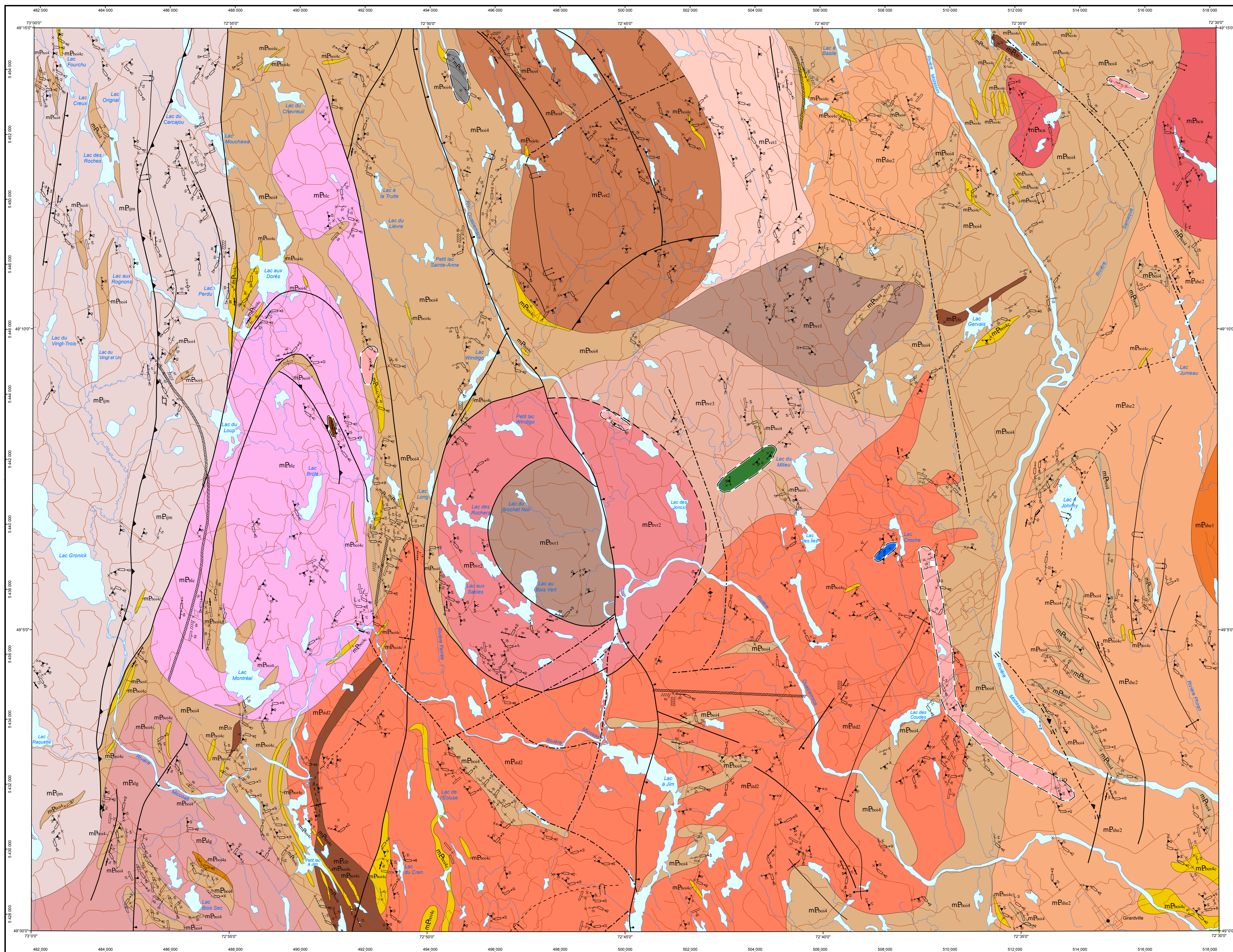


# Geology of the Girardville Area, Grenville Province, Saguenay–Lac-Saint-Jean Region, Quebec, Canada



## STRATIGRAPHIC LEGEND

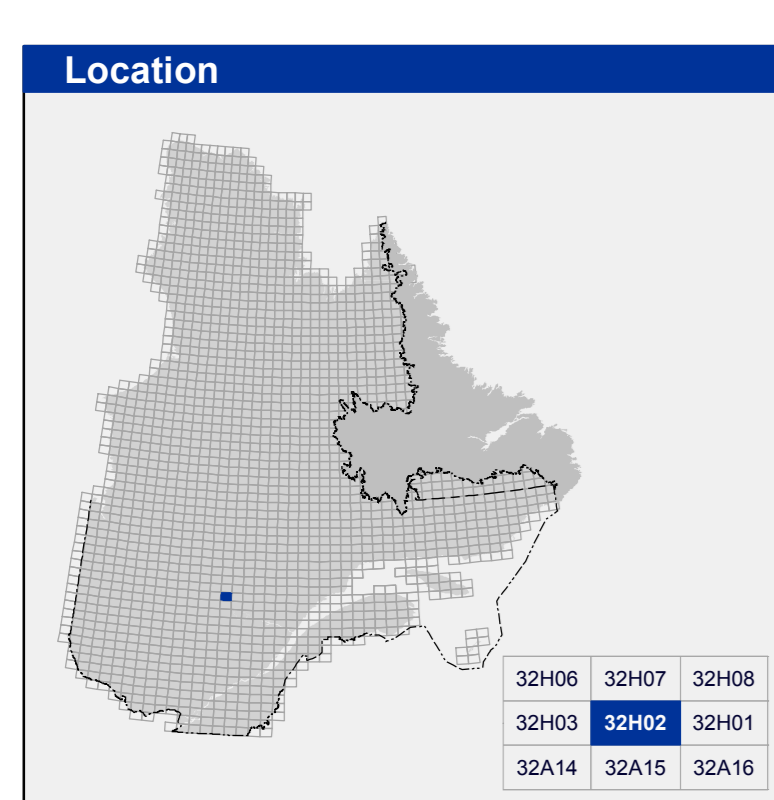
- ALLOCHTHON**  
**MESOPROTEROZOIC**
- Coin Batholith**  
mEbc1 Quartz monzonite ± hypersthene (margarite), syenogranite and granite with alkali feldspar granite; small amount of quartz monzonite. All cut by granite and granitic dyke.
- Bolduc Intrusive Suite**  
mEbc2 Charnockite, alkali feldspar granite, syenogranite and margarite; paragneiss enclaves and small amount of websterite.
- Jean-Marie Intrusive Suite**  
mEbc3 Charnockite, alkali feldspar granite, syenogranite, hypersthene syenite and gabbro; paragneiss and granitic gneiss enclaves.
- Vertu Plutonic Suite**  
mEbc4 Hypersthene syenite, quartz syenite, alkali feldspar granite, syenogranite; small amounts of margarite and charnockite.  
mEbc5 Margarite, alkali feldspar granite; small amounts of quartz syenite, hypersthene syenite and syenogranite.
- Sainte-Hedwidge Intrusive Suite (1017 ± 36 Ma, Pappapoiou, 2019)**  
mEbc6 Porphyritic quartz syenite and margarite; alkali feldspar granite and gabbro.  
mEbc7 Presence of paragneiss and granitic gneiss enclaves.  
mEbc8 Quartz monzonite, jolinite and quartz monzonite; minor amounts of gabbro and syenogranite.
- Bois Vert Plutonic Suite**  
mEbc9 Margarite, locally porphyritic gabbro, small amounts of leucocrate, alkali feldspar granite; alkali feldspar syenite and monzogranite; enclaves of paragneiss and granitic gneiss derived from sediments.  
mEbd0 Highly magnetic porphyritic salmon-pink quartz syenite; alkali feldspar quartz syenite, hypersthene syenite; small amounts of gabbro and alkali feldspar granite, margarite and syenogranite.  
mEbd1 Locally porphyritic Fe-Ti ± P oxides gabbro; small amounts of feldspar porphyritic quartz syenite, alkali feldspar granite and charnockite.
- Clairu Gabbro**  
mEbd2 Rusty, locally melanocratic Fe-Ti ± Ål & Ål oxide gabbro; gabbro and minor amounts of margarite and leucocrate.
- Saint-Thomas-Didyne Suite (1042 ± 12 Ma, Pappapoiou, 2020)**  
mEbd3 Margarite, gabbro, charnockite and alkali feldspar granite; small amount of syenogranite.
- Allegrin Plutonic Suite**  
mEbd4 Quartz syenite, alkali feldspar granite; small amounts of gabbro, charnockite and granitic gneiss. Presence of paragneiss enclaves.
- Barrois Complex (maximum deposition age of 1224 ± 18 Ma, Pappapoiou, 2020)**  
mEbd5 Biotite quartzofeldspathic paragneiss, locally migmatized; quartzite, migmatite and granitic gneiss.  
mEbd6 Biotite ± sillimanite ± garnet ± graphite paragneiss, amphibolitized mafic volcanic rocks, marble, calcosilicate rocks, garnetite and a graphite ± garnet quartzite.  
mEbd7 Rusty garnet-sulphide-graphite paragneiss, migmatitic paragneiss, migmatite and granitic gneiss.

## LITHOLOGICAL LEGEND

- CAMBRIAN**  
mCq Inertite-micronide-photogeite-aegeyne carbonatite dyke; mafic rock enclaves.
- PROSPECTIVE ZONE FOR MINERAL EXPLORATION**
- Rare earth elements
  - Iron
  - Nickel
  - Sillimanite
  - Titanium
- SHOWING AND DEPOSIT**
- K-feldspar

This geological map in PDF format contains layers that group the various elements of the document (geological zones, hydrography, geologic outcrops, etc.). These layers can be displayed or hidden in the "Layers" section of the "Browser Panel" in Adobe Acrobat Reader.

Symbols and abbreviations used on this map are described in the DV 2014-06 publication of the Ministère de l'Énergie et des Ressources naturelles.



**Metadata**

Geodetic reference frame: GRS 80 ellipsoid  
 Geodetic reference system: NAD 83 compatible with the world geodetic system WGS 84  
 Cartographic projection: Universal Transverse Mercator (UTM), zone 18  
 Original longitude: 72°45'  
 Original latitude: 0°

Scale: 1:50,000

**Sources**

**Data**  
Bases de données pour l'aménagement du territoire (BDAT 1004)

**Organization**  
Ministère de l'Énergie et des Ressources naturelles

**Realization**

**Geology:** Abdelali Mouskhal, Mohamed El Bourki (2020)  
**References:** Benot, F.-W. (1961) - RP-463  
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Map of the Bulletin géologique: [http://gq.mines.gouv.qc.ca/bulletins-geologiques/girardville\\_01/](http://gq.mines.gouv.qc.ca/bulletins-geologiques/girardville_01/)

To obtain the most recent data for this region, we suggest that you consult the geomatics products of Québec's Geomatics Information System (SIGÉOM)

Bulletin géologique

SIGÉOM  
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