



**North Arrow**

MINERALS INC.

# Mel & Naujaat Diamond Projects & Mineral Exploration in Nunavut

*Kivalliq Trade Show*  
**September 26, 2018**



# CAUTIONARY

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## **Forward Looking Information**

This presentation contains projections and forward looking information that involve various risks and uncertainties, including, without limitation, statements regarding the potential extent of mineralization, resources, reserves, exploration results and plans and objectives of North Arrow Minerals Inc. These risks and uncertainties include, but are not restricted to, the amount of geological data available, the uncertain reliability of drilling results and geophysical and geological data and the interpretation thereof and the need for adequate financing for future exploration and development efforts. There can be no assurance that such statements will prove to be accurate. Actual results and future events could differ materially from those anticipated in such statements. These and all subsequent written and oral forward-looking statements are based on the estimates and opinions of management on the dates they are made and are expressly qualified in their entirety by this notice. The Company assumes no obligation to update forward looking statements should circumstances or management's estimates or opinions change.

## **Qualified Person under NI 43-101**

Disclosure of a scientific or technical nature related to North Arrow's projects in this presentation has been reviewed and approved by Ken Armstrong, P.Geo. President and CEO of North Arrow and a Qualified Person under NI 43-101.



# PRESENTATION SUMMARY

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## What Are We Talking About Today?

1. North Arrow Minerals – Who Are We?
2. North Arrow's Mel Diamond Project
3. North Arrow's Naujaat Diamond Project
4. Comment on importance of Mining in Nunavut  
with focus on Exploration & Junior Exploration Companies





# NORTH ARROW MINERALS

**North Arrow**

MINERALS INC.

## Here Today

**Ken Armstrong**

*President, CEO & Director*

**Nick Thomas**

*Investor & Community Relations Manager*

## Who Are We?

- Vancouver, BC based junior diamond exploration company
- Public company - listed on TSX Venture Exchange: NAR
- No current operating mines; exploration only
- Our people have been a part of past diamond discoveries in Canada and Africa; including the **Diavik Diamond Mine** in the NWT





# PROJECTS THROUGHOUT CANADA

## North Arrow

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### Advanced Stage

*Assessing a known kimberlite or diamond deposit*

1. Naujaat (Qilalugaq) Project (100%)

### Discovery Stage

*Next stage of diamond exploration could lead to discovery*

- 1) Mel Project (100%)
- 2) Loki Project (100%)
- 3) LDG Project (~40% NAR with DDC)
- 4) Pikoo Project (100%)
- 5) Luxx Project (100%)

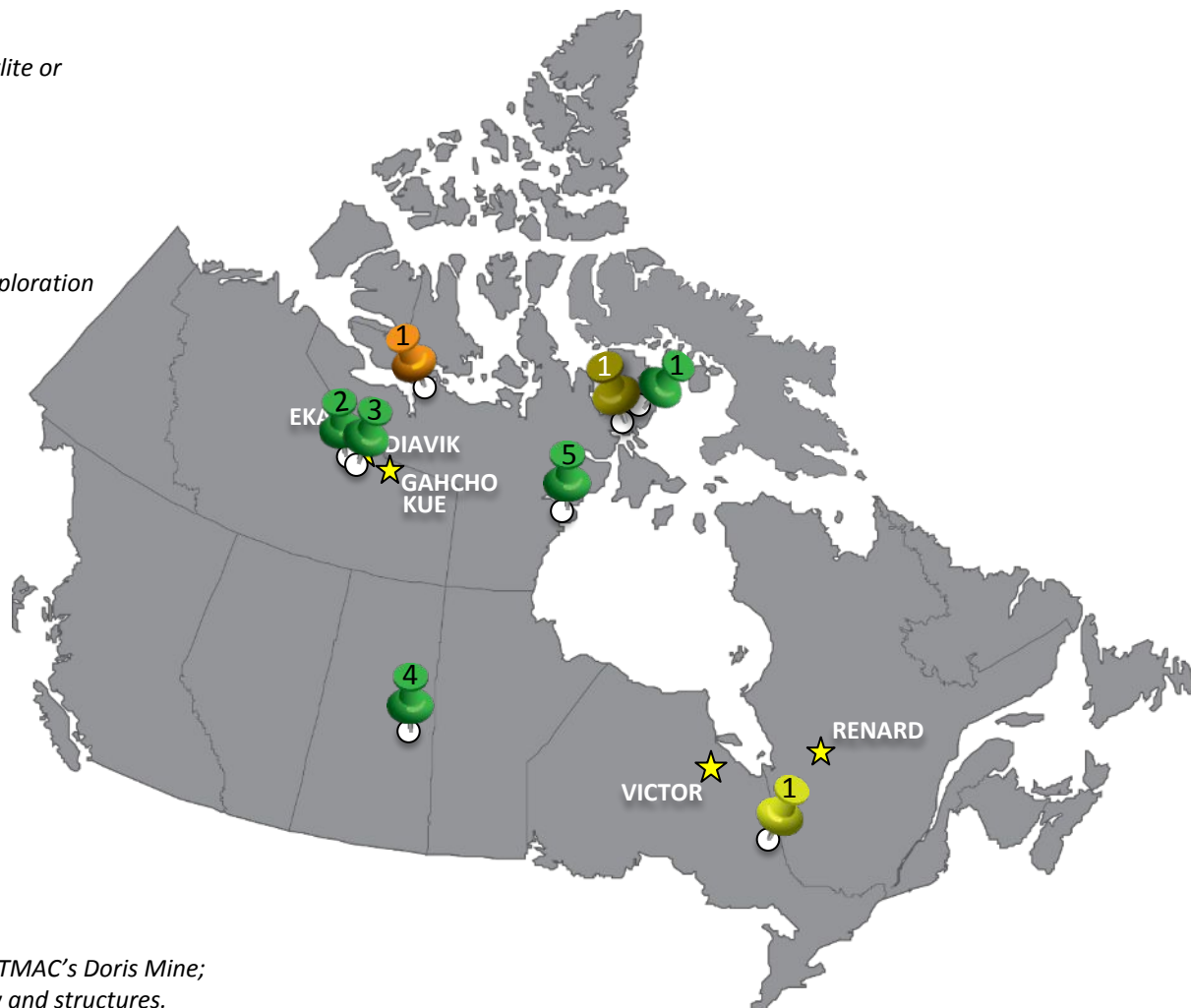
### Grassroots

*Target development*

1. Timiskaming Project (80% with SWY)

### Brownfields Gold

1. Hope Bay Project (100%) *Within 3km of TMAC's Doris Mine; similar geology and structures.*





# NUNAVUT PROJECTS

## North Arrow

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### Advanced Stage

*Assessing a known kimberlite or diamond deposit*

1. Naujaat (Qilalugaq) Project (100%)

### Discovery Stage

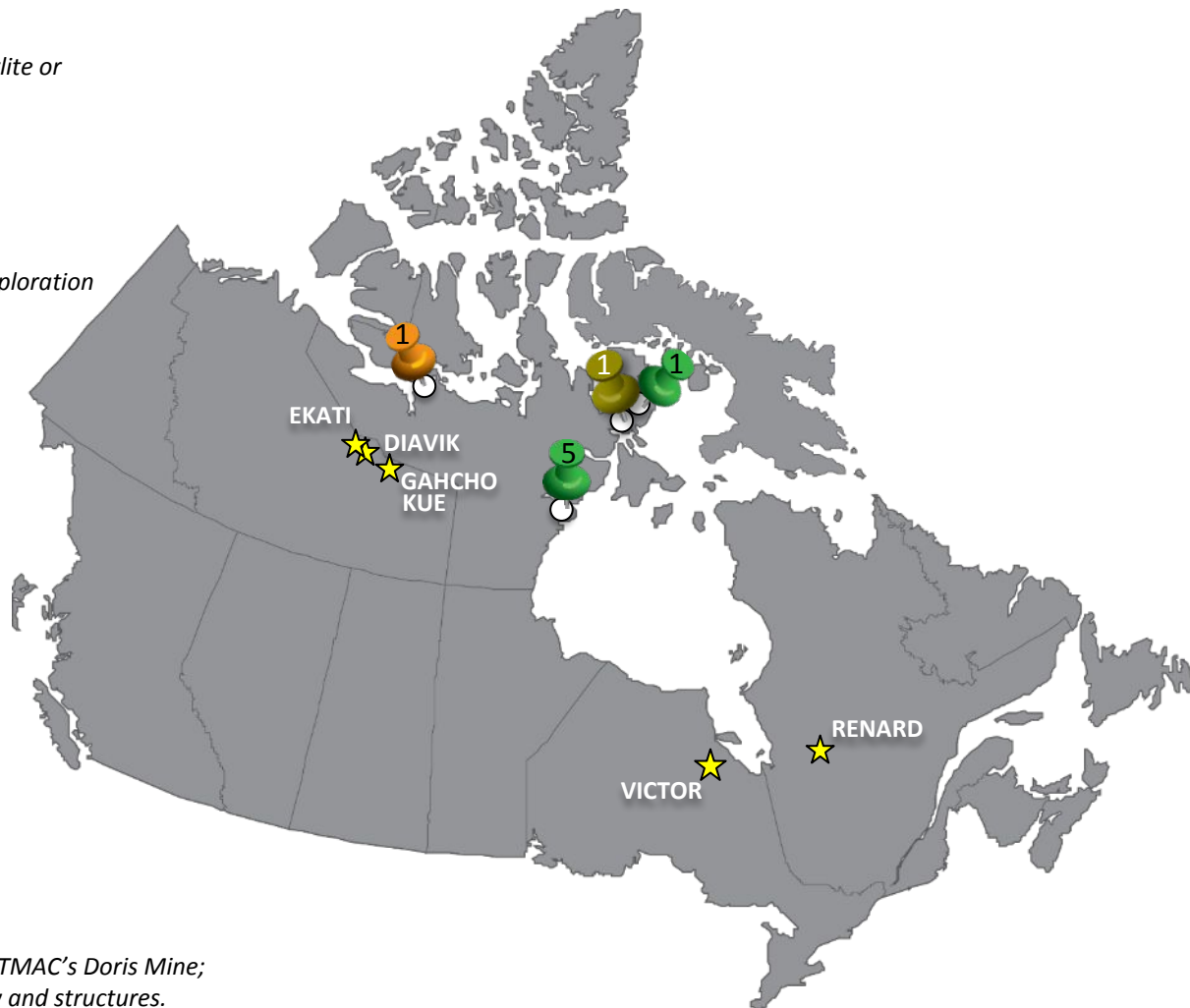
*Next stage of diamond exploration could lead to discovery*

- 1) Mel Project (100%)
- 5) Luxx Project (100%)

### Brownfields Gold

1. Hope Bay Project (100%)

*Within 3km of TMAC's Doris Mine; similar geology and structures.*



EXISTING DIAMOND MINE



# NUNAVUT PROJECTS – 2018 EXPLORATION

## North Arrow

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### Advanced Stage

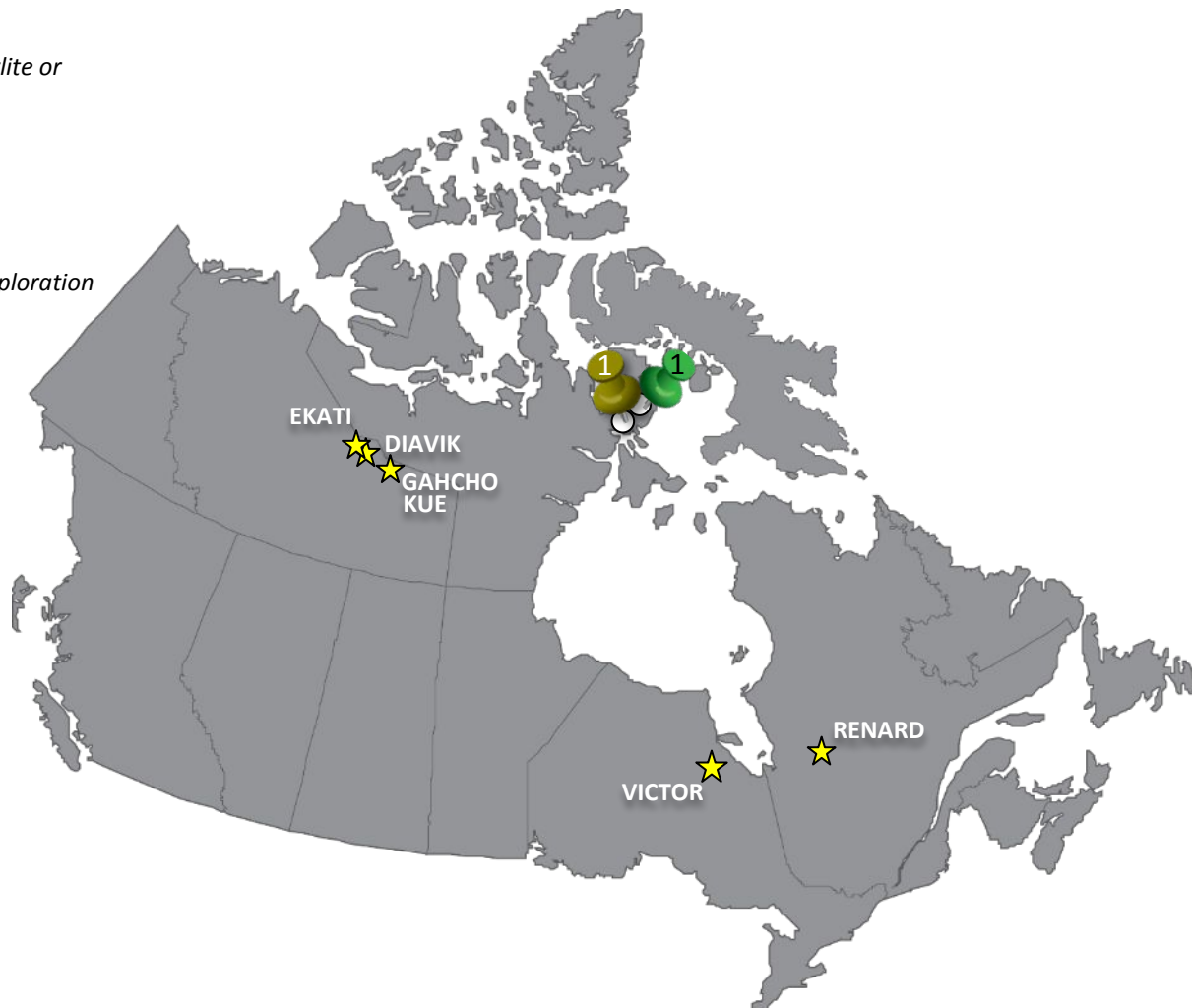
*Assessing a known kimberlite or  
diamond deposit*

1. Naujaat (Qilalugaq) Project (100%)

### Discovery Stage

*Next stage of diamond exploration  
could lead to discovery*

- 1) Mel Project (100%)



EXISTING DIAMOND MINE



# THE MEL PROJECT

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Discovery  
Stage

*Next stage of diamond exploration  
could lead to discovery*

- 1) Mel Project (100%)



EXISTING DIAMOND MINE

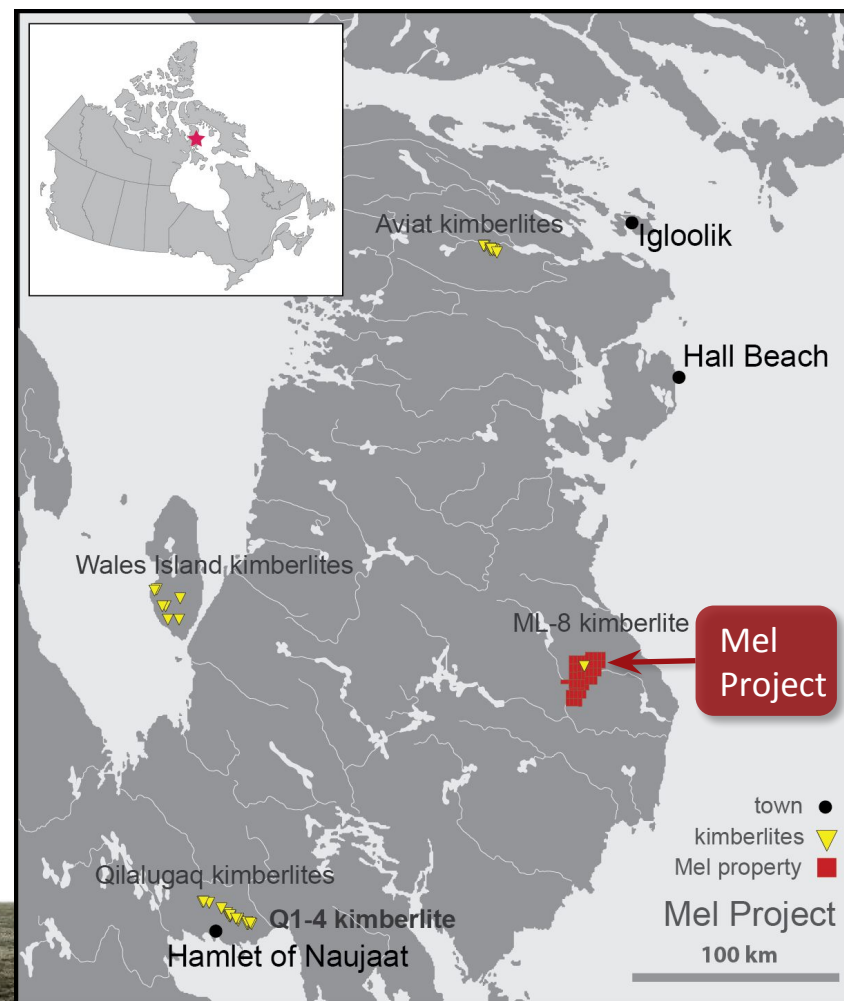


# MEL – NEW CANADIAN DIAMOND DISCOVERY

## North Arrow

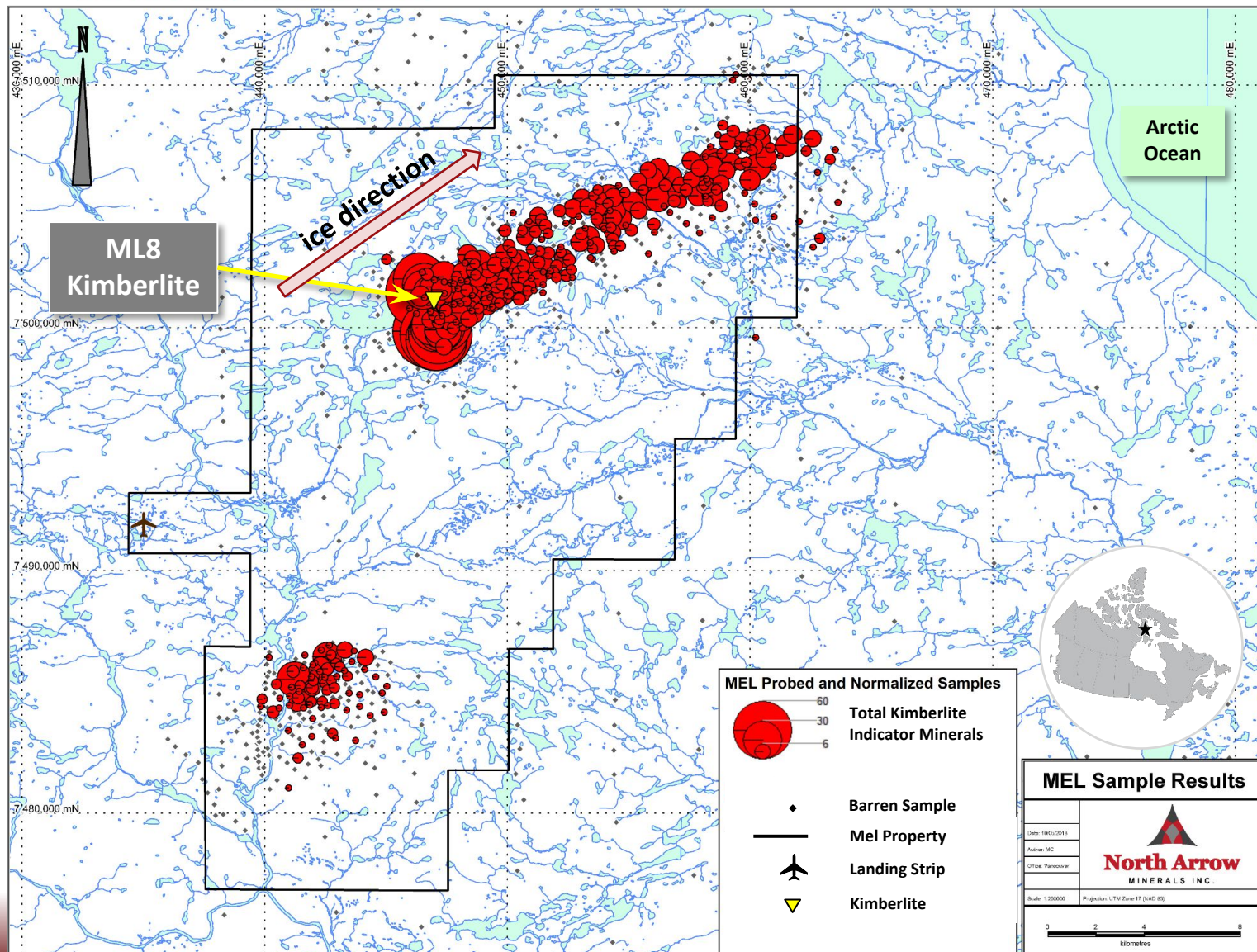
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- East central Melville Peninsula
- 18 km from ocean; 140 km south of Hall Beach; 210 km northeast of Nauyasat
- **Kimberlite (& Diamonds!) discovered September 2017 by prospecting**
- **2018 drilling – New kimberlite discovered;** samples in lab to test for diamonds & till samples to identify new targets



# MEL PROJECT – TILL SAMPLING

## North Arrow



Two distinct areas of focus:  
**Mel North**  
**Mel South**

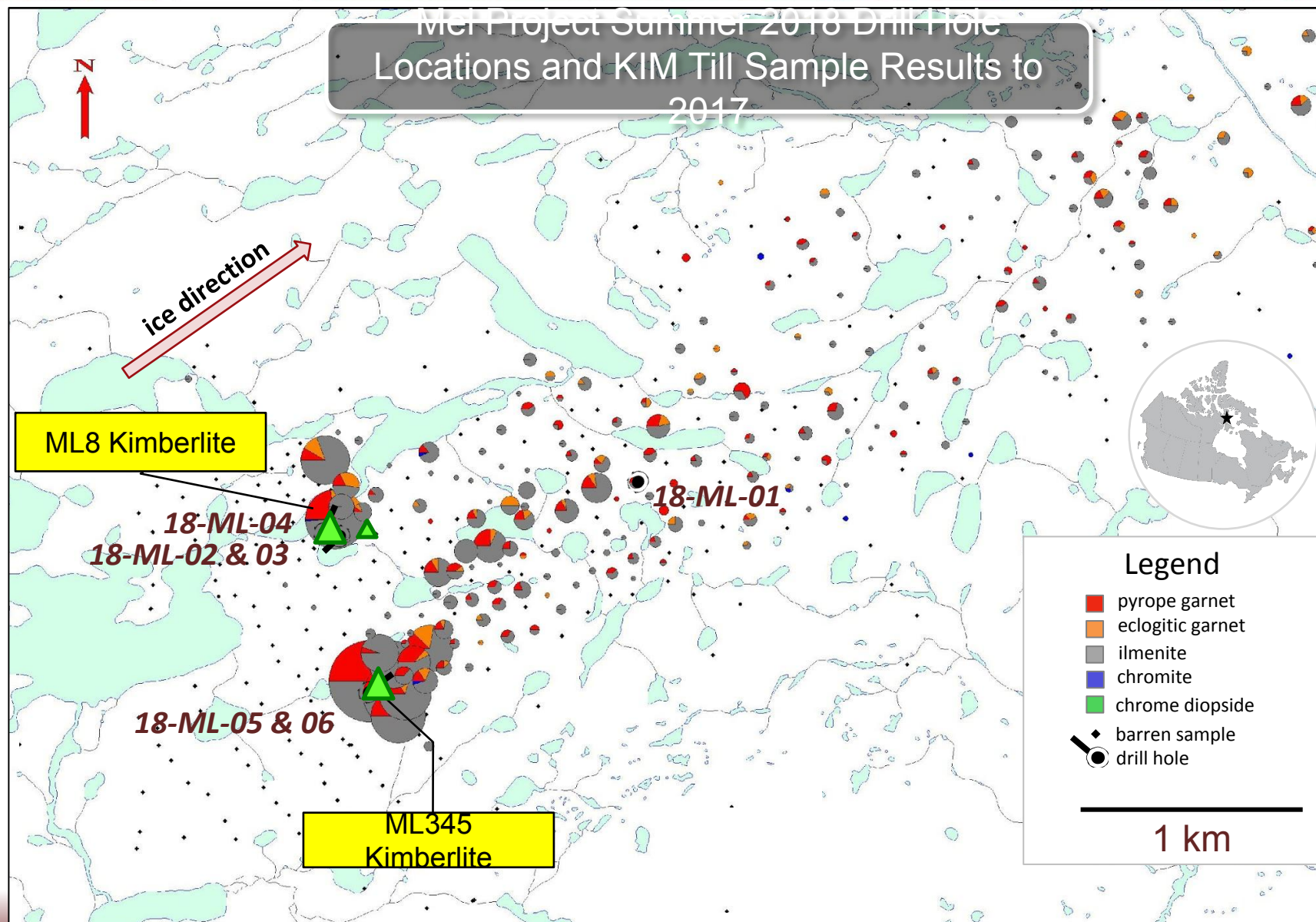
**Mel North:**  
Well defined KIM train  
**Mel South:**  
More challenging ice history

447 till samples collected in 2018



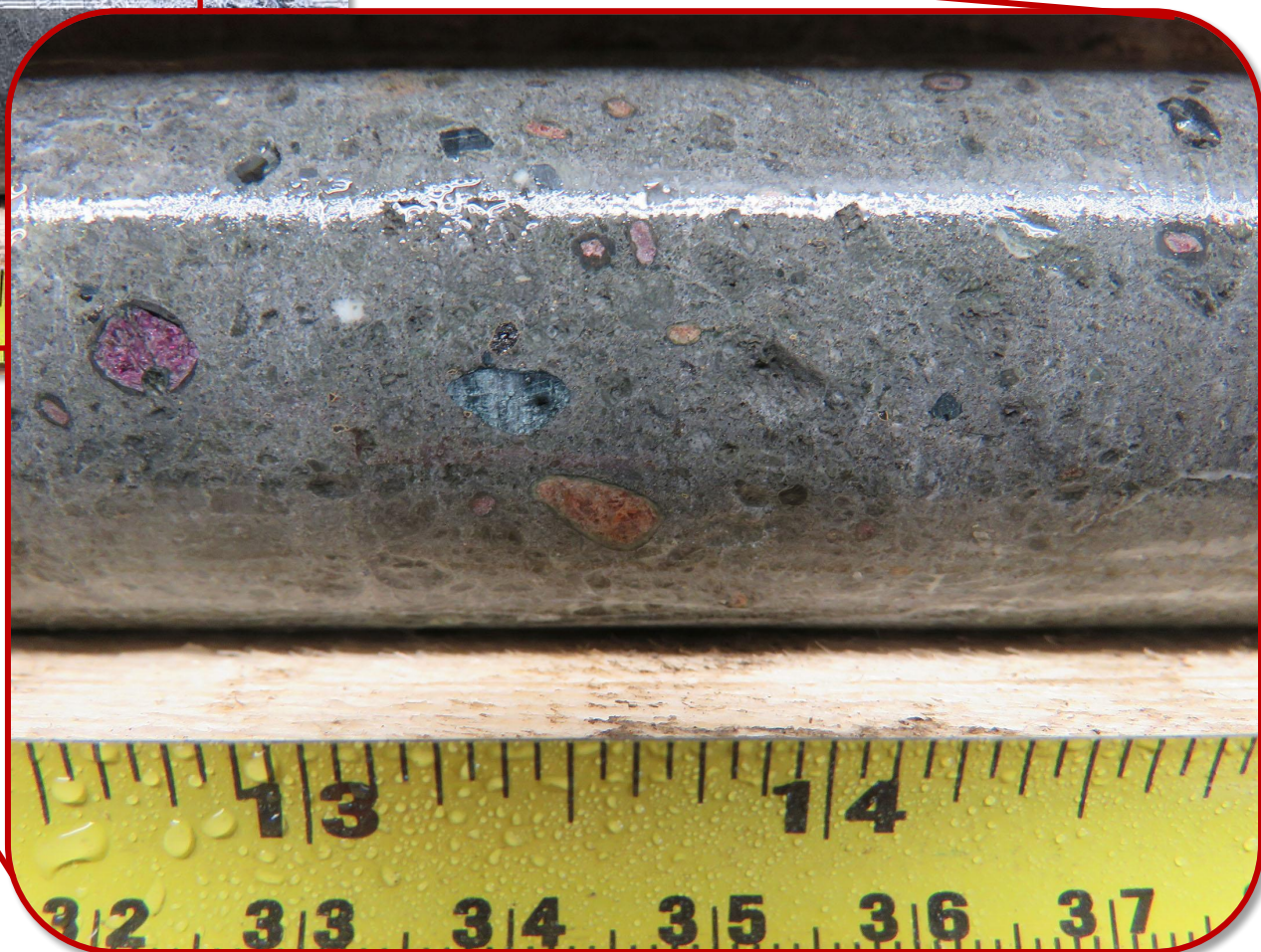
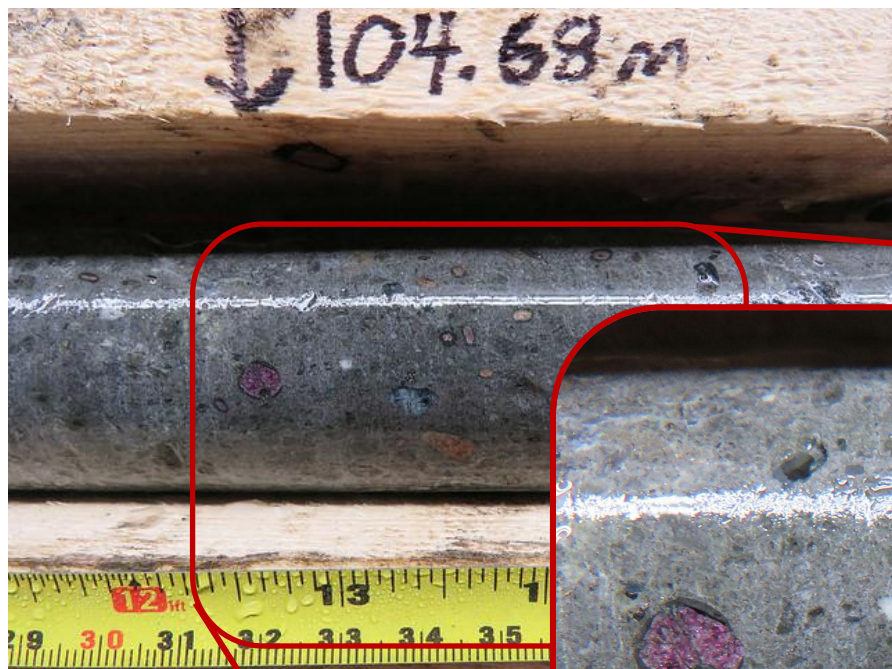
# MEL NORTH EXPLORATION: 2013 to 2018

MEL Project Summer 2018 Drill Hole  
Locations and KIM Till Sample Results to  
2017





# ML8 KIMBERLITE DRILLCORE



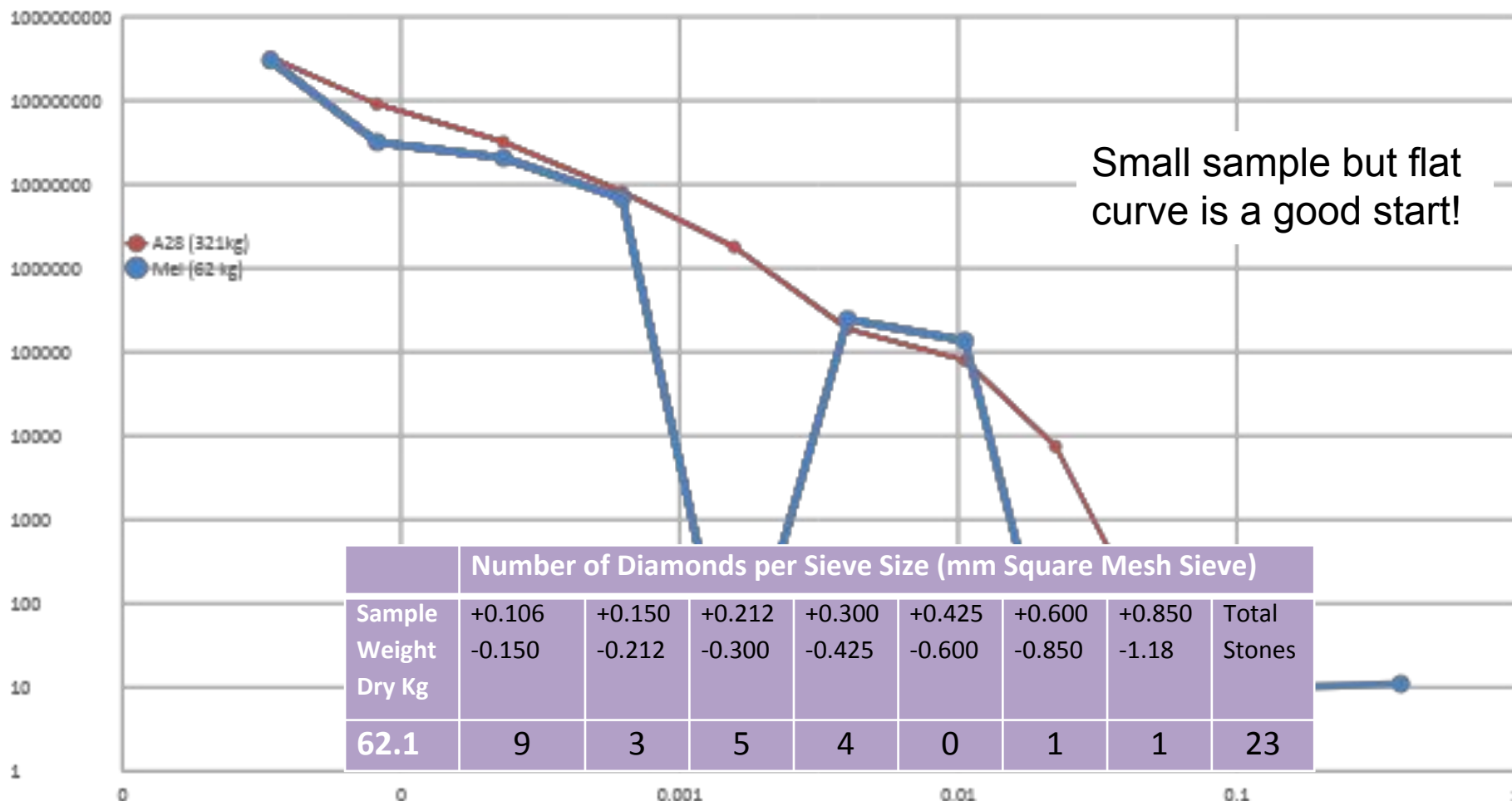


# ML8 MICRODIAMOND RESULTS

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ML-8 kimberlite SPTUI\* vs Naujaat (Q1-4)





# MEL PROJECT – PROXIMITY TO TIDE WATER!

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ML8



OCEAN



ML345



## EXPLORATION NEXT STEPS:

- Diamond results
- Till sample results
- 2019 Geophysics & Drilling



# CORPORATE OVERVIEW – PROJECTS

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Advanced  
Stage

*Assessing a known kimberlite or  
diamond deposit*

1 Naujaat (100%)



★ EXISTING DIAMOND MINE



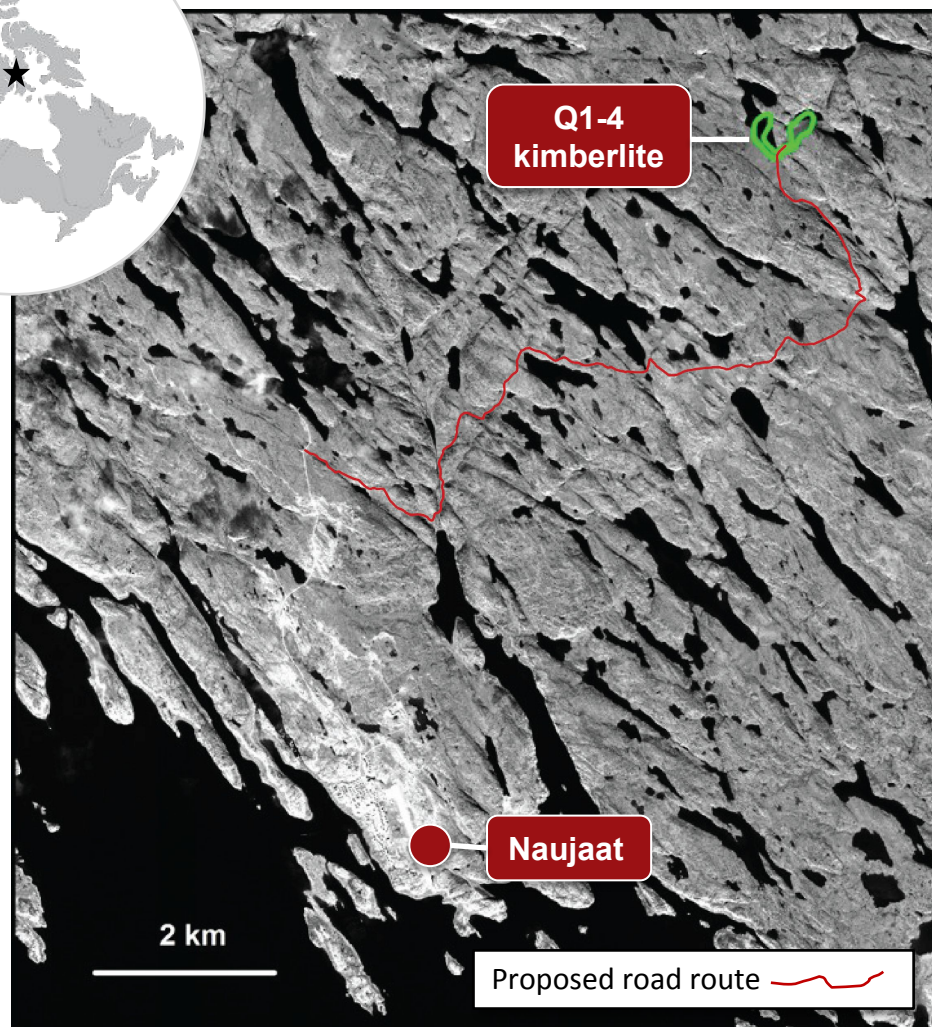
# NAUJAAT PROJECT – TICKS ALL THE BOXES

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- ✓ **Jurisdiction**  
*Clear permitting path in Nunavut*
- ✓ **Near tide water**  
*Freight costs 50% of NWT diamond mines*
- ✓ **Large tonnage**  
*~48 Mt down to 205m below surface*
- ✓ **Low strip ratio**  
*<3:1 vs >10:1 for NWT diamond mines*
- ✓ **Significant diamond inventory\***  
*~26M contained carats*
- ✓ **Blue sky potential**  
*15 additional kimberlites for evaluation*

**Unique diamond value proposition**





# Q1-4 - LARGE TONNAGE, EASY ACCESS

## North Arrow

Internal desk top study of potential mining scenarios suggests extending Q1-4 resource from 200m to 300m below surface would represent the 'sweet spot' for deposit size with open pit strip ratio less than 3:1.

Approximate surface trace of kimberlite

2014 A28 Bulk Sample Site

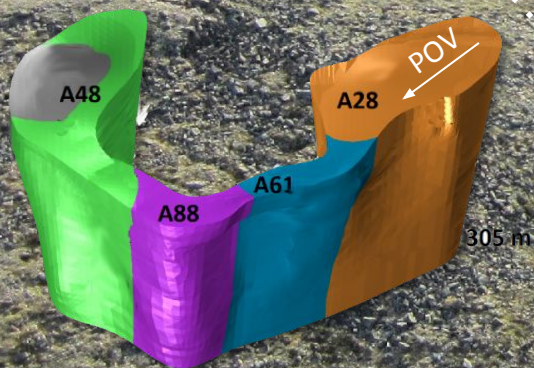


Image view: Looking southwest



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# Q1-4 - LARGE TONNAGE, EASY ACCESS

Naujaat Project: 2017 drilling and bulk sampling



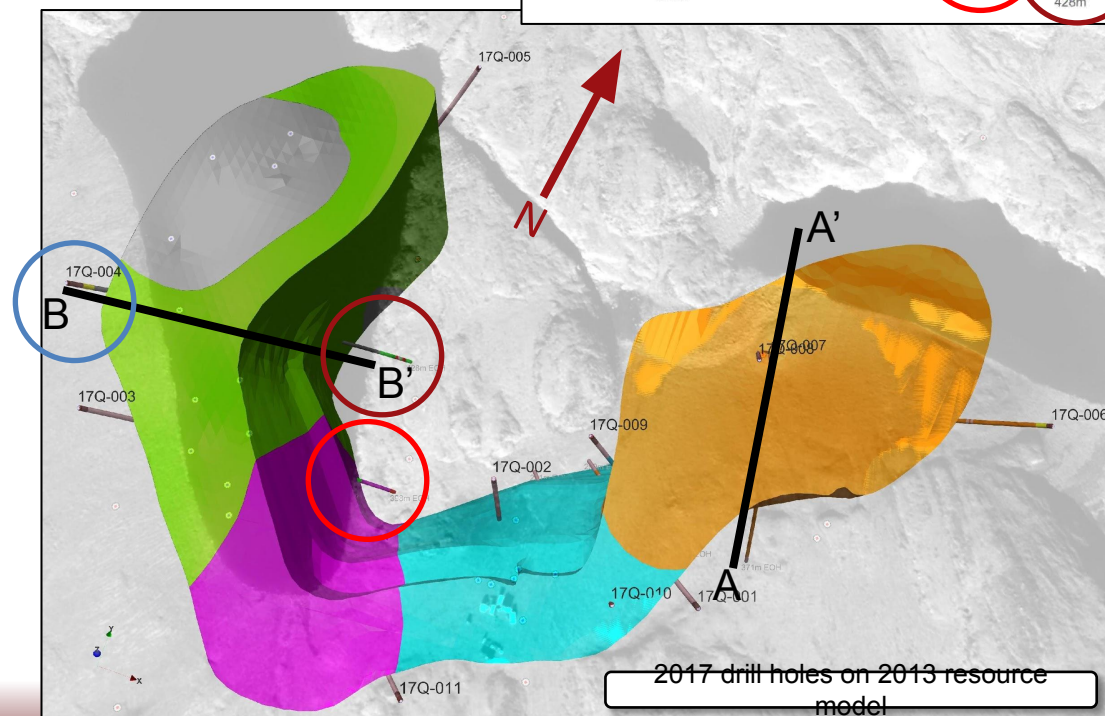
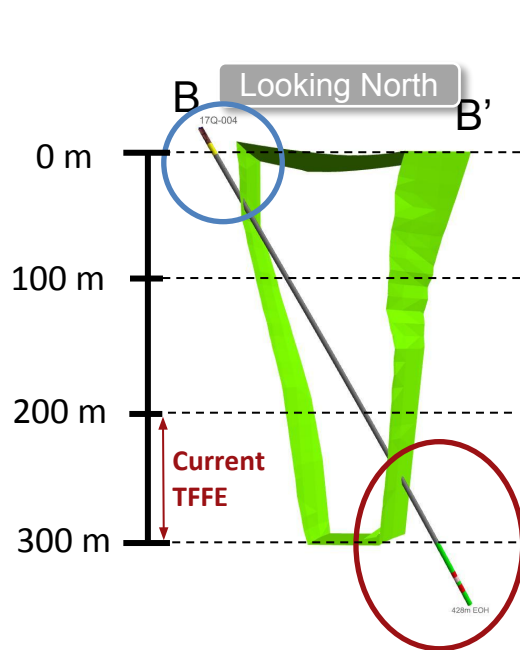
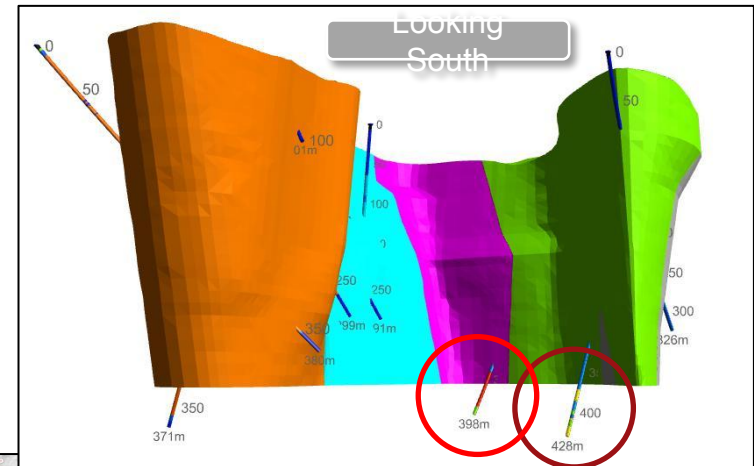


# Q1-4 2017 DELINEATION: A48 & A88 PHASES

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- Hole 17Q-004 entered kimberlite 43 meters earlier than modeled
- Hole 17Q-004 ended in kimberlite >100m beyond the model
- Hole 17Q-003 also ended in kimberlite below and outside of the current model



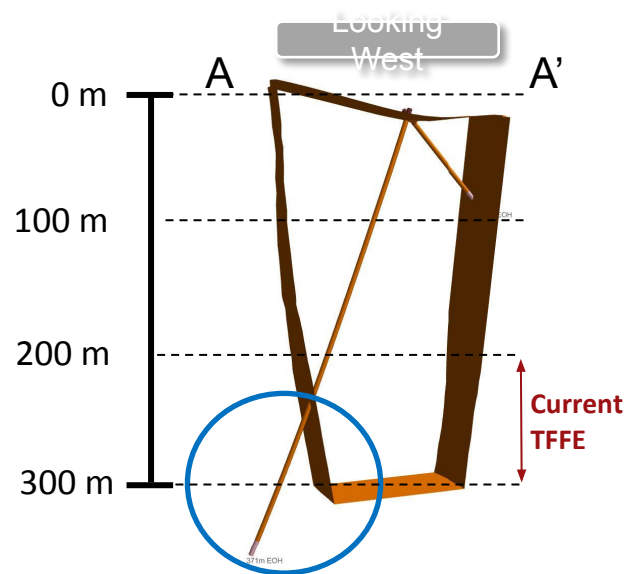
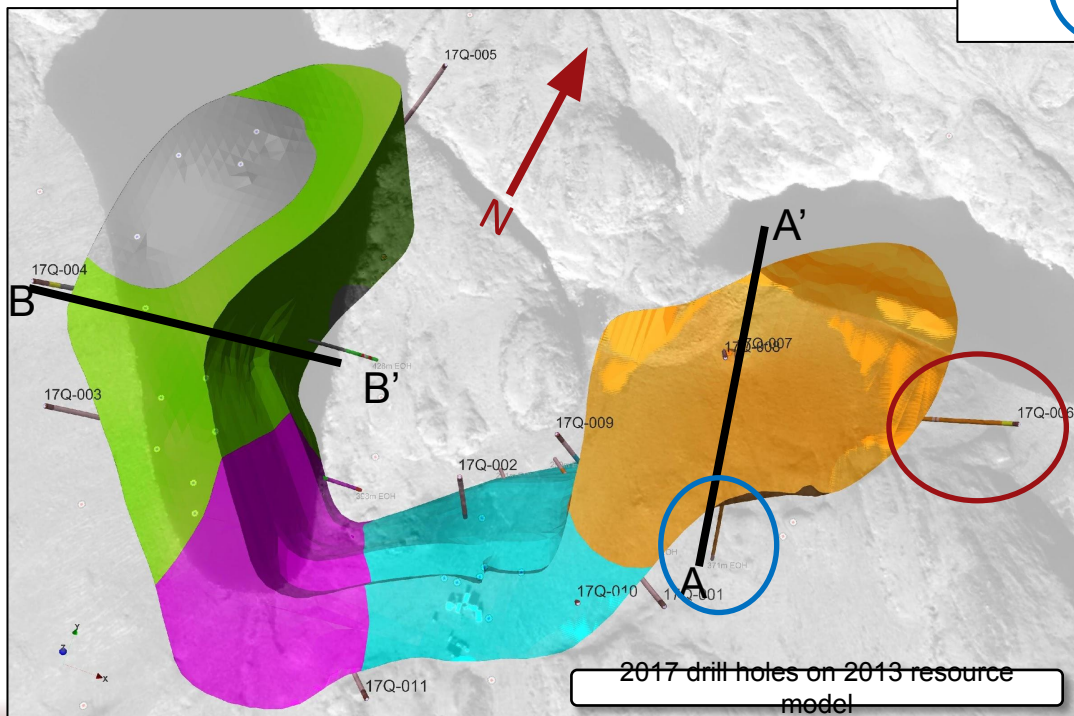
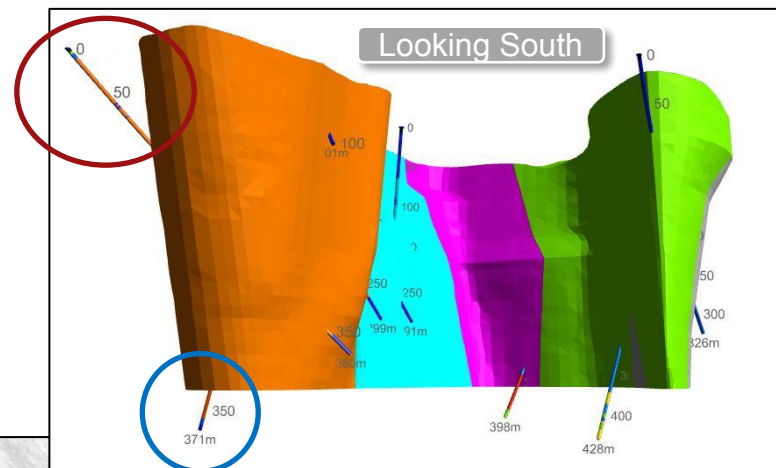


# Q1-4 2017 DELINEATION: A28 PHASE

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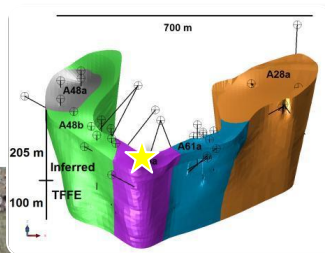
- **Hole 17Q-006** collared into kimberlite; 103m earlier than modeled
- **Hole 17Q-007** exited kimberlite 117m later than modeled





# Q1-4 BULK SAMPLING

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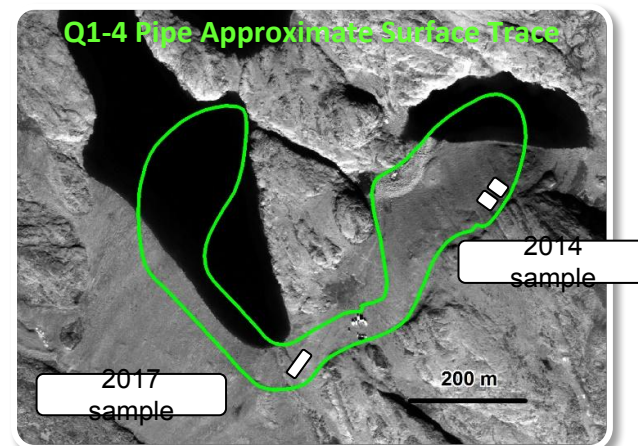


# 2014 & 2017 BULK SAMPLES

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- 2017: ~64 carats (+1 DTC) from 210t (30.6 cpht)
- 2014: ~384 carats (+1 DTC) from 1353t (28.4 cpht)
- 4 Largest diamonds: 5.25, 4.45, 4.14 & 3.56 carats
- A28 (2014) & A88 (2017) volcanoclastic phases - similar proportions of yellow diamonds



Phase	Year	Weight (Dry tonnes)	# of Diamonds (+1 DTC)	Carats	Sample Grade (cpht <sup>2</sup> )	Proportion Yellow Diamonds <sup>1</sup>	
						By Stones	By Carats
Green	2017	27.1	344	8.46	31.2	2.6%	3.1%
A88	2017	182.8	1647	55.79	30.5	11.1%	23.9%
A28	2014	1353.3	11,083	384.28	28.4	9.0%	21.5%

<sup>1</sup> includes very pale to pale to intense/dark yellow + green yellow diamonds; same colour breakdown as undertaken for sample A282014. <sup>2</sup> carats per hundred tonnes

<sup>3</sup> total 2017 Pit C sample determined by arithmetic <sup>4</sup> As reported in North Arrow news release dated May 5, 2015.



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# Q1-4 DIAMOND REVIEW

## Primary Conclusion from the 2015 Valuation:

*“Valuation results and modelled values should be treated with considerable caution when it comes to assessing the Qilalugaq Project.”<sup>1</sup>*  
**The parcel was small & complicated by presence of two distinct diamond populations.**

### Q1-4 2014/15 Sample

- ~384 carats from ~1,350 dry tonnes.
- Yellow diamonds make up ~9.0% (stone count) and ~21.5% (carat weight) of parcel.
- Proportion of yellows increases with increasing diamond size.
- The 3 largest diamonds recovered were yellow: 4.42, 4.16, and 3.53 carats.

<sup>1</sup>North Arrow news Release June 9, 2015 reporting results of WWW International Consultants Ltd. valuation.



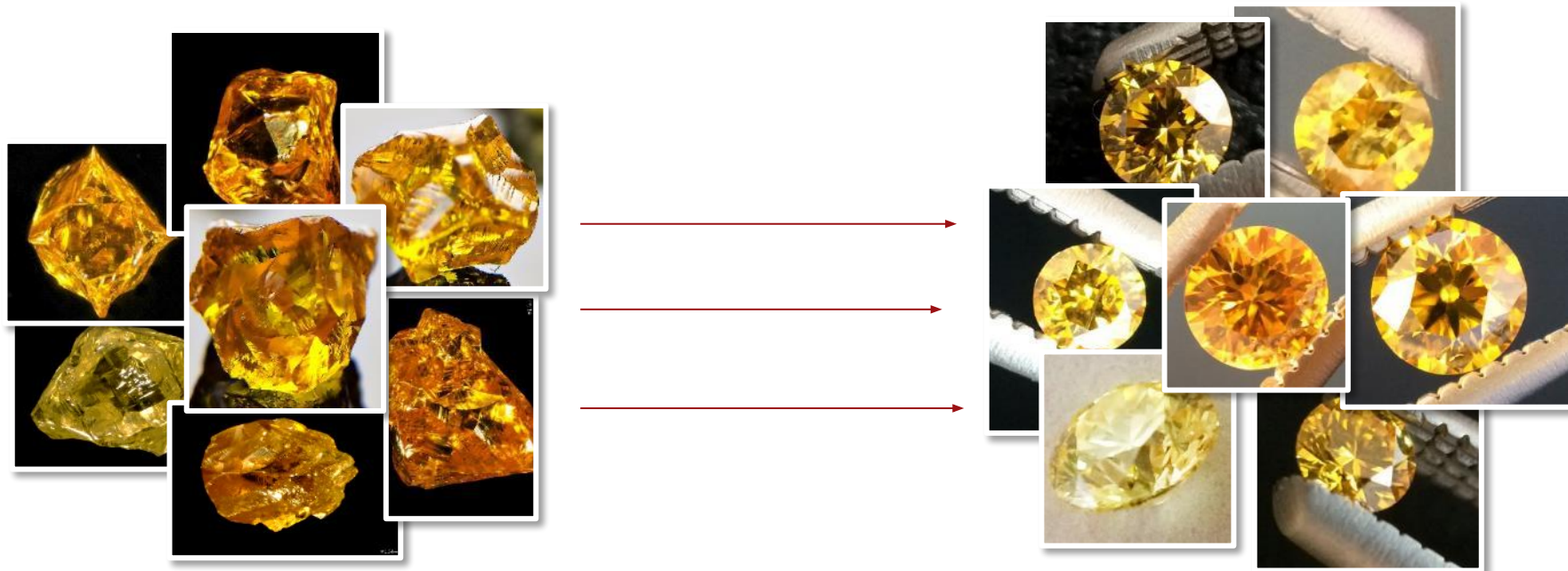
Q1-4 “run of mine” from 2014 sample; +9DTC and above.



# Q1-4 POLISHED DIAMONDS

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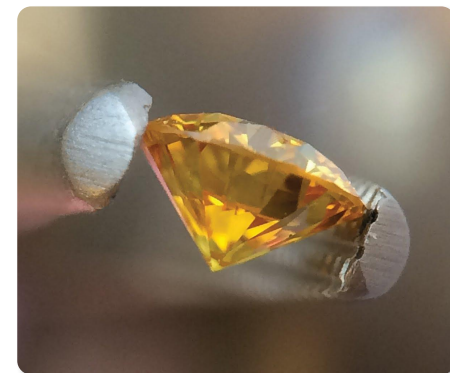
# NAUJAAT PROJECT – WAY FORWARD

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- Recoverable grade of 30 carats per hundred tonnes.
  - White diamonds alone are not valuable enough.
  - Orange-yellow are more valuable but are there enough of them? How big do they get? What is the quality of the larger stones?
- 

**10,000 tonne sample required to answer these questions**





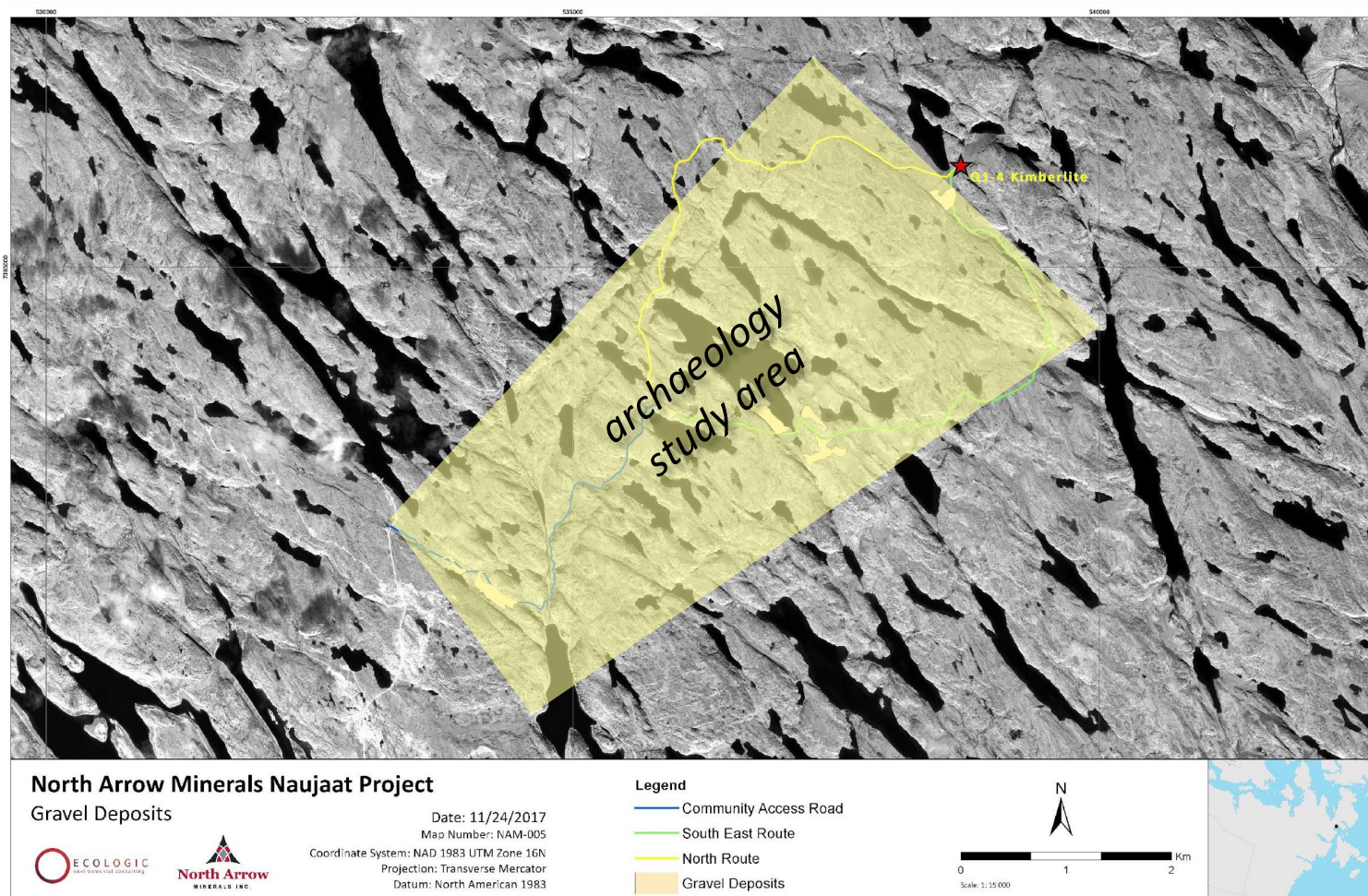
# POTENTIAL FOR COMMUNITY ACCESS TRAIL

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Three road related studies completed in  
2017

- *Ecological Mapping & Preliminary Engineering studies.* South east route is preferred (existing ATV trail – blue and green)
- Third looked at historical use around the proposed routes; *archaeology study.*





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# ECOLOGIC & ONSITE'S WORK

ECOLOGIC EcoLogic Consultants Ltd & Onsite Engineering



- Best route for the Access Trail is the existing ATV path.
- Upgrade to 'Access Trail' would reduce impact on water crossings; 1 bridge 3 to 4 culverts.
- Little to no blasting required.
- Five aggregate sources identified along the way.
- Total cost from \$3.3 to \$4.3 million.



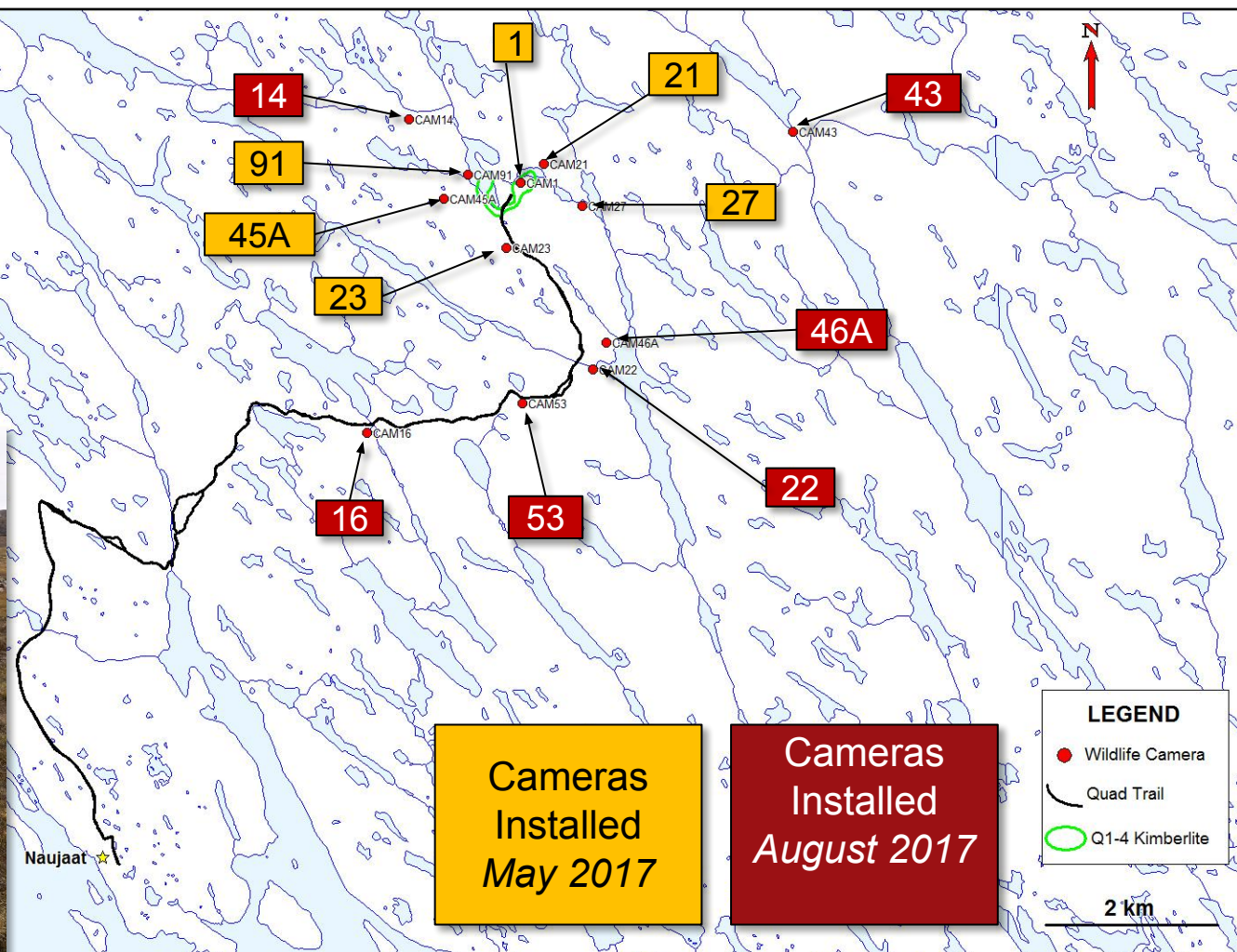
# Potential Road Route Surveys

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**Wildlife camera study with Arviq HTO**

To Collect  
information on  
timing and  
number of  
caribou in the  
area





# BENEFITS OF A COMMUNITY ACCESS TRAIL

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1. Improved and safer access to a difficult to reach caribou hunting ground & cabins in the area.
2. Land-based tourism business opportunities.
3. Local employment opportunities:
  - *Naujaat has the skills and most equipment needed build the access trail.*
  - *North Arrow would be able to create more local job opportunities with this land based solution to the bulk sample.*
4. *NAR to spend ~\$20 million on the bulk sample – ~\$4.3 to build the access trail. Every dollar spent to build an access trail would mean \$3 - \$4 spent locally by North Arrow in the form of jobs, supplies, services, road tolls etc.*


A community access trail to the northeast has the potential to provide a number of benefits and opportunities to Naujaat:



# ACCESS TRAIL: A WIN / WIN SCENARIO

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**North Arrow** determines diamond value & whether or not the Naujaat diamond project has a future.

**Naujaat** would generate employment and business opportunities, legacy infrastructure that will serve the community for years to come....

&

**Find out if their local diamond project has the potential to move forward towards development.**



# Exploration: Discovery to Production

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Mine / Project Name	Commodity	Discovery	Start of Production	Discovery to Production
Nanisivik mine (closed)	Zinc, lead, silver	1911	1976	65
Polaris mine (closed)	Lead, zinc	1960	1982	22
Lupin mine (closed)	Gold	1960	1982	22
Mary River mine	Iron	1962	2015	53
Hope Bay mine	Gold	1988	2017	29
Meadowbank mine	Gold	1987	2010	23
Meliadine	Gold	1989	2020	21
Back River	Gold	1989	2021?	32
Hackett	Zinc, lead, copper, silver	1969	?	>50
Izok	Zinc, copper, lead, silver	1974	?	>45
High Lake	Copper, zinc, silver, gold	1956	?	>65
Naujaat	Diamonds	2003	?	>15

## IT IS IMPORTANT WE KEEP EXPLORATION INVESTMENT HEALTHY

- Finding a mine takes on average 10 years. And even once discovered, time to production can be VERY LONG. An active exploration industry is required.
- Each of the current mines and advanced projects, at some point, were explored and evaluated by a junior exploration company.

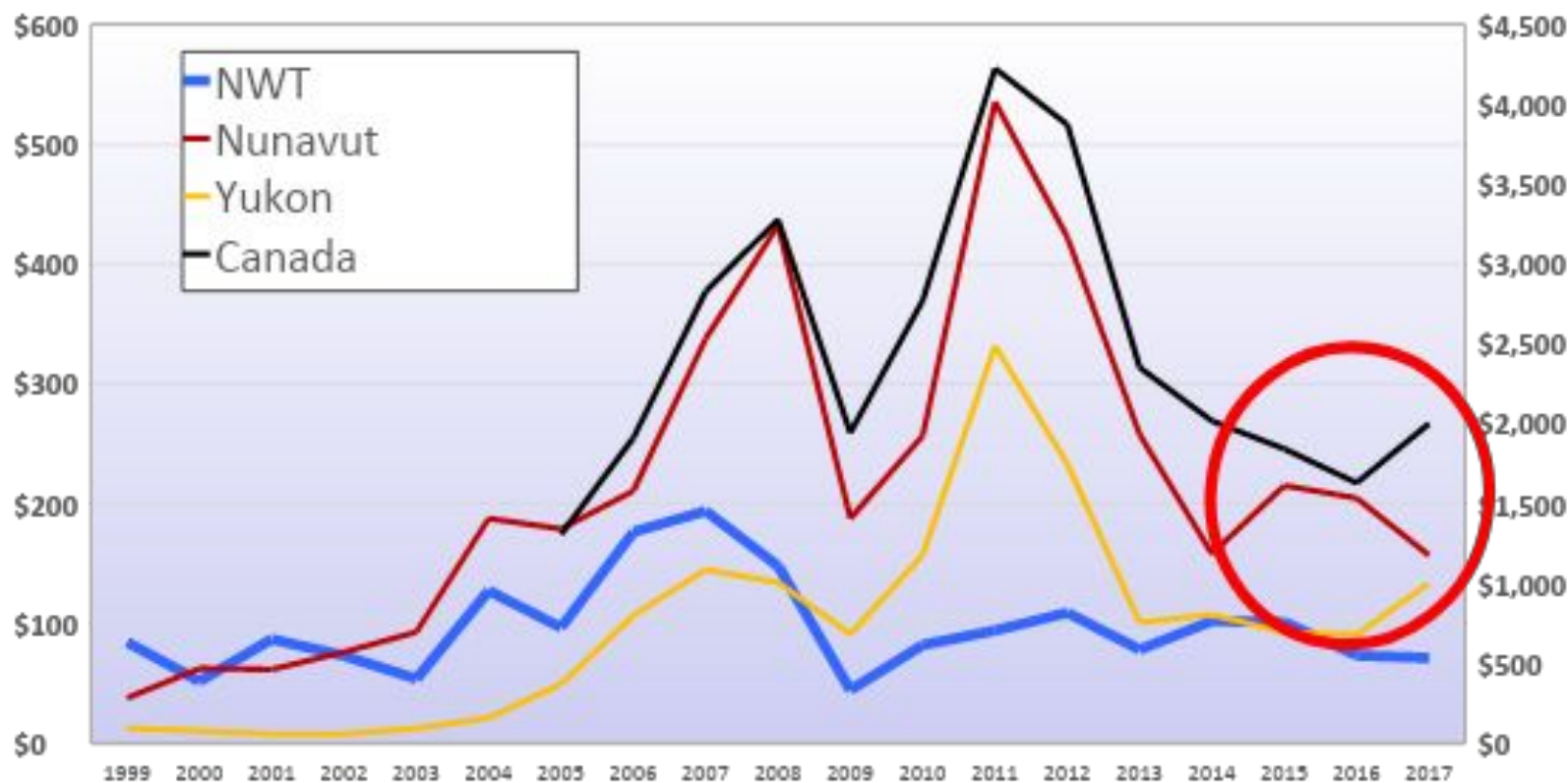


# Nunavut exploration spending falling

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## Mineral Exploration Expenditures (millions)



Natural Resources Canada – September 2017 (Canada data scale on right)

- Canada and Yukon investment is increasing; NWT is flat lined at very low levels.
- Nunavut Exploration Expenditures are falling in real dollars and...



# Nunavut's share is falling, too

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**Nunavut as % of Total Canadian Mineral Exploration**



Natural Resources Canada – September 2017

- Nunavut's share of Canadian exploration investment projected to decrease significantly in 2017.
- Also important: NU is a high cost – each dollar goes further in southern Canada.
- Less investment means reduced opportunity to replace reserves & find new mines



# JUNIOR EXPLORATION COMPANIES...

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**Drive the Discovery Pipeline of Future Mines**

- Identify & explore geologically prospective areas for new mineral deposits.
- Small companies, <5 to 10 employees. Temporary employees hired during exploration programs bringing short term jobs, opportunities and experience.
- Publicly traded companies with no revenue. Raise exploration money by issuing shares.
- Investors make \$\$\$ through exploration success – Find a new deposit and share price goes up.
- Considered “**high risk, high reward**” type investments; not all exploration work results in a mine but there are many positive socio-economic impacts in these on-again / off again early stages.
- **We all talk to the same investors.**





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### *On Again / Off Again Nature of Exploration Work*

*Projects often see a few years of early exploration punctuated by breaks of multiple years.*

#### **On Again**

- **Positive big picture economic conditions** – “bull market”; risk capital available.
- **Hot commodity:** supply demand scenarios boost prices of a mineral resource.
- Attractive, supportive “open for business” messaging from government.

#### **Off Again**

- **Negative Market Conditions** – economic conditions are poor; “bear market”; high risk / high reward investment capital dries up; competing sectors (e.g. Pot; blockchain).
- **Demand for commodity:** supply / demand scenario sees low demand for specific metals/minerals.
- **Political Risk** – possibility of a potential discovery not becoming a mine because of permitting issues; **lack of certainty of land access (eg: DNLUP; KivIA moratorium).**

*When there is no clear pathway to permitting a mine, exploration dollars go elsewhere*



# Nunavut's Mineral Potential is Real

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- Mining is a sunrise industry in Nunavut
- Many geological provinces mean tremendous untapped mineral potential
- Changing markets and new technologies mean exploration is a “renewable industry”
- Successful exploration is a key part of reaching the goal of a sustainable private sector mining industry in Nunavut





MERCI BEAUCOUP

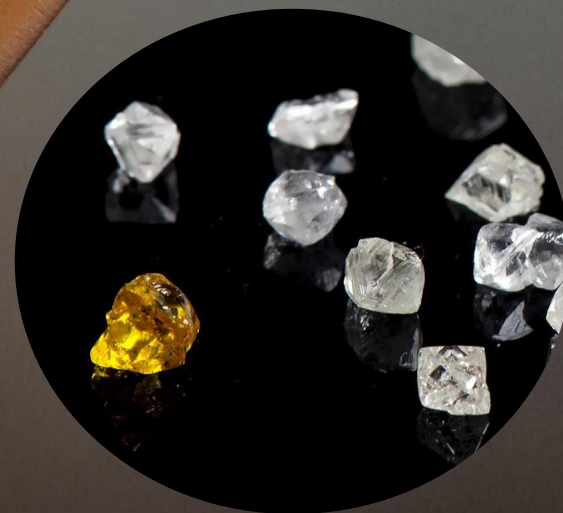
**North Arrow**

MINERALS INC.

Qujannamiik



THANK YOU





# North Arrow

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