



104.68 m

# Nunavut Exploration Overview 2018

**Mineral Resources Division**

**Nunavut Regional Office**

**Crown-Indigenous Relations and Northern Affairs Canada**

*2019 Nunavut Mining Symposium, Iqaluit, NU, April 2019*



# 2018-19 Highlights

## Agnico Eagle Mines Ltd.

- Mining startup at Amaruq
- Meliadine production expected early Q2 2019
- First gold bar poured in February 2019

## Baffinland Iron Mines Corp.

- Record amount of iron ore shipped from Milne Inlet
- New camp facility opened at the mine site

## TMAC Resources Inc.

- Advanced permitting of Madrid and Boston projects
- Improving gold recoveries from Doris Mine
- Drilling planned at Doris BTM, Boston and Madrid



# 2018-19 Highlights

## Sabina Gold & Silver Corp.

- Advanced permitting of Back River
- Continued construction of infrastructure facilities
- Encouraging exploration results with new discoveries

## De Beers Canada Ltd.

- Acquired Chidliak project

## North Arrow Minerals Ltd.

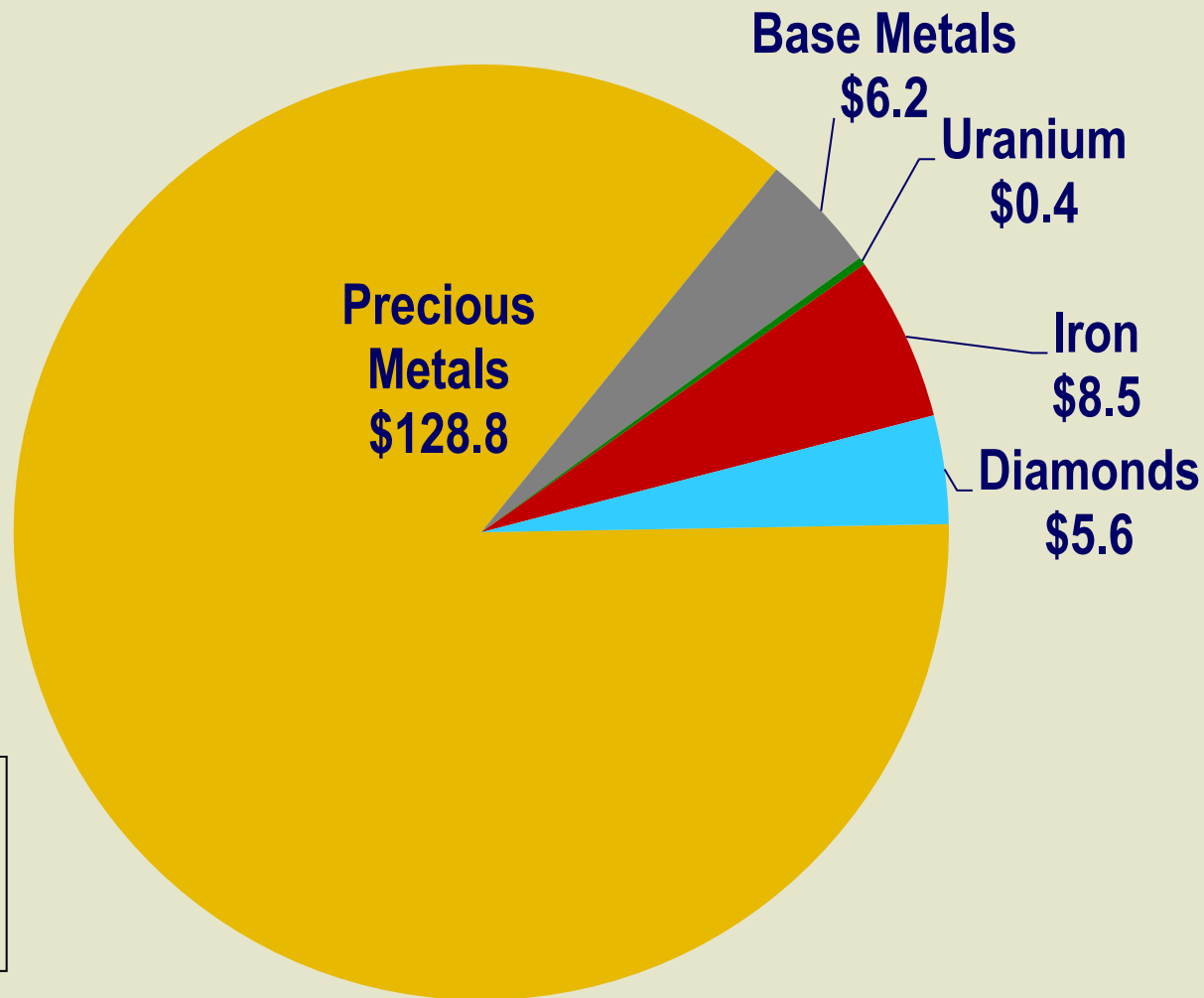
- New discovery at Mel
- Drill testing

## Dunnedin Ventures Inc.

- New discovery at Kahuna



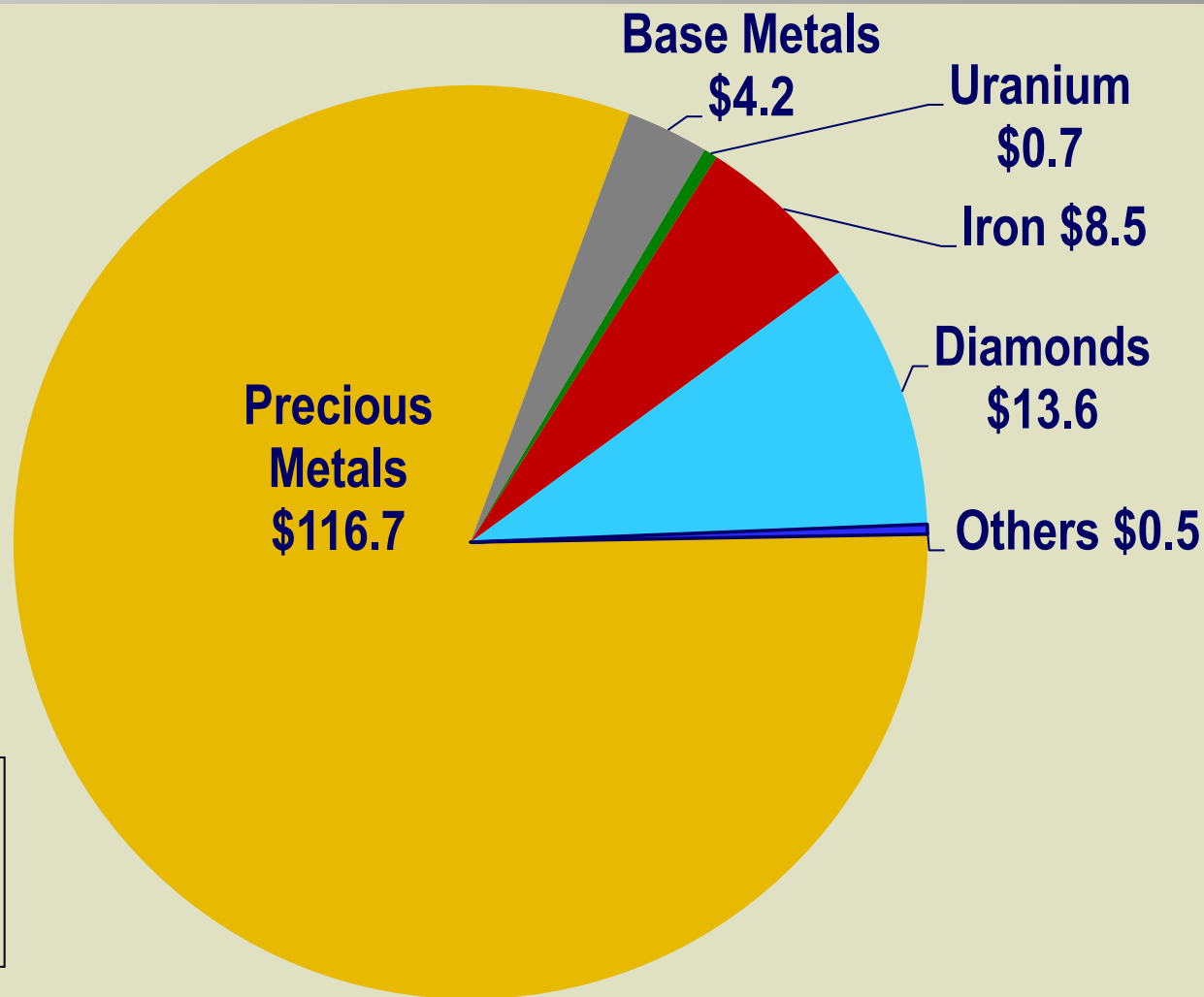
# 2018 Exploration & Deposit Appraisal Expenditures (Preliminary Estimates; \$ millions)



**Nunavut Total**  
\$149.6 million  
6<sup>th</sup> in Canada



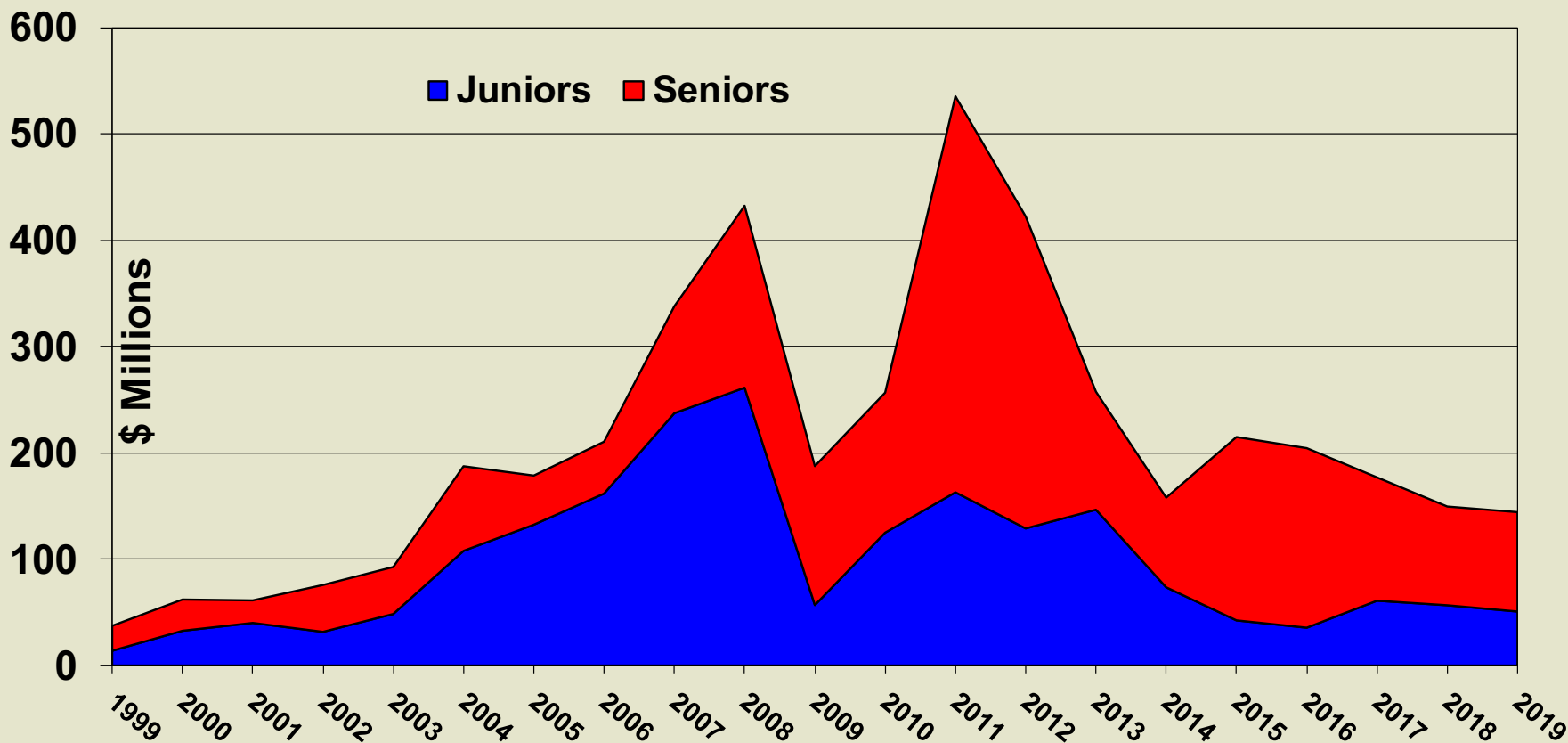
# 2019 Exploration & Deposit Appraisal Expenditures (Spending Intentions; \$ millions)



Nunavut Total  
\$144.3 million  
5<sup>th</sup> in Canada



# Exploration & Deposit Appraisal Investment



**Over \$4.3 billion investment in Nunavut since 1999**

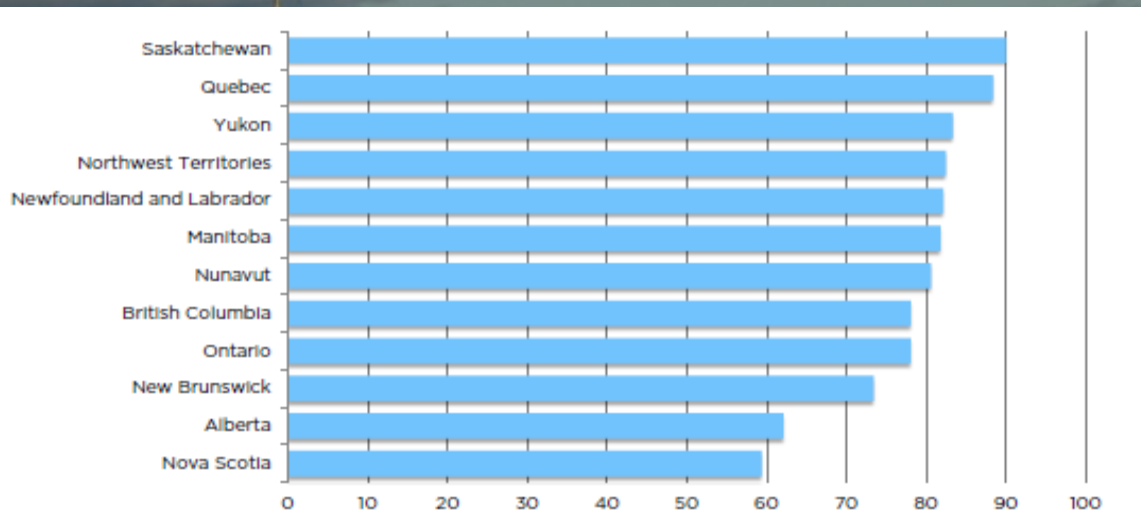
Source: NRCAN Mineral Statistics, as of February 2019 (unadjusted for inflation)



## FRASER INSTITUTE SURVEY OF MINING COMPANIES 2018

Measures the investment attractiveness of mineral exploration jurisdictions based on responses from mineral exploration and mining companies

- 5<sup>th</sup>/83 “Best Practices Mineral Potential Index” - mineral potential assuming policies based on “best practices” are in place
- Ranked 7<sup>th</sup> out of 12 Canadian jurisdictions
- 15<sup>th</sup> in the world out of 83 jurisdictions assessed





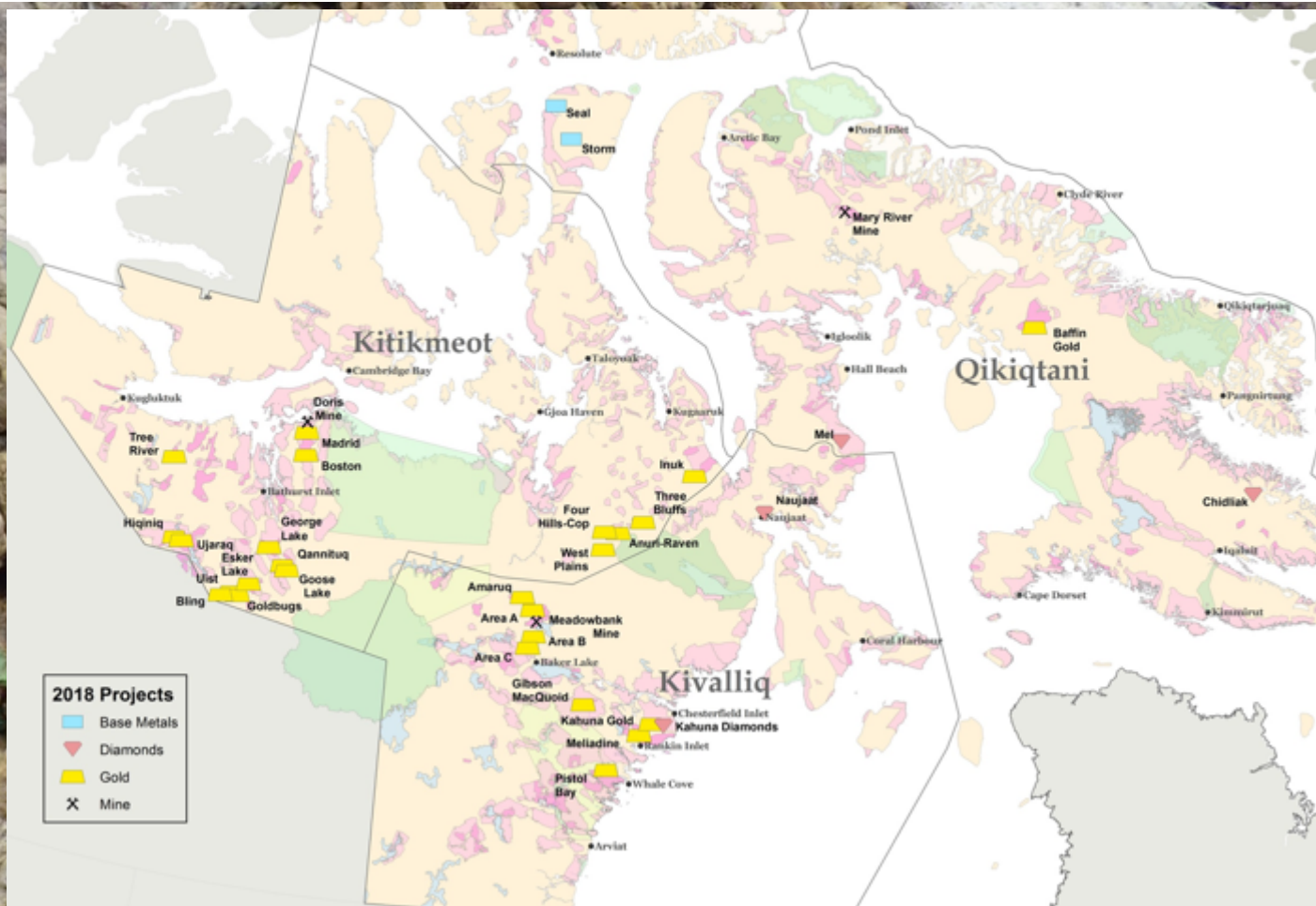
# Projects and Mines in Nunavut 2018

## Operating Mines:

- Doris (Au)
- Meadowbank (Au)
- Mary River (Fe)

## Exploration and Development:

- 22 Gold
- 4 Diamond
- 1 Iron
- 2 Base Metal







## Gold Mines

### TMAC Resources – Doris Mine

- Improved gold recovery averaging 79% for 2018, second concentrator line installed
- 110,970 oz produced in 2018
- High grade extension of Hinge structure intersected in BTB zone
- 2019 plans to extend BTB zone 100m along strike

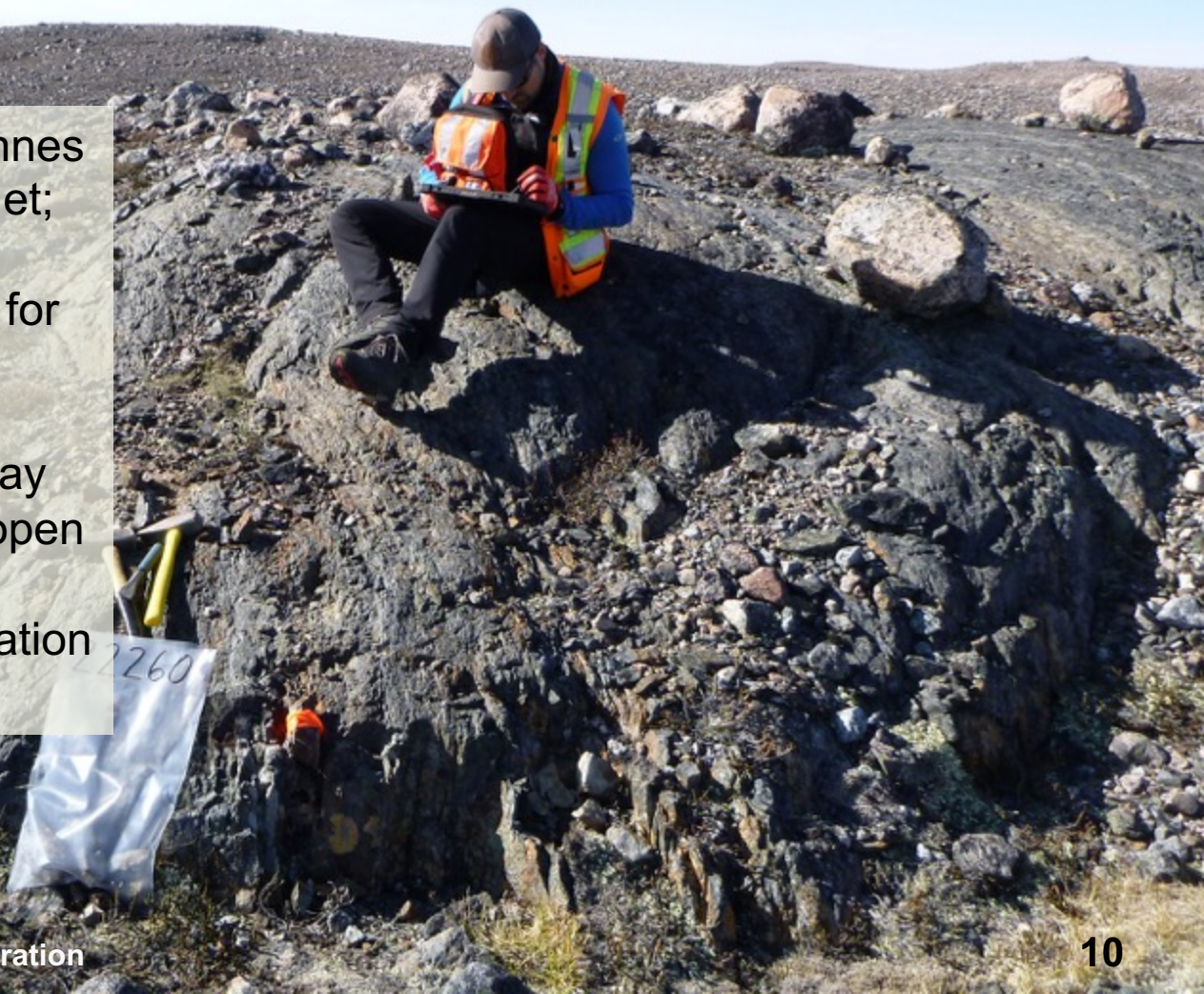
### Agnico Eagle Mines Ltd. – Meadowbank Mine

- Poured 3 millionth ounce in Q4 2018
- 248,977 oz Au produced in 2018
- Stockpile processing has extended production into 2019
- Expected production of 60,000 Oz for 2019



# Baffinland Iron Mines – Mary River Iron Mine

- Shipped record 5.1M tonnes of iron ore from Milne Inlet; shipping increase to 6.0 million tonnes approved for 2019
- Phase 2 (Milne rail line) technical review underway
- New 800-person camp open at main Mary River site
- \$9.3 million 2018 exploration program





# Gold Development Projects

## **Agnico Eagle Mines – Meliadine**

- Commercial production expected early Q2 2019
- Mill commissioning in progress
- Production drilling began in September
- Resource conversion drilling ongoing

## **Agnico Eagle Mines – Amaruq**

- Open pit mining started at Whale Tail Q4 2018
- Whale Tail production expected Q3 2019
- Addition of 0.5M oz Au to open pit resource
- Evaluation of underground potential underway





# Advanced Gold Exploration / Development Projects

## Sabina Gold and Silver – Back River

- Received project certificate and Type A & B WL
- Completed construction of Marine Laydown Area in time to receive sealift
- \$14M budget planned for 2019, including 8,000 m drilling
- Finalized IIBA and long term land tenure agreement with Kitikmeot Inuit Association

## TMAC – Boston, Madrid

- Project Certificate received in November, Type A water license in January 2019
- Planned 60,000 m exploration drilling program including winter drilling at Suluk and a near-surface program at Naartok East, late summer drilling at Boston
- 2018 highlights include 11.0 g/t Au/12.5 m and 10.98 g/t Au over 12.5 m with 23.66 g/t over 5.35m, at Naartok East, and 14.4 g/t Au/26.1 m at Naartok West



# Gold Exploration Projects

## Silver Range Resources - Tree River

- Acquired in 2018
- Pilbara/Witwatersrand-style quartz pebble conglomerate-hosted gold mineralization
- 88 rock samples collected, high grade gold results

## - South Kitikmeot Gold

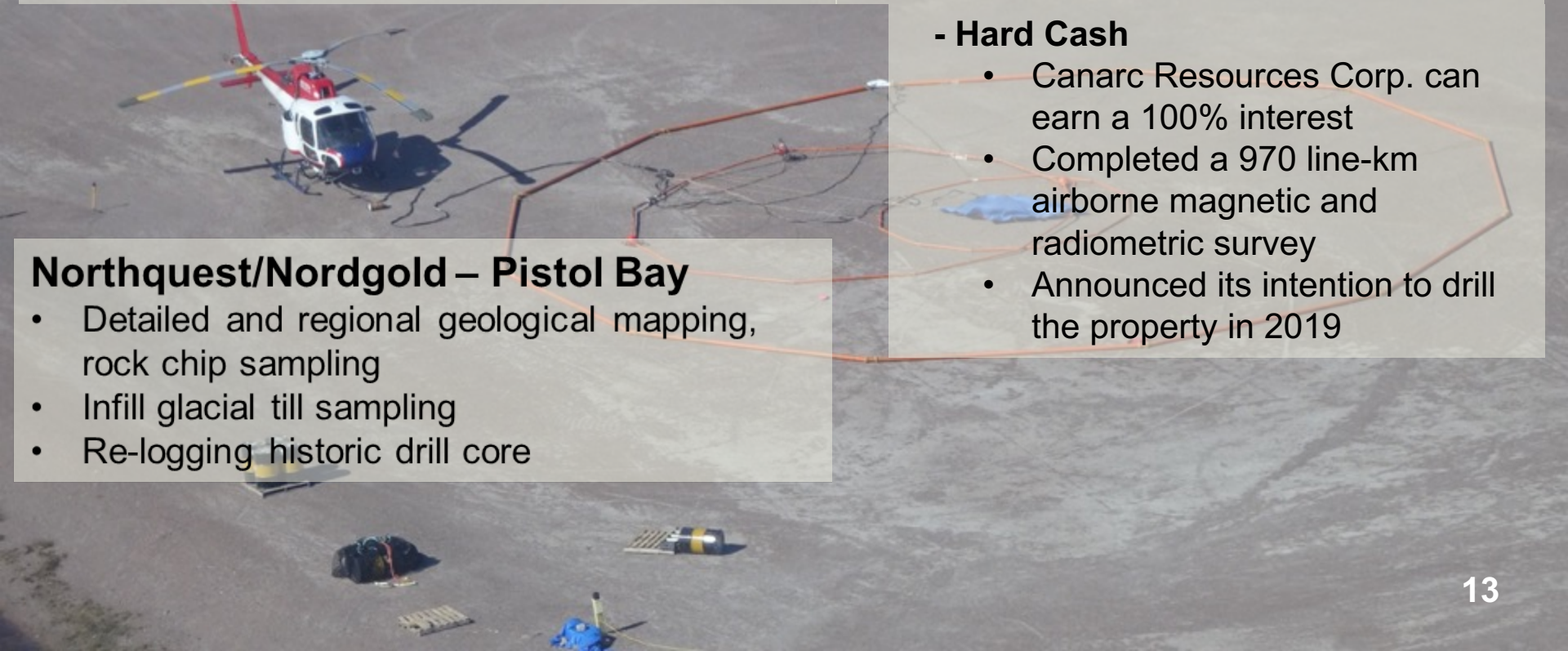
- optioned to Amaroq Gold Corp., Silver Range operator for 2018
- Program of gold-in-till sampling, magnetic and EM surveys planned

## - Hard Cash

- Canarc Resources Corp. can earn a 100% interest
- Completed a 970 line-km airborne magnetic and radiometric survey
- Announced its intention to drill the property in 2019

## Northquest/Nordgold – Pistol Bay

- Detailed and regional geological mapping, rock chip sampling
- Infill glacial till sampling
- Re-logging historic drill core





# Gold Exploration Projects

## Auryn Resources – Committee Bay

- 16 diamond drillholes (4,996m)
- 22 RAB drillholes @ Kalulik and Aiviq
- 13.5 meters of 1.54 g/t gold (Aiviq)
- two separate hydrothermal systems were identified at Kalulik
- Machine learning targeting exercise resulted in 12 new targets

## Western Atlas – Meadowbank

- 1,500 line-km airborne VTEM over 3 blocks
- 35 line-km ground IP surveys on Block B
- Collected 705 grab samples

## Solstice Gold – Kahuna Gold

- RAB drilling, 69 holes testing 6 targets, in Westeros area
- 1,675 line-km ground magnetic surveys over the North area
- 2,050 till samples, along with property-wide regional geological mapping and rock sampling
- Received permits to complete up to 20,000 m of drilling in 75-100 holes, geophysics, rock and soil sampling

## ValOre – Baffin Gold

- 7,038 line-km aeromagnetic survey
- Till (438) and rock (31) samples
- Highlights include samples with 67.9 g/t Au and 46.4 g/t Au in qtz/aspery veins



# Base Metal Exploration Projects



## Aston Bay Holdings – Aston Bay:

### Storm (Cu) and Seal (Zn)

- Completed nine-hole, 3,135 m drill program out of planned 6,000 m targeting Polaris-type zinc mineralization at Seal and sediment-hosted copper at Storm
- Drilling VTEM-gravity anomaly returned up to 4.39% Cu and 9.76 g/t Ag/1.5 m, 0.56% Cu/20.5 m and 2.54% Cu/2.0 m at Storm
- Gravity target - discovery of an extension of Seal, grades up to 1.11% Zn/2.0 m



# Diamond Exploration Projects

## North Arrow Minerals – Mel

- Drill-tested diamondiferous kimberlite ML8
- Discovered kimberlite ML345
- Collected 447 till samples
- Completed 100 line-km ground magnetic surveys

## - Naujaat

- Recovered 64.25 carats of diamonds from 2017 mini-bulk sample

## Dunedin Ventures – Kahuna

- 22 targets tested by RAB drilling, five kimberlites intersected
- Discovered kimberlite KH10-11; diamondiferous but low-grade
- Exploration program planned for 2019
- Collected 1,200 till samples from Josephine Target Area
- OhmMapper resistivity and ground EM surveys assisted drill-targeting

## De Beers Canada Inc. – Chidliak

- Acquired Peregrine Diamonds Ltd. in September
- Evaluating “FutureSmart” low-footprint mining technologies



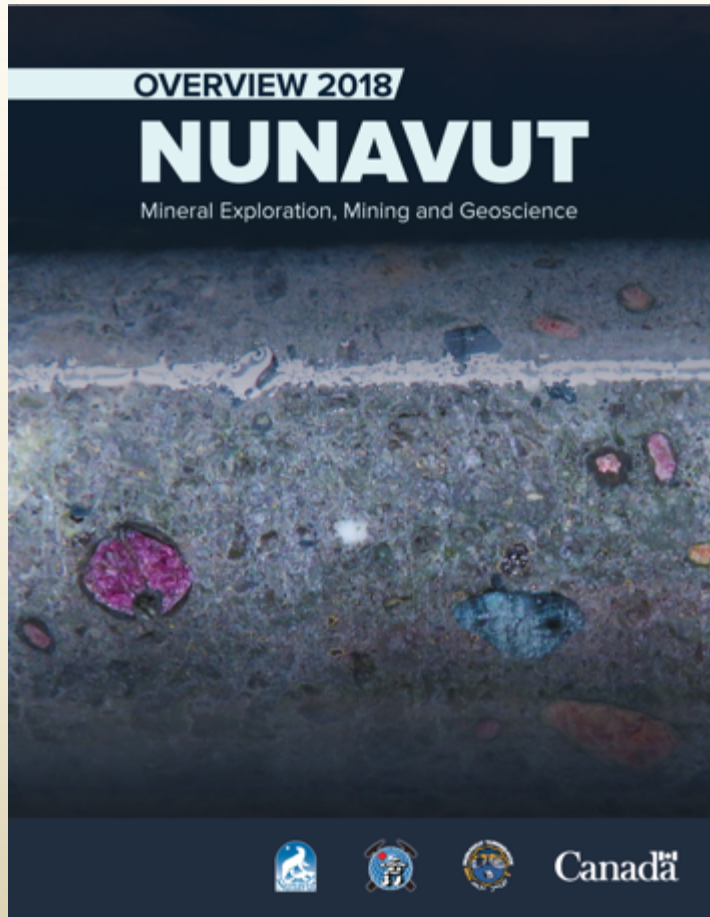


# 2019 Announced Major Exploration Plans

- **TMAC** – 60,000m drill program and a regional exploration
- **Sabina** - \$14M budget planned for 2019, including 8,000 m drilling
- **AEM** - \$10.8M budgeted for exploration in Nunavut
- **Auryn** - \$1M budget to follow anomalies at Gibson-MacQuoid
- **Margaret Lake Diamonds** – Ground mag survey and diamond drilling (Kiyuk)



# Summary



- **Three operating mines in Nunavut, one nearing end of production**
- **Two new mines starting production in 2019**
- **Advanced projects progressing through regulatory process**
- **Continued exploration in all three regions**
- **New discoveries being made**

[www.nunavutgeoscience.ca](http://www.nunavutgeoscience.ca)



# Contact Information

**Mineral Resources, Nunavut Regional Office**  
**Crown-Indigenous Relations and Northern Affairs Canada**  
**Building 918, Iqaluit, Nunavut**

**Matthew Senkow**  
**Manager**  
[Matthew.Senkow@canada.ca](mailto:Matthew.Senkow@canada.ca)  
**(867)975-4290**

**Michal Russer**  
**District Geologist**  
[Michal.Russer@canada.ca](mailto:Michal.Russer@canada.ca)  
**(867)975-4291**

**Alia Bigio**  
**District Geologist**  
[Alia.Bigio@canada.ca](mailto:Alia.Bigio@canada.ca)  
**(867)975-4292**

