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LEGEND

Allochthonous Units

LOWER PROTEROZOIC (APHEBIAN)

21 **Granitoid Intrusions:** *21a, foliated to gneissic, biotite- or hornblende-bearing granodiorite to quartz monzonite and rare monzonite, generally fine- to medium-grained; 21b, foliated K feldspar-megacrystic granodiorite.*

20 **Gabbroid Intrusions:** *variably deformed and recrystallized meta-leucogabbroic to metanoritic rocks, frequently with corona textures. Generally medium- to coarse-grained.*

19 **Quartzofeldspathic Gneisses:** *upper amphibolite facies, banded, migmatitic rocks, composed of medium-grained, quartz-K feldspar-plagioclase leucosomes separated by thin, fine-grained restite seams of biotite, sillimanite (rarely kyanite), magnetite, local garnet and rare spinel.*

Autochthonous and Parautochthonous Units

MIDDLE PROTEROZOIC (HELIKIAN)

18 **Shabogamo Intrusive Suite:** *18a, metagabbro and metanorite with relict igneous texture; 18b, amphibolite and hornblende-plagioclase ± biotite schist; 18c, actinolite-biotite-chlorite-plagioclase schist; 18d, metadiorite to granodiorite; 18e, meta-anorthosite; 18f, very fine-grained metagabbro, 18g, metaperidotite and talc-actinolite schist.*

17 **Sims Formation:** *17a, arkose; 17b, orthoquartzite.*

LOWER TO MIDDLE PROTEROZOIC

16 **Granitoid Intrusions:** *16a, grey, megacrystic granite (including the Sandgirt pluton); 16b, pink, plagioclase-porphyritic quartz monzonite, (Atikonak River pluton); 16c, microgranite, aplite; 16d, grey granodiorite; 16e, equigranular granite to quartz monzonite, generally pink.*

15 **Blueberry Lake group:** *15a, felsic volcanic rocks, predominantly rhyolite and rhyodacite; 15b, basaltic to intermediate volcanics; 15c, felsic crystal and crystal-lithic tuffs; 15d, tuffaceous sandstone and greywacke, minor phyllite and slate, 15e, polymictic conglomerate; 15f, porphyritic latite.*

LOWER PROTEROZOIC (APHEBIAN)

14 **Montagnais Intrusive Suite:** *gabbro, metagabbro and amphibolite, locally garnetiferous.*

Knob Lake Group (units 3-13)

13 **Tamarack River Formation:** *13a, green-grey dolomitic siltstone; 13b, red arkose and siltstone, dolomitic arkose and minor pebble conglomerate; 13b[1], red algal dolomite and arkose; 13c, green and red siltstone, mudstone and minor red sandstone; 13d, red arkose and siltstone.*

12 **Menihek Formation:** *12a, dark grey to black schist, phyllite and slate, commonly graphite-bearing; 12b, quartzofeldspathic schist and gneiss, commonly aluminosilicate and/or graphite-bearing.*

11 **Sokoman Formation:** *11a, carbonate iron formation; 11b, silicate and silicate-carbonate iron formation; 11c, oxide iron formation; 11d, ferruginous quartzite; 11e, quartz-garnet-two amphibole ± pyroxene iron formation; 11f, cherty magnetite greywacke, 11g, cherty magnetite iron formation with tuff bands and fragments; 11h, leached iron formation, original lithotype unknown in some cases.*

10 **Nimish Formation:** *mafic volcanics, conglomerate and pyroclastics.*

9 **Wishart Formation:** *9a, coarse-grained, white, crystalline quartzite; 9b, pelitic schist; 9c, quartz pebble conglomerate with pelitic schist matrix.*

8 **Rose Bay ultramafic eruptives:** *actinolite-chlorite-biotite ± carbonate ± plagioclase schist, interpreted to be derived from tuffaceous volcanics and volcaniclastic sediments; locally contains recognizable volcanic fragments; occurs as lenticular bodies within units 5, 6, 7 and 11; chemical affinities to meimilites.*

McKay River formation (units 6 and 7)

7 *Mafic metavolcanic rocks: predominantly with greenschist mineralogy; 7a, with relict pillow structures; 7b, massive; 7c, with relict vesicular texture; 7d, plagioclase-porphyritic metavolcanics; 7e, agglomerate.*

6 *Metatuffaceous Sediments and Conglomerate: 6a, chlorite actinolite-albite-quartz-epidote schist, may contain considerable carbonate; 6b, volcanogenic conglomerate with chlorite schist matrix; 6c, garnetiferous amphibolite, occurs interlayered with units 5, 11 and less commonly 4.*

5 **Denault Formation:** *5a, dolomitic and calcitic marble with variable content of quartz and calc-silicate minerals, including tremolite, diopside, talc and phlogopite; 5b, dolomitic marble with inter-banded chlorite schist.*

4 **Attikamagen Formation:** *4a, biotite-bearing quartzofeldspathic schist; 4b, biotite-bearing quartz-K feldspar schist; 4c, migmatite quartzofeldspathic gneiss; 4d, porphyroclastic augen schist; 4e, metagreywacke-siltstone and slate; 4f, grey to black phyllite.*

3 **Seward Subgroup:** *pink meta-arkose; conglomerate.*

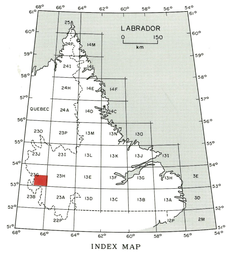
2 **Granitoid Intrusions:** *2a, coarse-grained, alaskitic granite with variably developed cataclastic fabric; 2b, foliated megacrystic and equigranular granite and granodiorite.*

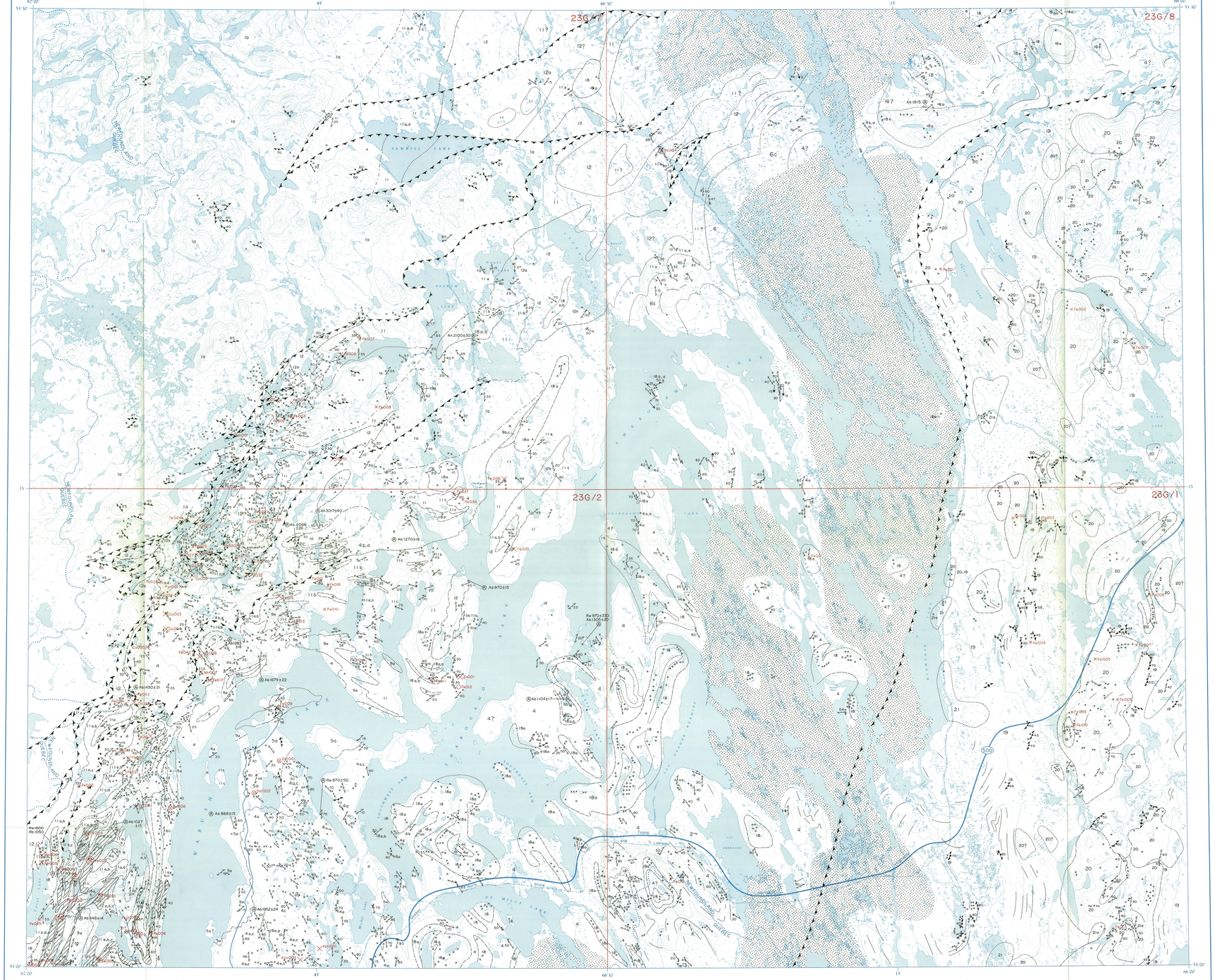
ARCHEAN

1b / 1a **1a, Ashuanipi Metamorphic Complex:** *banded ferromagnesian and granitoid gneisses, typically migmatitic and orthopyroxene-bearing, variably retrogressed in the vicinity of the Grenville Front.* **1b, Eastern Basement Metamorphic Complex:** *granodiorite to tonalite gneiss, minor supracrustal gneiss; variably mylonitized and retrogressed; 1b[1], amphibolite.*

Note: This legend is common to a series of previously published geological maps (Maps 85-24 to 85-28). All units do not appear on this map.

MAP 89-35





Mineral occurrence map compiled by J.L. Smith (1989).

Mineral occurrence data compiled by J.L. Smith (1984-89).

Geological base taken directly from Map 85-28 (Rivers et al., 1985).

Geological mapping by ground traversing in areas of abundant outcrop, and by helicopter-supported traversing elsewhere.

Geology in maps of this series as follows: 23B(NE), T. Rivers, 1977, 1979, 1980; 23G(SE), T. Rivers, 1977, 1979, T. Rivers and N. Massey, 1978; 23G(NE), T. Rivers, 1979, 1980; 23H(NW), R.J. Wardle, 1978, M.J. Ware, 1978, N. Noel, 1979, T. Rivers, 1979, R.J. Wardle and J.M. Britton, 1980, R.J. Wardle, 1982; 23B/NW/14/23G/SW/14), T. Rivers, 1979, 1980, incorporating the previous mapping of Labrador Mining and Exploration Company, Iron Ore Company of Canada, Newfoundland and Labrador Corporation and others. Interpretation of 23B/NE), 23G(SE), 23B(NW1/4)/23G(SW1/4) by T. Rivers; 23G(NE) by T. Rivers and R.J. Wardle; 23H(NW) by R.J. Wardle (northern half) and T. Rivers (southern half).

Cartography by Cartographic Unit, Geological Survey Branch, Department of Mines, Government of Newfoundland and Labrador.

Elevations given in feet above mean sea level.

Approximate magnetic declination in 1980 was 29° 42' W, decreasing by 4.0' annually.

Field work upon which these maps are based was financed under the Canada/Newfoundland Mineral Development Subsidiary Agreement (1977-1981) by contributions from the Government of Newfoundland and Labrador (70%) and the Departments of Regional Economic Expansion (45%) and Energy, Mines and Resources (45%) of the Government of Canada.

MINERAL OCCURRENCE MAP

WIGHTMAN LAKE AREA, LABRADOR - QUEBEC

23G(SE)

SCALE 1:100,000 ÉCHELLE

Miles 1 0 1 2 3 4 5 Miles

Kilometres 1 0 1 2 3 4 5 6 Kilometres

Status:

1 - Producer
2 - Developed Prospect
3 - Past Producer - dormant
4 - Past Producer - exhausted
5 - Prospect
6 - Showing
7 - Indication

SYMBOLS

Outcrop, large outcrop
Outcrop, large outcrop (compiled)
Angular, frost heaved float
Unconformity
Geological contact (defined, approximate, assumed)
Fault, reverse or normal (defined, approximate, assumed)
Thrust fault (defined, approximate, assumed)
Hudsonian lineament (may represent overturned fold axis and/or thrust fault)
Bedding, tops known (inclined, vertical, horizontal, overturned)
Bedding, tops unknown (inclined, vertical)
Primary igneous layering, tops known (inclined, vertical, horizontal)
Primary igneous layering, tops unknown (inclined, vertical, horizontal)
Columnar jointing, vertical
Strike and dip of pillows, tops known (inclined, vertical)
Strike and dip of pillows, tops unknown (inclined, vertical)
S_1 slaty cleavage or schistosity (inclined, vertical, horizontal)
S_1 foliation trend
S_2 crenulation or differentiated cleavage (inclined, vertical)
Gneissic banding (inclined, vertical)
Lineation or minor fold axis; inclined, horizontal
Antiform/synform, with plunge; known, approximate
Overturned antiform/synform, with plunge
Iron ore deposit
Structural trends (from air photographs)
Diamond drill hole
Age dating locality (age in millions of years) — Ⓐ Ks 900

Method

A - Ar/Ar, R - Rb/Sr, K - K/Ar, U - U/Pb, S - Sm/Nd
b - biotite, m - muscovite, w - whole rock
z - zircon, h - hornblende

Drift covered area

Note: Gabbro, Oszokmanuan and Sandgirt lakes form part of the Smallwood Reservoir system and have been extensively flooded. The map has been approximately revised from air photographs provided by the Churchill Falls (Labrador) Corporation. Outcrops shown within the lakes are compiled from mapping carried out prior to flooding.

NMI NO.	NAME	STATUS	MINERALS PRESENT
23G/01/Fe001	Shabogamo River	7	mag
Fe002	Wightman Lake Northeast No. 1	7	mag
Fe003	Wightman Lake Northeast No. 2	7	mag
Fe004	Rocky Lake West	7	mag
Fe005	Rocky Lake South No. 1	7	mag
Fe006	Rocky Lake East	7	mag
Fe007	Rocky Lake Southeast	7	mag
Fe008	Rocky Lake South No. 2	7	mag
Fe009	Rocky Lake South No. 3	7	mag
Fe010	Rocky Lake South No. 4	7	mag
Fe011	Knife Lake Southeast	7	mag
Fe012	Lac Emerillon West	7	mag
23G/02/Cu001	Nat's 'Showing'	7	cp, po, py
Cu002	Wetaal 'Showing'	6	cp, (in), py, gl
Cu003	North (Main) Weber 'Showing'	6	cp, (in), py, gl
Cu004	South Weber 'Showing'	6	cp, (in), po, py
Cu005	Weber Creek 'Showing'	6	cp, (Ni), (in), py
Do/001	Lelia Wynne North	2	do
Do/002	Lelia Wynne West	2	do
Fe001	Smallwood Mine (Wabush No. 5)	1	spec, mag, gth, mrt, (lm)
Fe002	Humphrey Mine/Carol (No. 1) East Wabush No. 6 and No. 3	1	mag, spec, gth, (lm), Mn
Fe003	Humphrey Mine/Carol (No. 1) West Wabush No. 2	1	spec, mag, gth, lm, pz
Fe004	Lorraine Mine (Lorraine No. 1, Wabush Signal Deposit)	1	spec, mag
Fe005	Lura No. 1 (Hakim Lake 'Showing')	2	spec, mag, gth, lm
Fe006	Wabush No. 6	2	mag, spec, lm, gth, Mn
Fe007	Wabush No. 7	2	spec, mag, gth, lm
Fe008	Lorraine No. 4	2	spec, mag, lm, gth, Mn
Fe009	Lorraine No. 2 (Julian Deposit, Boyko No. 1)	1	spec, hem, mrt, (mag), lm, gth, (py)
Fe010	Goethite Bay	5	gth, mrt, (mag), spec, (Mn)
Fe011	Shabogamo No. 1	5	mag, spec, (Mn, mrt)
Fe012	Shabogamo No. 2	5	mag, (Mn)
Fe013	Julienne No. 1	5	hem, lm, (py)
Fe014	Gregory River West	6	mag, spec, gth
Fe015	Gregory River Northeast No. 1	6	mag, spec
Fe016	Gregory River Northeast No. 2	6	mag, spec
Fe017	D'Aigle Bay West	6	mag, spec, (Mn)
Fe018	D'Aigle Bay West No. 1	6	mag, spec, (Mn)
Fe019	D'Aigle Bay West No. 2	6	spec, (mag, Mn)
Fe020	D'Aigle Bay West No. 3	6	spec, mag, mrt, gth, pz, (py)
Fe021	Tuffy Zone	5	spec, mag, gth
Fe022	Tuffy Lake	6	mag, spec
Fe023	Lorraine Lake North	6	mag, spec, lm, gth
Fe024	Flat Rock Lake No. 2	6	mag, spec, hem, lm, (Mn)
Fe025	Flat Rock Lake No. 3	6	mag, hem, (Mn)
Fe026	Flat Rock Lake No. 4	6	mag, spec
Fe027	Flat Rock Lake No. 5	6	spec, mag, hem, (Mn)
Fe028	Flat Rock Lake No. 6	7	mag, spec, (Mn)
Fe029	Flat Rock Lake No. 7	7	spec, hem, mag
Fe030	Flat Rock Lake No. 8	7	mag, (spec, lm, gth)
Fe031	Flat Rock Lake No. 9	7	spec, mag, hem
Fe032	Flat Rock Lake No. 10	6	spec, mag
Fe033	Flat Rock Lake No. 11	6	mag, spec, (Mn)
Fe034	Flat Rock Lake No. 12	6	mag, hem, (Mn, spec)
Fe035	Northwest Arm No. 1	6	mag, spec, (Mn)
Fe036	Northwest Arm No. 3	6	mag, spec, (Mn)
Fe037	Northwest Arm No. 4	7	mag, spec, (Mn)
Fe038	George Lake West No. 1	7	mag, spec
Fe039	George Lake West No. 2	7	mag, spec
Fe040	George Lake West No. 3	7	mag, spec
Fe041	Goethite Bay North	7	spec, mag, (Mn)
Fe042	Bondurant Lake North No. 3	7	mag
Fe043	Strawberry River South No. 2	7	mag, (Mn)
Fe044	Strawberry River South No. 3	7	mag
Fe045	Carol Lake	6	spec, mag, (Mn)
Kyn001	Moose Head Lake North No. 1	6	ky
Kyn002	Moose Head Lake North No. 2	6	ky
Mn001	White Lake No. 3	7	pz, Fe
Mn002	White Lake No. 4	7	pz, Fe
Mn003	White Lake No. 5	6	pz, Fe, (py)
Mn004	Stevens Lake	6	pz, (py)
Mn005	Carol Lake North No. 1	6	pz, (gs), gth, (mag, spec)
Mn006	Carol Lake North No. 2	6	pz, (ps), gth, mag, spec
Mn007	Bondurant Lake North No. 1	6	pz, (ps), gth
Mn008	Bondurant Lake North No. 2	6	pz, (ps), gth
Mn009	Strawberry 'Showing'	6	py, (cp)
Sa001	M.E.D. Ridge	4	dzite
Zn001	Eduke Lake East	6	(Zn, V, U, Ge)
Zn002	Strawberry River South No. 1	6	(Zn, V, U, Ag)
23G/07/Cu001	MacDermott Lake (Grace Lake 'Showing')	6	cp, (Au, Ni), po, py, gl
Fe001	Flat Rock Lake No. 1	7	mag, spec
Fe002	Bruce Lake Northeast No. 1	7	mag, spec, hem
Fe003	Bruce Lake Northeast No. 2	7	mag, spec, hem
Fe004	Bruce Lake Northeast No. 3	7	mag, spec, hem
Fe005	Bruce Lake Northeast No. 4	7	mag, spec
Fe006	Grace Lake No. 1	6	spec, mag, (Mn)
Fe007	Grace Lake No. 2	7	mag, hem, spec
Fe008	Northwest Arm No. 2	6	mag, spec, (Mn)
Fe009	Grace Lake South	7	mag, (Mn)
Mn001	Bruce Lake Manganese	6	pz, gth, lm, Fe, (py)
23G/08/Fe001	Tatzie Lake	7	mag
Fe002	Towle Lake No. 1	7	mag
Fe003	Towle Lake No. 2	7	mag
Fe004	Beaver Lake	6	mag, spec, (Mn)

( ) parentheses indicate that the mineral/commodity is present in minor or trace amounts or indicated by an assay.

MINERAL OCCURRENCE SYMBOLS

Commodity Abbreviations		Rock and Mineral Abbreviations					
Cu	Copper	Ag	silver-bearing minerals	hem	hematite	po	pyrrhotite
Dol	Dolomite	Au	gold-bearing minerals	ky	kyanite	ps	psilomelane
Fe	Iron	cp	chalcopyrite	lm	limonite	py	pyrite
Kyn	Kyanite	Cu	copper-bearing minerals	mag	magnetite	pz	pyrolusite
Mn	Manganese			Mn	manganese-bearing minerals	qtzte	quartzite
Pyr	Pyrite	dol	dolomite			spec	specularite
Sla	Silica	Fe	iron-bearing minerals	mrt	martite	U	uranium-bearing minerals
Zn	zinc	gl	graphite	Ni	nickel-bearing minerals	V	vanadium-bearing minerals
		gth	goethite			Zn	zinc-bearing minerals