LITHOTECTONIC AND METALLOGENIC SYNTHESIS OF THE NEW QUÉBEC OROGEN (LABRADOR TROUGH)

MM 2005-01

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SCALE 1 : 750,000

0 10 20 40 60

kilometres

Projection UTM NAD 83, zone 19

LITHOTECTONIC ZONES

- BE Bérard Zone
- CA Cambrien Zone
- GE Gerido Zone
- HO Howse Zone
- HU Hurst Zone
- ME Mélèzes Zone
- PA Payne Zone
- RE Retty Zone
- SH Schefferville Zone
- TA Tamarack Zone
- WH Wheeler Zone
- SC Proterozoic paraschist, paragneiss, and amphibolite
- CH SE-Churchill Province
- SU Superior Province

GROUPS AND FORMATIONS

- CK Chioak Formation
- DE Deborah Formation
- LA Laporte Group
- LM Le Moyne Group
- DO Doublet Group
- KO Koksoak Group
- FE Ferriman Group
- AT Attikamagen Group
- SB Swampy Bay Group
- PI Pistolet Group
- SE Seward Group
- AP Archean / Proterozoic basement
- A Archean basement

INTRUSIONS

- GA Gabbroic intrusion
- GR Granitic intrusion
- CB Carbonatite intrusion

GEOLOGICAL SYMBOLS

- Thrust fault
- Normal fault (dot on down-dropped side)
- Fault, type unknown
- Geological contact
- Strike and dip of tectonic fabric
- Anticline, upright, overturned, with plunge
- Syncline, upright, overturned, with plunge

MINERAL DEPOSIT TYPES

Syngenetic / diagenetic deposits

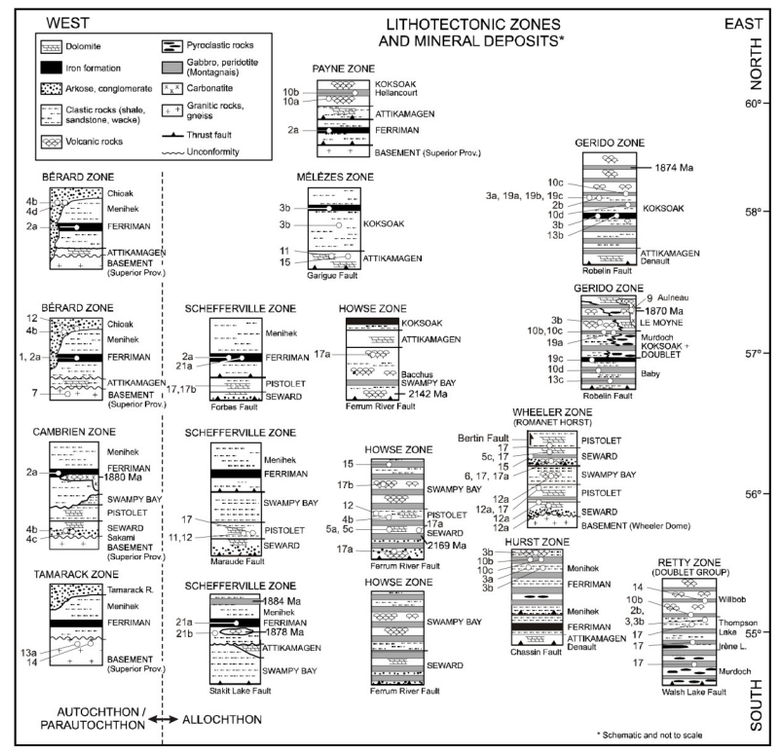
- 1 Uraniferous phosphorite
- 2 Iron formation
  - 2a Lake Superior type
  - 2b Algoma type: Iron (pyrite) in graphitic mudstone
- 3 Base and precious metals in exhalative massive sulfides
  - 3a Cu-Zn-Co-Ag-Au in graphitic mudstone
  - 3b Zn-Pb-Cu-Ag-Au in graphitic mudstone
- 4 Sedimentary uranium
  - 4a Unconformity-associated uranium
  - 4b Sandstone-hosted stratiform uranium
  - 4c Mudstone- and siltstone-hosted stratiform uranium
  - 4d Carbonate-hosted stratiform uranium
- 5 Sediment-hosted stratiform copper
  - 5a Kupferschiefer-type stratiform copper
  - 5b Redbed-type copper
  - 5c Dolomite-hosted stratiform Cu ±Ag
- 6 Volcanic redbed Cu ±Ag ±U
- 7 Rare metals in granitic pegmatite
- 8 Zr-Y-Nb-REE in peralkaline rocks (outside map area)
- 9 Nb-Ta-REE-Th in carbonatite
- 10 Magmatic Cu-Ni ±PGE
  - 10a Cu-Ni ±PGE in picritic basalt
  - 10b Cu-Ni-Co ±PGE in aphyric gabbro (gabbro ±peridotite)
  - 10c Cu-Ni-Co ±PGE in glomeroporphyritic gabbro (gabbro ±pyroxenite)
  - 10d PGE-Cu-Ni in layered gabbro with stratiform pegmatite

Epigenetic deposits

- 11 Mississippi Valley–type Pb-Zn
- 12 Vein uranium
  - 12a Vein U-Au ±Cu associated with albitization
- 13 Vein gold
  - 13a Vein Au ±As in Archean iron formation
  - 13b Vein gold in Paleoproterozoic iron formation
  - 13c Vein Au-Cu ± Ag in gabbro
- 14 Disseminated and remplacement gold
- 15 Vein Ag-Pb-Zn
- 16 Remobilized Zn-Pb-Cu-Au-Ag – replacement deposits in sedimentary rocks
- 17 Vein copper
  - 17a Vein Cu-Au ±Ag associated with mafic rocks
  - 17b Vein Cu ±U ±Au ±Ag associated with albitization
- 18 Skarn deposits
- 19 Vein and disseminated Cu ±Ni ±PGE ±Au ±Ag
  - 19a in mafic to ultramafic intrusions
  - 19b in mafic volcanic rocks
  - 19c in sedimentary rocks

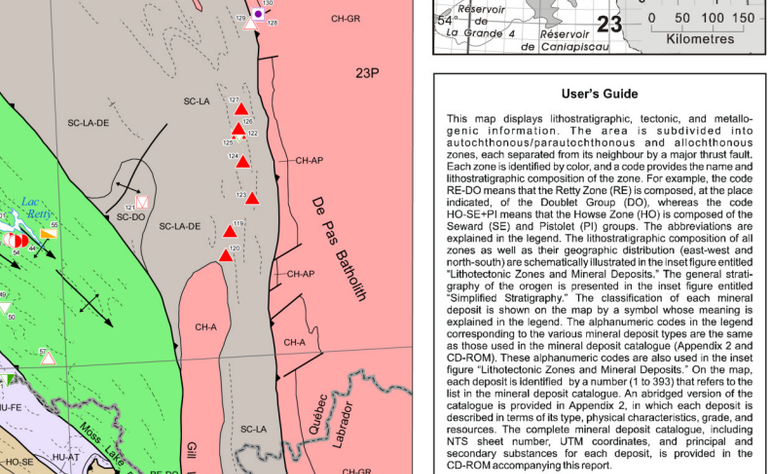
Other deposit types

- 20 Placer gold
- 21 Secondary enrichment deposits
  - 21a Enriched iron formation (direct-shipping iron), Fe ±Mn
  - 21b Supergene sandstone-hosted manganese
  - 21c Supergene copper
- 22 Unclassified



SIMPLIFIED STRATIGRAPHY

Kaniapiskau Supergroup



User's Guide

This map displays lithostratigraphic, tectonic, and metallogenic information. The area is subdivided into autochthonous/parautochthonous and allochthonous zones, each separated from its neighbour by a major thrust fault. Each zone is identified by color, and a code provides the name and lithostratigraphic composition of the zone. For example, the code RE-DO means that the Retty Zone (RE) is composed, at the place indicated, of the Doublet Group (DO), whereas the code HO-SE+PI means that the Howse Zone (HO) is composed of the Seward (SE) and Pistolet (PI) groups. The abbreviations are explained in the legend. The lithostratigraphic composition of all zones as well as their geographic distribution (east-west and north-south) are schematically illustrated in the inset figure entitled "Lithotectonic Zones and Mineral Deposits." The general stratigraphy of the orogen is presented in the inset figure entitled "Simplified Stratigraphy." The classification of each mineral deposit is shown on the map by a symbol whose meaning is explained in the legend. The alphanumeric codes in the legend corresponding to the various mineral deposit types are the same as those used in the mineral deposit catalogue (Appendix 2 and CD-ROM). These alphanumeric codes are also used in the inset figure "Lithotectonic Zones and Mineral Deposits." On the map, each deposit is identified by a number (1 to 393) that refers to the list in the mineral deposit catalogue. An abridged version of the catalogue is provided in Appendix 2, in which each deposit is described in terms of its type, physical characteristics, grade, and resources. The complete mineral deposit catalogue, including NTS sheet number, UTM coordinates, and principal and secondary substances for each deposit, is provided in the CD-ROM accompanying this report.

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