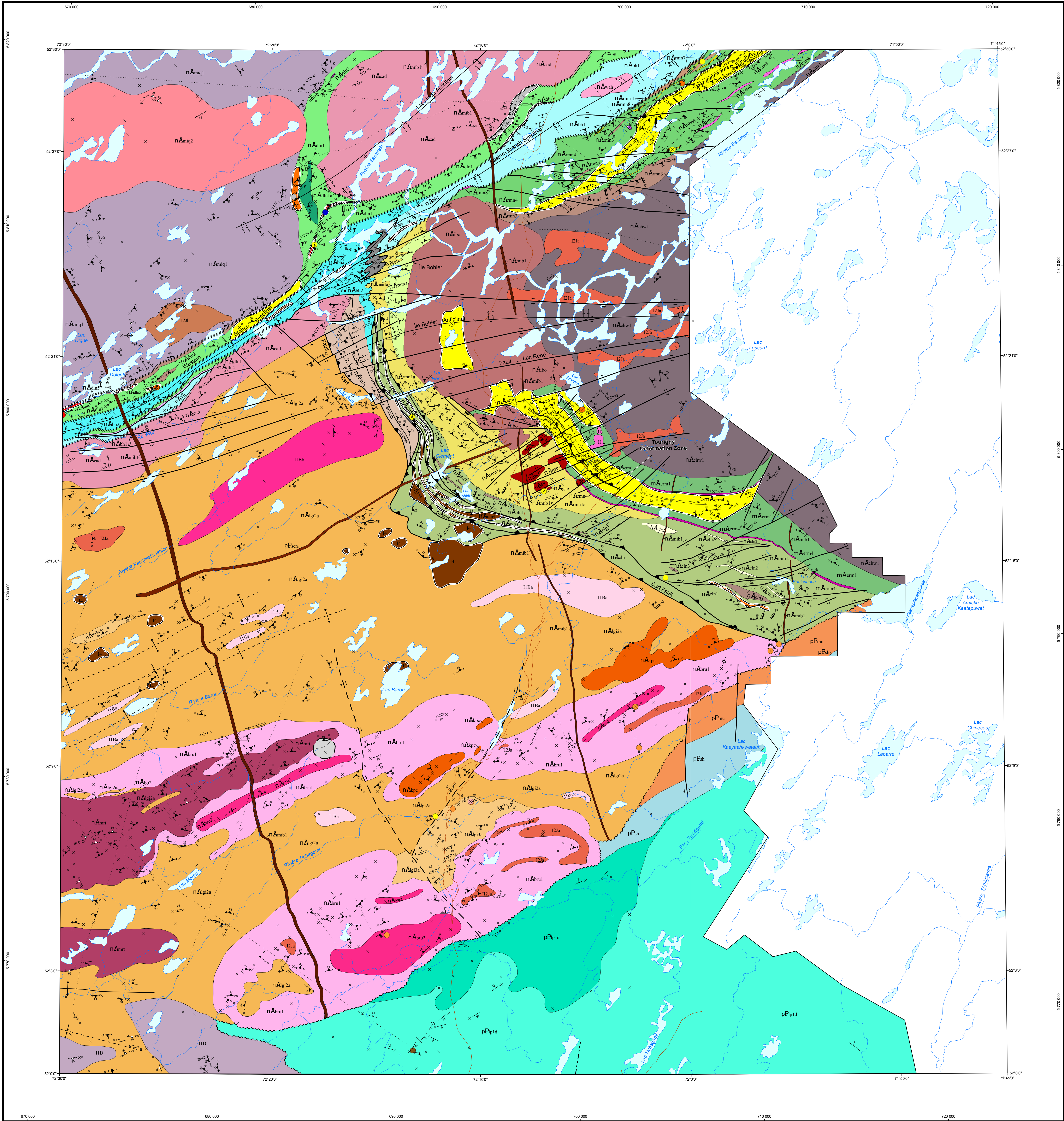


Geology of The Bohier Island Region, Contact Between the Opatica and Opinaca Subprovinces and the Otish Basin, North of Mistissini, Eeyou Istchee James Bay, Quebec, Canada



STRATIGRAPHIC LEGEND

SUPERIOR PROVINCE

PALEOPROTEROZOIC

Senneterre Dykes (2216 ±8/4 Ma, Buchan et al., 1996)

pBsc Gabbro and gabbro, with magnetite and few olivine

OTISH BASIN

Otish Supergroup (<2503 Ma, >2169 Ma, Hamilton and Buchan, 2016)

Laparré Formation

pPp1d Avenite

pPp1c Conglomerate

Shikapi Formation

pPsh Conglomerate and sandstone

Matouash Formation

pPmu Base polymictic conglomerate, quartz pebble conglomerate and feldspathic sandstone at the top

NEOARCHEAN

Mistissini Dyke Swarm (<2515 Ma, >2503 Ma, Hamilton, 2009; Davis, in preparation)

nAmsu Magnetite gabbro

OPINACA SUBPROVINCE

Kaaspach Suite

nAaps Syenite and K-feldspar syenite, amphibole-magnetite porphyrocryst

Marlet Pluton

nAmmt Banded muscovite-garnet granite

Barou Intrusion

nAms2 Massive to weakly foliated biotite ± magnetite granodiorite and tonalite

nAms1 Massive biotite granite, locally heterogeneous; paragneiss enclaves

Laguiche Complex (<2710 Ma, Augland, 2016)

nAgl2a Biotite paragneiss metakalke, locally with garnet and cordierite, containing 10-50% mobilite, commonly intruded by granite

nAgl2a Biotite arkosic wacke paragneiss, locally with garnet and cordierite, containing less than 10% mobilite, commonly intruded by granite

OPATICA SUBPROVINCE

Wahmen Granite (2640 ±10 Ma, Talla Takam et al., in preparation)

nAwah Muscovite-biotite-garnet ± tourmaline granite and pegmatite

Gaël Intrusive Suite

nAgsu Foliated amphibole diorite

Cadieux Pluton

nAcad Foliated biotite-hornblende-magnetite granodiorite, K-feldspar porphyrocryst

Misasse Pluton (2695 ±8 Ma, Talla Takam et al., in preparation)

nAmis2 Foliated biotite-hornblende-magnetite granodiorite and tonalite

nAmis1 Foliated biotite-magnetite ± hornblende tonalitic gneiss and granodiorite, banded and gneissic, intruded by granite

Chiyasak Pluton (2746 ±3 Ma, Talla Takam et al., in preparation)

nAch1 Biotite ± hornblende ± magnetite tonalite and quartz diorite, foliated, locally banded and gneissic, intruded by granite

Île Bohier Pluton (2771 ±6 Ma, Davis, personal communication)

nAbo Massive to weakly foliated chloritized biotite ± magnetite ± hornblende tonalite and granodiorite

Bohier Group

nAbo2 Conglomerate

nAbo1 Wacke paragneiss and bedded biotite ± garnet wacke

nAbo1a Nodular aluminosilicate parashist and conglomerate horizons

René Group

Dolent Formation

nAdol3 Sulphidic chert and iron formation

nAdol4 Ultramafic volcanic rock (komatiite)

nAdol5 Ultramafic sill

nAdol2 Gabbro

nAdol1 Amphibolized basalt, as pillow and massive flow, minor amount of felsic tuff and gabbro

nAdol1a Porphyritic or glomerophytic basalt

Clément Formation

nAc1 Iron formation and garnet amphibolite

nAc4 Silt and ultramafic volcanic rock (komatiite)

nAc3 Gabbro

nAc2 Felsic and intermediate tuff, felsic volcanic rock

nAc1 Amphibolized basalt and andesite, as pillow and massive flow, minor amount of felsic tuff and gabbro

Roman Formation (2774 ±6 Ma, Talla Takam et al., in preparation and 2770, 2 ±3 Ma, Davis, personal communication)

nArms Ultramafic sill

nArms7 Parashist and wacke paragneiss

nArms4 Amphibolized basalt

nArms3 Gabbro

nArms2 Intermediate tuff and andesite

nArms1b Felsic ash, lapilli and block tuff, rhyodacite and dacite

nArms1a Felsic ash, lapilli and block tuff, rhyolite and rhyodacite, minor amount of basalt and intermediate tuff

MESOARCHEAN

Erasmé Formation (2800 ±6 Ma, Davis, personal communication)

mAm4 Ultramafic sill

mAm3 Gabbro

mAm2 Felsic and intermediate ash, lapilli and block tuff, rhyodacite and dacite

mAm1 Amphibolized basalt, as pillow and massive flow, minor amount of felsic tuff and gabbro

mAm1a Porphyritic basalt

LITHOLOGIC LEGEND

ARCHEAN

11 Quartz-feldspar porphyritic felsic intrusive rock

11Ba Massive biotite granite; paragneiss enclaves

11Bb Massive biotite-magnetite granite; biotite-magnetite ± hornblende tonalite, paragneiss enclaves

11D Foliated biotite-magnetite granite

12a Foliated hornblende-biotite-magnetite diorite

12b Foliated hornblende diorite

14 Ultramafic intrusive rock

PROSPECTIVE ZONE FOR MINERAL EXPLORATION

Silver

Copper

Diamond

Nickel

Gold

Sillimanite

Zinc

SHOWING AND DEPOSIT

Metallic Substance

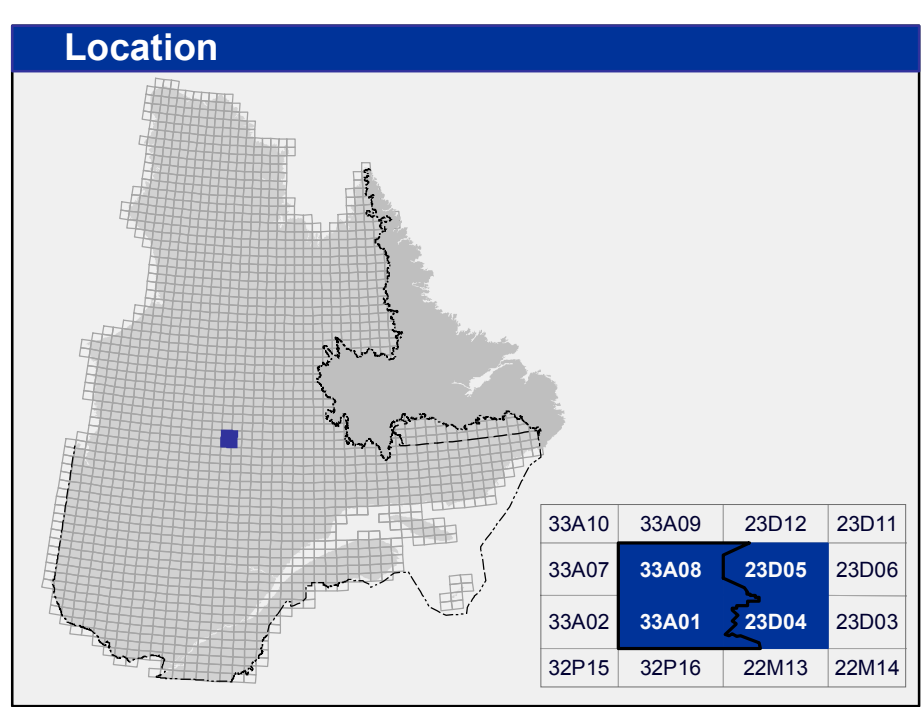
● Silver, Copper

● Rare earth elements, Gold

● Lead, Thorium

● Uranium, Zinc

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



Metadata

Geodetic reference frame : Ellipsoïde GRS 80

Geodetic reference system : NAD 83 compatible with the world geodetic system WGS 84

Cartographic projection : Universal Transverse Mercator (UTM), zone 18

Original longitude : 72°10'12"

Original latitude : 0°

Sources

Data

Base de données topographiques et administratives (BDTA, 2004)

Organization

Ministère de l'Énergie et des Ressources naturelles

Ministère de l'Énergie et des Ressources naturelles

Direction de l'information géologique du Québec

Realization

Geology : Anne-Marie Beauchamp, Frédéric Massé (2017)

References : Béland, J. et al. (2013) - GM 68216; Béland, J. (2015) - GM 68084; Birket, T. (1987) - GM 55426; Chappellain, M. (1993) - GM 53602; Cloutier, J. F. (1987) - MB 87-51; Dubé, M. (2015) - GM 69121; Fiset, N. et al. (2014) - GM 68530; Fragère-Rivard, D. (2016) - GM 69062; Gerst, S. (1989) - TH 1415; Gerber, W. (2012) - GM 69611; Hignand, C. (1987) - GM 45844; Hout, M. (1976) - DPV 433; Hout, M. (1985) - ET 83-05; Keesch, C. G. (1983) - GM 41184; Letellier, M. (1997) - GM 55568; Roy, I. (2005) - GM 62266; Roy, C. (1988) - MB 88-16; St-Hilaire, C. (2013) - GM 69075; Map of the Bulletin géologique QUE : http://gq.mines.gouv.qc.ca/bulletins-geologiques/le-bohier_en

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

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Scale: 1:85 000

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SIGÉOM

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