LEGEND

CARBONIFEROUS

- CCT — *CLIFTON FORMATION: mainly mature, gray sandstone and mudstone, minor conglomerate, rare coal*
- CBV — *BONAVENTURE FORMATION: mainly immature, red sandstone and conglomerate, minor mudstone*

DEVONIAN

DALHOUSIE GROUP (Lochkovian–Pragian)

- DBH — *BIG HOLE BROOK FORMATION: mainly greenish gray, locally calcareous sandstone and siltstone*
- DSu — *SUNNYSIDE FORMATION: mainly basalt with minor interlayered sediment*
- DAS — *ARCHIBALD SETTLEMENT FORMATION: mainly rhyolite, minor felsic pyroclastic and epiclastic rocks*
- DJR — *JACQUET RIVER FORMATION: mainly greenish gray sandstone and siltstone, minor limestone and basalt*
- DMS — *MITCHELL SETTLEMENT FORMATION: mainly basalt, minor sandstone and siltstone*
- DGG — *GREYS GULCH FORMATION: mainly gray siltstone and sandstone*
- DBC — *BUDWORM CITY FORMATION: mainly gray to black siltstone, minor sandstone and limestone*
- DFG — *FREE GRANT FORMATION: mainly calcareous greenish gray sandstone and siltstone, minor red slate*

SILURIAN - DEVONIAN

- SDg — *Granite, granodiorite, quartz monzonite and feldspar-phyric dacite- to rhyolite porphyry*
- SDmi — *Diorite, gabbro and diabase*
- SDGM — *GORDON MEADOW BROOK FORMATION: gray micaceous sandstone and siltstone*

SILURIAN

CHALEURS GROUP

- SLP — *LAPLANTE FORMATION (Pridoli): nodular limestone and calcareous siltstone*
- SBE — *BENJAMIN FORMATION (Ludlow): flow-banded rhyolite and lapilli tuff*
- SBP — *BRYANT POINT FORMATION (Wenlock–Ludlow): feldspar-phyric basalt, minor tuff and conglomerate*
- SSC — *SOUTH CHARLO FORMATION (Wenlock–Ludlow): mainly conglomerate, minor sandstone and siltstone*
- SSF — *SIMPSONS FIELD FORMATION (Wenlock–Ludlow): mainly siltstone, sandstone and polymict conglomerate*
- SLA — *LA VIEILLE FORMATION (Llandovery–Wenlock): mainly nodular to massive limestone, calcareous sandstone and siltstone*
- SU — *UPSALQUITCH FORMATION (Llandovery): mainly calcareous sandstone and mudstone, minor limestone*
- SWE — *WEIR FORMATION (Llandovery): mainly conglomerate, grit, sandstone and mudstone, minor limestone and basalt*

KINGSCLEAR GROUP

- SH — *HAYES BROOK FORMATION (Llandovery): mainly quartz wacke and black shale*

ORDOVICIAN - SILURIAN

- OSeD — *BELLEDUNE RIVER MÉLANGE (Caradoc–Llandovery): chaotic rock with blocks of basalt, gabbro and serpentinite (OSs) in a dark gray to black shaly matrix*

ORDOVICIAN

- Og — *Mainly biotite-muscovite granite, minor dacite to rhyolite porphyry (Arenig–Llanvirn)*
- Omi — *Mainly synvolcanic gabbro, minor diabase (Arenig–Llanvirn)*

BATHURST SUPERGROUP

ORDOVICIAN

FOURNIER GROUP

- OE — *ELMTREE FORMATION (Llanvirn–Caradoc): mainly black shale, minor rhyolite and basalt*
- OM — *MILLSTREAM FORMATION (Caradoc): mainly lithic to feldspathic wacke and dark shale, minor limestone and felsic tuff, in part mélange*
- OSO — *SORMANY FORMATION (Arenig–Llanvirn): mainly MOR pillow basalt, minor diabase and gabbro; incorporates the Armstrong Brook, Linjour and Rosehill, and the Murray Brook basalt*

CALIFORNIA LAKE GROUP

BOUCHER BROOK FORMATION (Llanvirn–Caradoc)

- OBBmv — *Mainly pillow basalt, transitional from tholeiitic to alkalic, minor comendite and chert; incorporates the Camel Back basalt*
- OBBs — *Mainly dark gray to black shale, minor red metalliferous shale, siltstone, chert and limestone, in part mélange*

CANOE LANDING LAKE FORMATION (Arenig)

- OCLmv — *Mainly tholeiitic pillow basalt, minor chert and shale; incorporates the Canoe Landing Lake basalt and Nine Mile tholeiite*
- OCLfv — *Mainly dacite*
- OCLs — *Mainly dark pyritiferous shale and siltstone, in part mélange, minor red metalliferous shale and chert*

SPRUCE LAKE FORMATION (Arenig)

- OSLfv — *Mainly feldspar-phyric dacite to rhyolite lava flows and cryptodomes; locally includes interlayered iron formation and massive sulfide*
- OSLs — *Mainly dark pyritiferous shale and siltstone, minor jasper; locally includes interlayered iron formation and massive sulfide*
- OSLmv — *Mainly tholeiitic pillow basalt*

MOUNT BRITTAIN FORMATION (Arenig)

- OMBfv — *Mainly quartz-and feldspar-phyric dacite to rhyolite lava and tuff, minor basalt; locally includes massive sulfide*
- OMBs — *Mainly dark pyritiferous shale and siltstone*

TETAGOUCHE GROUP

- OTM — *TOMOGONOPS FORMATION (Caradoc–Ashgill): mainly sandstone and siltstone, locally calcareous, conglomerate and grit*

LITTLE RIVER FORMATION (Llanvirn–Caradoc)

- OLRmv — *Mainly pillow basalt, transitional from tholeiitic to alkalic, minor comendite, incorporates the Brunswick Mines, Beresford and Robertville basalts*
- OLRs — *Mainly dark gray to black shale, minor red metalliferous shale and chert, in part mélange*

FLAT LANDING BROOK FORMATION (Arenig–Llanvirn)

- OFLfv — *Mainly aphyric rhyolite lava and pyroclastic flows, interlayered volcaniclastic breccia, lapilli tuff and ash, minor jasper, grey and red shale. Locally includes interlated iron formation and massive sulfide. Incorporates the Reids Brook and Roger Brook members*
- OFLmv — *Mainly massive to pillowed tholeiitic basalt and pyroclastic breccia, incorporates the Forty Mile and Moody Brook tholeiites*
- OFLs — *Mainly grey and red metalliferous shale, minor jasper*

NEPISIGUIT FALLS FORMATION (Arenig)

- ONFfv — *Mainly quartz- and feldspar-phyric crystal tuff, minor felsic epiclastic sandstone, siltstone and shale. Locally includes interlayered iron formation and massive sulfide. Incorporates the Grand Falls, Lucky Lake and part of the Little Falls member felsic volcanic rocks*
- ONFs — *Mainly sulfaceous, locally calcareous sandstone and siltstone, iron formation, minor pyritiferous shale and conglomerate. In part incorporates the Little Falls Member felsic volcanic rocks*

SHEEPHOUSE BROOK GROUP

SLACKS LAKE FORMATION (Llanvirn–Caradoc)

- OSKmv — *Mainly pillow basalt, transitional from tholeiitic to alkalic, minor comendite and chert*
- OSKs — *Mainly dark grey to black shale minor red to green metalliferous shale, and chert*
- OSR — *SEVOGLE RIVER FORMATION (Arenig–Llanvirn): mainly feldspar-phyric rhyolite, minor shale and siltstone*
- OCW — *CLEARWATER STREAM FORMATION (Arenig): mainly plagioclase-phyric dacite crystal tuff, minor felsic epiclastic sandstone, siltstone and shale. Locally includes interlayered massive sulfide*

MIRAMICHI GROUP

- OPB — *PATRICK BROOK FORMATION (Tremadoc–Arenig): mainly dark gray to black shale and green to black quartz-rich or feldspathic sandstone, rare rhyolite*

CAMBRIAN - ORDOVICIAN

- COKB — *KNIGHTS BROOK FORMATION (upper Cambrian–Tremadoc): dark gray to black shale and light gray quartz-rich sandstone*
- COCR — *CHAIN OF ROCKS FORMATION (middle Cambrian–Tremadoc): light greenish gray quartz-rich sandstone and green shale*

NEOPROTEROZOIC - CAMBRIAN

- NCU — *Upsalquitch gabbro: light green, coarse grained, locally anorthositic-gabbro*

Geological contact

Unconformity / disconformity

Thrust fault

Fault

Main foliation (typically composite of S_0 / S_1 or S_1 / S_2, locally a composite of S_2 / S_3)

Massive sulfide deposit

MASSIVE SULFIDE DEPOSITS

1 Key Anacon
2 Key Anacon East
3 Brunswick Number 12
4 Brunswick Northend
5 Headway
6 Pabineau
7 Brunswick Number 6
8 Austin Brook
9 Flat Landing Brook
10 Captain North Extension
11 Captain
12 Louvicourt
13 Taylor Brook (Consolidated Morrison)
14 Nepisiguit "A"
15 Nepisiguit "B"
16 Nepisiguit "C"
17 Heath Steele B-5 Zone
18 Heath Steele B Zone
19 Heath Steele ACD Zones
20 Heath Steele C North
21 Heath Steele E Zone
22 Heath Steele H-2 Zone
23 Heath Steele HC-4
24 Heath Steele N-5
25 Heath Steele West Grid
26 Stratmat Main
27 Stratmat Central
28 Stratmat Boundary
29 Stratmat S-1
30 Stratmat West Stringer Zone
31 Canoe Landing Lake
32 Rocky Turn
33 Armstrong B
34 Armstrong A
35 Wedge
36 Orvan Brook
37 Chester
38 McMaster
39 Caribou
40 Camel Back
41 Halfmile Lake North
42 Halfmile Lake
43 Murray Brook
44 Devil's Elbow
45 Restigouche
46 A'Hearn

Geology by C.R. van Staal, R.A. Wilson, N. Rogers, L.R. Fyffe, S.J. Gower, J.P. Langton, S.R. McCutcheon, and J.A. Walker

Geological compilation by C.R. van Staal, N. Rogers, J.P. Langton, modified from Geological Survey of Canada Open File 4182

Digital cartography by J.A.Y. Pratt, Earth Sciences Sector Information Division (ESS Info) Natural Resources Canada

This map was produced from processes in conformance with the Cartographic Services Section Quality Management System, Ottawa, registered to the Quality System ISO 9001: 1994 standards

Digital base map from data compiled by Geomatics Canada, modified by ESS Info

Mean magnetic declination 2003, 19°49'W, decreasing 7.0' annually. Readings vary from 19°37'W in the SW corner to 20°10'W in the NE corner of the map

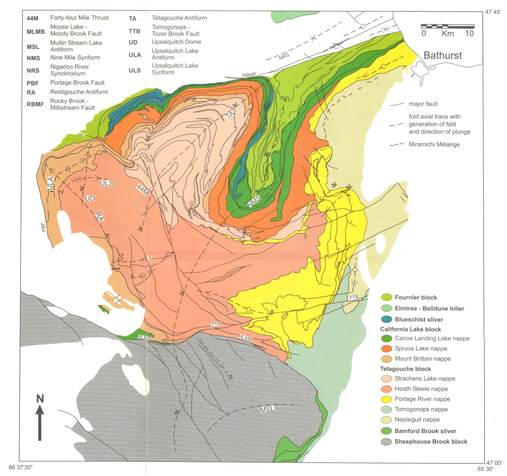

Figure 1. A New Geological Map of the Bathurst Mining Camp and Surrounding Areas

Scale 1:100 000/Echelle 1/100 000

kilometres 2 0 2 4 6 8 kilometres

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