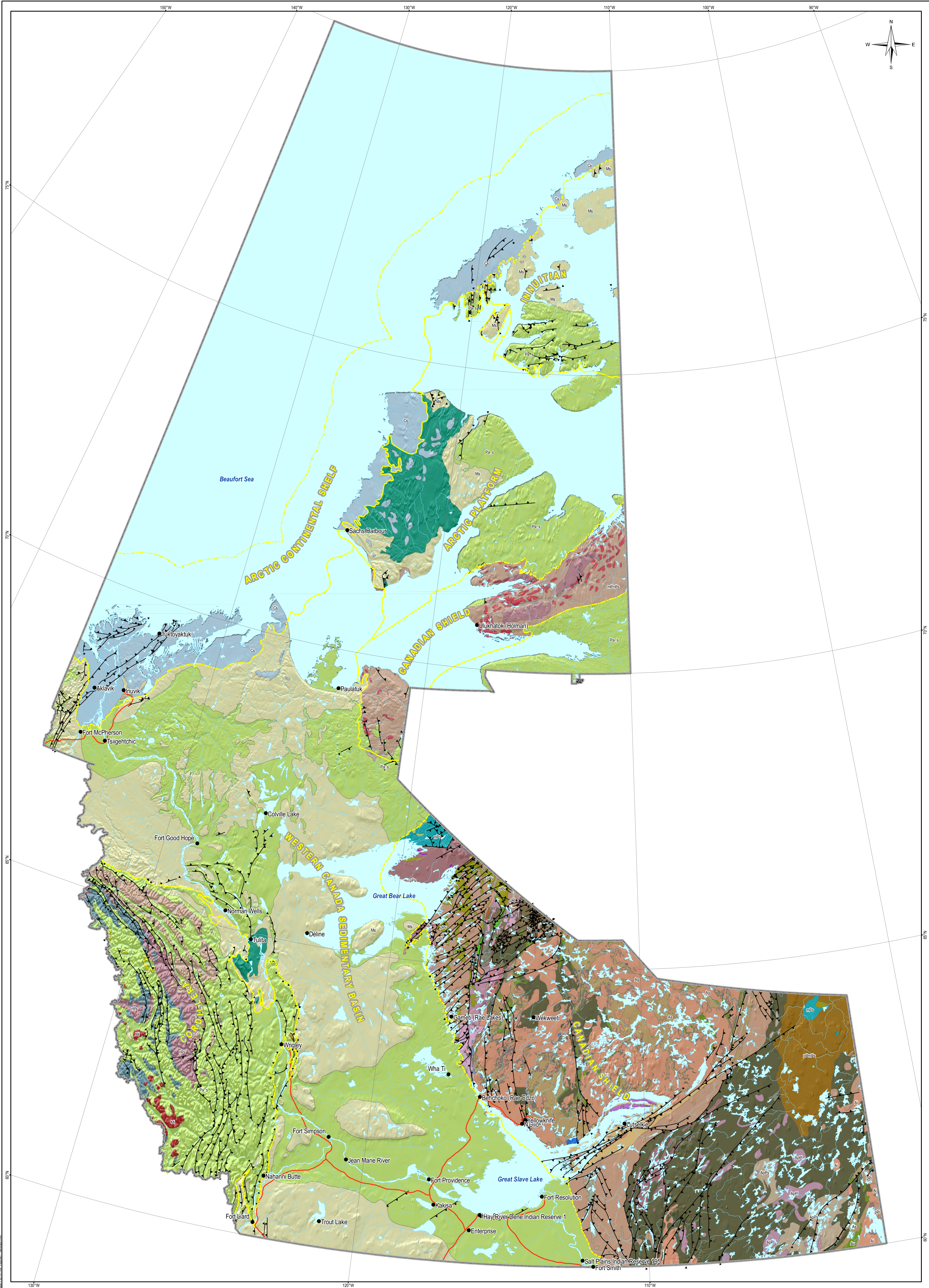




FIGURES





LEGEND

Community

Road

River

Waterbody

NWT Border

Fault

Geology Region

Geology

Archean-Proterozoic Alkaline-Mafic

Archean-Proterozoic Granitoid

Archean-Proterozoic Metamorphic

Archean-Proterozoic Tectonic

Archean-Proterozoic Unknown rocks

Archean-Proterozoic Mixed

Archean-Proterozoic Sedimentary

Archean Alkaline rocks

Archean Granitoid

Archean Metamorphics

Archean Intrusives

Archean Mafic

Archean-Paleoproterozoic Metamorphic

Archean-Paleoproterozoic Intrusives

Archean-Paleoproterozoic Sedimentary rocks

Archean-Paleoproterozoic Sedimentary and Volcanics

Archean Sedimentary

Archean Mixed

Archean Volcanics

Cenozoic Sedimentary

Mesozoic-Cenozoic Sedimentary

Mesozoic Intrusives

Mesozoic Sedimentary

Proterozoic Alkaline

Paleozoic Sedimentary

Paleozoic Volcanic rocks

Proterozoic Granitoid

Proterozoic Mafic

Proterozoic Sedimentary

Proterozoic Volcanics

Mesoproterozoic-Neoproterozoic Sedimentary

Mesoproterozoic Sedimentary

Mesoproterozoic Volcanic rocks

Neoproterozoic-Mesozoic Sedimentary rocks

Neoproterozoic-Paleozoic Sedimentary

Neoproterozoic Intrusives

Neoproterozoic Sedimentary

Paleoproterozoic Intrusives

Paleoproterozoic-Mesoproterozoic Intrusives

Paleoproterozoic-Mesoproterozoic Sedimentary

Paleoproterozoic Sedimentary

Paleoproterozoic Volcanics

NOTES

Base data source:
Geology data from NWT Geoscience Office. Full reference:
Wheeler, J.O., Hoffman, P.F., Gard, K.D., Davidson, A., Sanford, B.V., Okulitch, A.V., and Roest, W.R. (comp.)
1997. Geological Map of Canada. Geological Survey of Canada. Map 1750A.

NWT GEOTHERMAL FAVOURABILITY MAPPING

Geology Map

PROJECTION:
NWT Lambert1

Scale: 1:3,000,000

0 25 50 100
Kilometers

FILE No:
Y22101146_Figure01_Geology.mxd

2008102

OFFICE:
EBA-VAN

DATE:
April 16, 2010

REVISION NO:
1

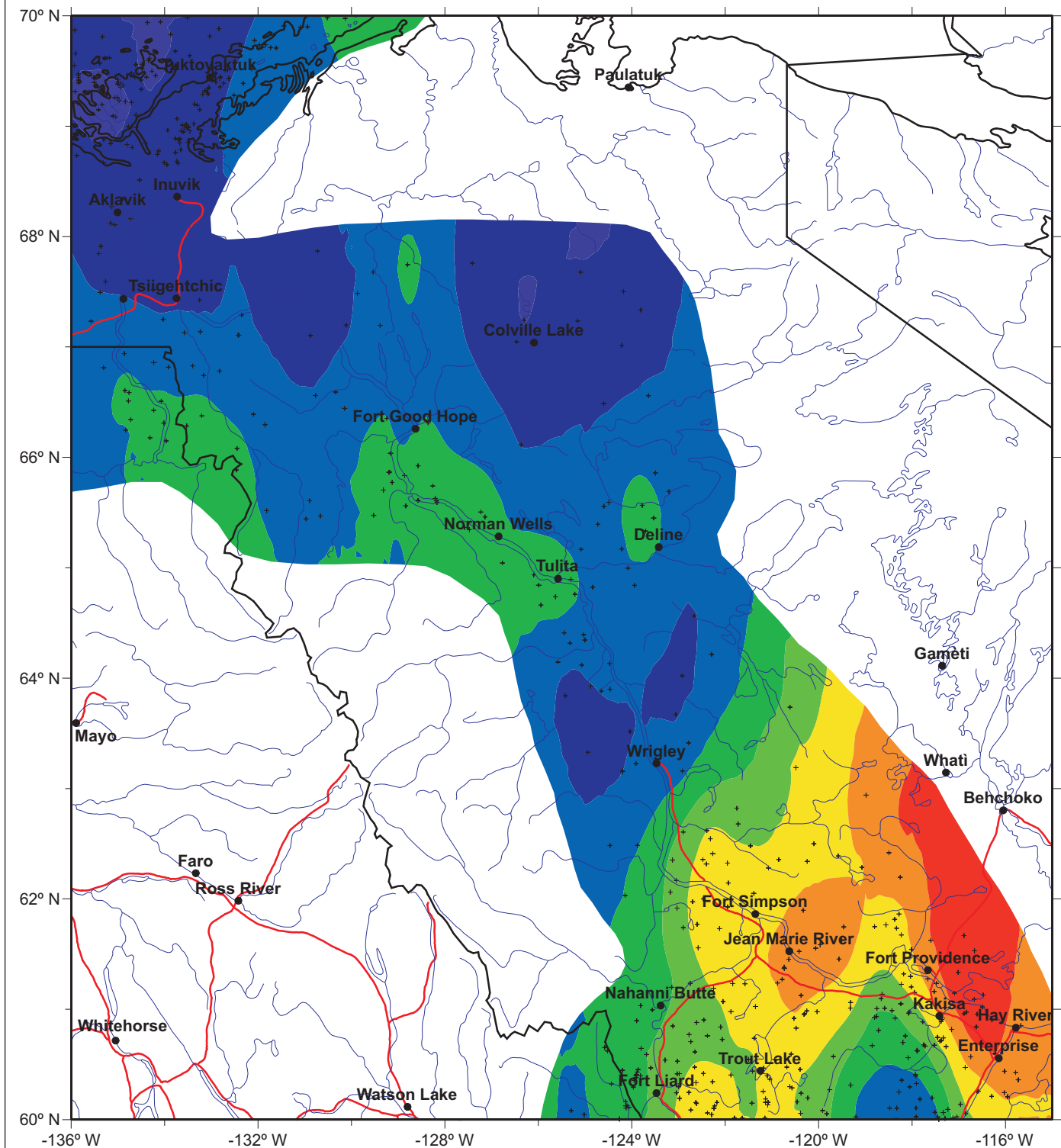
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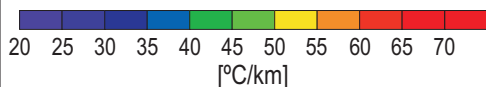
ISSUED FOR USE

Figure 1



ISSUED FOR USE

LEGEND



+ Borehole with Temperature Data

NOTES

The geothermal gradient map is based on interpolation of temperature data from 595 boreholes in NWT and Yukon. The average error of the geothermal gradient estimate is $(10 \pm 5)\%$ (Majorowicz & Morrow, 1998).

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NWT GEOTHERMAL FAVOURABILITY MAPPING

Geothermal Gradient in the Interior Platform

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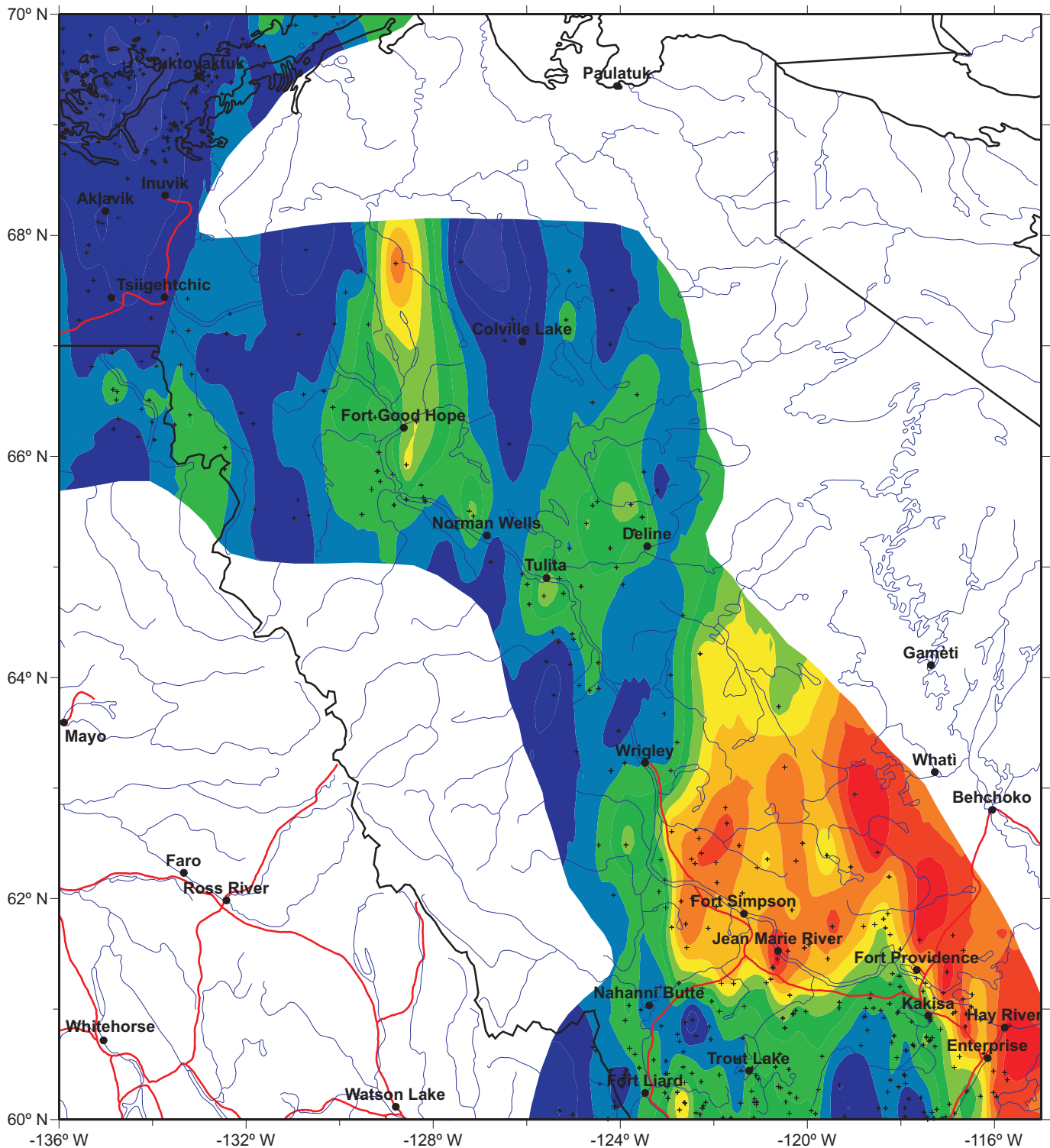
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JTD

REV
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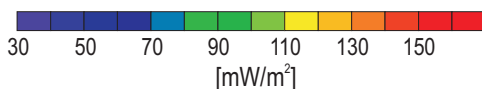
DATE
February 2010

Figure 2



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LEGEND



+ Borehole with Temperature Data

NOTES

The heat flow map is based on interpolation of heat flow data from 595 boreholes in NWT and Yukon (Majorowicz & Morrow, 1998).

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NWT GEOTHERMAL FAVOURABILITY MAPPING

Heat Flow in the Interior Platform

PROJECT NO.
Y22101146

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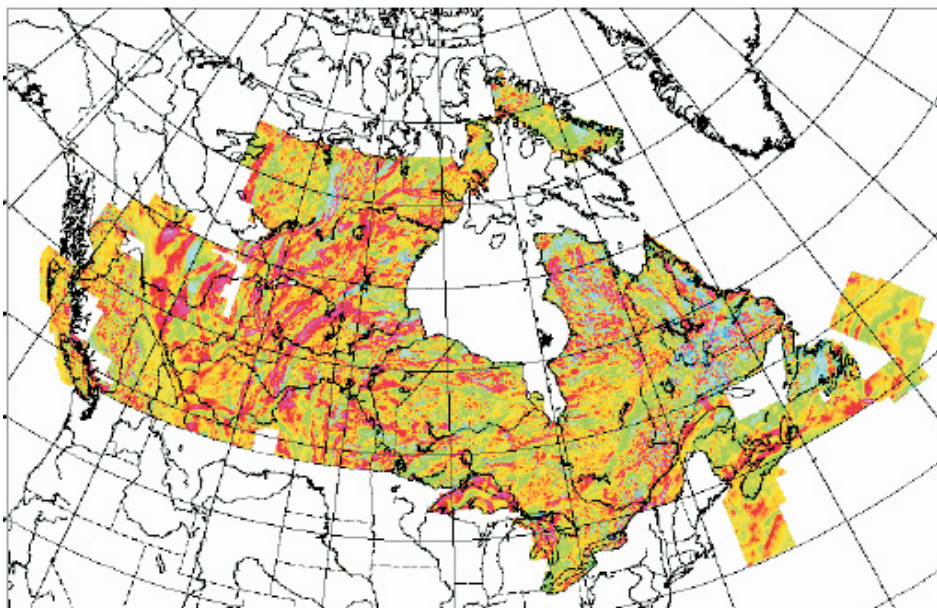
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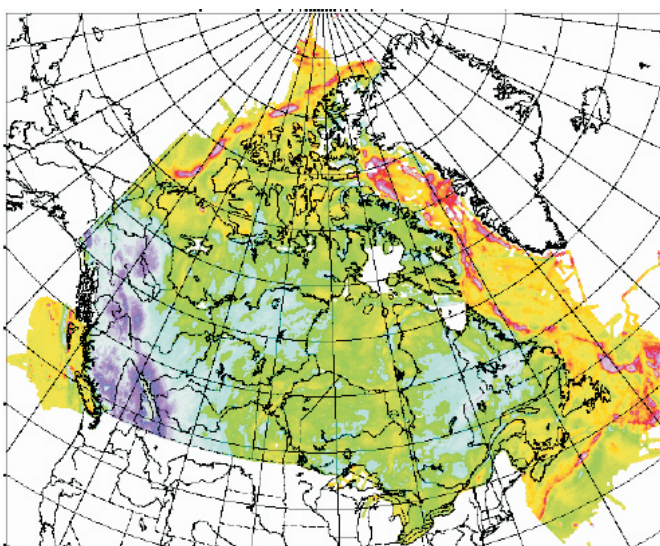
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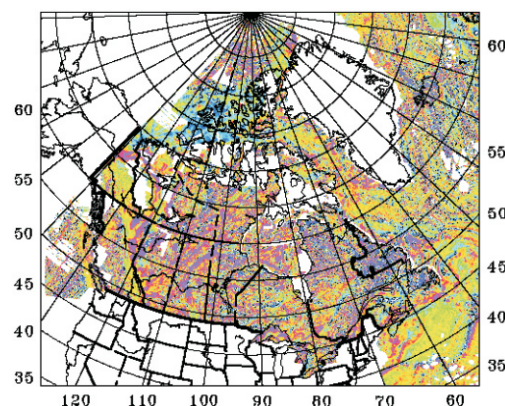
Figure 3



Levelled magnetic data coverage



Gravity data coverage



Total magnetic data coverage

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NWT GEOTHERMAL FAVOURABILITY MAPPING

Gravity and magnetic data coverage of
Canada, available from NRC

Y22101146

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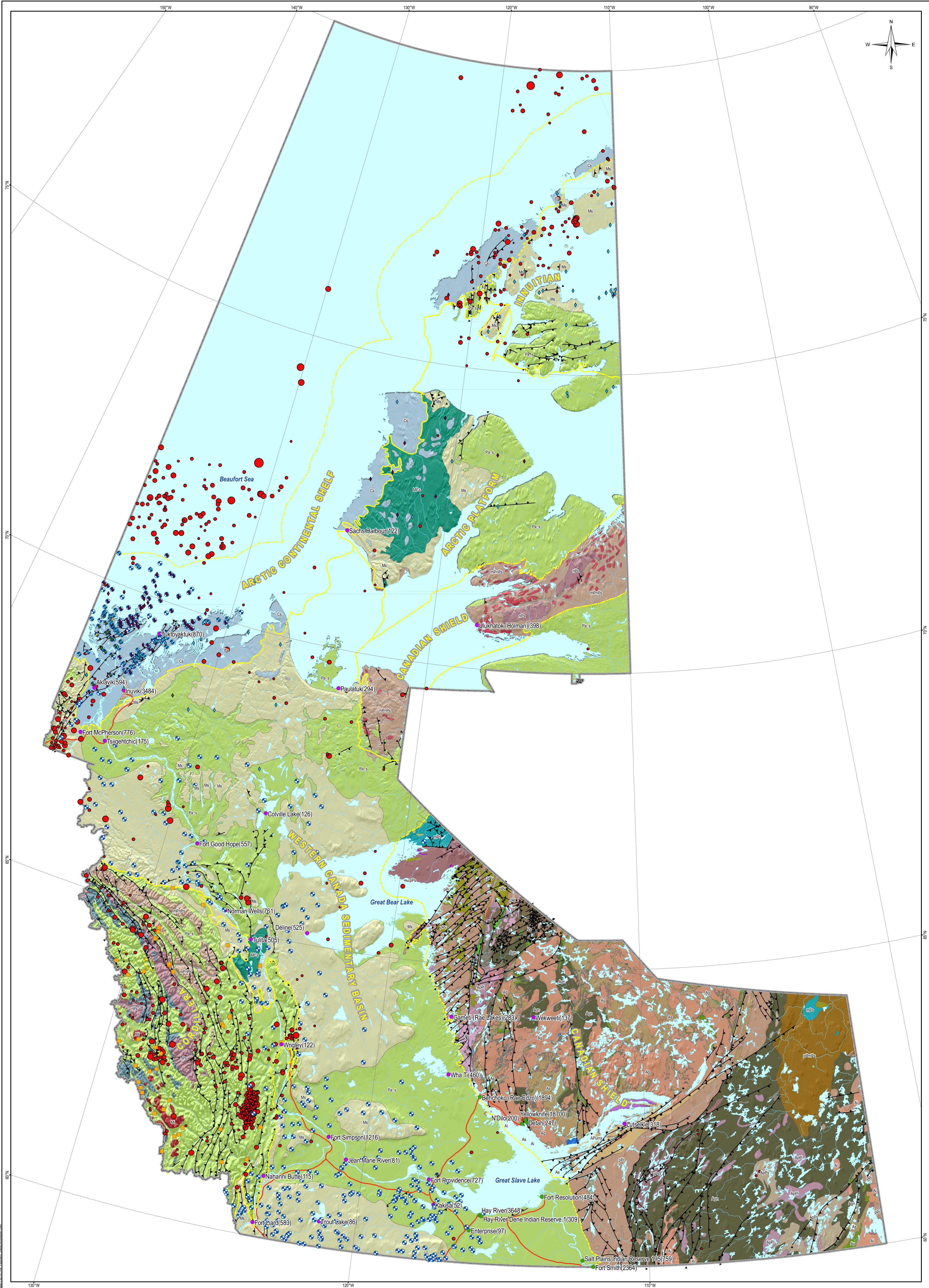
DWN
JWL

CKD
SK

REV

DATE
March 2010

Figure 4



LEGEND

Community (Population)

Known Hot or Warm Spring

Energy Supply

Base of Ice Bearing Permafrost (m)

No Permafrost

10-50

50-100

100-500

>500

Earthquake Location

Magnitude

2.5-3

3.5-4

4.5-5

5.5-6

6.5-7

Geology

Archean-Protrozoic Alkaline-Mafic

Archean-Protrozoic Metamorphic

Archean-Protrozoic Metamorphic

Archean-Protrozoic Intrusives

Archean-Paleoproterozoic Intrusives

Archean-Paleoproterozoic Sedimentary rocks

Archean-Paleoproterozoic Sedimentary and Volcanics

Archean Sedimentary

Archean Mixed

Archean Volcanics

Archean Mixed

Archean Volcanics

Archean Alkaline rocks

Archean Granitoid

Mesozoic Intrusives

Mesozoic Sedimentary

Protrozoic Alkaline

Protrozoic Sedimentary

Protrozoic Volcanic rocks

Protrozoic Granitoid

Protrozoic Mafic

Protrozoic Sedimentary

Protrozoic Volcanics

Mesoproterozoic-Neoproterozoic Sedimentary

Mesoproterozoic Sedimentary

Mesoproterozoic Volcanic rocks

Neoproterozoic-Mesozoic Sedimentary rocks

Neoproterozoic-Paleozoic Sedimentary

Neoproterozoic Intrusives

Neoproterozoic Sedimentary

Paleoproterozoic-Mesoproterozoic Intrusives

Paleoproterozoic-Mesoproterozoic Sedimentary

Paleoproterozoic Sedimentary

Paleoproterozoic Volcanics

NOTES

Base data sources:

Geology data from NWT Geoscience Office. Full reference: Wheeler, J.O., Hoffman, P.T., Carr, K.D., Davidson, A., Sanford, B.V., Okulitch, A.V., and Rose, W.R. (comp.) 1997. Geological Map of Canada. Geological Survey of Canada, Map D1860A.

Permafrost Data from Smith, S.L. and Burgess, M.M. (2002) A Digital Database of Permafrost Thickness in Canada, Geological Survey of Canada Open File Report No. 4173.

Earthquake Data from Halchuk, S. (2009) Seismic Hazard Earthquake Epicentre File (SHEEP) used in the fourth generation seismic hazard maps of Canada. Geological Survey of Canada Open File Report No. 6208.

Hot Springs Data from Crandall, J.T. and Sadler-Brown, T.L. (1976) Data on geothermal areas Cordillera Yukon, Northwest Territories, and adjacent British Columbia, Canada. Energy, Mines and Resources Canada, Earth Physics Branch, Open File Report No. 78-1, 23 p.

Unpublished data from the Protected Areas Strategy of the NWT (pers. comm.)

Well data from Majorowicz, J. A. and Morrow, D. W., 1998. Subsurface Temperature and Heat Flow - Yukon and Northwest Territories, Geological Survey of Canada Open File 3629.

NWT GEOTHERMAL FAVOURABILITY MAPPING

GIS Data Compilation

PROJECTION: NWT Lambert

Scale: 1:3,000,000

Scale bar: 0 25 50 100 Kilometers

FILE No: Y22101146_Figure05_DataCompilation.mxd

DATE: April 16, 2010

REVISION No: 1

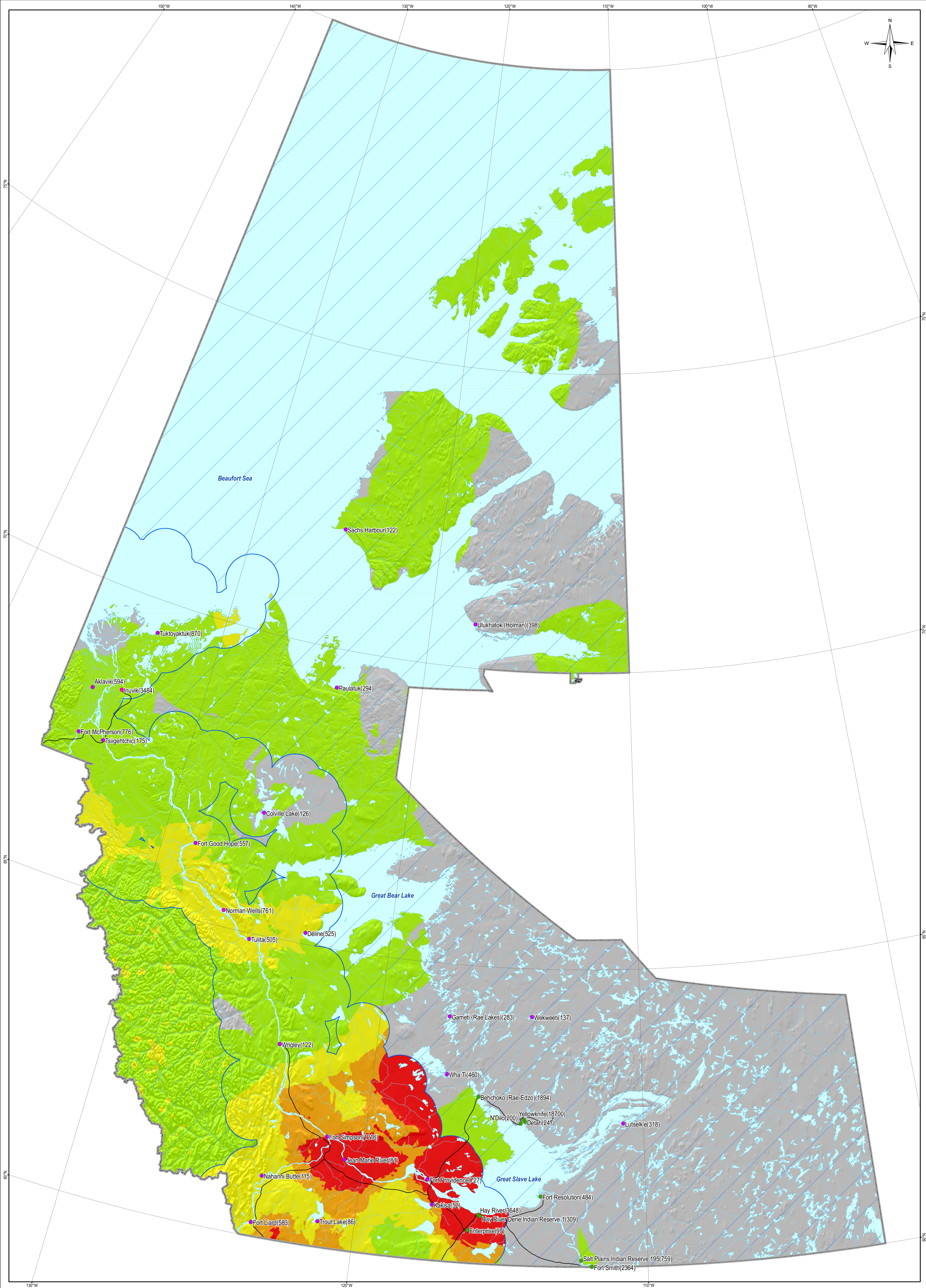
OFFICE: EBA-VAN

DRAWN: MEZ

CHECK: OK

Figure 5

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LEGEND

Community (Population)

- Diesel
- Hydro
- Natural Gas

Energy Supply

- Road
- Rivers
- Waterbody

Geothermal Potential

- Low
- Medium-Low
- Medium
- Medium-High
- High

Other Legend:

- Areas with No Geothermal Gradient Data Available
- NWT Border

NWT GEOTHERMAL FAVOURABILITY MAPPING

Geothermal Favourability Map

PROJECTION: NWT Lambert DATUM: NAD83

Scale: 1:3,000,000

0 25 50 100 Kilometers

FILE No: Y22101146, Figure06_GeoFav.mxd DATE: April 14, 2010

REVISION NO: 1

OFFICE: EBA-VAN DRAWN: MEZ CHECK: SK

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Figure 6

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