

THESE TERMS GOVERN YOUR USE OF THIS DOCUMENT

Your use of this Ontario Geological Survey document (the “Content”) is governed by the terms set out on this page (“Terms of Use”). By downloading this Content, you (the “User”) have accepted, and have agreed to be bound by, the Terms of Use.

Content: This Content is offered by the Province of Ontario’s *Ministry of Northern Development and Mines* (MNDM) as a public service, on an “as-is” basis. Recommendations and statements of opinion expressed in the Content are those of the author or authors and are not to be construed as statement of government policy. You are solely responsible for your use of the Content. You should not rely on the Content for legal advice nor as authoritative in your particular circumstances. Users should verify the accuracy and applicability of any Content before acting on it. MNDM does not guarantee, or make any warranty express or implied, that the Content is current, accurate, complete or reliable. MNDM is not responsible for any damage however caused, which results, directly or indirectly, from your use of the Content. MNDM assumes no legal liability or responsibility for the Content whatsoever.

Links to Other Web Sites: This Content may contain links, to Web sites that are not operated by MNDM. Linked Web sites may not be available in French. MNDM neither endorses nor assumes any responsibility for the safety, accuracy or availability of linked Web sites or the information contained on them. The linked Web sites, their operation and content are the responsibility of the person or entity for which they were created or maintained (the “Owner”). Both your use of a linked Web site, and your right to use or reproduce information or materials from a linked Web site, are subject to the terms of use governing that particular Web site. Any comments or inquiries regarding a linked Web site must be directed to its Owner.

Copyright: Canadian and international intellectual property laws protect the Content. Unless otherwise indicated, copyright is held by the Queen’s Printer for Ontario.

It is recommended that reference to the Content be made in the following form:

Ontario Geological Survey 1987. Garrison Township, District of Cochrane, Geological Data Inventory Folio 360; compiled by the staff of the Resident Geologist’s office, Kirkland Lake, 59p., 2 maps.

Use and Reproduction of Content: The Content may be used and reproduced only in accordance with applicable intellectual property laws. *Non-commercial* use of unsubstantial excerpts of the Content is permitted provided that appropriate credit is given and Crown copyright is acknowledged. Any substantial reproduction of the Content or any *commercial* use of all or part of the Content is prohibited without the prior written permission of MNDM. Substantial reproduction includes the reproduction of any illustration or figure, such as, but not limited to graphs, charts and maps. Commercial use includes commercial distribution of the Content, the reproduction of multiple copies of the Content for any purpose whether or not commercial, use of the Content in commercial publications, and the creation of value-added products using the Content.

Contact:

FOR FURTHER INFORMATION ON	PLEASE CONTACT:	BY TELEPHONE:	BY E-MAIL:
The Reproduction of the Content	MNDM Publication Services	Local: (705) 670-5691 Toll-Free: 1-888-415-9845, ext. 5691 (inside Canada, United States)	Pubsales.ndm@ontario.ca
The Purchase of MNDM Publications	MNDM Publication Sales	Local: (705) 670-5691 Toll-Free: 1-888-415-9845, ext. 5691 (inside Canada, United States)	Pubsales.ndm@ontario.ca
Crown Copyright	Queen’s Printer	Local: (416) 326-2678 Toll-Free: 1-800-668-9938 (inside Canada, United States)	Copyright@gov.on.ca



Ministry of
Northern Development
and Mines

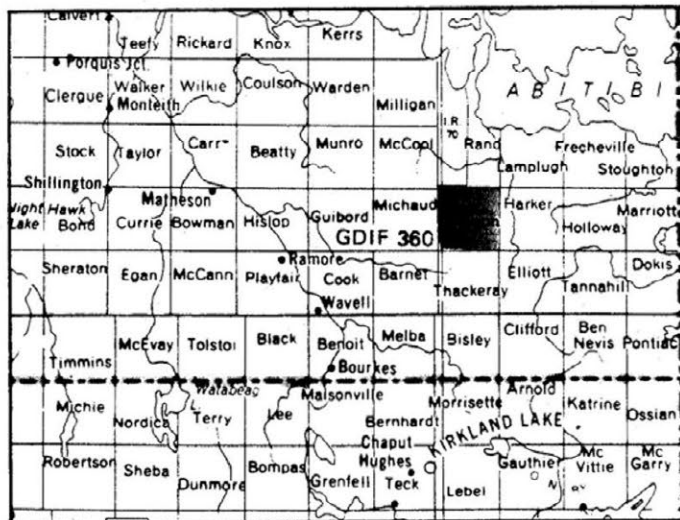
ONTARIO GEOLOGICAL SURVEY
GEOLOGICAL DATA INVENTORY FOLIO

GDIF 360

GARRISON TOWNSHIP

DISTRICT OF COCHRANE

Compiled by the Staff of
the Residents Geologist's Office
Kirkland Lake



LOCATION MAP

Scale: 1:1 013 760 or 1 inch to 16 miles

NTS Number: 32 D/5,12 and 42 A/8,9

Mining Claim Map Number : 63638

This project is part of Operation Black River-Matheson (BRIM) which was funded equally by the Ontario Ministry of Northern Development and Mines and the Ontario Ministry of Natural Resources.

STATEMENT: This inventory is unedited. Discrepancies may occur for which the Ontario Geological Survey does not assume liability. Information from this source may be quoted if credit is given. Reference to this inventory should be made as follows:

Ontario Geological Survey
1987: Garrison Township, District of Cochrane;
Ontario Geological Survey, Geological
Data Inventory Folio 360, compiled by
the staff of the Resident Geologist's
Office, Kirkland Lake, 59p. and 2 maps.

Original Compilation by: K.D. Kalicharran and B.J. Westin
December 15, 1986

Date	Page Revised	Revised by	Date	Page Revised	Revised by

GARRISON TOWNSHIP

CONVERSION FACTORS FOR MEASUREMENTS IN ONTARIO GEOLOGICAL SURVEY PUBLICATIONS

If the reader wishes to convert imperial units to SI (metric) units or SI units to imperial units the following multipliers should be used:

CONVERSION FROM SI TO IMPERIAL			CONVERSION FROM IMPERIAL TO SI		
<i>SI Unit</i>	<i>Multiplied by</i>	<i>Gives</i>	<i>Imperial Unit</i>	<i>Multiplied by</i>	<i>Gives</i>
LENGTH					
1 mm	0.039 37	inches	1 inch	25.4	mm
1 cm	0.393 70	inches	1 inch	2.54	cm
1 m	3.280 84	feet	1 foot	0.304 8	m
1 m	0.049 709 7	chains	1 chain	20.116 8	m
1 km	0.621 371	miles (statute)	1 mile (statute)	1.609 344	km
AREA					
1 cm ²	0.155 0	square inches	1 square inch	6.451 6	cm ²
1 m ²	10.763 9	square feet	1 square foot	0.092 903 04	m ²
1 km ²	0.386 10	square miles	1 square mile	2.589 988	km ²
1 ha	2.471 054	acres	1 acre	0.404 685 6	ha
VOLUME					
1 cm ³	0.061 02	cubic inches	1 cubic inch	16.387 064	cm ³
1 m ³	35.314 7	cubic feet	1 cubic foot	0.028 316 85	m ³
1 m ³	1.308 0	cubic yards	1 cubic yard	0.764 555	m ³
CAPACITY					
1 L	1.759 755	pints	1 pint	0.568 261	L
1 L	0.879 877	quarts	1 quart	1.136 522	L
1 L	0.219 969	gallons	1 gallon	4.546 090	L
MASS					
1 g	0.035 273 96	ounces (avdp)	1 ounce (avdp)	28.349 523	g
1 g	0.032 150 75	ounces (troy)	1 ounce (troy)	31.103 476 8	g
1 kg	2.204 62	pounds (avdp)	1 pound (avdp)	0.453 592 37	kg
1 kg	0.001 102 3	tons (short)	1 ton (short)	907.184 74	kg
1 t	1.102 311	tons (short)	1 ton (short)	0.907 184 74	t
1 kg	0.000 984 21	tons (long)	1 ton (long)	1016.046 908 8	kg
1 t	0.984 206 5	tons (long)	1 ton (long)	1.016 046 908 8	t
CONCENTRATION					
1 g/t	0.029 166 6	ounce (troy)/ ton (short)	1 ounce (troy)/ ton (short)	34.285 714 2	g/t
1 g/t	0.583 333 33	pennyweights/ ton (short)	1 pennyweight/ ton (short)	1.714 285 7	g/t

OTHER USEFUL CONVERSION FACTORS

1 ounce (troy)/ton (short)	20.0	pennyweights/ton (short)
1 pennyweight/ton (short)	0.05	ounce (troy)/ton (short)

One gram (g) per tonne is equivalent to one part per million (1 ppm).

NOTE—Conversion factors which are in bold type are exact. The conversion factors have been taken from or have been derived from factors given in the Metric Practice Guide for the Canadian Mining and Metallurgical Industries published by The Mining Association of Canada in co-operation with the Coal Association of Canada.

TABLE OF CONTENTS

Data Sources Checklist	1
Metals and Minerals Reference List	2
Mineral Occurrences	3
Type of Work	8
Drill Hole Summary	15
Airborne Geophysical Survey Data	32
Geochemical Survey Data	33
Miscellaneous Data	34
Newspaper Clipping File	35
ODM General Index Search	36
Selected References	40
Notes and Addenda	58

ACCOMPANYING MAPS

Property Location Map 1

Exploration Data Map 1

Map Scale 1: 31 680 or 1 inch to ½ mile

DATA SOURCES CHECK LIST

NOTE: The following sources have been searched to compile the data for this area. If no reference data was found the appropriate box is marked 'no'; if reference data was found, the box is marked 'yes'.

All reference data found are included in the following pages. If the box is blank, the data source has not yet been searched. If the box is marked N.A., the source item is Not Applicable to this area and therefore not searched.

SOURCES OF DATA		Date	Initial
1	Resident Geologist's Office Files	YES	NDC
2	Assessment Files Research Office, Toronto	YES	NDC
3	ODM General Index; 9 volumes	YES	NDC
4	Catalogue of Airborne Geophysical Surveys (ODM)	NO	NDC
5	ODM Mineral Resources Circulars and OGS Mineral Deposits Circulars	YES	NDC
6	ODM Industrial Mineral Reports	YES	NDC
7	Bibliography of Post Precambrian Theses - Karrow (ODM MP 1)	NO	NDC
8	Bibliography of Precambrian Theses - Ginn (ODM MP 2)	NO	NDC
9	Newspaper Clippings File	YES	NDC
10	GSC Index to Publications	NO	NDC
11	OGS Index to Published Maps and Reports - MP 77 and Supplements to MP 77	YES	NDC
12	OGS Index Maps	YES	NDC
13	Source Mineral Deposit Records (O.G.S.)	YES	NDC
14	Author - Subject Articles File	YES	NDC
15	Miscellaneous Papers: ODM & OGS	YES	NDC
16	ODM Geological Circulars: OGS Study Series	NO	NDC
17	ODM Preliminary Reports: ODM Bulletins	YES	NDC
18	ODM - OGS Open File Reports	YES	NDC
19	OGS Northern Ontario Engineering Geology Terrain Studies	NO	NDC
20	OGS Aggregate Resources Inventory Papers	NO	NDC
21	OGS Mineral Potential Maps	NO	NDC

METALS AND MINERALS REFERENCES LIST

Δ anh. Anhydrite	Δ fu. Fuchsite	Δ Ni. Nickel	Δ st. Stone
Δ ank. Ankerite	Δ gn. Galena	Δ Nb. Niobium	Δ talc. Talc
Δ anna. Annabergite	Δ gt. Garnet	Δ Pd. Palladium	Δ Te. Tellurium
Δ ap. Apatite	Δ goe. Goethite	Δ peat. Peat	Δ td. Tetrahedrite
Δ arg. Argentite	▲ Au. Gold	Δ pent. Pentlandite	Δ th. Thorite
Δ As. Arsenic	Δ gf. Graphite	Δ Pt. Platinum	Δ Th. Thorium
Δ asp. Arsenopyrite	Δ gl. Gravel	Δ py. Pyrite	Δ thuc. Thucholite
▲ asb. Asbestos	Δ gyp. Gypsum	Δ pyl. Pyrochlore	Δ ti. Titanite
Δ ba. Barite	Δ hem. Hematite	Δ pyrl. Pyrolusite	Δ Ti. Titanium
Δ be. Beryl	Δ il. Ilmenite	Δ po. Pyrrhotite	Δ tour. Tourmaline
Δ Bi. Bismuth	Δ Fe. Iron	Δ q. Quartz	Δ trap. Trap rock
Δ bn. Bornite	Δ IF. Iron Formation	Δ qcv. Quartz carbonate vein	Δ W. Tungsten
Δ bran. Brannerite	Δ jas. Jasper	Δ ra. Radioactive minerals	Δ uran. Uraninite
Δ bruc. Brucite	Δ kaol. Kaolinite (kaolin)	Δ RE. Rare Earths	Δ U. Uranium
Δ Cd. Cadmium	Δ ky. Kyanite	Δ sd. Sand	Δ verm. Vermiculite
Δ calc. Calcite	Δ Pb. Lead	Δ sgl. Sand and gravel	Δ Y. Yttrium
Δ carb. Carbonate	Δ lim. Limonite	Δ ss. Sandstone	Δ Zn. Zinc
Δ cel. Celestite	Δ Li. Lithium	Δ scap. Scapolite	Δ zr. Zircon
Δ cc. Chalcocite	Δ mgst. Magnesite	Δ shee. Scheelite	
Δ cp. Chalcopyrite	Δ mag. Magnetite	Δ serp. Serpentine	
Δ ch. Chert	Δ mc. Malachite	Δ sh. Shale	
Δ clay. Clay	Δ Mn. Manganese	Δ sid. Siderite	
Δ Co. Cobalt	Δ mb. Marble	Δ si. Silica	
Δ cob. Cobaltite	Δ mar. Marcasite	▲ Ag. Silver	
Δ cb. Columbite	Δ ma. Marl	Δ sl. Slate	
Δ Cu. Copper	Δ mi. Mica	Δ sm. Smaltite	
Δ cor. Corundum	Δ ml. Millerite	Δ sod. Sodolite	
Δ dol. Dolomite	Δ mo. Molybdenite	Δ spec. Specularite	
Δ ep. Epidote	Δ Mo. Molybdenum	Δ sp. Sphalerite	
Δ ery. Erythrite	Δ mon. Monazite	Δ spd. Spodumene	
Δ fel. Feldspar	Δ ne. Nephelite (nepheline)	Δ staur. Staurolite	
Δ fl. Fluorite (flurospar)	Δ nc. Niccolite	Δ stib. Stibnite	

Solid triangles indicate metal and mineral occurrences shown on the accompanying maps.

MINERAL OCCURRENCES				Additional References and/or Remarks
Map Ref. Letter	Name(s)	Mineralization	Source Mineral Deposit Record	
A	W.M. Anderson Occurrence	Au		Granite contains up to 5% pyrite.
B	Bambi	Au	C 0305	A vein breccia averaging 4' wide and at least 300' long contains about 0.06oz/T Au.
C	Bird-Ginn	Asb	C 0370	
D	S.J. Bird No. 1 Occurrence	Au		Quartz stringers in granite have been explored by pits.
E	S.J. Bird No. 2 Occurrence	Au		Low gold values are present in pyritised interflow chert beds.
F	Broulan Porcupine Occurrence	Au		Carbonated Zone 300' wide with associated mafic volcanics and grey wacke contain pyrite and low values.

MINERAL OCCURRENCES			Source Mineral Deposit Record	References in OGS Mineral Deposits Circulars & OGS Industrial Mineral Reports	Additional References and/or Remarks
Map Ref. Letter	Name(s)	Mineralization			
G	Brydges Occurrence	Au, Ag	C 0306	ODM 1971, MRC13, p.127 ODM 1949, AR58, pt.4, p.19-20	A quartz vein up to 10" wide is mineralised with galena and assayed 0.03oz/T Au and 2.32oz/T Ag. Carbonate IF occurs in greywacke.
H	Buffonta (Garrison, Murphy)	Au, Ag	C 0307	NMI File 32D/05 Au 7 ODM 1949, AR58, pt.4, p.20-21 ODM 1971, MRC13, p.68 OGS 1981, MP101, p.95, 113	Mafic volcanics adjacent to a granite intrusive are cut by granite dykes. At the open pit the basalt is minutely fractured and contains quartz-albite veinlets mineralized with py and gold.
I	Cominco Occurrence	Au		ODM Map 1949-1 ODM 1949, AR58, pt.4, p.22 ODM 1971, MRC 13 p.128	Greywacke and mafic volcanics intersected by drilling.
J	Deloye Occurrence	Au		ODM Map 1949-1 ODM 1949, AR58, pt.4, p.23 ODM 1971, MRC 13 p.128	Quartz veins up to 6" wide in mafic volcanics have been trenced by E.C. Deloye.
K	DiPaulo Occurrence	Au		ODM Map 1949-1 ODM 1949, AR58, pt.4, p.23 ODM 1971, MRC 13 p.128	A chert band up to 100' wide occurs in mafic volcanics and is mineralised with py & cp. A band of po & minor cp containing low Au occurs at the eastern end of the zone.

MINERAL OCCURRENCES			Source Mineral Deposit Record	References in OGS Mineral Deposits Circulars & OGS Industrial Mineral Reports	Additional References and/or Remarks
Map Ref. Letter	Name(s)	Mineralization			
L	Garrison Greek Occurrence	Au		ODM Map 1949-1 ODM 1949, AR58, pt.4, p.24-25 ODM 1971, MRC 13 p.128	Low gold values in carbonate, mafic volcanic rocks and porphyry.
M	Garrison-Harbour Occurrence	Au, Ag		ODM Map 1949-1 ODM 1949, AR58, pt.4, p.24,25 ODM 1971, MRC13, p.128 NMI File 32D/05 Au 16	Quartz vein in granite 5.5' wide exposed for 130'. Vein mineralization consists of small amounts of py, cp & gn. Assays indicate 0.02 oz/Au and 0.90 oz/T Ag.
N	Garrcon	Au	C 0309	ODM 1949, AR58, pt.4, p.24-25 ODM 1971, MRC13, p.69	Narrow veins and irregular zones of quartz in greywacke contain gold.
O	Grimston	Au	C 0310	NMI File 32D/05 Au 1 ODM 1949, AR58, pt.4, p.18 ODM 1971, MRC13, p.69, 70	Uniform and pillowed Kewatin basalt with some associated chert. A chert band 4' wide is weakly mineralised with py and disseminated py is present in parts of the basalt.
P	Hastings Occurrence	Au		ODM Map 1949-1 ODM 1949, AR58, pt.4, p.26,27 ODM 1971, MRC 13 p.128	Quartz veins mineralised with py, gn & vg occur in greywacke & porphyry dykes. Drilling indicates mafic lavas, carbonate rocks, felsic intrusives etc..

MINERAL OCCURRENCES			Source Mineral Deposit Record	References in OGS Mineral Deposits Circulars & OGS Industrial Mineral Reports	Additional References and/or Remarks
Map Ref. Letter	Name(s)	Mineralization			
Q	Inspiration Occurrence	Au		ODM Map 1949-1 ODM 1949, AR58, pt.4, p.27 ODM 1971, MRC 13 p.128	Mafic lavas cut by syenite dykes were intersected by drilling.
R	Linton Occurrence	Au		ODM Map 1949-1 ODM 1949, AR58, pt.4, p.27 ODM 1971, MRC 13 p.128	Greywacke with carbonatised zones contain quartz veins & stringers & have been explored by pits.
S	Mining Corporation No.1 Occurrence	Au		ODM Map 1949-1 ODM 1949, AR58, pt.4, p.27-28 ODM 1971, MRC 13 p.128	Greywacke and mafic volcanics explored by 10 drill holes.
T	Mining Corporation No.2 Occurrence	Au		ODM Map 1949-1 ODM 1949, AR58, pt.4, p.27-28 ODM 1971, MRC 13 p.128	Quartz veins up to 5' wide in a fault zone between mafic volcanics and gabbro have been explored by pits.
U	Morningdale Occurrence	Au		ODM Map 1949-1 ODM 1949, AR58, pt.4, p.28 ODM 1971, MRC 13 p.128	Mafic volcanics, porphyry & carbonate rocks were intersected by drilling.
V	Newfield Occurrence	Au		ODM Map 1949-1 ODM 1949, AR58, pt.4, p.28-29 ODM 1971, MRC 13 p.128	Rock types are greywacke, mafic volcanics carbonate schist and felsic dykes.

MINERAL OCCURRENCES		Source Mineral Deposit Record	References in OGS Mineral Deposits Circulars & OGS Industrial Mineral Reports	Additional References and/or Remarks
W	Shunby Occurrence	C 0311	ODM Map 1949-1 ODM 1949, AR58, pt.4, p.30 ODM 1971, MRC13, p.128	Quartz stringers in a zone 4' wide and 130' long in mafic volcanics contain pyrite and a sample assayed 0.05oz/T Au.
X	Voge Occurrence		ODM Map 1949-1 ODM 1949, AR58, pt.4, p.30-31 ODM 1971, MRC 13 p.128	Greywacke, mafic volcanics, carbonate rock and felsic intrusives were intersected by drilling.
Y	Wright-Hargreaves Occurrence		ODM Map 1949-1 ODM 1949, AR58, pt.4, p.17 ODM 1971, MRC 13 p.128	Mafic volcanics, carbonate rock and felsic intrusives were intersected by drilling.
Z	Falconbridge Nickle Mines Ltd. "Canyon Claims"		Resident Geologist Assessment Files Kirkland Lake	-DDH #691-01 assayed 0.14oz Au/ton over 2.2 feet in milky quartz with some disseminated cp,py in vugs. -DDH #691-02 assayed 0.02oz Au/ton over 1 foot in reddish granite with 1/2 to 2% millimetric to antimetric quartz stringers. -DDH #691-03 assayed 0.04oz Au/ton over 2.0 feet in quartz vein with an average of 1/3% py.

TYPE OF WORK		Numbers below represent the year in which the work was done; e.g., 68 for 1968.															
		GEOLOGICAL	GEOCHEMICAL	TRENCHING, STRIPPING	DRILLING	ASSAY DATA	UNDERGROUND WORK	PROSPECTUS, NOTES, CORRESPONDENCE	AIRBORNE MAGNETOMETER	AIRBORNE ELECTROMAGNETIC	AIRBORNE RADIOMETRIC	GROUND MAGNETOMETER	GROUND ELECTROMAGNETIC	GROUND RADIOMETRIC	INDUCED POLARIZATION	SELF POTENTIAL	RESISTIVITY
1	Amax Minerals Exploration "Garrison 1"	77			80												
2	Amax Minerals Exploration "Garrison 2"	79															
3	Amax Minerals Exploration "Michaud 3"	79															
4	Amca Mines Ltd.	37		37													
5	Audora Porcupine Mines Ltd.	47															
6	Bambi Mines Ltd.																
7	Bird, S.J.				47												
8	Brewis and White Ltd.				47												
9	Broulan Reef Mines Ltd.				46												
10	Bryant, W.E. & Harris, E.R.	45		45	45												
11	Brydges Gold Mines Ltd.	35				34											
						44											
						45											
						34											
						35											

TYPE OF WORK

Numbers below represent the year in which the work was done; e.g., 68 for 1968.

EXPLORATION DATA filed at the RESIDENT GEOLOGIST'S OFFICE KIRKLAND LAKE	COMPANY/AUTHOR (file number)	GEOLOGICAL	GEOCHEMICAL	TRENCHING, STRIPPING	DRILLING	ASSAY DATA	UNDERGROUND WORK	PROSPECTUS, NOTES, CORRESPONDENCE	AIRBORNE MAGNETOMETER	AIRBORNE ELECTROMAGNETIC	AIRBORNE RADIOMETRIC	GROUND MAGNETOMETER	GROUND ELECTROMAGNETIC	GROUND RADIOMETRIC	INDUCED POLARIZATION	SELF POTENTIAL	RESISTIVITY	
12	Buffonta Gold Mines Ltd.	48			47			46										
13	Canadian Johns-Manville Co. Ltd. "S.J. Bird Option"	51			51			49				51						
14	Canadian Johns-Manville Co. Ltd. "Garrison-Rand Group"				64 65 66							64	64					
15	Canadian Johns-Manville Co. Ltd. "Kaltwasser Option"				58 65- 67													
16	Canadian Johns-Manville Co. Ltd. "McVeigh Option"	61			58							61	58 61 74					
17	Canadian Johns-Manville Co. Ltd. "North-Central Garrison"	50			50 51 54							50						
18	Canadian Johns-Manville Co. Ltd. "Northwest Group"				51							49						

TYPE OF WORK		Numbers below represent the year in which the work was done; e.g., 68 for 1968.															
		GEOLOGICAL	GEOCHEMICAL	TRENCHING STRIPPING	DRILLING	ASSAY DATA	UNDERGROUND WORK	PROSPECTUS, NOTES, CORRESPONDENCE	AIRBORNE MAGNETOMETER	AIRBORNE ELECTROMAGNETIC	AIRBORNE RADIOMETRIC	GROUND MAGNETOMETER	GROUND ELECTROMAGNETIC	GROUND RADIOMETRIC	INDUCED POLARIZATION	SELF POTENTIAL	RESISTIVITY
19	Canadian Johns-Manville Co. Ltd. "Northwest Harker"										60						
20	Canadian Johns-Manville Co. Ltd. "Southeast Garrison"			58			53				56						
21	Canadian Johns-Manville Co. Ltd. "Twin Lakes Group"										66	66					
22	Canawide Mines & Minerals										52						
23	Colonial Asbestos Corp. Ltd.						52										
24	Consolidated Mining & Smelting Co. of Canada "North Central Garrison"						47				47						
25	Consolidated Mining & Smelting Co. of Canada "South Garrison"										46						
26	Cream Silver Mines Ltd.																
27	Doyle Gold Mines Ltd.												81				

Numbers below represent the year in which the work was done, e.g., 68 for 1968.

TYPE OF WORK	Numbers below represent the year in which the work was done, e.g., 68 for 1968.															
	GEOLOGICAL	GEOCHEMICAL	TRENCHING, STRIPPING	DRILLING	ASSAY DATA	UNDERGROUND WORK	PROSPECTUS, NOTES, CORRESPONDENCE	AIRBORNE MAGNETOMETER	AIRBORNE ELECTROMAGNETIC	AIRBORNE RADIOMETRIC	GROUND MAGNETOMETER	GROUND ELECTROMAGNETIC	GROUND RADIOMETRIC	INDUCED POLARIZATION	SELF POTENTIAL	RESISTIVITY
28 Falconbridge Nickel Mines Ltd.											66	66				
29 Falconbridge Nickel Mines Ltd. "Canyon Claims"	83	82	84 85	82 85							80	80	83			
30 Foster, W.											81	81				
31 Garrcon Mines Ltd. "McKenzie Option"	37		47			36 37	36 37 46 48									
32 Garrison Creek Consolidated Mines Ltd.	47		47							60						
33 Garrison Development Synd.					37											
34 Garrison Harbour Gold Mines Ltd.					47											
35 Garthack Mining Company Ltd.	48		50				48			48						
36 Geotechnical Development Co.										46						
37 Golden Croesus Mines Ltd.	61		62							61						

GPIT FORM NO. 2

TYPE OF WORK		Numbers below represent the year in which the work was done; e.g., 68 for 1968.															
		GEOLOGICAL	GEOCHEMICAL	TRENCHING, STRIPPING	DRILLING	ASSAY DATA	UNDERGROUND WORK	PROSPECTUS, NOTES, CORRESPONDENCE	AIRBORNE MAGNETOMETER	AIRBORNE ELECTROMAGNETIC	AIRBORNE RADIOMETRIC	GROUND MAGNETOMETER	GROUND ELECTROMAGNETIC	GROUND RADIOMETRIC	INDUCED POLARIZATION	SELF POTENTIAL	RESISTIVITY
38	Gold Island Porcupine Mines Ltd.																
39	Grandad Resources Ltd.	84	84														
40	Grimston Porcupine Gold Mines Ltd.																
41	Ingsar Mines Ltd.	46		46													
42	Inspiration Mining & Develop. Company Ltd	46		46													
43	Lynx-Canada Exploration Ltd.	84															
44	Martin, H.E.				59												
45	Mining Corporation of Canada Ltd.	46		46	51												
46	Morningdale Mines Ltd.	46		46													
47	Moses, J.R.			82	83												

GDIF FORM NO. 2

TYPE OF WORK EXPLORATION DATA <small>filed at the</small> RESIDENT GEOLOGIST'S OFFICE KIRKLAND LAKE		Numbers below represent the year in which the work was done; e.g., 68 for 1968.															
		COMPANY/AUTHOR <small>(file number)</small>	GEOLOGICAL	GEOCHEMICAL	TRENCHING, STRIPPING	DRILLING	ASSAY DATA	UNDERGROUND WORK	PROSPECTUS, NOTES, CORRESPONDENCE	AIRBORNE MAGNETOMETER	AIRBORNE ELECTROMAGNETIC	AIRBORNE RADIOMETRIC	GROUND MAGNETOMETER	GROUND ELECTROMAGNETIC	GROUND RADIOMETRIC	INDUCED POLARIZATION	SELF POTENTIAL
48	Nahanni Mines Ltd.	83										83	83				
49	Newfield Gold Mines Ltd.	47			46			47									
50	Noranda Exploration Co. Ltd. "Windjammer Option"	84			83												
51	Normalloy Exploration Ltd.							60									
52	Northland Mines Ltd.	46						46				46					
53	Pomahomo Gold Mining Synd.																
54	Potter, R.S.				39			38									
55	Shunshy Gold Mines Ltd.	48			61			39									
56	Three Brothers Mining Expl. Ltd.				48			49									
57	Union Mining Corporation	86						50									
58	Val D'Or Exploration Ltd.																

GDIIF FORM NO. 7

TYPE OF WORK		Numbers below represent the year in which the work was done; e.g., 68 for 1968.															
		GEOLOGICAL	GEOCHEMICAL	TRENCHING, STRIPPING	DRILLING	ASSAY DATA	UNDERGROUND WORK	PROSPECTUS, NOTES, CORRESPONDENCE	AIRBORNE MAGNETOMETER	AIRBORNE ELECTROMAGNETIC	AIRBORNE RADIONETRIC	GROUND MAGNETOMETER	GROUND ELECTROMAGNETIC	GROUND RADIONETRIC	INDUCED POLARIZATION	SELF POTENTIAL	RESISTIVITY
EXPLORATION DATA filed at the RESIDENT GEOLOGIST'S OFFICE KIRKLAND LAKE	COMPANY/AUTHOR (file number)																
	59 Voge Gold Mines Ltd.	80			48						80				80		
60 Windjammer Power & Gas		80									80						
61 Wright-Hargreaves Mines Ltd. "Hastings, Brydges Grps." "Adams Grp."	47	47	47														
62 Kerr Addison Mines Ltd.	84										84						
63 Teegana Mines Ltd.																	
64 Chapman, S.F.							47										
65 Bayne, A.S.							48										
66 Garrison Gold Inc. "Dewhurst Lake Prop."	85										85						
67 Jonpol																	
68 Hobbs, L.G.																	
69 Canamax																	
70 Falconbridge "Garrison Creek"	84	84	84	84	84						84						84

G.D.I.F. FORM NO. 2

DRILLHOLE SUMMARY		Company Name	Company Drillhole Number	Date Drilled	Bearing Azimuth	Initial Dip of Hole	Thickness of Overburden	Total Length of Hole	Mineralization Noted in Log	Assay Data Included for
Map Drilling Location Number										
1		Amax Minerals Exploration " Garrison I "	839-04-10	7/80	0°	-50°	67.25m	150.5m	qcv,py,gf,	--
2		Bambi Mines Ltd.	3	1947	0°	-45°	95'	930'	ep,py,qcv	--
3		" "	1(1947)	1947	350°	-50°	8'	200'	--	--
4		" "	2(1947)	1947	180°	-37°	6'	300'	py,ep	--
5		" "	1(1946)	1946	0°	-45°	20'	1132'	py,qcv,gt,ep,ch	--
6		" "	2	1947	180°	-45°	76'	965'	ep,gt,py,qcv	--
7		Brewis and White Ltd.	H1	1947	190°	-45°	115'	1078'	py,spec,jas,ep	Au(0.02oz/t)
8		" "	H2	1947	190°	-45°	112'	910'	ep,talc	--
9		" "	H3	1947	148°	-45°	94'	1095'	py,qcv	Au(0.23oz/t)
10		" "	H4	1947	328°	-45°	11'	960'	qcv,ch,py,jas	--
11		" "	H5	1947	328°	-45°	92'	839'	py,qcv,talc	Au(0.01oz/t)
12		" "	H6	1947	345°	-45°	87'	889'	qcv,py,talc	--
13		" "	H7	1947	327°	-45°	91'	711'	py,qcv,gf,tour	--
14		" "	H8	1947	148°	-45°	48'	564'	py,qcv	--
15		" "	H9	1947	148°	-45°	45'	724'	py,qcv	--
16		" "	H10	1947	148°	-45°	80'	588'	py,qcv	--

GDIF FORM NO. 1

† - Core stored at Swastika Drill Core Storage Library

DRILLHOLE SUMMARY		Company Name	Company Drillhole Number	Date Drilled	Bearing Azimuth	Initial Dip of Hole	Thickness of Overburden	Total Length of Hole	Mineralization Noted in Log	Assay Data Included for
Map Drilling Location Number										
17	Brewis and White Ltd.	H11	1947	147°	-45°	112'	773'	py, talc, qcv	Au(0.10oz/t)	
18	"	H12	1947	143°	-45°	116'	733'	py, talc, qcv	Au(0.13oz/t)	
19	"	H13	1947	142°	-45°	118°	500'	qcv, py	--	
20	Broulan Reef Mines Ltd.	G-2	1946	160°	-40°	163.5'	1103'	py, gn, jas, calc	--	
21	"	G-3	1946	340°	-60°	195'	702'	qcv, py	--	
22	Bryant, W.E. & Harris, E.R.	#1	05/45	167°	-45°	12'	412'	py, qcv	Au(0.08oz/t)	
23	"	#2	05/45	167°	-45°	5'	339'	py, qcv	Au(0.06oz/t)	
24	"	#3	05/45	167°	-45°	3.2'	423'	py, qcv	--	
25	Buffonta Gold Mines Ltd.	X	1947	245°	-45°	8'	356'	ep, py	--	
26	"	52	1947	026°	-50°	6'	412'	qcv, py, ep	--	
27	"	53	1947	028°	-50°	6'	489'	ep, cp, py	--	
28	"	54	1947	025°	-45°	20'	250'	py	--	
29	"	55	1947	033°	-50°	5'	825'	ep, py	--	
30	"	56	1947	032°	-55°	7'	564'	ep, py, cp	--	
31	Canadian Johns-Manville Co. Ltd. "S.J. Bird Option"	B-5	06/51	180°	-45°	25'	575'	asb, mag	--	
32	"	B-1	09/51	180°	-45°	0'	150'	asb	--	

G.D.F. FORM NO. 3

† - Core stored at Swastika Drill Core Storage Library

DRILLHOLE SUMMARY		Company Name	Company Drillhole Number	Date Drilled	Bearing Azimuth	Initial Dip of Hole	Thickness of Overburden	Total Length of Hole	Mineralization Noted in Log	Assay Data Included for
Map Drilling Location Number										
33	Canadian Johns-Manville Co. Ltd. "S.J. Bird Option"	B-2	1951	--	-45°	25'	158'	asb	--	
34	"	B-3	1951	135°	-45°	36'	684'	mag,asb	--	
35	"	B-4	1951	--	-45°	--	710'	mag,asb	--	
36	"	B-6	1951	0°	-45°	50'	642'	mag,asb	--	
37	"	B-7	1951	150°	-45°	80'	401'	carb,asb	--	
38	"	B-8	1951	150°	-45°	90'	522'	cp,po,py	--	
39	"	B-9	06/51	180°	-45°	25'	687'	mag,asb	--	
40	"	B-10	1951	180°	-45°	36'	699'	mag,asb,carb	--	
41	"	B-11	07/51	180°	-45°	22'	689'	mag,asb	--	
42	"	B-12	1951	180°	-45°	27'	566'	asb,mag	--	
43	"	B-13	1951	180°	-45°	15'	676'	asb,carb,mag	--	
44	"	B-14	08/51	180°	-45°	90'	795'	mag,asb,carb	--	
45	"	B-15	1951	180°	-45°	8'	531'	--	--	
46	"	B-16	1951	180°	-45°	137'	487'	ta1c,asb,mag	--	
47	"	B-17	1951	180°	-45°	63'	786'	mag,asb	--	

CGIF FORM NO. 1

† - Core stored at Swastika Drill Core Storage Library

DRILLHOLE SUMMARY		Company Name	Company Drillhole Number	Date Drilled	Bearing Azimuth	Initial Dip of Hole	Thickness of Overburden *	Total Length of Hole	Mineralization Noted in Log	Assay Date Included for
Map Drilling Location Number										
48	Canadian Johns-Manville Co. Ltd. "S.J. Bird Option"	B-18	1951	150°	-45°	64'	644'	carb	--	
49	" "	B-19	1951	150°	-45°	70'	591'	asb,mag	--	
50	" "	B-20	1951	150°	-45°	83'	502'	asb	--	
51	" "	B-21	1951	150°	-60°	43'	750'	asb,mag,po,py	--	
52	" "	B-22	1951	330°	-45°	57'	293'	carb	--	
53	" "	B-23	1951	150°	-45°	56'	666'	asb	--	
54	" "	B-24	1951	150°	-45°	70'	367'	asb,carb	--	
55	" "	B-25	1951	330°	-60°	62'	600'	asb	--	
56	" "	B-26	1951	330°	-45°	60'	181'	carb	--	
57	Canadian Johns-Manville Co. Ltd. "Garrison-Rand"	G-64-1	11/64	180°	-45°	105'	607'	py,calc	--	
58	" "	G-64-2	11/64	180°	-60°	87'	601'	py,mi,ep,calc	--	
59	" "	G-64-3	12/64	180°	-45°	108'	593'	asb,talc,mi,py,calc	--	
60	" "	G-64-4	01/65	0°	-45°	56'	1005'	carb,po,mag,asb,bruc	--	
61	" "	G-64-5	02/65	0°	-45°	121'	514'	qcv,asb,mag	--	

GDIF FORM NO. 3

† - Core stored at Swastika Drill Core Storage Library

* - Length of Overburden down drill hole

xx - No date

DRILLHOLE SUMMARY		Company Name	Company Drillhole Number	Date Drilled	Bearing Azimuth	Initial Dip of Hole	Thickness of Overburden *	Total Length of Hole	Mineralization Noted in Log	Assay Data Included for
Map Drilling Location Number										
62	Canadian Johns-Manville Co. Ltd. "Garrison-Rand"	G-66-3	02/66	180°	-70°	195'	802.5'	qcv,py,po,cp	Au,Ag	
63	Canadian Johns-Manville Co. Ltd. Kaltwasser Group"	6-30	11/58	180°	-45°	118'	160'	py	--	
64	Does not exist!									
65	" "	G-65-1	12/65	180°	-45°	170'	170'	--	--	
66	" "	G-65-1a	12/65	--	-90°	90'	577'	py,qcv,po,cp	Au,Ag,Cu,Zn	
67	" "	G-66-1	01/66	180°	-60°	107'	705'	mag,hem,po,py,asb	--	
68	" "	G-67-1	06/67	160°	-80°	120'	120'	--	--	
69	" "	G-67-1a	06/67	--	-90°	225'	500'	qcv,py	--	
70	Canadian Johns-Manville Co. Ltd. "McVeigh Group"	MV-1	11/58	032°	-45°	18'	403'	py,po,qcv	--	
71	Canadian Johns-Manville Co. Ltd. "North-Central Garrison"	G-1	06/50	0°	-45°	80'	725'	asb,carb	--	
72	" "	G-2	07/50	180°	-45°	106'	700'	talc,mag,asb	--	
73	" "	G-3	07/50	177°	-45°	49'	654'	asb,talc,mag	--	
74	" "	G-4	08/50	180°	-45°	180°	700°	mag,talc,asb	--	
75	" "	G-6	10/50	180°	-45°	30'	632'	mag,asb	--	

GDIF FORM NO. 1

† - Core stored at Swastika Drill Core Storage Library

* - Length of Overburden down drill hole

xx - No date

DRILLHOLE SUMMARY		Company Name	Company Drillhole Number	Date Drilled	Bearing Azimuth	Initial Dip of Hole	Thickness of Overburden	Total Length of Hole	Mineralization Noted in Log	Assay Data Included for
Map Drilling Location Number										
76		Canadian Johns-Manville Co. Ltd. "North-Central Garrison"	G-7	09/50	167°	-45°	60'	674'	mag, asb	--
77		"	G-8	10/50	0°	-45°	72'	650'	asb	--
78		"	G-9	05/51	180°	-45°	27'	715'	asb, mag	--
79		"	G-10	05/51	180°	-45°	48'	704'	mag, asb	--
80		"	G-11	--	150°	-45°	34'	600'	asb, mag, carb	--
81		"	G-14	--	180°	-45°	75'	749'	--	--
82		"	G-15	--	180°	-45°	26'	684'	--	--
83		"	G-16	--	180°	-45°	43'	835'	asb	--
84		"	G-17	--	0°	-45°	193'	654'	asb, carb	--
85		"	G-18	--	--	-90°	15'	368'	asb	--
86		"	G-19	--	0°	-45°	37'	669'	asb, mag	--
87		"	G-20	--	--	-90°	40'	416'	asb, mag, talc	--
88		"	G-21	--	--	-90°	0'	474'	--	--
89		"	G-22	09/54	180°	-50°	189'	189'	--	--
90		"	G-23	07/54	--	-90°	205'	208'	--	--

GDIF FORM NO. 1

† - Core stored at Swastika Drill Core Storage Library

DRILLHOLE SUMMARY		Company Name	Company Drillhole Number	Date Drilled	Bearing Azimuth	Initial Dip of Hole	Thickness of Overburden	Total Length of Hole	Mineralization Noted in Log	Assay Data Included for
Map Drilling Location Number										
91		Canadian Johns-Manville Co. Ltd. "North-Central Garrison"	G-24	08/54	--	-90°	45'	603'	--	--
92		Canadian Johns-Manville Co. Ltd. "Northwest Group"	G-12	07/51	180°	-45°	94'	792'	mag, asb	--
93		" "	G-13	08/51	180°	-45°	15'	623'	calc, mag, asb	--
94		Canadian Johns-Manville Co. Ltd. "Southeast Garrison"	G-25	09/58	180°	-45°	110'	164'	asb	--
95		" "	G-26	10/58	180°	-45°	159'	426'	asb, mag, bruc, sid	--
96		" "	G-27	10/58	180°	-45°	108'	757'	mag, asb, bruc	--
97		" "	G-28	10/58	180°	-45°	110'	704'	carb, mag, bruc	--
98		" "	G-9	10/58	0°	-35°	67'	685'	carb, mag	--
99		Colonial Asbestos Corp. Ltd.	#1	04/53	180°	-45°	102'	102'	--	--
100		" "	#1b	04/53	180°	-55°	76'	790'	mag, talc	--
101		" "	#2	05/53	180°	-50°	26'	800'	asb, mag, talc	--
102		" "	#3	05/53	180°	-50°	6'	800'	po, py, cp	--
103		Garrcon Mines Ltd.	#6	05/47	0°	-45°	85'	1190'	qcv, py, talc	--
104		Garrison Creek Consolidated Mines Ltd.	#1	1947	--	-90°	169'	506'	--	--

GDIF FORM NO. 3

† - Core stored at Swastika Drill Core Storage Library

DRILLHOLE SUMMARY		Company Name	Company Drillhole Number	Date Drilled	Bearing Azimuth	Initial Dip of Hole	Thickness of Overburden	Total Length of Hole	Mineralization Noted in Log	Assay Data Included for
Map Drilling Location Number										
105	Garrison Creek Consolidated	#2a	1947	--	-90°	139'	365'	ch,ep	--	
106	"	#5	1947	0°	-60°	125'	869'	carb,py,ep	--	
107	"	#6	1947	0°	-60°	161'	597'	qcv,ep	--	
108	"	#7	1947	0°	-80°	160'	203'	py	--	
109	"	#9	1947	0°	-60°	195'	843'	py,jas	--	
110	"	#10	1947	0°	-60°	188'	590'	ep	--	
111	"	#11	1947	180°	-58°	160'	970'	talc,py,carb	--	
112	"	#12	1947	180°	-50°	116'	1111'	py,carb,ep	--	
113	"	#13a	1947	0°	-51°	130°	824.5	carb	--	
114	"	#14	1947	332°	-50°	200'	958'	py	--	
115	"	#15	1947	180°	--	222'	222'	--	--	
116	"	#4	1947	180°	-90°	136'	518'	ep,ch	--	
117	"	#16	1947	152°	-48°	204'	1031'	py,carb,ep	--	
118	"	#17	1947	152°	-48°	220'	1306'	carb,mag	--	
119	"	#20	1947	152°	-50°	268'	1186'	py,ep,carb,talc	--	

GDIF FORM NO. 3

† - Core stored at Swastika Drill Core Storage Library

DRILLHOLE SUMMARY		Company Name	Company Drillhole Number	Date Drilled	Bearing Azimuth	Initial Dip of Hole	Thickness of Overburden	Total Length of Hole	Mineralization Noted in Log	Assay Data Included for
Map Drilling Location Number										
120	Garthack Mining Company Ltd.	G-14	11/50	065°	-45°	10'	525'	py, ep, qcv	--	
121	"	G-16	11/50	030°	-45°	12'	475'	ep, py, qcv, gt	--	
122	Golden Croesus Mines Ltd.	#18	12/62	350°	-50°	8'	752'	gt, ep, hem, calc	--	
123	Insgar Mines Ltd.	#1	1946	0°	-45°	0'	192'	carb	--	
124	"	#2	1946	0°	-45°	20'	679'	qcv, py, talc	--	
125	"	#3	1946	0°	-45°	117'	662'	talc, py, IF	--	
126	"	#7	1946	0°	-45°	100'	1051'	talc, py	--	
127	"	#9	1946	180°	-45°	88'	663'	py, talc, mo	--	
128	"	#11	1946	0°	-45°	100'	834'	py, ep, carb	--	
129	"	#12	1946	180°	-45°	52'	617'	py, qcv, mo	--	
130	Inspiration Mining & Devel. Company Ltd.	#6	1946	055°	-50°	185'	1197'	carb	--	
131	"	#8	1946	174°	-45°	99'	1050'	--	--	
132	"	#9	1946	339°	-35°	24'	800'	ep, carb	--	
133	"	#17	1946	151°	-55°	114'	613'	ep, carb, talc	--	
134	"	#19	1946	159°	-50°	143'	817'	--	--	

GDIF FORM NO. 3

† - Core stored at Swastika Drill Core Storage Library

DRILLHOLE SUMMARY		Company Name	Company Drillhole Number	Date Drilled	Bearing Azimuth	Initial Dip of Hole	Thickness of Overburden	Total Length of Hole	Mineralization Noted in Log	Assay Data Included for
Map Drilling Location Number										
135	Inspiration Mining & Devel. Company Ltd.	#32	1946	162°	-50°	84'	300'	py	--	
136	Martin, H.E.	#1	11/59	180°	-50°	5'	600'	asb	--	
137	Mining Corp. of Canada Ltd.	#1	1951	0°	-45°	19'	502'	jas	--	
138	"	#2	1951	180°	-45°	7'	399'	py,qcv,jas	--	
139	"	#3	1951	180°	-45°	10'	200'	spec	--	
140	"	#4	1951	170°	-30°	103'	900'	jas,qcv	--	
141	"	#5b	1951	170°	-50°	75'	337'	spec	--	
142	"	#5d	1951	170°	-50°	28'	521'	ep,spec,py,mag, hem	--	
143	"	#7	1951	180°	-30°	11'	400'	--	--	
144	"	#8	1951	150°	--	20'	865'	talc	--	
145	"	#9	08/51	300°	-35°	7'	847'	talc	--	
146	"	#10	08/51	0°	-55°	150'	150'	--	--	
147	Morningdale Mines Ltd.	#1	1946	004°	-50°	120'	1000'	qcv,ep,py	--	
148	"	#2	1946	184°	-50°	117'	1253'	ep,carb	--	
149	"	#3	1946	004°	-50°	125'	796'	carb	--	

GDF FORM NO. 1

† - Core stored at Swastika Drill Core Storage Library

DRILLHOLE SUMMARY		Company Name	Company Drillhole Number	Date Drilled	Bearing Azimuth	Initial Dip of Hole	Thickness of Overburden	Total Length of Hole	Mineralization Noted in Log	Assay Data Included for
Map Drilling Location Number										
150	Morningdale Mines Ltd.	#4	1946	184°	-50°	125'	854'	--	--	
151	Moses, J.R.	83-1	06/83	010°	-45°	169'	995'	qcv, py, mag, ep	Au(0.13oz/t)	
152	"	83-2	06/83	359°	-50°	175'	486'	qcv, py, hem	Au	
153	"	83-3	07/83	350°	-45°	58'	742'	py, po, mag, qcv, cp	--	
154	"	J.M. 1	10/82	188°	-50°	234'	1238'	talc, py, hem, mag, Au qcv, cp	Au	
155	"	J.M. 2	10/82	205°	-45°	224'	826'	qcv, ep, py, talc, cp, mag	Au(0.07oz/t)	
156	"	J.M. 3	08/83	0°	-45°	228'	1000'	ep, py, mag, qcv	Au	
157	Newfield Gold Mines Ltd.	D.D.H.#1	1946	0°	-50°	241'	869'	carb, spec	--	
158	"	D.D.H.#4	1946	190°	-50°	181'	999'	py, carb	--	
159	"	D.D.H.#8	1946	324°	-45°	28'	1002'	jas	--	
160	"	D.D.H.#9	1946	324°	-45°					
161	"	D.D.H.#10	1946	181°	-45°	140'	928'	py, carb	--	
162	"	D.D.H.#11	1946	181°	-45°	144'	1074'	qcv, py, spec	--	
163	"	D.D.H.#12	1946	181°	-60°	150'	961'	py, qcv, spec	--	
164	"	D.D.H.#13	1946	0°	-60°	140'	690'	ep, jas	--	

GDIF FORM NO. 3

† - Core stored at Swastika Drill Core Storage Library

DRILLHOLE SUMMARY		Company Name	Company Drillhole Number	Date Drilled	Bearing Azimuth	Initial Dip of Hole	Thickness of Overburden	Total Length of Hole	Mineralization Noted in Log	Assay Data Included for
Map Drilling Location Number										
165	Newfield Gold Mines Ltd.	D. D. H. #14	1946	180°	-50°	172'	690'	py, qcv	--	
166	"	D. D. H. #15	1946	179°	-60°	185'	480'	talc, qcv	--	
167	"	D. D. H. #16	1946	180°	-55°	168'	757'	talc, py	--	
168	"	D. D. H. #17	1946	185°	-60°	136'	706'	py, qcv, cp, gn, hem	--	
169	"	D. D. H. #18	1946	181°	-50°	147'	1351'	py, mo, spec, qcv	--	
170	"	D. D. H. #19	1946	181°	-45°	144'	1356'	gn, qcv, py	--	
171	"	D. D. H. #20	1946	180°	-85°	140'	937'	qcv, py, spec	--	
172	Noranda Exploration Co. Ltd.	WJ-83-1	08/83	180°	-50°	282'	288'	--	--	
†173	"	WJ-83-2	08/83	0°	-53°	198'	720'	qcv, py, hem, ep, mag, spec	Au(0.09oz/t)	
174	Pomahomo Gold Mining Synd.	#1	--	180°	-55°	2'	100'	py	Au(0.02oz/t)	
175	"	#2	--	0°	-55°	0'	125'	py	--	
176	"	#3	--	0°	-55°	0'	121'	py	Au(2.5oz/t)	
177	Potter, R.S.	#1	02/61	0°	-45°	105'	162'	--	--	
178	"	#2	02/61	0°	-45°	30'	110'	--	--	
179	"	#3	02/61	0°	-50°	30'	100'	--	--	

GDIF FORM NO. 3

† - Core stored at Swastika Drill Core Storage Library

DRILLHOLE SUMMARY		Company Name	Company Drillhole Number	Date Drilled	Bearing Azimuth	Initial Dip of Hole	Thickness of Overburden	Total Length of Hole	Mineralization Noted in Log	Assay Data Included for
Map Drilling Location Number										
180	Shunshby Mines Ltd.	#1	1948	265°	-48°	45'	759.5'	jas, py, ep, qcv	--	
181	"	#9	1948	241°	-45°	10'	155'	ep, calc	--	
182	"	#8	1948	254°	-50°	9.6'	146.2'	ep, py	--	
183	"	#7	1948	309°	-45°	65'	688'	ep, py	--	
184	"	#6	1948	287°	-45°	14'	506'	ep, jas	--	
185	"	#5	1948	287°	-36°	8'	498'	ep, py	--	
186	"	#4	1948	292°	-45°	46'	391'	ep, py	--	
187	"	#3	1948	293°	-50°	8'	543'	ep, py	--	
188	"	#2	1948	290°	-45°	55'	322'	ep, py	--	
189	Val d'Or Exploration Ltd.	81-1	07/81	0°	-50°	35'	464'	py	Au(0.09oz/t)	
190	"	81-2	07/81	0°	-50°	20'	556'	py, ep, hem	Au	
191	"	81-3	07/81	0°	-50°	42'	487'	py	Au(0.01oz/t)	
192	"	81-4	08/81	0°	-50°	15'	507'	py	Au	
193	"	81-5	08/81	0°	-50°	67'	525'	py, tour, gf	Au(0.01oz/t)	
194	"	81-6	08/81	0°	-50°	220'	220'	--	--	
195	"	81-7	08/81	0°	-50°	220'	220'	--	--	

GDIF FORM NO. 3

† - Core stored at Swastika Drill Core Storage Library

DRILLHOLE SUMMARY		Company Name	Company Drillhole Number	Date Drilled	Bearing Azimuth	Initial Dip of Hole	Thickness of Overburden	Total Length of Hole	Mineralization Noted in Log	Assay Data Included for
Map Drilling Location Number										
196		Voge Gold Mines Ltd.	6B	1948	350°	-48°	165'	800'	--	Au
197		"	10A	1948	180°	-50°	80'	1001'	carb	--
198		"	11	1948	180°	-50°	133'	803'	py, carb	--
199		"	22	1948	350°	-50°	160'	772'	qcv, py	--
200		"	23	1948	350°	-50°	115'	477'	qcv	--
201		Wright-Hargreaves Mines Ltd.	12	--	150°	-50°	118'	875'	qcv, py	--
202		"	13	--	150°	-50°	70'	785'	ep	--
203		"	20	--	150°	-50°	106'	818'	carb	--
204		Wright-Hargreaves Mines Ltd. "Adams Group"	21	--	150°	-50°	116'	822'	fu, qcv	--
205		"	25	--	169°	-50°	90'	1033'	talc, ep, py, spec	--
206		"	27	--	--	-50°	94'	998'	py	--
207		"	34	--	290°	-50°	160'	1225'	ep, py	--
208		"	36	--	290°	-50°	103'	897'	py	--
209		"	37	--	340°	-50°	172'	1384'	py, jas	--
210		"	38	--	315°	-50°	128'	225'	--	--

GDTF FORM NO. 3

† - Core stored at Swastika Drill Core Storage Library

DRILLHOLE SUMMARY		Company Name	Company Drillhole Number	Date Drilled	Bearing Azimuth	Initial Dip of Hole	Thickness of Overburden	Total Length of Hole	Mineralization Noted in Log	Assay Data Included for
Map Drilling Location Number										
211	Wright-Hargreaves Mines Ltd. "Adams Group"	39	--	311°	-50°	85'	1310'	py, mag, hem, talc, ep, cp	Au(0.4oz/T)	
212	"	40	--	135°	-50°	150'	762'	ep, py, talc	Au(0.04oz/T)	
213	"	41	--	187°	-50°	126'	748'	py, talc, ep, qcv	Au(0.08oz/T)	
214	"	42	--	135°	-56°	216'	270'	py	--	
215	"	43	--	135°	-50°	183'	408'	--	--	
216	"	44	--	315°	-55°	180°	975'	py	Au(0.04oz/T)	
217	"	4	--	335°	-40°	8'	1004°	--	--	
218	"	8	1947	330°	-34°	12'	840'	jas, spec, py	--	
219	Wright-Hargreaves Mines Ltd.	7H	1947	150°	-45°	91'	564'	talc, py, fu	--	
220	Wright-Hargreaves Mines Ltd. "Hastings Group"	33	1947	350°	-50°	142'	954'	qcv, py	--	
221	"	15	1947	142°	-50°	112'	435'	qcv	--	
222	"	16	1947	142°	-50°	93'	797'	qcv, spec	--	
223	Wright-Hargreaves Mines Ltd. "Hastings Group"	26a	1947	020°	-50°	111'	580'	qcv	--	
224	"	26b	1947	020°	-50°	232'	1205'	qcv, talc, jas, py	--	

GDIF FORM NO. 3

† - Core stored at Swastika Drill Core Storage Library

DRILLHOLE SUMMARY		Company Name	Company Drillhole Number	Date Drilled	Bearing Azimuth	Initial Dip of Hole	Thickness of Overburden *	Total Length of Hole	Mineralization Noted in Log	Assay Data Included for
Map Drilling Location Number										
225	Wright-Hatgreaves Mines Lts. "Hastings Group"	29	1947	0°	-50°	97'	352'	qcv	--	
226	" "	29	1947	330°	-50°	153'	872'	talc, qcv	--	
227	" "	28	1947	325°	-50°	91'	998'	talc, qcv	--	
228	" "	32	1947	162°	-50°	84'	300'	py	--	
229	" "	24	1947	180°	-45°	143'	1001'	spec, py, qcv	--	
230	Falconbridge Ltd. "Canyon Claims"	691-01	08/84	078°	-45°	0'	1037'	py, qtz, qcv, cp	Au (.14oz/T)	
231	" "	691-02	10/85	160°	-48°	20'	256'	py, qtz	Au	
232	" "	691-03	10/85	160°	-45°	14'	410'	py, qtz, gf	Au	
233	Jonpol	86-8	10/86	340°	-50°	50'	510'	mag, py, qcv		
234	Falconbridge Ltd. "Garrison Creek"	605-01	06/84	180°	-60°	94'	1106'	py, qcv, mo	Au 58ppb	
235	" "	605-02	07/84	180°	-60°	202'	1506'	py, qcv, cp	Au 2550ppb 5240ppb	
236	" "	605-03	07/84	150°	-60°	246'	1642'	py, cp, qcv	Au 633ppb	
237	" "	605-04	07/84	115°	-58°	168'	1621'	py, qcv	Au	

G01F FORM NO. 3

† - Core stored at Swastika Drill Core Storage Library

* - Length of Overburden down drill hole

xx - No date

DRILLHOLE SUMMARY		Company Name	Company Drillhole Number	Date Drilled	Bearing Azimuth	Initial Dip of Hole	Thickness of Overburden	Total Length of Hole	Mineralization Noted in Log	Assay Data Included for
Map Drilling Location Number										
238	Falconbridge Ltd. "Garrison Creek"	605-05	07/84	150°	-55°	192'	1308'	py, qcv, mica	Au 907ppb	
239	"	605-06	08/84	180°	-60°	192'	1532'	py, qcv	Au	

GDIF FORM NO. 3

† - Core stored at Swastika Drill Core Storage Library

AIRBORNE GEOPHYSICAL SURVEY DATA		Flight Altitude	Flight Line Direction	Flight Line Spacing
1	Questor Surveys Ltd. Amax Minerals Expl.	not known	N-S	NN-E
64	Terraquest Ltd. S.F. Chapman/G. Erikson	100m	N-S	100m

G.P.F. FORM NO. 4

GEOCHEMICAL SURVEY DATA		Reference
Map Sample Site Reference Number	Type of Survey	Analysis For
39	Soil Sampling	Au, As
29	Rock Samples (grab)	Au

Resident Geologist's Assessment Files Kirkland Lake OMEP File

Resident Geologists Assessment Files Kirkland Lake

Grandad Resources Ltd.

Falconbridge Nickel Mines Limited "Canyon Claims"

MISCELLANEOUS DATA

AGE DATING

Site	Method	Material	Reference	Result

NEWSPAPER CLIPPINGS FILE

NOTE: A file of newspaper clippings about the companies listed below, who have worked in this area, is maintained in the Regional/Resident Geologist's Office. Kirkland Lake

Asbestos Corporation	<u>The Northern Daily News</u>	Apr 05, 1915	
Barrick Resources	<u>The Northern Miner</u>	Dec 27, 1984	
Camflo	<u>The Northern Daily News</u>	no date	
Cominco	<u>The Northern Miner</u>	Dec 23, 1985	May 12, 1986
Cream Silver Mine	<u>George Cross Newsletter</u>	Jan 17, 1986	Jan 20, 1986
	<u>The Northern Miner</u>	Feb 03, 1986	
Falconbridge Nickel	<u>The Northern Miner</u>	Sep 13, 1984	
Garcon	<u>The Northern Miner</u>	Jul 21, 1986	
Garrison Harbour	<u>The Northern Miner</u>	Dec 14, 1967	
Garrison Township	<u>The Northern Miner</u>	Apr 08, 1948	Aug 20, 1981
Jonpol	<u>The Northern Miner</u>	Dec 30, 1985 Feb 10, 1986	Jan 20, 1986
Kerr Addison	<u>The Northern Miner</u>	Mar 29, 1984 Mar 07, 1985 Aug 11, 1986	May 17, 1984 Oct 28, 1985
Kerr Addison Lenora	<u>The Northern Miner</u>	Mar 01, 1984	
Kerr Addison Mine	<u>The Northern Miner</u>	Nov 10, 1986	
Munro	<u>The Northern Miner</u>	Jun 15, 1950	
Northland	<u>The Northern Miner</u>	Apr 19, 1951	May 10, 1951
Texpex	<u>George Cross Newsletter</u>	Oct 10, 1984	
Win Eldrich	<u>The Northern Miner</u>	no date	

ODM GENERAL INDEX SEARCH

Words searched: Garrison Township, Grimston Gold Mines
 Hislop Mining Syndicate, Potter, R.S.
 Amca Gold Mine, Garrcon Gold Mine, Mackenzie g. claims

Index Volume	Listing:	Report Volume	Part	Page
2	Garrison Tp., Coch.			
	Eskers	28	2	38
	Forest Fires	28	2	6
	Gold	28	2	51,52
		34	6	86,87
	see also Grimston g.m.			
	Hislop Mg. Synd.			
	Potter, R.S.			
	claims recorded	33	3	41
	hints to prospectors	34	6	93
	Map, sketch with			
	Name, reason for	28	2	45
	Nickel	28	2	64
	Rocks	34	6	91-94
	granites	28	2	4,33-4
	iron formation	28	2	27
	see also map 28b with 28(2)			
	Grimston Gold Mine, Garrison tp.			
	Rocks, mineralisation vein	34	2	98
	Hislop Mining Syndicate			
	Directorate, claims	33	7	28
	Potter, R.S.			
	see also map 28b with 28(2)			
	Acknowledgements to,	31	7	2
	Gold claim, Garrison tp., notes on	34	6	98
	of Cane Silver Mines Ltd.	32	6	97
	Gardner Guibord Gold Mines Ltd.	33	7	27
	Hislop Mining Syndicate	33	7	28
	Prospecting in Hislop tp.	28	2	63
	see also O'Neil-Potter gold claims			
3	Garrison Tp., Coch.			
	see also Amca g.m.			
	Garrcon g.m.			
	granite	45	6	9

ODM GENERAL INDEX SEARCH

Words searched:

Index Volume	Listing:	Report Volume	Part	Page
	Amca Gold Mine, Garrison Tp. Mill, capacity	49	1	25
	Operations see Amca Mines Ltd. Production (1937)	47	5	16
	Amca Mines Ltd. see also Amca g.m. Capital; officers; operations (1936)	46	1	94
	(1937)	46	1	86
	Incorporated	46	1	59
	Garrcon Gold Mine, Garrison tp. see also Garrcon Mines Ltd. McKenzie g. claims			
	Operated by Consolidated Smelters (1936)	46	1	118
	(1937)	47	1	107
	Garrcon Mines Ltd. Capital; officers (1936)	46	1	135
	(1937)	47	1	124
	Incorporated	46	1	60
	Grimston Porcupine Gold Mines Ltd. Incorporated	46	1	61
	McKenzie Gold claims, Garrison tp. Operations	45	1	97
	Optioned to Consolidated Smelters	44	1	85
4	Garrison Tp., Coch. Carbonate rocks	57	4	12,17
	Glacial deposits	57	4	3,14
	Gold claims Wright-Hargreaves Mines Ltd. Report on, by J. Satterly	58	4	
	Garrcon gold mine, Garrison tp. Report and plan	58	4	23,24

ODM GENERAL INDEX SEARCH

Words searched:

Index Volume	Listing:	Report Volume	Part	Page
	Bermor Porcupine Gold Mines Ltd. Incorporated Property; Garrison tp.; report on	55 58	1 4	46 18
	Amca gold mine, Garrison tp. Acquired by Buffonta Mines Mill capacity Production Table 3	58 52 59	4 1 1	21 23
5	Garrison Tp., Coch. Asbestos claims Gold claims mining, see Amca g.m. Nickel-chromium Rocks	60 61 60 60 60	2 2 7 8 7	1 1 39 57 16,21-2
	Amca gold mine, Garrison tp. Production (1937)	64	1	10
6	Garrison Tp., Coch. Gold mining	69	2	64
7	Garrison Tp., Coch. Asbestos Exploration for Occurrences Gold Mining	IMR1 IMR1 70 71 72		16 6 62 67 67
8	Garrison Tp., Coch. Asbestos	AR78 AR79 AR80 IMR36 MP25 MRC13 MRC11		131 129 136 19,44-5 59-60 24 68-70 116

GDIF FORM NO. 8

ODM GENERAL INDEX SEARCH

Words searched:

Index Volume	Listing:	Report Volume	Part	Page

SELECTED REFERENCES		Date	Reference	Map Scales and/or Report Pages
Author	Title			
Ayers, L.D. Lumbers, S.B. Milne, V.G. Robeson, D.W.	<u>REGIONAL GEOLOGICAL COMPILATION MAPS</u> Ontario Geological Map	1970	ODMNA Map 2196	1:1 013 760
Ayers, L.D. Lumbers, S.B. Milne, V.G. Robeson, D.W.	Ontario Geological Map, East Central Sheet	1971	ODMNA Map 2198	1:1 013 760
Boissoneau, A.N.	Algoma-Cochrane Surficial Geology, Ontario	1965	ODL & F Map S365	1:506 880
Boissoneau, A.N.	Algoma, Sudbury, Timiskaming and Nipissing Surficial Geology	1965	ODL & F Map S465	1:506 880
Card, K.D. Sanford, B.V.	Geology of the Timmins Map Sheet (NM-17)	1983	GSC OF 956	1:1 000 000
Easton, R.M.	Geochronology Compilation Map for Ontario: Sheet 3: East-Central Ontario, All Isotopic Systems	1986	OGS Map P.2842	1:1 013 760
Ginn, R.M.	Timmins-Kirkland Lake Sheet, Cochrane, Sudbury and Timiskaming Districts	1964	ODM Map 2046	1:253 440
Gordon, J.B.	Gold Deposits of Ontario, East Central Sheet	1977	OGS Map P.1228	1:1 013 760
Gordon, J.B.	Vein Silver Deposits of Ontario, East Central Sheet	1980	OGS Map P.2300	1:1 013 760
Guillet, G.R.	Clay and Shale Deposits of Ontario	1977	OGS Map 2358 (MDC 15)	1:200 000

Author		Date	SELECTED REFERENCES		Map Scales and/or Report Pages
			Title	Reference	
Jost, M.	1977	Nickel Deposits of Ontario, East Central Sheet	OGS Map P.1062	1:1 013 760	
Lumbers, S.B. Milne, V.G.	1979	Ontario Geological Map, Explanatory Text, Legend and Diagrams of Major Lithologies, Structures and Zones of Metamorphism	OGS Map 2391	1:1 013 760	
Lumbers, S.B. Milne, V.G.	1979	Ontario Geological Map, East Central Sheet	OGS Map 2393	1:1 013 760	
MERQ-OGS	1984	Lithostratigraphic Map of the Abitibi Subprovince	OGS Map 2484 Que Map DV83-16	1:500 000	
Meyn, H.D. Howarth, J.R.	1977	Molybdenum Deposits of Ontario, East Central Sheet	OGS Map P.1246	1:1 013 760	
Meyn, H.D. Robertson, J.A.	1975	Iron Deposits of Ontario, East Central Sheet, Districts of Thunder Bay, Algoma, Cochrane, Sudbury, Timiskaming and Nipissing	ODM Map P.1043	1:1 013 760	
Ministry of Natural Resources	1974	Ontario Mineral Map	ODM Map 2310	1:1 584 000	
Minnes, D.G. Masham, J.S. Scott, D.W. Vos, M.A. & Yundt, S.E.	1983	Industrial Minerals of Ontario	OGS Map P.2591	1:1 500 000	
ODM	1969	Mining Divisions and Resident Geologists Districts	ODM Map 2189	1:1 584 000	
ODM	1974	Ontario Mineral Map	ODM Map 2310	1:1 584 000	
ODM	1977	Ontario Geology and Principal Minerals	ODM Map 2389 (Rev.)	1:4 224 000	

SELECTED REFERENCES				Map Scales and/or Report Pages
Author	Date	Title	Reference	
ODMNA	1971	Ontario Geology and Principal Mineral Collecting Localities, Discover Ontario	ODMNA Map 2211	1:4 224 000
OGS	1986	Geological Highway Map, Northern Ontario	OGS Map 2506	1:1 600 000
Pyke, D.R., Ayres, L.D. & Innes, D.G.	1973	Timmins - Kirkland Lake, Geological Compilation Series, Cochrane, Sudbury and Timiskaming Districts	ODM Map 2205	1:253 440
Robertson, J.A.	1976	Mineral Potential Map of Ontario, East Central Sheet	ODM Map P.1099	1:1 013 760
Robertson, J.A.	1982	Uranium and Thorium Deposits of Ontario, East Central Sheet, NTS 31/NW, 32/W, 41/N, 42	OGS Map P.2426	1:1 013 760
Springer, J.	1977	Ontario Mineral Potential, Timmins Sheet and Part of Noranda-Rouyn Sheet, Districts of Sudbury, Timiskaming and Cochrane	OGS Map P.1517	1:250 000
<u>GEOPHYSICAL MAPS</u>				
Data Plotting Services Inc.	1984	Matheson-Black River Area (BRIM) Magnetic Survey Total Field, based on Airborne Electromagnetic and Total Intensity Magnetic Survey, Matheson-Black River Area, by Questor Surveys Ltd., for the OGS (1984)	MNDM Res. Geol. Office, Kirkland Lake, Ont.	1:80 000
Data Plotting Services Inc.	1985	Matheson-Black River Area (BRIM) Airborne Magnetic Survey Second Vertical Derivative based on Airborne Electromagnetic and Total Intensity Magnetic Survey, Matheson-Black River Area by Questor Surveys Ltd. for the OGS (1984)	MNDM Res. Geol. Office, Kirkland Lake, Ont.	1:100 000

		SELECTED REFERENCES		Map Scales and/or Report Pages		
					Author	Date
		Digheem Surveys and Processing Inc.	1986	"Enhanced Shadow" Magnetics, Black River-Matheson Area (BRIM) based on Airborne Electromagnetic and Total Intensity Magnetic Survey, Matheson-Black River Area, by Questor Surveys, for the OGS (1984)	MNDM Resident Geologist's Office, Kirkland Lake, Ontario	1:100 000
		GSC	1951	Lightning River, District of Cochrane, Ontario	GSC Map 45G	1:50 000
		GSC	1951	Magusi River, Districts of Timiskaming and Cochrane	GSC MAP 46G	1:63 360
		GSC	1970	Matheson, Cochrane District	GSC Map 296G (Rev)	1:63 360
		GSC	1970	Noranda-Rouyn, Total Field Contour Map	GSC Map 7084G	1:250 000
		GSC	1970	Ramore, Cochrane and Timiskaming Districts, Ontario	GSC Map 8430	1:31 680
		GSC	1970	Matheson, Cochrane District, Ontario	GSC Map 8431G	1:31 680
		GSC	1975	Magusi River West, Northwest Quarter, NTS 32D/5e (High Resolution Aeromagnetic)	GSC Map 20 140	1:25 000
		GSC	1975	Lightning River West, Southwest Quarter, NTS 32D/12d (High Resolution Aeromagnetic)	GSC Map 20 141	1:25 000
		GSC	1975	Ramore East, Northeast Quarter, NTS 42A/8h (High Resolution Aeromagnetic)	GSC Map 20 146	1:25 000
		GSC	1975	Matheson East, Southeast Quarter, NTS 42A/9a (High Resolution Aeromagnetic)	GSC Map 20 147	1:25 000

SELECTED REFERENCES			Map Scales and/or Report Pages
Author	Date	Title	
Middleton, R.S.	1976	Gravity Survey of Geological Structures in the Timmins and Matheson Area, NTS 42A, Cochrane Sudbury and Timiskaming Districts	1:250 000 1:250 000
ODMNA	1974	Aeromagnetic Index of Ontario	1:1 900 800
OGS	1984	Airborne Electromagnetic and Total Intensity Magnetic Survey, Matheson-Black River Area, Garrison Township	1:20 000
OGS-GSC	1979	Airborne Gamma-Ray Spectrometric Total Count, Noranda-Rouyn, NTS 32D/W	1:250 000
OGS-GSC	1979	Airborne Gamma-Ray Spectrometric Potassium (percent), Noranda-Rouyn, NTS 32D/W	1:250 000
OGS-GSC	1979	Airborne Gamma-Ray Spectrometric Uranium (eU), Noranda-Rouyn, NTS 32D/W	1:250 000
OGS-GSC	1979	Airborne Gamma-Ray Spectrometric Thorium (eTh), Noranda-Rouyn, NTS 32D/W	1:250 000
OGS-GSC	1979	Airborne Gamma-Ray Spectrometric eU/Th Ratio, Noranda-Rouyn, NTS 32D/W	1:250 000
OGS-GSC	1979	Airborne Gamma-Ray Spectrometric eU/K Ratio, Noranda-Rouyn, NTS 32D/W	1:250 000
OGS-GSC	1979	Airborne Gamma-Ray Spectrometric eTh/K Ratio, Noranda-Rouyn, NTS 32D/W	1:250 000

Author		Date	SELECTED REFERENCES		Reference	Map Scales and/or Report Pages
			Title			
OGS-GSC		1979	Airborne Gamma-Ray Spectrometric Profiles of Integral U, Th, K, U/Th, U/K, Th/K, for line 64 (1), Rouyn Noranda, NTS 32D		OGS Map 80 326 GSC Map 35432G	1:250 000
OGS-GSC		1979	Airborne Gamma-Ray Spectrometric Profiles of Integral U, Th, K, U/Th, U/K, Th/K, for line 65 (2), Rouyn Noranda, NTS 32D		OGS Map 80 327 GSC Map 35432G	1:250 000
			<u>GEOLOGICAL REPORTS AND MAPS</u>			
Arnoldi, M.G.		1950	Statistical Review of the Mineral Industry of Ontario for 1948		ODM AR 1949 pt.1	
Arnoldi, M.G.		1951	Statistical Review of the Mineral Industry of Ontario for 1949		ODM AR 1950 pt.1	p.1-50
Arnoldi, M.G.		1956	Statistical Review of the Mineral Industry of Ontario for 1954		ODM AR 1955 v.64 pt.1	
Baker, C.L.		1980	Quaternary Geology of the Magusi River area (32D/5), Districts of Cochrane and Timiskaming		OGS MP 96	p.112-113
Baker, C.L.		1981	Stratigraphy and Sedimentation in the Munro Esker, East of Kirkland Lake, Districts of Cochrane and Timiskaming		OGS MP 100	p.128-130
Baker, C.L.		1982	Drift Thickness of the Ramore Area, Cochrane and Timiskaming Districts		OGS Map P.2477	1:50 000

SELECTED REFERENCES		Date	Author	Title	Reference	Map Scales and/or Report Pages
	Baker, C.L.	1982		Sand and Gravel Resources of the Ramore Area, Cochrane and Timiskaming Districts	OCS Map P.2489	1:50 000
	Baker, C.L.	1982		Drift Thickness of the Magusi River Area, Cochrane and Timiskaming Districts	OCS Map P.2478	1:50 000
	Baker, C.L.	1982		Sand and Gravel Resources of the Magusi River Area, Cochrane and Timiskaming Districts	OCS Map P.2490	1:50 000
	Baker, C.L.	1985		Quaternary Geology of the Kirkland Lake Area, Districts of Cochrane and Timiskaming	OCS OFR 5553	144p.
	Baker, C.L.	1985		Overburden Stratigraphy of the Matheson Area: Advancing Thoughts on Ice Fronts (Abstract)	OCS Geo. Sci. Seminar & Open House '85	p.9
	Baker, C.L. McClenaghan, M.B. Steele, K.G.	1985		Reconnaissance Heavy Mineral and Geochemical Sampling of the Munro Esker, Lake Abitibi Area, Cochrane District	OCS MP 126	351p.
	Baker, C.L. Seaman, A.A. Steele, K.G.	1980		Quaternary Geology of Ramore Area, Districts of Cochrane and Timiskaming	OCS Map P.2381	1:50 000
	Baker, C.L. Steele, K.G.	1984		Sonic Drilling-Exploration Basics in the Matheson Area (Abstract)	OCS Geo. Sci. Seminar & Open House '85	p.23

		SELECTED REFERENCES		Map Scales and/or Report Pages					
					Date	Title	Reference		
Author	Date	Title	Reference	Map Scales and/or Report Pages					
					Ginn, R.M. Leahy, E.J. Savage, W.S.	1962	Munro-Pontiac Sheet, District of Cochrane	ODM Map P.120	1:63 760
					Gledhill, T.L.	1925	Lightning River Gold Area, Cochrane District, Ontario	ODM AR 34, pt.6 Map 34a	p.86-98
					Gledhill, T.L.	1929	Ben Nevis, Munro, Kamiskotia and Other Base Metal Areas, Districts of Cochrane and Timiskaming	ODM AR 37, pt.3	p.1-52
					Guillet, R.	1969	Ontario Marl Deposits	ODM Map 2183	1:1 013 760
					Hendry, N.W. Conn, H.K.	1957	The Ontario Asbestos Deposit of Canadian Johns-Manville Company Limited	Geol. Can. Indust. Min. Deps. 6th Canwith Min. Met. Cong.	p.36-45
					Hewitt, D.F. Satterly, J.	1953	Asbestos in Ontario	ODM Min Circ. 1	
					Hodgson, C.J.	1983	Preliminary Report on the Timmins-Kirkland Lake Area Gold Deposits File	OGS OFR 5467	434p.
					Hughes, O.L.	1959	Surficial Geology of Iroquois Falls, Cochrane District, Ontario	GSC Map 46-1959	1:126 720
					Hughes, O.L.	1960	Surficial Geology of Kirkland Lake, Timiskaming and Cochrane Districts	GSC Map 1-1960	1:126 720
					Jensen, L.S.	1973	No. 19 Lightning River Area, District of Cochrane	ODM MP 56	p.133-138

Author		Date	SELECTED REFERENCES		Reference	Map Scales and/or Report Pages
			Title			
Baker, C.L. Steele, K.G. McClenaghan, M.B.		1985	Reconnaissance Till Sampling Program, Matheson-Lake Abitibi Area, Cochrane District		OGS MP 126	p. 329-333
Baker, C.L. Steele, K.G. McClenaghan, M.B.		1986	Gold Grains in Sonic Drill Core Samples (1985) from the Lake Abitibi-Matheson Area, District of Cochrane		OGS Map P.2958	1:100 000
Barlow, R.B. Pitcher, D.H.		1984	An Airborne Electromagnetic-Magnetic Survey of the Black River-Matheson (BRIM) Area, District of Cochrane		OGS MP 119	p.287-289
Bath, A.C.		1985	Black River-Matheson Economic Geologist Program		OGS MP 126	p.301-311
Bath, A.C.		1985	Black River-Matheson Economic Geologist Program (Abstract)		OGS Geo. Sci. Seminar & Open House '85	p.8
Bright, E.G.		1969	1968 Report of the Timmins Resident Geologist		ODM MP 25	p.13-33
Cherry, M.E.		1982	No. 25 Felsic Intrusion Associated Lode Gold Deposits in the Matheson Area, Cochrane District		OGS MP 106	p.176-179
Cherry, M.E.		1983	The Association of Gold and Felsic Intrusions - Examples from the Abitibi Belt		OGS MP 110	p.48-55
Fortescue, J.A.C.		1984	Summary of Activities 1984, BRIM Program		OGS MP 119	p.274-277
George, P.T.		1968	1967 Report of the Timmins Resident Geologist		ODM MP 18 pt.3	p.17-45

SELECTED REFERENCES		Reference	Map Scales and/or Report Pages
Jensen, L.S.	1982	OCS Map P.2431	1:15 840
Jensen, L.S.	1982	OCS Map P.2432	1:15 840
Jensen, L.S.	1982	OCS Map P.2433	1:63 360
Jensen, L.S.	1982	OCS Map P.2434	1:63 360
Jensen, L.S.	1985	OCS Map P.2861	1:15 840
Jensen, L.S.	1985	OCS Geo. Sci. Seminar & Open House '85	p.6
Jensen, L.S. Baker, C.L.	1986	OCS Map P.2986	1:100 000
Jensen, L.S. Langford, F.F.	1983	OCS OFR 5455	520p.
Jensen, L.S. Langford, F.F.	1985	OCS MP 123	130p.

SELECTED REFERENCES				Map Scales and/or Report Pages
Author	Date	Title	Reference	
Knight, C.W.	1925	Lightning River Gold Area	ODM AR v.33, pt.3	p.41-49
Knight, C.W. Burrows, A.G. Hopkins, P.E. Parons, A.L.	1919	Abitibi-Night Hawk Gold Area	OBM AR v.28, pt.2 Maps 28a,b	p.1-70
Kretschmar, U. Kretschmar, D.	1986	Talc, Magnesite and Asbestos Deposits in the Timmins-Kirkland Lake Area, District of Cochrane and Timiskaming, Ontario	OGS Study 28	
Lee, H.A.	1979	Northern Ontario Engineering Geology Terrain Study, Data Base Map	OGS Map 5028	1:100 000
Lee, H.A.	1979	Northern Ontario Engineering Geology Terrain Study, Data Base Map	OGS Map 5031	1:100 000
Lovell, H.L.	1970	1969 Report of the Kirkland Lake Resident Geologist	ODM MP 35	p.1-16
Lovell, H.L.	1971	1970 Report of the Kirkland Lake Resident Geologist	ODM MP 46	p.31-56
Lovell, H.L. de Grijjs, J.W.	1973	1972 Report of the Kirkland Lake Resident Geologist	ODM MP 54	p.33-52
Lovell, H.L. Grabowski, G.	1982	1981 Report of the Kirkland Lake Resident Geologist	OGS MP 101	p.93-116

GDIF FORM NO. 9

SELECTED REFERENCES				Map Scales and/or Report Pages
Author	Date	Title	Reference	
Lovell, H.L. Grabowski, G. Guindon, D.	1985	Kirkland Lake Resident Geologist Area, Northern Region	OGS MP 122	p.162-196
Malczak, J.	1985	Industrial Mineral Potential of the Black River-Matheson (BRIM) Area, District of Cochrane	OGS MP 126	p.326-328
Malczak, J.	1985	Overview of the Industrial Mineral Potential of the Black River-Matheson (BRIM) Area (Abstract)	OGS Geo. Sci. Seminar & Open House '85	p.9
McClenaghan, M.B.	1985	Backhoe Sampling and Analytical Procedures: Fingerprinting the Drift (Abstract)	OGS Geo. Sci. Seminar & Open House '85	p.10
Miller, W.G.	1907	Lake Abitibi Gold Deposits	OBM AR v.16, pt.1	p.219-220
Moore, F.S.	1936	Geology and Ore Deposits of the Ramore Area, Cochrane District	ODM AR v.45, pt.6 Map 45d	p.1-37
Naldrett, A.J.	1971	Archean Ultramafic Rocks	Can. contrib. to Geodyn. Proj. No. 10	p.141-151
OGS	1984	Ontario Mineral Deposit Inventory	OGS OFR 5470	

		SELECTED REFERENCES		Reference	Map Scales and/or Report Pages
Pitcher, D.H.	1985	A Correlation of Airborne and Ground Electromagnetics With Sonic Drilling Results in the Black River-Matheson Area	OGS MP 126	p.334-340	
Pitcher, D.H. Barlow, R.B. McNeill, J.D.	1984	Mapping the Overburden in Black River-Matheson (BRIM) Area, District of Cochrane, employing and airborne time-domain system	OGS MP 119	p.299-307	
Ploeger, F. Grabowski, G.	1979	Garrison Township, NTS 32D/5W+12W, Cochrane District, Ontario, Kirkland Lake Data Series	OGS Map P.868	1:15 840	
Ross, J.G.	1931	Chrysotile asbestos in Canada	ODM Ottawa Pub. No. 707		
Sado, E.V.	1985	Summary of Activities 1985, Operation Black River-Matheson (BRIM)	OGS MP 126	p.287-290	
Sado, E.V.	1985	Introduction to the Black River-Matheson Program (BRIM) (Abstract)	OGS Geo. Sci. Seminar & Open House '85	p.5	
Satterly, J.	1948	Geology of Garrison Township, Cochrane District, Ontario	ODM PR 1948-2		
Satterly, J.	1949	Township of Garrison, Cochrane District, Ontario	ODM AR 58, pt4 Map 1949-1	33pp. 1:12 000	
Satterly, J.	1958	Geological Map of the Province of Ontario	ODM Map 1958B	1:1 267 200	

Author		Date	SELECTED REFERENCES		Reference	Map Scales and/or Report Pages
			Title			
Satterly, J.	1968	Aeromagnetic Maps of Carbonatite-Alkalic Complexes in Ontario	ODM Map P.452	1:4 224 000		
Shklanka, R.	1968	Iron Deposits of Ontario	ODM Min Res. Circ. No. 11			
Steele, K.G.	1985	Sonic Drilling - Rigs, Rods and Reasons (Abstract)	OGS Geo. Sci. Seminar & Open House '85			
Vagners, U.J. Courtney, S.J.	1985	Quaternary Geology of the Lightning River Area, District of Cochrane	OGS Map P.2734	1:50 000		
Vos, M.A.	1971	Asbestos in Ontario	ODMNA Indust. Min. Rept. 36			
Whittaker, P.J.	1985	Regional Metallogenesis of the BRIM Area District of Cochrane (Abstract)	OGS Geo. Sci. Seminar & Open House '85			
Whittaker, P.J. Malczak, J.	1984	Mineral Deposits Investigation in the Black River-Matheson (BRIM) Area, District of Cochrane	OGS MP 119	p.290-294		
Yundt, S.E. Minnes, D.G. Masham, J.S. Scott, D.W., Vos, M.A.	1983	Industrial Minerals of Ontario Compilation 1982	OGS Map P.2591	1:1 500 000		

Author		SELECTED REFERENCES		Map Scales and/or Report Pages
		Date	Title	
Agterberg, F.P. Chung, C.F. Fabbri, A.C. Kelly, A.M.	1972	<u>JOURNAL ARTICLES, THESES AND TECHNICAL REPORTS</u> Geomathematical Evaluation of Copper and Zinc Potential of the Abitibi Area, Ontario and Quebec	GSC Paper 71-41	55p.
Canada Department of Agriculture	1978	Soils of Timmins-Noranda-Rouyn Area, Ontario, NTS 42A-32D	Can. Dept. of Agri. Soil Surv. Rept. No. 46	
Franklin, J.M.	1983	Lead Isotope Studies in Superior and Southern Provinces	GSC Bull. 351	60p.
Geissman, J.W. Strangway, D.W. Tasillo, A.M. Jensen, L.S.	1981	Paleomagnetism of Late Archean Metavolcanics and Metasediments, Abitibi Orogen, Canada I. Tholeittes of the Kinojevis Group	OGS OFR 5365	
Geissman, J.W. Strangway, D.W. Tasillo-Hirt, A.M. Jensen, L.S.	1982	Paleomagnetism of Late Archean Metavolcanics and Metasediments, Abitibi Orogen, Canada: Volcanics of the Blake River Group	Can. Jour. of Earth Sci. v.19	p.2100-2113
Goodwin, A.M.	1980	Archean Volcanic Studies in the Timmins-Kirkland Lake-Noranda Region of Ontario and Quebec	GSC Bull. 278 Map 1461A	51p. 1:250 000
Goodwin, A.M.	1980	Geology of Timmins-Kirkland Lake, Ontario-Quebec	OGS Map 1461A acc. Bull. 278	

Author		Date		Title		Reference		Map Scales and/or Report Pages
Grubb, P.L.C.		1982	Serpentinisation and chrysotile formation in the Matheson Ultrabasic Belt		Econ. Geol. v.57	p.1228-1246		
Guindon, D.L.		1982	The Geochemistry of Free Gold and its Application in Exploration		unpub. MSc. thesis Queen's University Kirkland Lake Res. Geol. Office			
Guindon, D.L. Nichol, I.		1983	Ontario Geoscience Research Grant Program, Grant No. 76 - Speciation of Free Gold in Glacial Overburden		OGS OFR 5444	15p.		
Hendry, N.W. Conn, H.K.		1957	The Ontario asbestos deposit of the Canadian Johns-Manville Company Limited		Geol. Canadian Indust. Min. Depts., 6th Cmmwlth Min. Met. Cong.	p.36-45		
Hughes, O.L.		1959	Surficial Geology of Smooth Rock and Iroquois Falls Map Areas, Cochrane District, Ontario		Unpub. PhD Thesis U of Kansas			
Jensen, L.S.		1985	Stratigraphy and Petrogenesis of Archean Metavolcanic Sequences, Southwestern Abitibi Subprovince, Ontario		GAC Paper 28	p.65-88		
Jensen, L.S. Langford, F.F.		1983	Geology and Petrogenesis of the Archean Abitibi Belt in the Kirkland Lake Area, Ontario		OGS OFR 5455 OGS MP 123	520p. 130p.		
Kutina, J. Fabbri, A.		1972	Relation of Structural Lineaments and Mineral Occurrences in the Abitibi Area		Geol. Soc. Can. Paper 71-9			

GNT FORM NO.9

		SELECTED REFERENCES		Map Scales and/or Report Pages
Author	Date	Title		
Letros, S.	1980	Geological Interpretation of High-Resolution Aeromagnetic Data in the Kirkland-Larder Lake Area	OGS OFR 5365 MSc Thesis U of T	
Letros, S. Strangway, D.W. Tasillo, A.M. Geissman, J.W.	1981	Grant #20 Magnetism and Stratigraphy in the Blake River Volcanics	OGS OFR 5365	
Letros, S. Strangway, D.W. Tasillo, A.M. Geissman, J.W.	1981	Aeromagnetic Interpretation of the Kirkland Lake-Larder Lake Portion of the Abitibi Greenstone Belt, Ontario	OGS OFR 5365	
Letros, S. Strangway, D. Tasillo-Hirt, A. Geissman, J. Jensen, L.S.	1983	Aeromagnetic Interpretation of the Kirkland Lake-Larder Lake Portion of the Abitibi Greenstone Belt, Ontario	Can. Jour. of Earth Sci. v.20	p.548-560
MacRae, N.D.	1969	Ultramafic intrusions of the Abitibi area, Ontario	Canadian J. Earth Sciences, v.6	p.281-303
Middleton, R.S.	1975	Gravity Control Network in the Timmins, Matheson and Cobalt Area, Cochrane and Timiskaming Districts, Ontario	ODM GR 127	
Pearce, T.H. Birkett, T.C.	1974	Archean metavolcanic rocks from Thackeray township, Ontario	Canadian Mineral. v.12	p.509-519

GDT FORM NO.9

Author		Date	SELECTED REFERENCES		Map Scales and/or Report Pages
			Title	Reference	
Taylor, F.C.	1955	The Petrology of the Serpentine Belt, Matheson District, Ontario	Unpub. MSc Thesis McGill U, Montreal		
Whiteway, P.	1986	Harker-Holloway	N. Miner Mag. v.1, No.2	p.61-65	
Whittaker, P.J.	1984	Geological Setting of Gold Mineralization in the Black River-Matheson Area (abstract)	Geosci. Res. Sem. Open House '84 Abstracts, OGS	p.2 23p.	
Wicks, F.J., Schandl, J., Ozaray, J., & Pu, W.	1983	Mineralogy and Geochemistry of the Chrysotile Asbestos Deposits of Ontario	OGS MP 113	p.193-199	
Wicks, F.J., Wan, P., Hedjran, K.	1984	Mineralogy and Geochemistry of the Chrysotile Asbestos Deposits of Ontario: Munro and Garrison Deposits	Geosci Res. Sem. Open House '84 Abstracts, OGS	p.18	

GITEE FROM NO.9

NOTES AND ADDENDA

Drill holes available at the Kirkland Lake Drill Core Library

Company	MNDM Hole Number	Company Number	Year	Total Depth (m)	Core Stored (m)	Assays Available
Amax Minerals Exploration	KL0017	897-12-1	1981	129.0	117.0	
	KL0018	897-12-2	1981	186.0	174.7	
	KL0019	897-12-3	1981	120.0	82.2	
	KL0020	897-12-4	1981	144.0	111.3	
	KL0686	839-04-01	1980	150.0	82.8	Au, Ag, Cu, Zn
Canamax Resources Inc.	KL0133	013-18-13	1982	158.8	92.0	
	KL0820	013-17-1	1983	147.0	132.2	
Jonpol Expl. Limited	KL1678	B-86-1	1986	108.2	106.4	Au
	KL1679	B-86-2	1986	144.8	140.5	Au
	KL1680	B-86-3	1986	141.7	118.6	Au
	KL1681	B-86-4	1986	106.7	102.6	Au
	KL1682	B-86-5	1986	106.7	35.4	Au
	KL1683	B-86-6	1986	61.6	17.1	
	KL1684	B-86-7	1986	140.2	17.4	Au
Kerr Addison Mines Limited	KL0794	KA MG 83-1	1983	152.4	144.2	
	KL0795	KA MG 83-2	1983	166.7	164.6	
	KL0796	KA MG 83-3	1983	170.7	164.0	
	KL0797	KA MG 83-4	1983	152.4	147.5	
	KL0823	KA MG 83-5	1983	158.5	156.1	
	KL0824	KA MG 83-6	1983	158.5	155.8	
	KL0825	KA MG 83-8	1983	169.5	166.1	
	KL0826	KA MG 83-7	1983	134.1	134.1	
	KL0827	KAMG 83-10	1983	182.9	182.9	
	KL0828	KA MG 83-9	1983	128.0	125.9	
Noranda Expl. Company Ltd.	KL1164	GAR-80-1A	1980	140.5	107.0	
	KL1172	WJ-83-2	1983	219.5	159.1	
Ontario Geol. Survey	KL1569	85-26	1985	36.0	2.1	
	KL1570	85-27	1985	66.6	25.8	
	KL1571	85-28	1985	35.5	1.7	
	KL1578	85-35	1985	44.8	6.4	
	KL1594	85-51	1985	75.0	73.2	

Aerial Photography
on file in Kirkland Lake
Resident Geologist's Office

YEAR	FLIGHT LINE	ROLL	PHOTO
1978	4819	03	275-278
1978	4820	04	52-56
1978	4821	04	107-114
1978	4822	04	174-181
1978	4818	03	220

NOTES AND ADDENDA

1980	4819	2	178-181
1980	4820	2	206-210
1980	4821	3	3
1971	4820	15	12-18
1971	4821	44	3-9
1971	4822	15	138-143

Also, Township coverage for 1946 and 1930.

I. R. 70

RAND



Ministry of Northern Development and Mines

ONTARIO GEOLOGICAL SURVEY

PROPERTY LOCATION MAP

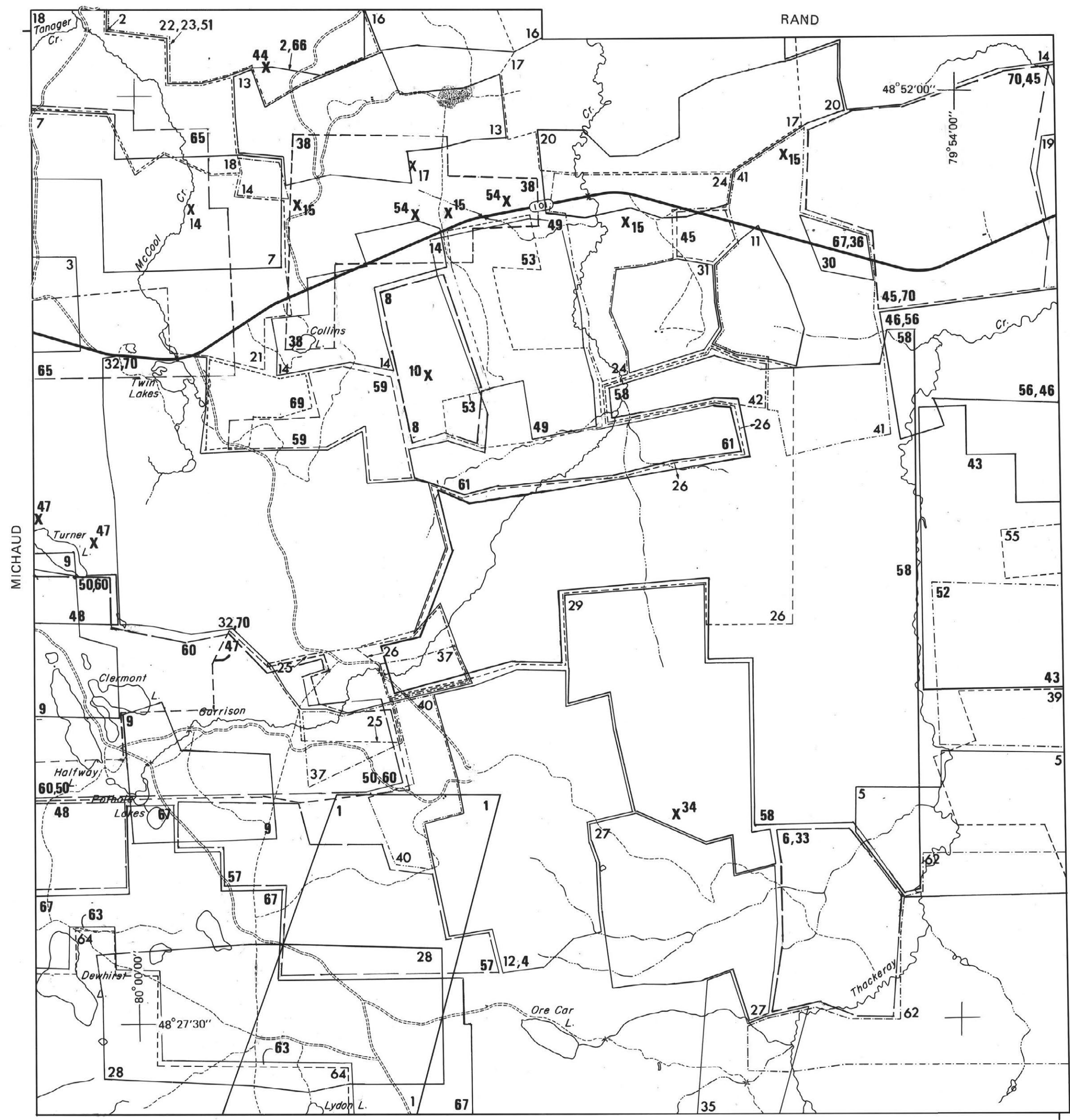
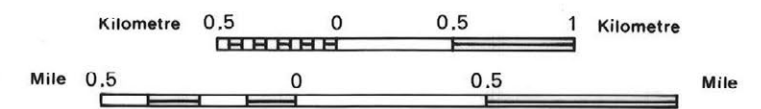
GEOLOGICAL DATA INVENTORY FOLIO 360

(Map 1 of 2)

GARRISON TOWNSHIP

DISTRICT OF COCHRANE

Scale 1:31 680



EXPLORATION DATA FILE AREAS

- Reference number is always inside work area outlined. See listing in text pages.
- Small area exploration.

THACKERAY

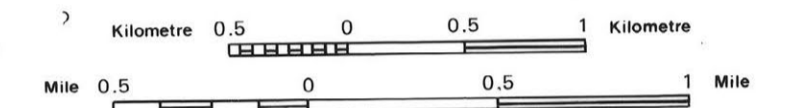
MICHAUD

HARKER

GARRISON TOWNSHIP

DISTRICT OF COCHRANE


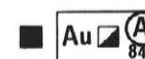
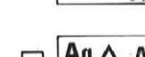
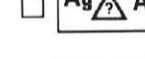
Scale 1:31 680






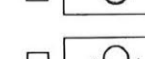
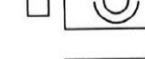
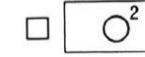
GEOLOGICAL AND MINING SYMBOLS

TYPES OF DATA SHOWN ON THIS MAP

MINERAL OCCURRENCES



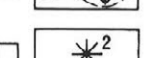
-  Mineral occurrence at surface, with reference letter
-  Mineral occurrence with shaft, depth given with reference letter
-  Mineral occurrence reported but exact location uncertain, with reference letter
-  Mineralized float with reference letter

DRILLHOLE

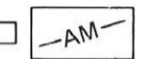

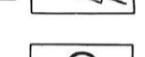

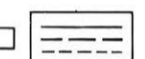
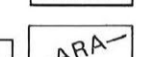
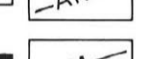
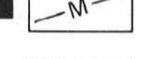


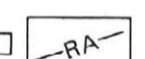
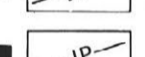
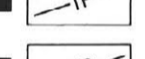
-  Location of single drillhole, with reference number
-  Location of closely spaced group of drillholes, with reference number
-  Drillhole, exact location uncertain, with reference number
-  Property with underground drillholes in this general area, with reference number
-  Property with drillholes which have not been plotted on map, with reference number
-  Reverse circulation drillhole; churn drilling, with reference number

TYPES OF DATA SHOWN ON THIS MAP


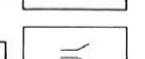
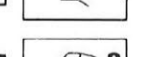


GEOCHEMICAL AND GEOCHRONOLOGICAL DATA

-  Geochemical sample site, with reference number
-  Area of geochemical sampling, with reference number
-  Age dating material sampling site, with reference number

GEOPHYSICAL ANOMALIES

-  Airborne magnetic anomaly
-  Airborne electromagnetic anomaly
Length of anomaly along flight line
-  Airborne electromagnetic anomaly
Location of anomaly along flight line
-  Airborne electromagnetic anomaly
Conductor axis: definite, probable, possible
-  Airborne radiometric anomaly
-  Ground magnetic anomaly
-  Ground electromagnetic anomaly
(VL - Vertical loop; HL - Horizontal loop;
VLF - Very low freq; Turam; JEM -
Crone Em - 16)
-  Ground radiometric anomaly
-  Induced polarization anomaly
-  Self potential anomaly
-  Audio-frequency magnetic anomaly
(total intensity)
-  Resistivity anomaly
-  Gravity anomaly

MISCELLANEOUS DATA

-  Trenching, pit,
property number
-  Adit
-  Open pit,
property number
-  Rock quarry
-  Sand and/or gravel pit

NOTE: Consult the text that accompanies this map for pertinent lists of data, references, and abbreviations.

