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PRITZLER HARBOUR

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KANATAMI-NUNAVUMI
GEOSCIENCE TITIGAKVIIT

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ငွေငြုပ်ပုံစံပြန်

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ABSTRACT

This map synthesizes the field observations and initial interpretations for the Pritzler Harbour area following five weeks of regional and targeted bedrock mapping on the eastern Meta Incognita Peninsula, Baffin Island, Nunavut. Under the Geo-mapping for Energy and Minerals (GEM) Program, this area was targeted in 2014 to upgrade the

geoscience knowledge and document the economic potential of the greater Iqaluit area south of Frobisher Bay. Field observations have constrained the distribution of metasedimentary units comprising quartzite, marble, psammite, pelite, and semipelite, all of which can be correlated with the contiguous middle Paleoproterozoic Lake Harbour Group in the type area north of Kimmirut. The spatial distribution of a suite of layered mafic to ultramafic sills intrusive into the sedimentary strata in the western portion of the Pritzler Harbour map area was also documented and will be the focus of further study. Layering in the sills was observed on the centimetre to metres scale, with many bodies containing disseminated sulphide, some associated with ferricrete. The distribution of high-grade felsic and mafic plutonic rocks, tentatively interpreted as part of the middle Paleoproterozoic Cumberland Batholith, were delineated. Four distinct phases of deformation and two metamorphic episodes were recognized. The deformation and metamorphic events can be correlated with similar features and assemblages previously documented both on Baffin Island and on the Ungava Peninsula of northern Quebec, and will be utilized to compare, and improve on, existing regional tectonic models.

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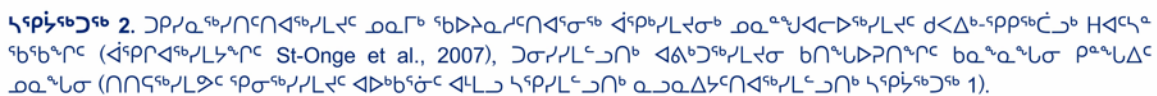
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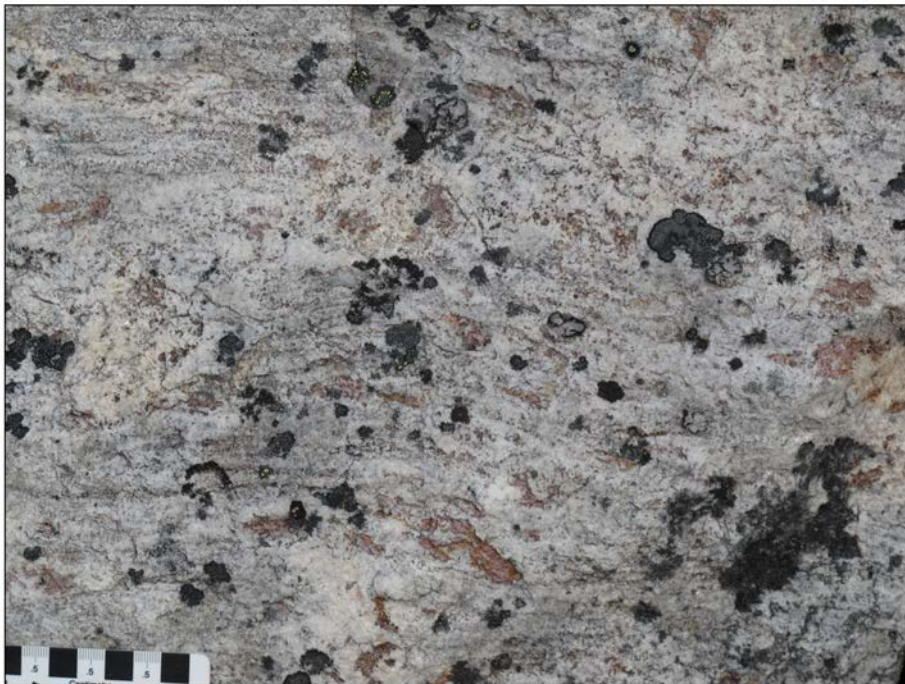
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6. **4D^{se}** **psammite**, **2014-218**
 ԿՐԻՆԵՅԵ 6. 4D^{se}-Ե ԴԵԿՏԻՎԵԼԵ ԴԵԿՏԵԼԵ ԿԵԼԵԿԵ-**psammite** 4D^{se} **feldspathic quartzite**, ԴԵԿՏԵ, ԴԵԿՏԵ, ԴԵԿՏԵ. 2014-218



ԿՐԻՆԵՉԵՑ 7. Diopside-phlogopite-spinel-apatite-quartz calcareous grit, ՔԿԴԴ, ՔԲԼԱԴ, ԿՐԻՆԵՉԵՑ, ժժԳ. 2014-220



ԿՐԻՆԵՉԵՑ 8. ԿԵՐԱԿ ԿԱՏԵԿԿԿ ԵՆԿՆԵՎԵԿԿ ԵՆԵԿԿ, ՔԲԼԱԴ, ԿՐԻՆԵՉԵՑ, ժժԳ, ԿԵՐԱԿ 35 ԴՐԿԿ ԿՐՈՐԿԿ. 2014-219



ሳምፕሌ 9. ኢንርፕራይብሊድ K-feldspar megacrystic monzogranite ሶሌሊል፣ ኖሮክሮፓ፣ ሙጋ፣ 2014-222



ሳምፕሌ 10. ኢንርፕራይብሊድ ኖሮክሮፓ፣ ጋሞፕሮፓ፣ ለፖፕሮፓ፣ orthopyroxene-biotite± magnetite monzogranite, ሶሌሊል፣ ኖሮክሮፓ፣ ሙጋ፣ ላብሮፕሊድ ሙፊ ርዕሰሊድ 600 ፊር. 2014-221

ጋሮፊሊዮኒ

Blackadar, R.G., 1967. Geological Reconnaissance, southern Baffin Island, District of Franklin; Geological Survey of Canada, Paper 66-47, 32 p. doi:10.4095/100926

Corrigan, D., Pehrsson, S., Wodicka, N., and de Kemp, E., 2009. The Palaeoproterozoic Trans-Hudson Orogen: a prototype of modern accretionary processes; *in* Ancient Orogens and Modern Analogues, (ed.) J.B. Murphy,

- J.D. Keppie, and A.J. Hynes; The Geological Society, London, Special Publications, v. 327, p. 457–479. doi:10.1144/SP327.19
- Dunphy, J.M. and Ludden, J.N., 1998. Petrological and geochemical characteristics of a Paleoproterozoic magmatic arc (Narsajuaq Terrane, Ungava Orogen, Canada) and comparisons to Superior Province granitoids; *Precambrian Research*, v. 91, p. 109–142.
- Hoffman, P.F., 1988. United Plates of America, the birth of a craton: Early Proterozoic assembly and growth of Laurentia; *Annual Reviews of Earth and Planetary Sciences*, v. 16, p. 543–603.
- Jackson, G.D. and Taylor, F.C., 1972. Correlation of major Archean rock units in the northeastern Canadian Shield; *Canadian Journal of Earth Sciences*, v. 9, p. 1650–1669.
- Jackson, G.D., Hunt, P.A., Loveridge, W.D., and Parrish, R.R., 1990. Reconnaissance geochronology of Baffin Island, N. W. T.; *in* Radiogenic age and isotopic studies: Report 3; Geological Survey of Canada, Paper 89-2, p. 123–148. doi:10.4095/129079
- Leshar, C.M., 2007. Ni-Cu-(PGE) deposits in the Raglan area, Cape Smith Belt, New Quebec; *in* Mineral Deposits of Canada: a Synthesis of Major Deposit Types, District Metallogeny, the Evolution of Geological Provinces and Exploration Methods, (ed.) W.D. Goodfellow, Geological Association of Canada, Special Publication, v. 5, p. 351–386.
- Lewry, J.F. and Collerson, K.D., 1990. The Trans-Hudson Orogen; extent, subdivisions, and problems; *in* The Early Proterozoic Trans-Hudson Orogen of North America, (ed.) J.F. Lewry and M.R. Stauffer, Geological Association of Canada, Special Paper 37, p. 1–14.
- Lucas, S.B. and Byrne, T., 1992. Footwall involvement during arc-continent collision, Ungava orogen, northern Canada; *Journal of the Geological Society of London*, v. 149, p. 237–248.
- Lucas, S.B. and St-Onge, M.R., 1992. Terrane accretion in the internal zone of the Ungava orogen, northern Quebec. Part 2: Structural and metamorphic history; *Canadian Journal of Earth Sciences*, v. 29, p. 765–782.
- Machado, G., Bilodeau, C., and St-Onge, M.R., 2013a. Geology, southern part of Hall Peninsula, south Baffin Island, Nunavut; Geological Survey of Canada, Canadian Geoscience Map 135 (preliminary); Canada-Nunavut Geoscience Office, Open File Map 2013-1, scale 1:250 000. doi:10.4095/292443
- Machado, G., Bilodeau, C., Takpani, R., St-Onge, M.R., Rayner, N.M., Skipton, D.R., From, R.E., MacKay, C.B., Creason, C.G., and Braden, Z.M., 2013b. Hall Peninsula regional bedrock mapping, Baffin Island, Nunavut: summary of field work; *in* Summary of Activities 2012, Canada-Nunavut Geoscience Office, p. 13–22.
- Scott, D.J., 1997. Geology, U-Pb, and Pb-Pb geochronology of the Lake Harbour area, southern Baffin Island: implications for the Paleoproterozoic tectonic evolution of north-eastern Laurentia; *Canadian Journal of Earth Sciences*, v. 34, p. 140–155.
- Scott, D.J., 1999. U-Pb geochronology of the eastern Hall Peninsula, southern Baffin Island, Canada: A northern link between the Archean of West Greenland and the

- Paleoproterozoic Torngat orogen of northern Labrador; *Precambrian Research*, v. 93, p. 5–26.
- Scott, D.J. and Wodicka, N., 1998. A second report on the U-Pb geochronology of southern Baffin Island, Northwest Territories; *in Radiogenic Age and Isotopic Studies: Report 11; Geological Survey of Canada, Current Research*, 1998-F, p. 47–57. doi:10.4095/210055
- Scott, D.J., Stern, R.A., St-Onge, M.R., and McMullen, S.M., 2002. U-Pb geochronology of detrital zircons in metasedimentary rocks from southern Baffin Island: implications for the Paleoproterozoic tectonic evolution of Northeastern Laurentia; *Canadian Journal of Earth Sciences*, v. 39, p. 611–623.
- Scott, D.J., St-Onge, M.R., Wodicka, N., and Hanmer, S., 1997. Geology of the Markham Bay – Crooks Inlet area, southern Baffin Island, Northwest Territories; *in Current Research 1997-C; Geological Survey of Canada*, p. 157–166. doi:10.4095/208641
- Steenkamp, H.M. and St-Onge, M.R., 2014. Overview of the 2013 regional bedrock mapping program on northern Hall Peninsula, Baffin Island, Nunavut; *in Summary of Activities 2013, Canada-Nunavut Geoscience Office*, p. 27–38.
- St-Onge, M.R. and Lucas, S.B., 1994. Controls on the regional distribution of iron-nickel-copper-platinum group element sulfide mineralization in the eastern Cape Smith Belt, Quebec; *Canadian Journal of Earth Sciences*, v. 31, p. 206–218.
- St-Onge, M.R., Hanmer, S., and Scott, D.J., 1996. Geology of the Meta Incognita Peninsula, south Baffin Island, Northwest Territories: tectonostratigraphic units and regional correlations; *in Current Research 1996-C; Geological Survey of Canada*, p. 63–72. doi:10.4095/207444
- St-Onge, M.R., Lucas, S.B., and Parrish, R.R., 1992. Terrane accretion in the internal zone of the Ungava orogen, northern Quebec. Part 1: Tectonostratigraphic assemblages and their tectonic implications; *Canadian Journal of Earth Sciences*, v. 29, p. 746–764.
- St-Onge, M.R., Rayner, N.M., Liikane, D., and Chadwick, T., 2015. Mafic, ultramafic and layered mafic-ultramafic sills, Meta Incognita Peninsula, Baffin Island, Nunavut; *in Summary of Activities 2014, Canada-Nunavut Geoscience Office*, p. 11–16.
- St-Onge, M.R., Scott, D.J., and Lucas, S.B., 2000. Early partitioning of Quebec: Microcontinent formation in the Paleoproterozoic; *Geology*, v. 28, p. 323–326.
- St-Onge, M.R., Scott, D.J., Wodicka, N., and Lucas, S.B., 1998. Geology of the McKellar Bay – Wight Inlet – Frobisher Bay area, southern Baffin Island, Northwest Territories; *in Current Research 1998-C; Geological Survey of Canada*, p. 43–53. doi:10.4095/209512
- St-Onge, M.R., Scott, D.J., and Wodicka, N., 1999a. Geology, Frobisher Bay, Nunavut; Geological Survey of Canada, Map 1979A, scale 1:100 000. doi:10.4095/210833
- St-Onge, M.R., Scott, D.J., and Wodicka, N., 1999b. Geology, Hidden Bay, Nunavut; Geological Survey of Canada, Map 1980A, scale 1:100 000. doi:10.4095/210835
- St-Onge, M.R., Scott, D.J., and Wodicka, N., 1999c. Geology, McKellar Bay, Nunavut; Geological Survey of Canada, Map 1981A, scale 1:100 000. doi:10.4095/210836

- St-Onge, M.R., Scott, D.J., and Wodicka, N., 1999d. Geology, Wight Inlet, Nunavut; Geological Survey of Canada, Map 1982A, scale 1:100 000. doi:10.4095/210840
- St-Onge, M.R., Scott, D.J., and Wodicka, N., 1999e. Geology, Blandford Bay, Nunavut; Geological Survey of Canada, Map 1983A, scale 1:100 000. doi:10.4095/210837
- St-Onge, M.R., Scott, D.J., and Wodicka, N., 1999f. Geology, Crooks Inlet, Nunavut; Geological Survey of Canada, Map 1984A, scale 1:100 000. doi:10.4095/210838
- St-Onge, M.R., Scott, D.J., and Wodicka, N., 1999g. Geology, White Strait, Nunavut; Geological Survey of Canada, Map 1985A, scale 1:100 000. doi:10.4095/210839
- St-Onge, M.R., Scott, D.J., and Wodicka, N., 2001. Terrane boundaries within Trans-Hudson Orogen (Quebec – Baffin segment), Canada: changing structural and metamorphic character from foreland to hinterland; *Precambrian Research*, v. 107, p. 75–91.
- St-Onge, M.R., Scott, D.J., and Wodicka, N., 2002. Review of crustal architecture and evolution in the Ungava Peninsula–Baffin Island area: connection to the Lithoprobe ECSOOT transect; *Canadian Journal of Earth Sciences*, v. 39, p. 589–610. doi:10.1139/E02-022.
- St-Onge, M.R., Searle, M.P., and Wodicka, N., 2006. Trans-Hudson Orogen of North America and Himalaya-Karakoram-Tibetan Orogen of Asia: Structural and thermal characteristics of the lower and upper plates; *Tectonics*, v. 25, TC4006, 22 p. doi:10.1029/2005TC001907
- St-Onge, M.R., Van Gool, J.A.M., Garde, A.A., and Scott, D.J., 2009. Correlation of Archaean and Palaeoproterozoic units between northeastern Canada and western Greenland: constraining the pre-collisional upper plate accretionary history of the Trans-Hudson orogen; *in* *Earth Accretionary Systems in Space and Time*, (ed.) P.A. Cawood and A. Kroner, The Geological Society, London, Special Publications, v. 318, p. 193–235. doi:10.1144/SP318.7
- St-Onge, M.R., Wodicka, N., and Ijewliw, O., 2007. Polymetamorphic evolution of the Trans-Hudson Orogen, Baffin Island, Canada: Integration of petrological, structural and geochronological data; *Journal of Petrology*, v. 48, p. 271–302. doi:10.1093/petrology/eg1060
- Thériault, R.J., St-Onge, M.R., and Scott, D.J., 2001. Nd isotopic and geochemical signature of the Paleoproterozoic Trans-Hudson Orogen, southern Baffin Island, Canada: implications for the evolution of eastern Laurentia; *Precambrian Research*, v. 108, p. 113–138.
- Whalen, J.B., Wodicka, N., Taylor, B.E., and Jackson, G.D., 2010. Cumberland batholith, Trans-Hudson Orogen, Canada: Petrogenesis and implications for Paleoproterozoic crustal and orogenic processes; *Lithos*, v. 117, p. 99–118. doi:10.1016/j.lithos.2010.02.008
- Wodicka, N. and Scott, D.J., 1997. A preliminary report on the U-Pb geochronology of the Meta Incognita Peninsula, southern Baffin Island, Northwest Territories; *in* *Current Research 1997-C*; Geological Survey of Canada, p. 167–178. doi:10.4095/208642

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Marc.St-Onge@NRCan-RNCan.gc.ca

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Geological Dataset accompanying this publication complies with the GSC's Project Bedrock Schema (beta version 2.2). A short text describing the feature classes, tables and attributes is currently under review and will be made available for download shortly.

All attribute names and definitions are identical in the geodatabase (.gdb file), the shapefiles and the XML workspace file.

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