1 1/2 miles west of the bridge over Bird River).

Mile 0 - Take tractor road

- 1.5 Wento claim on east side of road; continue north.
- 1.8 Fork; turn right (east).
- 3.4 Martin-Devlin claim; continue along road.
- 4.6 Chance claim.

Refs: 16 pp. 32-36.

Maps: 52 L/6.

Cat Lake district

Cat Lake Deposits

SPODUMENE, BERYL, TOURMALINE, GARNET, FLUORITE, APATITE.

In quartz-feldspar-mica pegmatite.

Spodumene occurs as white to pale green laths, beryl as white to pale green crystals. Both black and blue tourmaline are reported from the Eagle claims. The deposits were worked for lithium in the 1950's.

Location of the deposits are: Eagle group (Lithium Corporation of America) - 400 yards northwest of the west end of Cat Lake. Irgon claims (Lithium Corporation of Canada) - 1700 feet north of Cat Lake; the Cat Lake road leads to the deposit. Central claims (owned by H. Johnson of Bird River).- on the east side of a low granite ridge 1000 feet south of Cat Lake; access is by a road leading west from the Cat Lake road. The Cat Lake road leads north from the Bird River road at a point 28 1/2 miles from its junction with Highway 11 north of Lac du Bonnet.

Refs: 37 pp. 18-21; 47 pp. 8-9.

Maps: 52 L/11.

Mile 82.0 - Turn-off to Tyndall

Mile 84.0 - Turn-off to Garson

Garson and Tyndall Quarries

LIMESTONE, CHERT, FOSSILS.

"Tyndall limestone", "Manitoba limestone", "Manitoba tapestry

limestone" and "Winnipeg limestone" are some of the names given to building and ornamental stone obtained since 1900 from these quarries. It has been used for a number of buildings in Canada including the Parliament buildings in Ottawa. The rock belongs to the Red River formation of Ordovician age. It consists of a pale beige-coloured compact fossiliferous matrix with yellowish or greyish brown mottling composed of masses of small translucent dolomite crystals cemented with calcite; the tubular shaped mottlings are connected, producing a tapestry effect. Chert nodules weathering to a soft, white, chalky material, and large fossils - cephalopods, gastropods and compound corals - may be found in the rock.

Quarries are located in the town of Garson and at Tyndall.

Refs: 4 pp. 14-18, 64.

Maps: 62 I/2 E.

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Ontario Department of Mines,
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Historical Museum,
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Fort William Public Library,
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Manitoba Museum,
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University of Manitoba,
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*The Director,
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Ontario Department of Mines,
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Mines Branch,
Department of Mines and Natural Resources,
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For road maps:

The Map Office,
Department of Highways,
Parliament Buildings,
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The Highways Branch,
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The Canadian Government Travel Bureau,
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150 Kent Street,
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(Numbers in parentheses are the reference numbers used in the text)

INDEX TO MINERALS AND ROCKS

- Actinolite, 5
Agate, 14, 18, 22, 27
Altaite, 38
Amblygonite, 52, 55
Amethyst, 18, 23, 24, 27, 29, 31
Annabergite, 26
Anatase, 9
Ankerite, 9, 45
Apatite, 42, 55, 59
Argentite, 26, 27, 29, 31
Arsenic, native, 27
Arsenopyrite, 7, 14, 19, 46
Augite (syenite), 20
Azurite, 8
Barite, 9, 11, 23, 26, 31
Bastnaesite, 20
Beryl, 42, 45, 52, 53, 54,
55, 57, 59
Bismuth, native, 10
Bismuthinite, 39, 45, 49, 54,
55
Bornite, 8, 15, 16, 36
Brannerite, 9
Calcite (fluorescent), 15, 29, 33
Calcite (Iceland spar), 6
Carnelian, 18
Cassiterite, 53, 55, 57
Cerargyrite, 26
Chalcedony, 15, 18
Chalcocite, 15, 16, 17
Chalcopyrite, 4, 7, 8, 9, 10, 11,
12; 14, 15, 16, 19, 21, 23,
26, 27, 30, 36, 38, 40, 45,
46, 48, 49, 50, 58
Chert, 30, 34, 59
"Chlorastrolite", 18
Chlorite, 15, 27, 45
Cleavelandite, 45, 52, 53, 55
Cobaltite, 6, 10, 26
Columbite-tantalite, 52, 53, 54,
55, 57'
Concretions, 26, 31, 33
Conglomerate, jasper, 10, 11,
12
Copper, native, 15, 16, 27, 49
Cordierite, 58
Cubanite, 4, 58
Dolomite, 48
Domeykite, 26
Epidote, 15, 16, 17, 18, 19, 22,
48
Erythrite, 26
Euxenite-polycrase, 53, 57
Fluorite, 22, 23, 24, 29, 31, 59
Fossils, 59
Fuchsite, 39, 52
Gadolinite, 57
Galena, 12, 14, 16, 17, 23, 24,
26, 27, 29, 31, 36, 38, 39, 42,
45, 46, 49
Garnet, 5, 41, 43, 45, 52, 54,
58, 59
Gersdorffite, 4
Goethite, 19
Gold, native, 10, 19, 21, 30, 36,
38, 39, 42, 45, 46, 49
Gold, placer, 4
"Greenstones" (Nipigon Bay,
Rossport), 22
Hematite, 12, 16, 17, 19
Hematite, specularite, 8, 9, 12,
14, 15, 16, 24
Heulandite, 15
Hornblende, (syenite), 20
Ilmenite, 38
Jasper, 10, 11, 12, 13, 14, 18,
21, 23, 27, 34, 35, 40
Kyanite, 5
Laumontite, 15, 27
Laurvikite, 20
Lepidolite, 52, 55
Lithia mica, 52, 53, 55, 57
Lithiophyllite, 52, 55
Limestone, dolomitic, 59
Limonite, 40
Magnetite, 6, 19, 20, 21, 39,
40, 58
Malachite, 8, 15, 16, 36, 48
Marcasite, 4, 26
Melanterite, 40
Mica, 54 (see lithia mica,
lepidolite, muscovite, zinn-
waldite).
Molybdenite, 24, 39, 49, 50, 55
Molybdomenite, 17
Monazite, 9, 53, 57
Muscovite, 24, 39, 45
Natrolite, 20

- Nepheline (syenite), 20
Niccolite, 4, 26
Parisite, 20
Pentlandite, 4, 58
Petalite, 55
Pitchblende, 9, 16, 17
Pollucite, 55
Porphyry, basalt, 38
Precious metals, 4
Prehnite, 15, 22
Pumpellyite, 22
Purpurite, 55
Pyrite, 4, 5, 7, 8, 9, 10, 12,
14, 16, 19, 21, 23, 24, 27,
30, 31, 34, 36, 38, 39, 40,
42, 45, 46, 48, 49, 50, 55,
58
Pyrolusite, 26
Pyrrhotite, 4, 7, 19, 21, 36,
40, 45, 58
Quartz, rose, 31, 57
Quartz, smoky, 23, 29, 45
Quartz, crystals, 9, 10, 14, 34
Quartz, (see amethyst)
Rhodochrosite, 55
Rutile, 9
Scheelite, 38
Serpentine, 6
Siderite, 9, 19
Sillimanite, 5
Silver, native, 26, 27, 29, 31,
46
Smaltite, 26
Soapstone, 41, 45
Sphalerite, 12, 14, 21, 23, 24,
26, 27, 29, 31, 36, 38, 40,
42, 45, 46
Specularite (see hematite)
"Spike amygdules", 18
Spodumene, 42, 52, 55, 59
Staurolite, 7, 8
Stilbite, 15
Talc, 5
Tellurides, 21, 46
Tetrahedrite, 46
Thomsonite, 18
"Thunder Eggs", 22
Topaz, 52, 53, 57
Tourmaline, 19, 38, 39, 42, 46,
54, 55, 59
Triphylite, 55
Uraninite, 53
Uranium minerals (secondary), 17
Violarite, 4, 58
Zeolites, 15, 27
(see heulandite, laumontite,
natrolite, prehnite, thomson-
ite, stilbite)
Zinnwaldite, 52, 57
Zoisite, 53
Zonochlorite, 22

