**Active Gold Exploration in Minnesota's Greenstone Belts**

**Land Available**  
**Known Gold Mineralization**  
**High Gold Potential**

**Known Gold Mineralization**

New semi-quantitative XRF spot gold concentrations (ppm) in drill core from a greenstone-greenschist terrane near International Falls. The XRF analyses were done in 2010 by AEMAX.

This is an example of the drill core assay to the public as part of the Drill Core Library more than 3 million feet of archived materials. This specific section of core was submitted more than 20 years ago, unsplit by an exploration company that was focused on a different interval of bedrock.

**High Gold Potential**

Drill core from the Bigfork West Exploration Area Gold-bearing Iron Formation with 5.3 gpt/5 ft.

**State Land Available for Exploration**

- Area under consideration for 2011 lease sale
- Active State metallic mineral lease
- Areas ever offered as State mineral lease
- Bounding Features (Map A & B)
  - Exploration area (1-4)
  - Public land survey townships
  - Public land survey sections

Map A

Bedrock Geology (Map A & B)

- **Archean Superior Province**
  - Granite intrusion
  - Monzodiorite and dolerite plutons
  - Granite to gneissic orthogneiss
  - Massive granite porphyry and migmatite
  - Related to granite tonalite, diorite and granodiorite
  - Amphibolite (Quetico)
  - Iron Formation
  - Conglomerate and lithic sandstone
  - Metagraywacke and slate
  - Schist of sedimentary origin

- Metasedimentary rocks, calc-alkaline affinity
- Calc-alkaline metavolcanics
- Metamorphic rocks & metasedimentary
- Mafic intrusion
- Metasedimentary rocks & derived gravels

**Drill core from the Bigfork West Exploration Area**

**Gold-bearing Iron Formation with 5.3 gpt/5 ft.**

**Exploration borehole**

**Known Gold Mineralization**

- Visible gold grains in drill core from a Vermilion greenstone-basement sequence in DDH SS-1 over 4.5 ft.
  - 2765 ppb Au

**Vermilion District Area**

- Public land survey townships
  - 31-63, Rang 13-15

**Printed Map Scale: 1:100,000**

- After Jirsa et al., OGS (1993, 2010)

**Map B**

Base Map: 1:500,000  
Printed Map Scale: 1:12,000,000

**Public land survey sections**

- Public land survey townships
  - Township 61-63, Range 13-15

**Real Gold, Minnesota**

- **Hammond Reef**

**Known Gold Mineralization**

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**High Gold Potential**

- Drill core from the Bigfork West Exploration Area Gold-bearing Iron Formation with 5.3 gpt/5 ft.
  - 2780 ppb Au

**State Land Available for Exploration**

- Area under consideration for 2011 lease sale
- Active State metallic mineral lease
- Areas ever offered as State mineral lease
- Bounding Features (Map A & B)
  - Exploration area (1-4)
  - Public land survey townships
  - Public land survey sections

**Known Gold Mineralization**

- Visible gold grains in drill core from a Vermilion greenstone-basement sequence in DDH SS-1 over 4.5 ft.
  - 2765 ppb Au

**Vermilion District Area**

- Public land survey townships
  - 31-63, Rang 13-15

**Printed Map Scale: 1:100,000**

- After Jirsa et al., OGS (1993, 2010)