# **PUBLICATIONS**

Report of Activities 2006

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## PRELIMINARY MAPS

PMAP2006-1	Geology of the Schist Lake–Mandy mines area, Flin Flon, Manitoba (parts of NTS 63K12) by RL. Simardscale 1:5 00	0
PMAP2006-2	Bedrock geology of the Bear Lake area, Manitoba (parts of NTS 53M4 and 63P1) by C.O. Böhm and R.P. Hartlaubscale 1:50 00	0
PMAP2006-3	Revised geology of the Wuskwatim–Threepoint lakes area, Manitoba (NTS 63O10 and parts of 63O11) by H.V. Zwanzig, J.A. Percival and L. Murphyscale 1:50 00	0
PMAP2006-4	Bedrock geology of the Kasmere Lake area, Manitoba (NTS 64N11 and parts of NTS 64N6) by C.O. Böhm and S.D. Andersonscale 1:50 00	0
PMAP2006-5	Bedrock geology of the Putahow Lake area, Manitoba (NTS 64N15) by S.D. Anderson and C.O. Böhmscale 1:50 00	0
PMAP2006-6	Surficial geology of the Kasmere–Putahow lakes area, northwestern Manitoba (parts of NTS 64N10, 11, 14 and 15) by G.L.D. Matile	0
PMAP2006-7	Geology and structure of the Garner Lake–Gem Lake area, Rice Lake greenstone belt, Manitoba (NTS 52L11 and 14) by S.D. Anderson	0
PMAP2006-8	Geology of the east-central part of the Bird River area, Manitoba (NTS 52L6N) by H.P. Gilbertscale 1:20 00	0
PMAP2006-9	Geology of the Bernic Lake area around the Tanco mine, Bird River greenstone belt, southeastern Manitoba (NTS 52L6) by P.D. Kremer and S. Linscale 1:10 00	0
PMAP2006-10	Geology of the Bird River Sill, southeastern Manitoba (part of NTS 52L5) by C.A. Mealinscale 1:5 00	0

#### PUBLICATIONS RELEASED NOVEMBER 2005 TO NOVEMBER 2006

## Manitoba Geological Survey Reports and Maps

## **Geoscientific Reports**

#### GR2006-1

Geology of the Thompson Bay–Persian Lake area, North Arm, Athapapuskow Lake, Manitoba (NTS 63K12NE) / by D.E. Prouse

## **Open File Reports**

#### OF2005-1

Geology of the Hidden Formation on the west limb of the Hidden syncline north of the Railway Fault, Flin Flon, Manitoba and Saskatchewan (part of NTS 63K13SW) / by M. DeWolfe (scale 1:1 000)

#### OF2005-2

Till geochemistry in northwestern Manitoba (NTS 63N, 64B, 64F and 64G and parts of 63K, 63O, 64A and 64C) / by P.G. Lenton and C.A. Kaszycki (PDF, EXCEL® and Shape files on CD-ROM)

#### OF2005-3 (Supercedes OF93-4)

Manitoba Geochronology Database / by Manitoba Geological Survey (Digital web release only)

#### OF2006-1

Humus sampling in the Mayville Igneous Complex, southeastern Manitoba (NTS 52L12): using the mobility of palladium in aqueous surficial environments as a guide to nickel–copper–platinum group element mineralization / by P. Theyer

#### OF2006-2 to OF2006-29

High-resolution aeromagnetic-residual-total-field and first-vertical-derivative of the magnetic field maps, Wuskwatim Lake area, northern Manitoba (NTS 63 J/10, 63 J/15, 64 O/01, 63 O/02, 63 O/06, 63 O/07, 63 O/08, 63 O/09, 63 O/10, 63 O/15, 63 O/16, 63 P/12, 63 P/13, 64 B/01) / by M. Coyle and F. Kiss

#### OF2006-30

GIS compilation of geology and tectonostratigraphic assemblages, western Uchi Subprovince, western Superior Province, Ontario and Manitoba / by D.R. Lemkow, M. Sanborn-Barrie, A.H. Bailes, J.A. Percival, N. Rogers, T. Skulski, S.D. Anderson, K.Y. Tomlinson, V. McNicoll, J.R. Parker, J.B. Whalen, P. Hollings and M. Young (1 CD-ROM)

## OF2006-31

Reinterpretation of Falconbridge Limited drillcore from the southern part of the exposed Thompson Nickel Belt, Manitoba (parts of NTS 63J, O, P and 64A) / by C.R. McGregor, J.J. Macek and H.V. Zwanzig (1 DVD)

## **Geoscientific Maps**

#### MAP2006-1

Aggregate resources in the Rural Municipality of Grahamdale, Manitoba / by H.D. Groom (scale 1:100 000)

## **Preliminary Maps**

#### PMAP2005-1

Geology and structure of the Rice Lake area, Rice Lake greenstone belt, Manitoba (part of NTS 52M4 and 52L13) / by S.D. Anderson (scale 1:20 000)

#### PMAP2005-2

Bedrock geology of north and central Wintering Lake, Manitoba (parts of NTS 63P5 and 12) / by C.O. Böhm (scale 1:25 000)

#### PMAP2005-3

Bedrock geology of Nejanilini Lake, Manitoba (parts of NTS 64P5, 12 and 13) / by S.D. Anderson and C.O. Böhm (scale 1:35 000)

#### PMAP2005-4

Quaternary geology of Nejanilini Lake, Manitoba (parts of NTS 64P5, 12 and 13) / by G.L.D. Matile (scale 1:35 000)

#### PMAP2005-5

Structural geology of the Mystery-Apussigamasi lakes area, Manitoba (parts of NTS 63P13 and 14) / by Y. D. Kuiper (scale 1:35 000)

#### PMAP2005-6

Geology of the Bernic Lake Formation, Tanco mine area, southeastern Manitoba (part of NTS 52L6) / by P.D. Kremer (scale 1:10 000)

#### PMAP2005-7

Geology of the Bird River area, southeastern Manitoba (part of NTS 52L5 and 6) / by M. Duguet (scale 1:50 000)

#### PMAP2005-8

Geology of the Chrome Property, Bird River Sill, southeastern Manitoba (part of NTS 52L5) / by C. Mealin (scale 1:5 000)

## **Report of Activities 2005**

Annual review / by E.C. Syme, p. 1-6.

#### FLIN FLON-SNOW LAKE

## GS-1

Physical description of the Bomber, 1920 and Newcor members of the Hidden formation, Flin Flon, Manitoba (NTS 63K16SW) / by Y.M. DeWolfe and H.L. Gibson, p. 7-19.

#### GS-2

Gold metallogenesis and tectonometamorphic history of selected deposits from the Snow Lake area and the southern flank of the Kisseynew Domain, west-central Manitoba (NTS 63J13, 63K10, 63K16 and 63N2) / by S. Gagné, C.J. Beaumont-Smith, A. Hynes and A.E. Williams-Jones, p. 20-27.

GS-3 Manitoba's Precambrian Drillcore Libraries Program / by D.E. Prouse. p. 28-29.

GS-4 Activities of the Manitoba Geological Survey's Flin Flon regional office / by T.H. Heine, p. 30-31.

#### SUPERIOR BOUNDARY ZONE, THOMPSON NICKEL BELT

#### GS-5

Bedrock geology of northern and central Wintering Lake, Manitoba (parts of NTS 63P5 and 12) / by C.O. Böhm, p. 32-39.

#### GS-6

Geochemistry, Sm-Nd isotope data and age constraints of the Bah Lake assemblage, Thompson Nickel Belt and Kisseynew Domain margin: relation to Thompson-type ultramafic bodies and a tectonic model (NTS 63J, O and P) / by H.V. Zwanzig, p. 40-53.

#### GS-7

Northwestern Superior craton margin, Manitoba: an overview of Archean and Proterozoic episodes of crustal growth, erosion and orogenesis (parts of NTS 54D and 64A) / by R.P. Hartlaub, C.O. Böhm, L.M. Heaman, and A. Simonetti, p. 54-60.

#### GS-8

Structural geology of the Mystery-Apussigamasi lakes area, Manitoba (parts of NTS 63P13 and 14) / by Y.D. Kuiper, C.O. Böhm and S. Lin, p. 61-68.

#### GS-9

Pikwitonei–Snow Lake Manitoba transect (parts of NTS 63J, 63O and 63P), Trans-Hudson Orogen–Superior Margin Metallotect Project: new results and tectonic interpretation / by J.A. Percival, J.B. Whalen and N. Rayner, p. 69-91.

#### FAR NORTH

#### GS-10

Bedrock and surficial geological field investigations in the Nejanilini Lake area, northern Manitoba (parts of NTS 64P5, 12 and 13) / by S.D. Anderson, C.O. Böhm and G.L.D. Matile, p. 92-103.

#### SOUTHEASTERN MANITOBA

## GS-11

Preliminary results and economic significance of geological mapping in the Gem Lake area, southeastern Rice Lake belt, Manitoba (NTS 52L11 and 14), with emphasis on the Neoarchean Gem assemblage / by S.D. Anderson, p. 104-116.

#### GS-12

Preliminary results of geological mapping and structural analysis of the Bird River greenstone belt, southeastern Manitoba (NTS 52L5 and 6) / by M. Duguet, S. Lin, H.P. Gilbert and M.T. Corkery, p. 117-124.

## GS-13

Geological investigations in the Bird River area, southeastern Manitoba (parts of NTS 52L5N and 6N) / by H.P. Gilbert, p. 125139.

#### GS-14

Preliminary results from geological mapping of the Bernic Lake Formation, Bird River greenstone belt, southeastern Manitoba (NTS 52L6) / by P.D. Kremer, p. 140-145.

#### GS-15

Geological investigations of the Chrome property, Bird River Sill, southeastern Manitoba (NTS 52L5) / by C.A. Mealin, p. 146-149.

#### GS-16

Platinum group element dispersion patterns in humus samples of the Mayville Igneous Complex, southeastern Manitoba (NTS 52L12): survey results and interpretation / by P. Theyer, p. 150-155.

#### GS-17

Geology, structure and mineralization of the Ore Fault property, Bird River greenstone belt, southeastern Manitoba (parts of NTS 52L5NE and 52L6NW) / by L.A. Murphy and P. Theyer, p. 156-160.

#### GS-18

Sulphide fragments in waste rock at the Maskwa open pit mine, southeastern Manitoba (NTS 52L6NW): investigations on petrogenesis, potential source rocks and mode of emplacement / by A.E. Stansell and P. Theyer, p. 161-163.

#### GS-19

A new tree-ring network for studying drought in southeastern Manitoba and northwestern Ontario / by S. St. George, p. 164-166.

## GS-20

Phytoremediation and revegetation of mine tailings and bio-ore production: effects of paper mill sludge on plant growth in tailings from Central Manitoba (Au) minesite (NTS 52L13) / by S. Renault and S. Green, p. 167-169.

#### SOUTHWESTERN MANITOBA

## GS-21

Aggregate resources in the rural municipalities of Riverside and Turtle Mountain, southwestern Manitoba (NTS 62G3, 4, 5, 6 and 12) / by H.D. Groom, p. 170-175.

#### MANITOBA GENERAL

## **GS-22**

Summary of investigations for the Sedimentary and Industrial Minerals Section / by R.K. Bezys, p. 176-178.

## Manitoba Mining & Minerals Convention Speaker Abstracts Winnipeg, Manitoba, November 17-19, 2005

Advancements at Eden Lake and the new South Bay nickel-copper-cobalt-PGE discovery / by H. Mumin, p. 45.

Announcing the new Manitoba Geochronology Database / by A.H. Bailes, G.R. Keller, C.O. Böhm and P.G. Lenton, p. 45.

An appraisal of the potential for volcanic-hosted massive sulphide (VHMS) deposits in the Archean Rice Lake greenstone belt, southeastern Manitoba / by S.D. Anderson, p. 45.

Archean crustal evolution in the northwestern Superior Province in Manitoba and northwestern Ontario and implications for gold metallogeny / by M.T. Corkery, T. Skulski, J.B. Whalen, S. Lin, D. Stone, C.O. Böhm and D.W. Davis, p. 46.

Crowflight Minerals Inc.—the next producer in the Thompson Nickel Belt / by T. Atkins, p. 46.

Diamond resource delivery processes / by M. Doyle, p. 46.

The Flin Flon caldera: ore localization within a Paleoproterozoic synvolcanic subsidence structure defined through mapping / by H. Gibson, M. DeWolfe, K. Bailey, C. Devine, B. Lafrance, K. Gilmore, D. Sims and A.H. Bailes, p. 49.

Global nickel markets—riding the "Bull" / by D. Peck, p. 46.

Manitoba's "oldest and newest" mining company, HudBay Minerals Inc. / by P. R. Jones, p. 46.

Mikupishan Moktech Limited: an Innu business partnership in practice / by D. Hunt, p. 47.

"Mining opportunities", how do you take advantage of them? / by Chief Jerry Asp, p. 47.

Monument Bay Gold Project update / by M. Simpson, p. 47.

Mustang Minerals Corp.—Maskwa/Mayville nickel copper project Bird River greenstone belt Manitoba / by R. Dunbar, p. 47.

An overview of the magnetic method, the Keating correlation coefficient and kimberlite detection / by M. Coyle, p. 45.

Partnering to help Innu entrepreneurs prosper / by B. Michel, p. 47.

Prioritizing drill targets during kimberlite/diamond exploration with mobile metal ions soil geochemistry / by M. Fedikow, p. 48.

Reviving old mines with new technology / by R. Murphy, p. 48.

Soil gas hydrocarbons (SGH)—the use of geochemical signatures in surficial B-horizon soils is described mineral and kimberlite exploration / by D. Sutherland and E. Hoffman, p. 48.

Synchronous vertical and horizontal tectonism at the late stage of Archean cratonization: a potentially important process for gold mineralization / by S. Lin, A. Parmenter, J. Parks and T. Corkery, p. 49.

Update on De Beers Seal River Project / by P. Pereira, p. 49.

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- Böhm, C.O., Corkery, M.T., Hartlaub, R.P., Heaman, L.M. and Simonetti, A. 2006: Zircon detritus in Archean metasedimentary rocks: a record of the nature and evolution of crustal basement in the northwest Superior Province (abstract); Geological Association of Canada–Mineralogical Association of Canada, Joint Annual Meeting 2006, Montreal, Quebec, Program with Abstracts, Volume 31, p. 16.
- Christopher, J.E., Yurkowski, M., Nicolas, M. and Bamburak, J. 2006: The Upper Cretaceous (Turonian–Santonian) Carlile Formation of eastern southern Saskatchewan and correlative Morden and Boyne members of the Vermilion River Formation of southwestern Manitoba; *in* Summary of Investigations 2006, vol.1, Saskatchewan Geological Survey, Saskatchewan Industry and Resources, Miscellaneous Report 2006-4.1, CD ROM, Paper A-13, 16 p.
- Christopher, J.E., Yurkowski, M., Nicolas, M. and Bamburak, J. 2006: The Cenomanian–Santonian Colorado formations of eastern southern Saskatchewan and southwestern Manitoba; *in* Gilboy, C.F. and Whittaker, S.G. (ed.), Saskatchewan and Northern Plains Oil & Gas Symposium 2006, Saskatchewan Society Special Publication 19, p. 299-318.
- Dinu, P., Waters, J., Bamburak, J., Lenton, P., Pacey, M., Nimegeers, A., Marsh, A., Opseth, M. and Whittaker, S. 2006: An interprovincial structural database for the Western Canada Sedimentary Basin *in* Gilboy, C.F. and Whittaker, S.G. (ed.), Saskatchewan and Northern Plains Oil & Gas Symposium 2006, Saskatchewan Society Special Publication 19, p. 57-60.
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- Lin, S., Davis, D.W., Rotenberg, E., Corkery, M.T. and Bailes, A.H. 2006: Geological evolution of the northwestern Superior Province: clues from geology, kinematics, and geochronology in the Gods Lake Narrows area, Oxford—Stull terrane, Manitoba; Canadian Journal of Earth Sciences, v. 43, p. 749-765.
- Percival, J.A., McNicoll,V. and Bailes, A.H. 2006: Strike-slip juxtaposition of ca. 2.72 Ga juvenile arc and >2.98 Ga continent margin sequences and its implications for Archean terrane accretion, western Superior Province, Canada; Canadian Journal of Earth Sciences, v. 43, p. 895-927.
- Prouse, D.E. 2006: Inco, HudBay make headlines in '05; *in* Exploration and Development Highlights: an annual publication of the Prospectors and Developers Association of Canada, March 2006, p. 16-17.
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- St. George, S. 2006: Increasing river discharge in the Winnipeg River basin, central Canada (abstract); American Quaternary Association 19<sup>th</sup> Biennial Meeting, Montana State University, Bozeman, Montana, August 18-20, 2006, Program and abstracts, p. 154.
- St. George, S. 2006: Streamflow in the Winnipeg River basin, Canada: trends, extremes and climate linkages; Canadian Association of Geographers Annual Meeting, Thunder Bay, Ontario, May 29-June 1, 2006.

St. George, S. 2006: Using long-term streamflow and paleohydrological data to inform decisions on water managemen Climate Change and Hydropower Workshop, Winnipeg, Manitoba, March 2 - 3, 2006.