

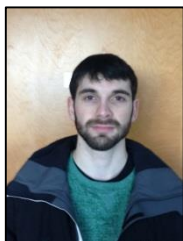


PDAC
S-IMEW

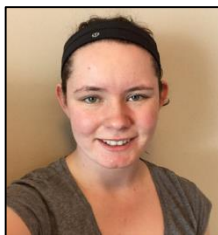
Student-Industry Mineral Exploration Workshop

2017

2017 STUDENT-INDUSTRY MINERAL EXPLORATION WORKSHOP (S-IMEW) PARTICIPANTS



Nathan McCullough
Acadia University



Chantal Norris
Brandon University



Sarah Pemberton
Brock University



Corin Jorgenson
Dalhousie University



Garrett Hooley
Fleming College



Chanelle Boucher
Lakehead University



Elliot Wehrle
Laurentian University



Kassandra Sofonio
McGill University



Connor Fornwald
Mount Royal University



Nicole Bursey
Memorial University of Newfoundland



Kendra Shergold
Northern Alberta Institute of Technology



Madeleine Sauve
Queen's University



Connor Dalzell
Saint Mary's University



2017 STUDENT-INDUSTRY MINERAL EXPLORATION WORKSHOP (S-IMEW) PARTICIPANTS



Mark Coleman
Simon Fraser
University



Cole Evans
University of
British Columbia



Sara Pedneault
Laval University



Daniel Baker
University of Alberta



Louise Rush
University of
Calgary



David Downie
University of
Manitoba



**Anastasia Comtois-
Poissant**
University of
Regina



Lavie Nguyen
University of
Saskatchewan



Natasha Drage
University of
Victoria



Matthew Cannon
University of
Waterloo



Matthew DeGasperis
Western University



Melanie Beaudette
UQAM



Marvin Oliva
Osisko Mining
Inc



Premium Sponsor



Platinum Sponsor



Ontario



The S-IMEW motorcade about to leave for Sudbury to kick-off its 11th anniversary



S-IMEW participants are officially welcomed by Karen Rees (S-IMEW Co-Chair)



Marc Gasparotto (PDAC) gives an overview of the S-IMEW program



Patrick McAndless (Geodude Corner) getting the students “Passionate”



We so fly!

Patrick McAndless (Geodude Corner) and Kassandra Sofonio (McGill)

Ethics Gone Bad

APGO

Bre-X Minerals Ltd - 1997

- Calgary based mineral exploration company
- Reported an enormous gold deposit in Indonesia in 1995. Penny stock rose to \$286
- In 1997, it was discovered that the geologist salted the assays with gold - stock plummeted
- Losses - Ontario Municipal Employees Retirement Board (\$45M), Ontario Teachers Pension Plan (\$100M), average Canadians who invested their savings. Billions lost overall.

**Geo's gone bad...
Aftab Khan, APGO**



Geoscience Industry Overview

Tony Green
Sudbury, May 2017



Tony Green presenting an overview of the geoscience industry

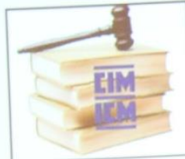


PDAC's own Nadim Kara explains what the association is all about

What are the core principles of NI 43-101?

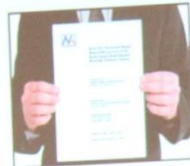


Qualified Person



Standards and Best Practices

<http://web.cim.org/standards/>



Technical Report

Objective of NI 43-101:

Ensure that disclosure is based on reliable information, reflecting professional opinions, based on industry best practices and using standardized terms

CORPORATE FINANCE BRANCH

6



Going down disclosure lane...

Felix Lee and Karen Rees (S-IMEW Co-Chairs) give an overview of NI 43-101 reporting

Gold Sponsors

ABITIBI
ROYALTIES INC.





Strike a pose!

Melanie Beaudette (UQAM) and Corin Jorgenson (Dalhousie)



Classic group shot in front of the Big Nickel



Kassandra (McGill), David (UofM), Louise (UofC), and Anastastia (UofR) at the Welcome Reception



**Patrick: I think you need a new brand...
Dan Baker (UofA) and Patrick McAndless (Geodude Corner)**



AURANIA

Presentation by Dr. Keith M Barron, President and CEO

Aurania Resources Ltd.
Suite 1010, 8 King St East
Toronto, ON M5C 1B5
Tel (416) 367-3200

www.Aurania.com



**Story time...an adventure of a lifetime!
Keith Barron (Keynote speaker)**



**You! Now's a good time to explore!
Keith Barron (Keynote speaker)**



**Talk about a fashionable S-IMEW Organizing Committee!
Felix Lee, Marc Gasporatto, Karen Rees, and Lisa McDonald**



Shilika (S-IMEW Coordinator), Chantal (BrandonU), and Connor (SMU) the unsuspecting victim



Embarrassing Stories 101

Melanie Beaudette (UQAM) and Nicole Bursey (MUN) with Keith Barron



Anastastia Comtois-Poissant (UofR) with Felix Lee and Keith Barron



**S-IMEW alumni caught reminiscing about the past!
Kevin Neyedley (S-IMEW coordinator) and Marie Letourneau (S-IMEW 2012)**



I should know this, right?
David (UofM) and Kendra (NAIT)



**Why must you be so confusing?
Corin (Dal)**



**A lesson in why geology is the best!
Michael Dogget**



**Deep discussion..
Garrett (Fleming College) and Cole (UBC)**

Gold Sponsors





If I stare long enough, maybe it'll tell me what is it?

Elliot (LU)

Financial Evaluation

Unique Features of the Mining Industry

- Geological Base Line
 - No such thing as a "typical mineral deposit"
- Geopolitics and Social Licence
 - Deposits occur where they occur
- Commodity Markets
 - Short-term fluctuations and long-term trends need to be understood
- Economic Trends and Factors
- Technological Developments

3



**Gold evaluation of some sort...
Mike Durose**



Ooh shiny!
Louise (UofC)



Geological modeling by an engineer...honorary geo?

DISCLAIMER

Don't invest in anything
based on what I say

I thank Charles Beaudry and Bill Mercer, March 2017, for this insight

Question everything?
Raymond Goldie



**Life after S-IMEW
Gen Krasowski (KGHM; S-IMEW 2012)**



This deposit deserves it's own slide!



I should have brought my hand lens...
Sarah Pemberton (Brock)



Me too!
Madeleine Sauve (Queens)



I thought the hand lens was suppose to help me...
Matt DeGasperis (UWO)



**Ooh a new friend request!
Felix (S-IMEW Co-Chair)**



Sorting the core box...aka jigsaw nightmare!



**You can run, but you can't hide!
Lavie Nguyen (UofS)**



**Yes, sure...if you say so
Jason Letto (Vale) and Sarah (Brock)**



DISCOVERY OF THE SUDBURY NICKEL DEPOSITS

The significance of Sudbury's mineral deposits became apparent during construction of the Canadian Pacific Railway through the area in the 1880s. Blacksmith Tom Flanagan, and others, took samples from some reddish rock nearby in 1883. Analysis of the rock revealed copper-nickel sulphide and the Murray Mine was subsequently established at the site. Ore bodies were so discovered in abundance throughout the Sudbury area. Entrepreneur Samuel J. Ritchie founded the Canadian Copper Company at Copper Cliff in 1886. Capitalizing on breakthroughs in metal-refining, Ritchie opened up an industrial and military market for nickel-steel alloys. With the establishment of corporations like International Nickel in 1917 and Falconbridge Nickel Mines in 1928, Sudbury became the nickel capital of the world.

Ontario Heritage Trust, an agency of the Government of Ontario



**I'm not sure what's funnier, the rocks or the student?
Elliot (LU), Lavie (UofS), and Dan (UofA)**



“For Science!”

Sara Pedneault (Laval) and Sarah Pemberton (Brock)

Gold Sponsors



Golden Valley Mines Ltd.
Mines de la Vallée de l'Or ltée



Let's give Sudbury some credit for hosting us!



**I still can't see it!!
Dan Baker (UofA)**



**It's Hammer time!
Sara Pedneault (Laval)**

Sunday, MAY 7 – Sudbury Basin Field Day



Lunch break at Onaping Falls!



Student herders!

Marc Gasparotto, Shilika Mathur, and Kevin Neyedley (S-IMEW Coordinators)



Peace, yo!
Anastastia Comtois-Poissant (UofR)



Her royal throne!
Melanie Beaudette (UQAM)



**Why won't you just come out!
Chanelle Boucher (Lakehead)**



**The calm before the storm...
Sarah Pemberton (Brock)**



Sweeping beauty!
Dan Baker (UofA)



**This is sedimentary right?
Attila Pentek and David Downie (UofM)**



You Breccia!

Cole (UBC), Chantal (BU), Garrett (Fleming College), and Lavie (UofS)

Sunday, MAY 7 – Sudbury Basin Field Day



Spot the odd one out...

Gold Sponsors



LaurentianUniversity
Université**Laurentienne**

GOODMAN SCHOOL OF MINES
ÉCOLE DES MINES



Industry Insight!



Smile! Or not...

Kassandra (McGill), Connor (MRU), Chanelle (Lakehead), and Matt (Waterloo)



Group photo at Laurentian University during Government Mapping Day



Anyone know where we're going???
Nathan (Acadia), Sara (Laval), and Anastastia (UofR)



Sorry, no WIFI!
Caroline Gordon (OGS) and Matt (Waterloo)



**Dear Diary...
Connor (MRU)**



**Which way's home??
Cole (UBC) and Chantal (BU)**



**Rock Model in the making!
Natashia (UVic)**



**I'm a model too!
Mr. Longears (Sudbury)**



**High risk colouring!
Corin (Dal) and Nicole (MUN)**

Gold Sponsors



Votorantim
Metais

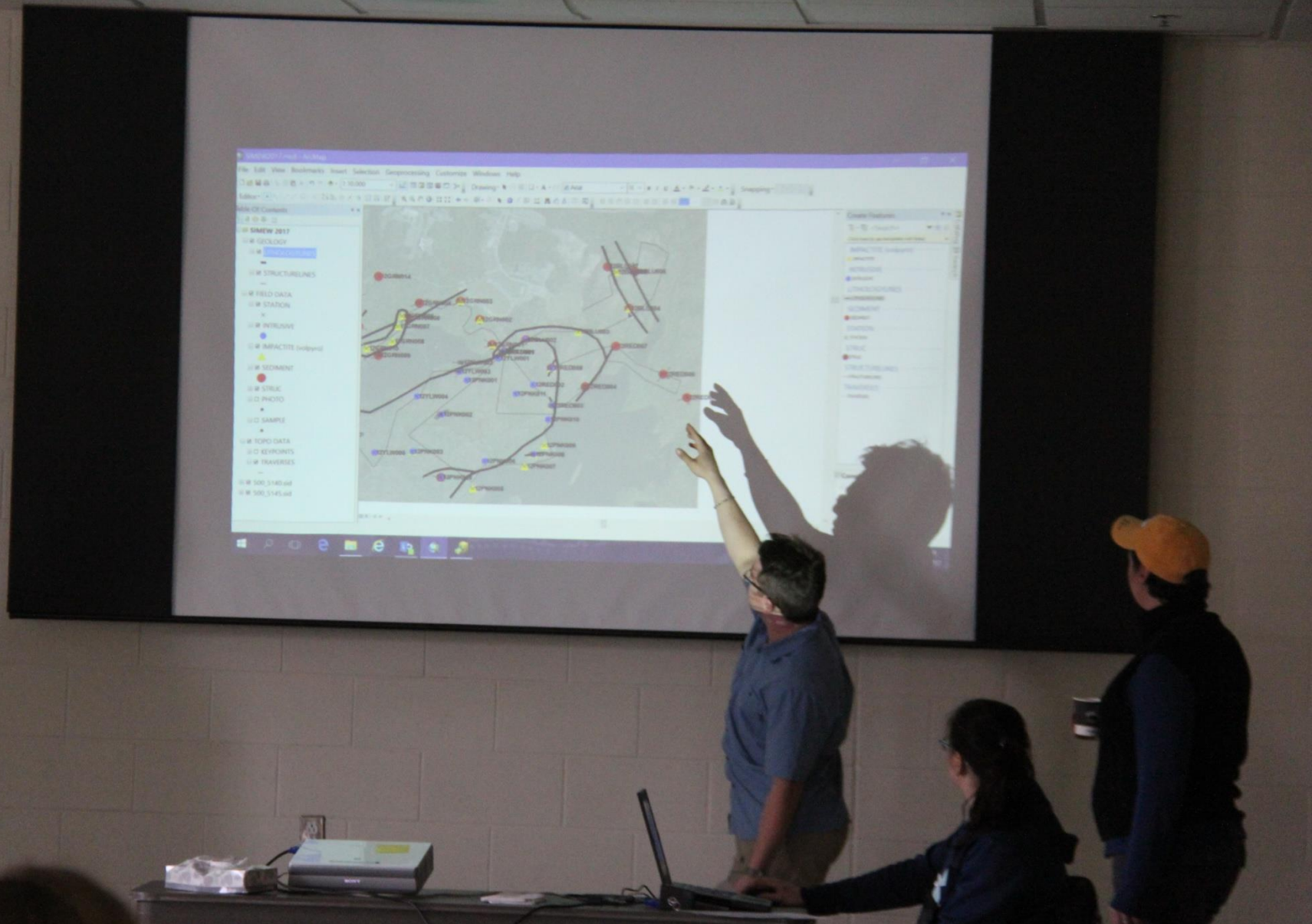
Monday, MAY 8 – Government Mapping Day



Huddle Up!



Plotting their revenge...



I got the short end of the stick...

Dan (UofA)



**These rocks look a lot like my notes!
Dan (UofA) and Lavie (UofS)**



**Stretch with me ladies!
Nicole (MUN), Kassandra (McGill), and Mark (SFU)**



Confusion at it's finest!

A world of experience...

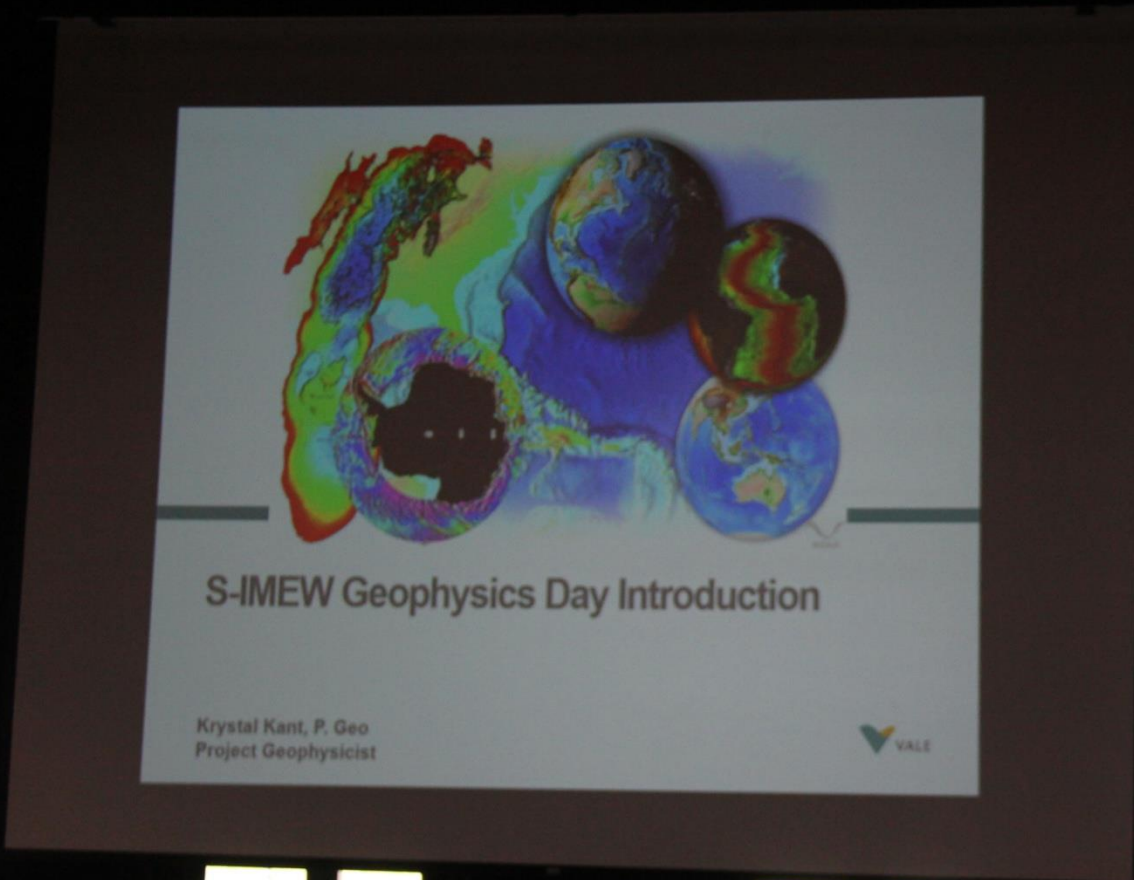


Building bridges!

Michael Fox (Fox High Impact Consulting)



**Chocolate Thief!!
Marc Gasparotto (PDAC)**



Dig up those physics notes!



**Getting geophysical!
EM survey at Vale site WD16**



Our Co-chairs for Geophysics Day Krystal Kant (Vale) and Sean Dickie (Vale)



Level with me will you!
Sarah (Brock), Corin (Dal), Nicole (MUN)

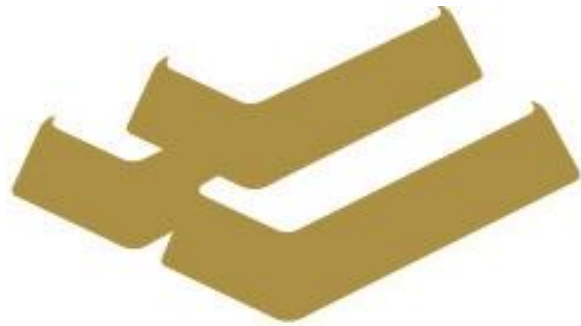


**I just want to push them all!
Nicole (MUN), Cole (UBC), and Connor (MRU)**



Ring around the rosy...
Anastastia (UofR) and Mark (SFU)

Gold Sponsors



BARRICK



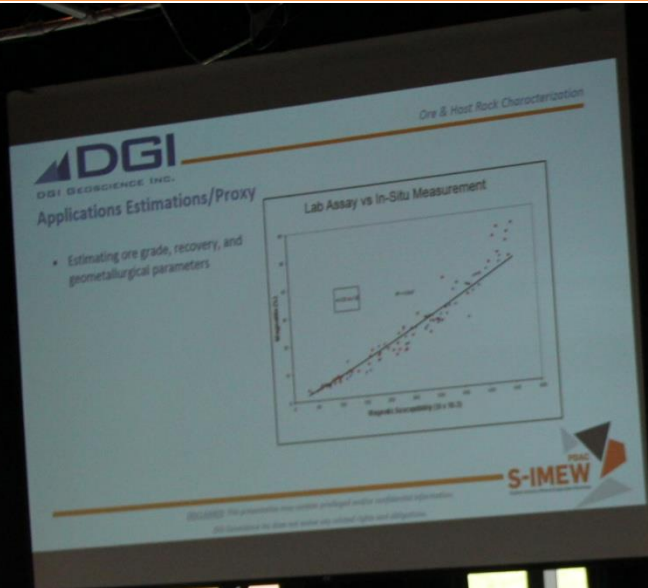
**This could double as my purse!
Kendra (NAIT)**



**Yeah, you can figure it out...
Melanie (UQAM)**



So the current is under my feet?



Let me bury my head in a hole...
Alejandro Rojas (DGI Geoscience)



**Tallest to shortest
Sean Dickie (Vale) and Krystal Kant (Vale) and Nicole (MUN)**



Represent!
Marvin Oliva (Osisko)



Networking in style!



**One day the geophysics will work!
Ben Polzer (Vale) and Sarah (Brock)**



A picture of a picture inside the Glencore smelter

Silver Sponsors

MAJOR

Partners on the Ground



Glencore made me do it! #babyface



Chantal (BU), Laura (Glencore), Sari (Glencore), Mike (Glencore), Garrett (Fleming College)



Group shot outside Glencore!



Copycats...

Mark Coleman (SFU) and Connor Fornwald (MRU)



**Looking down the barrel
Garrett Hooey (Fleming College)**



Guido Serafini (Glencore) showcasing the core



**Show me the pentlandite!
Madeleine (Queens) and Connor (MRU)**



Think we can make a run for it?
Matt (Waterloo) and Matt (UWO)



**Dang those sulphides!
Marvin Oliva (Osisko)**



And this is how you wedge!
Brad Lazich (Glencore)

Silver Sponsors

Teck



**Bath time?
Matt DeGasperis (UWO)**



**The force is strong!
Garrett Hooey (Fleming College)**



**What do I do with my hands?
Connor Dalzell (SMU)**



**Dude, where's my hammer?!?!
Nathan McCullough (Acadia)**



Cage time!



Searching for reception...



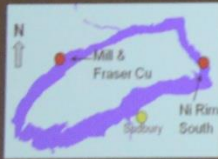
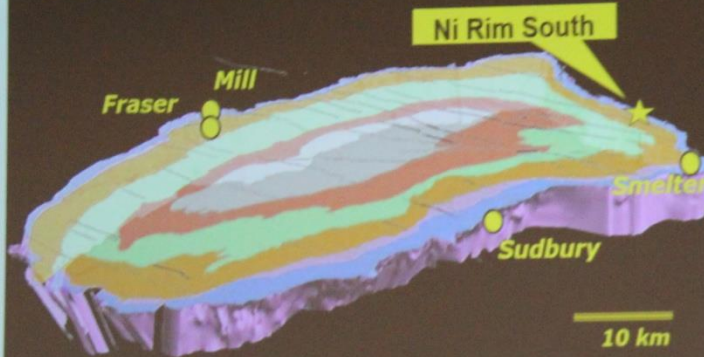
What's poking me?
Kassandra (McGill)



Thanks Foraco!

Sudbury Geology

Sudbury Basin Isometric View Looking North



Guido Serafini (Glencore) giving an overview of Nickel Rim South



No touching allowed!

Mark (SFU), Sabrina (Glencore), Guido (Glencore), Sara (Laval), Brad (Glencore), Kendra (NAIT)



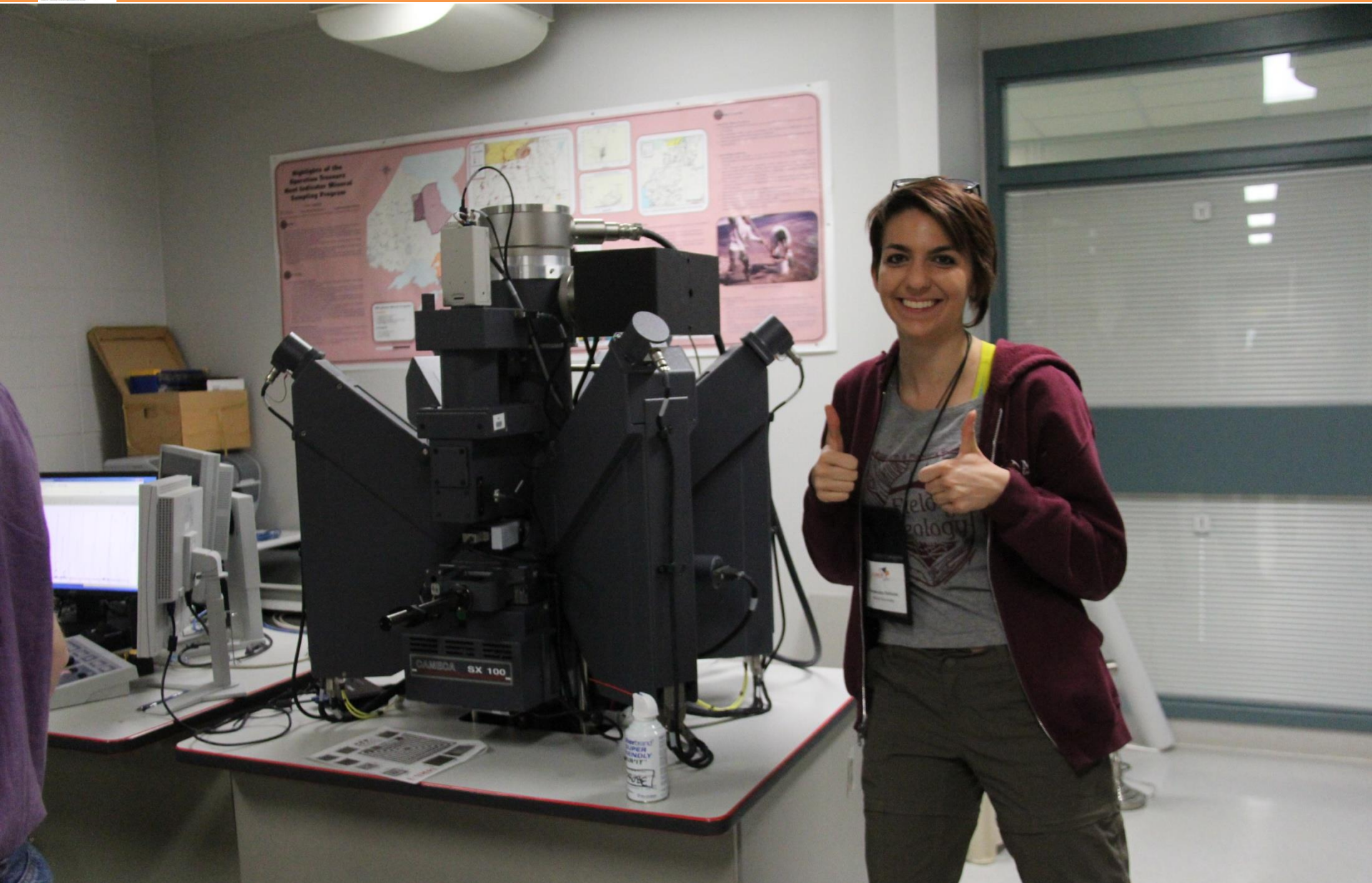
Geochemistry Day!



Know thy basics!



Oh that glorious pour!



**“It’s so beautiful!”
Kassandra Sofonio (McGill)**



La vie est belle!
Melanie Beaudette (UQAM)



Work it ladies!

Noelle (Vale), Sara (Laval), Chantal (BU) and Lavie (UofS)



**Look at those funny grains!
Connor (SMU), Garrett (Fleming College), and Matt (UWO)**



Becoming experts in soil!

Lavie (UofS), Garrett (Fleming College), Matt (UWO), Noelle (Vale), and Sara (Laval)



Give me your best smile!
Elliot (LU), Corin (Dal), and Cole (UBC)



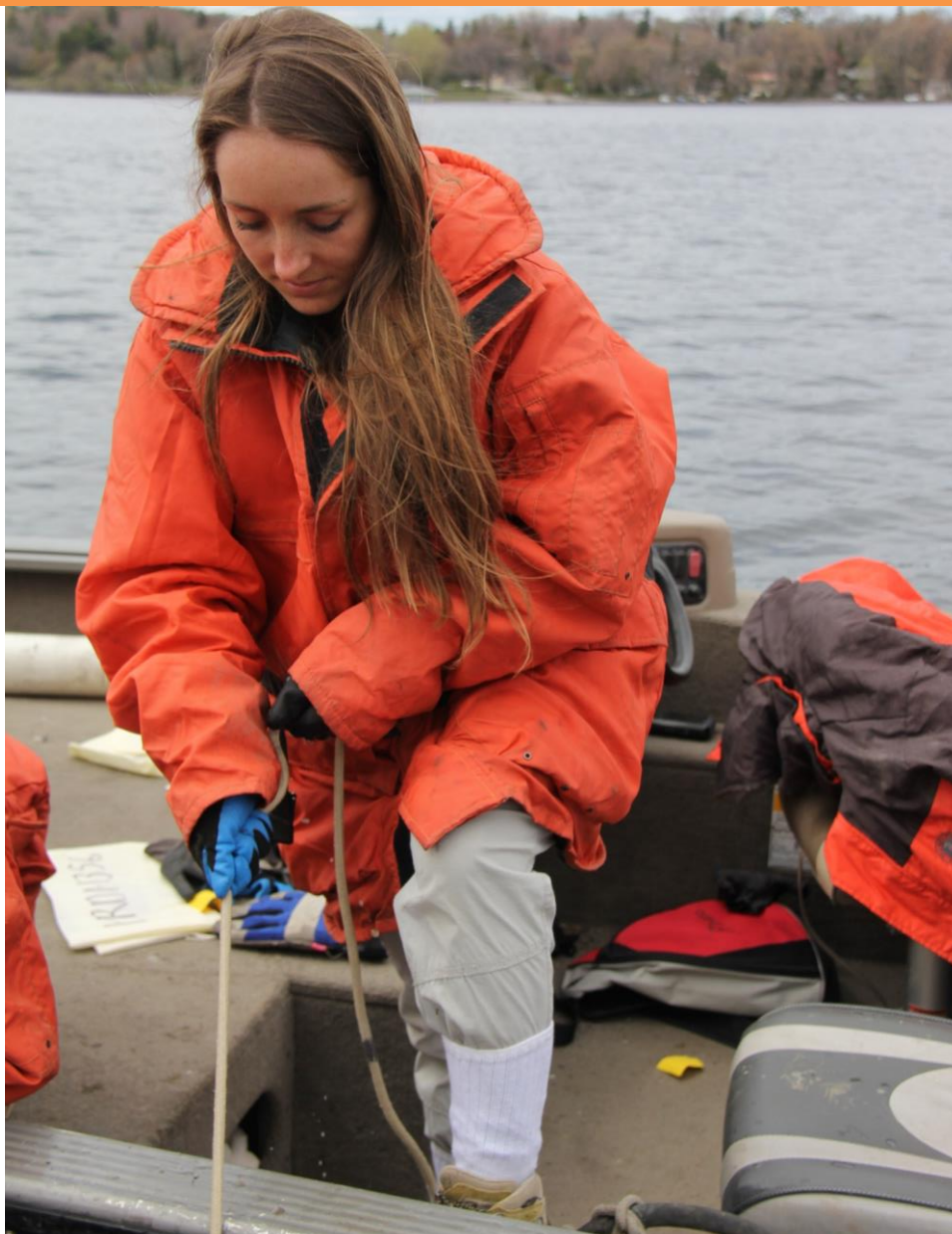
Make it rain!
Nathan (Acadia) and Natashia (UVic)



It tastes silty...
Elliot (LU)



Congrats, you put the tube the wrong way!
Nathan (Acadia) and Cole (UBC)



Nice socks!
Nicole (MUN)



Hunting for diamonds!



**Give me an indication, will you?
Madeleine (Queens) and Anastasia (UofR)**

Silver Sponsors



AGNICO EAGLE

Friday, MAY 12 – Exploration Mapping Day

S-IMEW 2017
Exploration Mapping Day

Co-Chairs: Ian Trinder
Scott Jobin-Bevans

Wallbridge: Evan Slater
Marshall Hall

Lonmin Canada: Nick Wray

May 12, 2017



Evan Slater (Wallbridge Mining) starts off Exploration Mapping Day



Taus Jørgensen (Metal Earth) giving a run down of the Parkin Offset geology



**That last song did a number on my knees!
Melanie (UQAM) and Elliot (LU)**



**My next book: Multitasking 101
Nicole (MUN)**



Come at me bro!
Marshall Hall (Wallbridge Mining)



Where's Waldo?

Natashia (UVic), Cole (UBC), Corin (Dal), Nicole (MUN)



Eye on the prize!

Cole (UBC), Nathan (Acadia), Taus (Metal Earth), Nicole (MUN), Natasha (UVic), Corin (Dal)



**“Gab-Bro’s”
Taus (Metal Earth)**



**Gotcha!
Cole (UBC)**



They see me rollin'...

Nathan (Acadia), Taus (Metal Earth), and Cole (UBC)



**I can't move the rock if you're sitting on it...
Nicole (MUN) and Natasha (UVic)**



Sick Fold Bro!
Sara Pedneault (Laval)



New Kids on the Block!



The Dirty Diamonds!

Mark (SFU), David (UofM), Louise (UofC), Chanelle (Lakehead), and Matt (Waterloo)



I think we were here?

Lavie (UofS), Melanie (UQAM), Ian Trinder (CSA Consulting), Dan (UofA), and Elliot (LU)

Friday, MAY 12 – Exploration Mapping Day



Thank You Wallbridge & Crew!



The mapping troop!



Thumbs up!

David Milstead (S-IMEW alumni 2009) & Dan Baker (UofA)

QA/QC of drill core assays

Julie Selway, Ph.D., P. Geo.



J-J Minerals

MINERAL EXPLORATION CONSULTING

Compliance is key!
Julie Selway

Bronze Sponsors



CSA Global
Mining Industry Consultants



TAHOE CANADA



**A lesson in modelling...
Elizabeth Ronacher**



BIF-tastic!



**Put your back into it!
Garett (Fleming) & Marvin (Osisko)**



**One of our fearless leaders!
Ian Trinder**



**What goes up, must come down...
Connor (SMU) & Madeline (Queens)**



Take the phone, I'll save you!
Dan (UofA) & Connor (MRU)



Welcome to Quebec!



**Geology of the Noranda Camp!
Gérald Riverin**



Thanks Agnico Eagle!



Why is it so dark?
Lavie (UofS)



**Post Pillowtalk!
David (UofM)**



**All my friends are rocks...
Nathan (Acadia)**



Let's get columnar!

Contributing Sponsor

SGS





**Mudders Weekly Photoshoot!
Garrett Hooley (Fleming)**



“Jump on Three!”



**Sleeping on the job!
Marc (S-IMEW Coordinator)**



**Overview of the Amarug Project!
Stephane Villeneuve (Agnico Eagle)**



There's no such thing as too much mapping!



Peanut butter boys!
Dan (UofA) and Garrett (Fleming College)



The three stooges!
Nicole (MUN), Lavie (UofS), Kendra (NAIT)



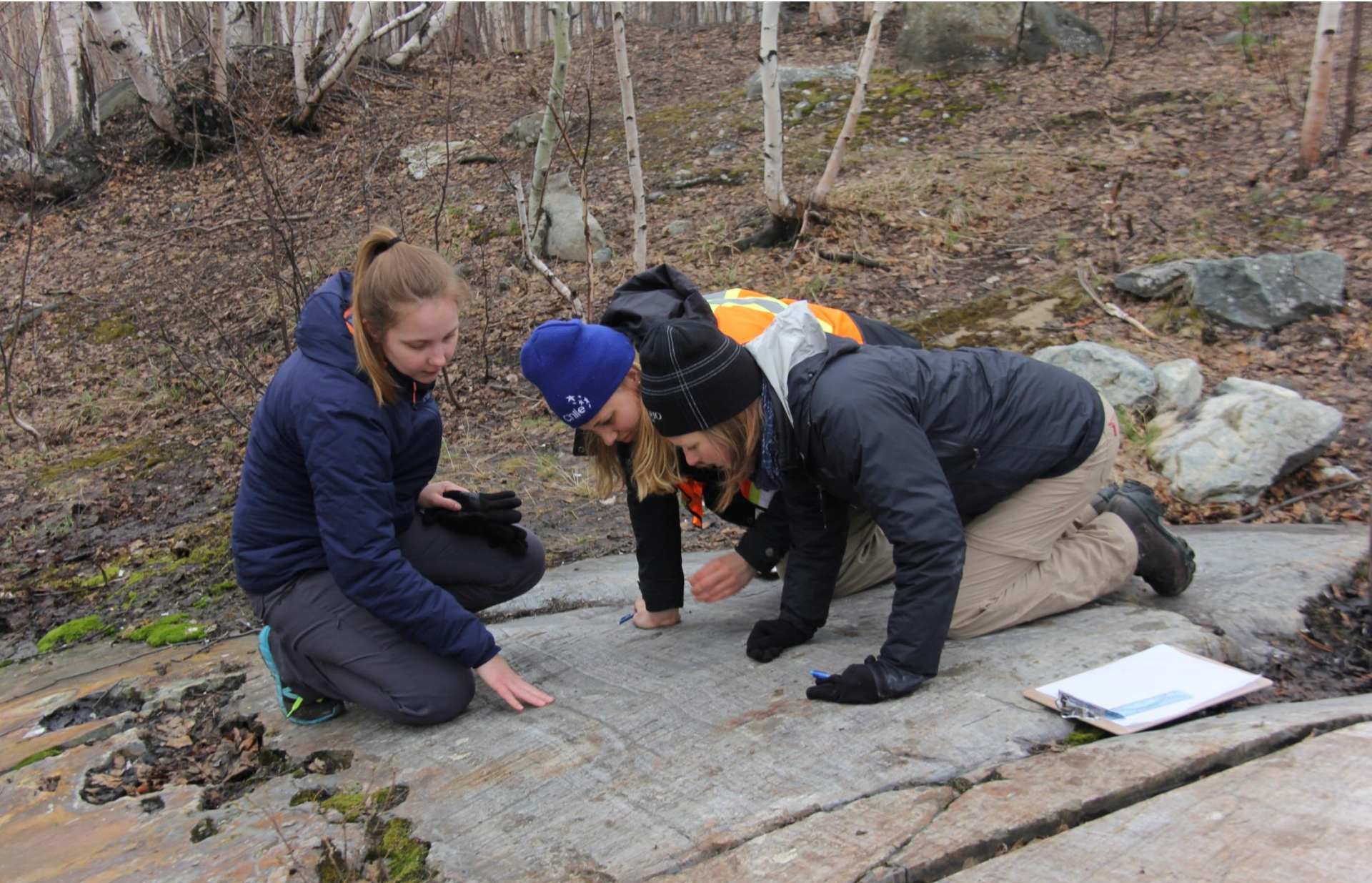
**The mapping & the non-mapping...
Chantal (BU), Connor (SMU), Louise (UofC), and Connor (MRU)**



How you doin'?
David (UofM)



**The geo life!
Natashia (UVic)**



Which way's up?

Meg (Laurentian), Corin (Dal), and Natasha (UVic)

Bronze Sponsors

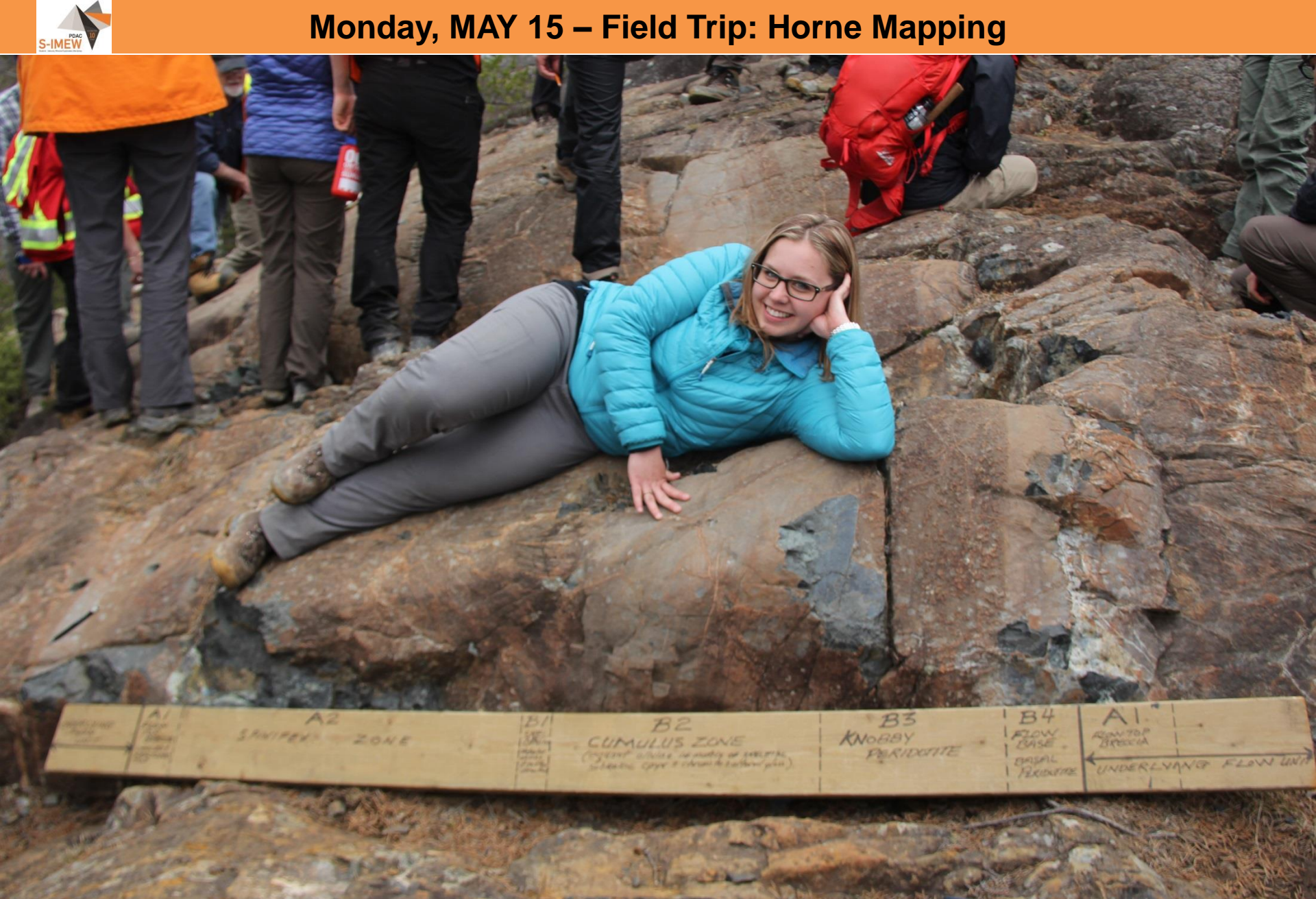




Thanks Meg (Laurentian) for the mapping!



Observing a well preserved komatiite!



Komatiite model!
Kendra (NAIT)



Nice buns!
Corin (Dal)



Thanks for coming!

Peter Harvey (MNDM), Matt (Waterloo), Richard Lilly (University of Adelaide) and Karen Rees (S-IMEW Co-chair)

The 100+ Year History of Discovery & Mining in the Porcupine Camp



Ontario

Gold is addictive!
Ed van Hees (OGS)



**Rock those pigtaails!
Nicole (MUN)**



Are you sure about that?

Connor (MRU), Ian Trinder (CSA Global), Sara (Laval) and Dan (UofA)



**Rocks, more rocks!
Louise (UofC) and Sarah (Brock)**

Tuesday, MAY 16 – Field Trip: Timmins Geology



Mark (SFU) and Lavie (UofS)



Group nap...

In-Kind Contributors





Thanks Major Drilling!



**Pumice, where you at?
Elliot (LU) and Kendra (NAIT)**



Richard Lilly (University of Adelaide) and Peter Harvey (MDNM)



The search of pumice continues...
David (UofM) and Elliot (LU)



You talking to me?



Group meeting...



Scouting the area...
Sara (Laval)



**Thanks for showing us around Peter!
Kassandra (McGill) and Peter Harvey (MDNM)**

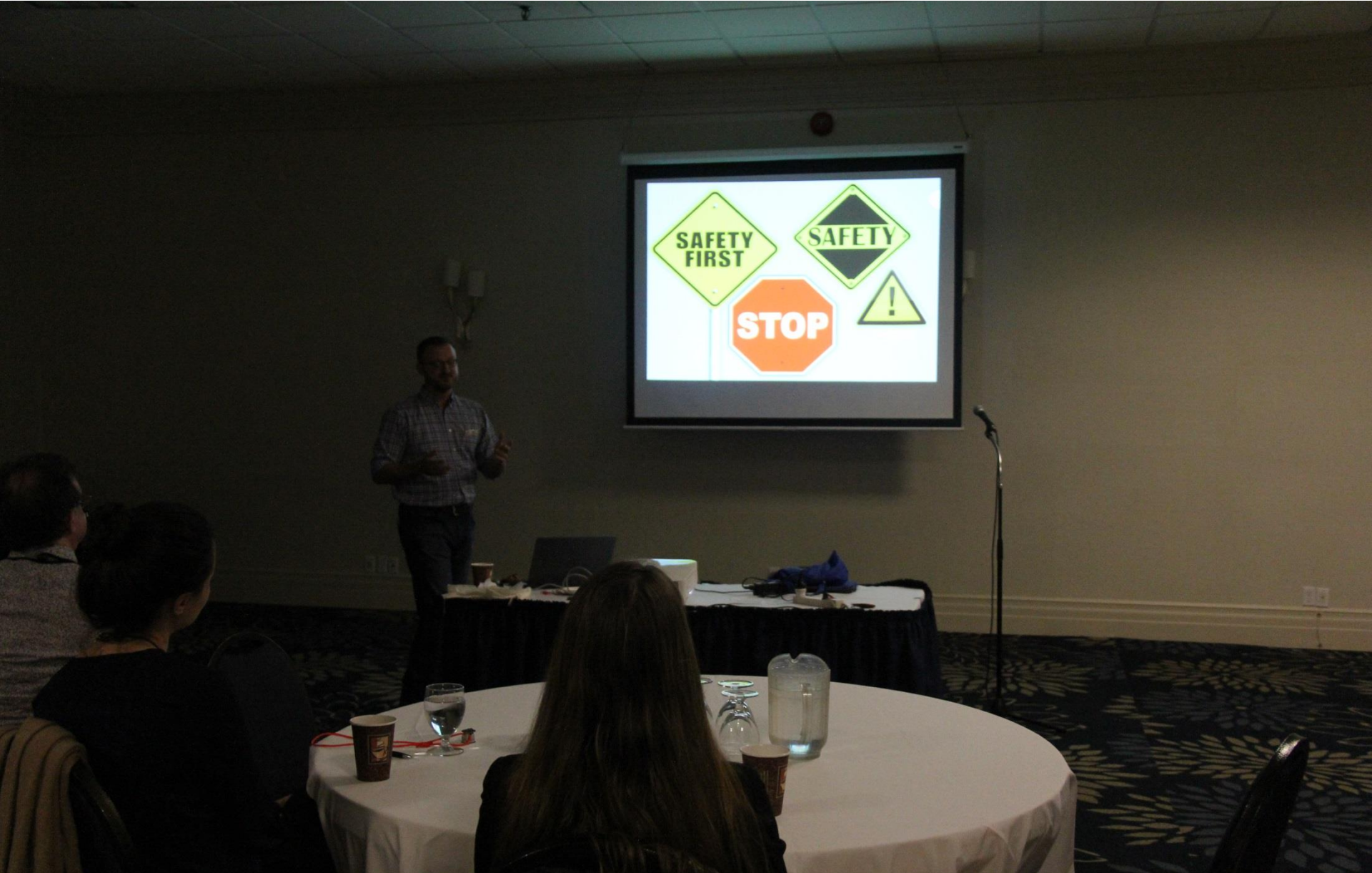


Mining in action at the Hollinger Mine!

Tuesday, MAY 16 – Field Trip: Timmins Geology



Thanks for the tour Kim!



**The importance of health and safety!
Richard Lilly (NExUS; University of Adelaide)**



Karen kicking off the presentations from Tahoe Canada!



Thanks Tahoe Canada!



**Time to go underground!!!
Shilika & Marc (S-IMEW Coordinators)**



**Planning the next gold mine!
Bell Creek Mine**



**Mesmerized by the ore body!
Bell Creek Mine**



Can I keep this?
Dan (UofA) & David (UofM)



**And this is how to escape!
Ian Trinder (CSA Global), Marc Gasparotto (S-IMEW Coordinator)
& Al Mainville (Chief Geologist, Bell Creek Mine)**



Thanks for the underground tour Tahoe Canada!

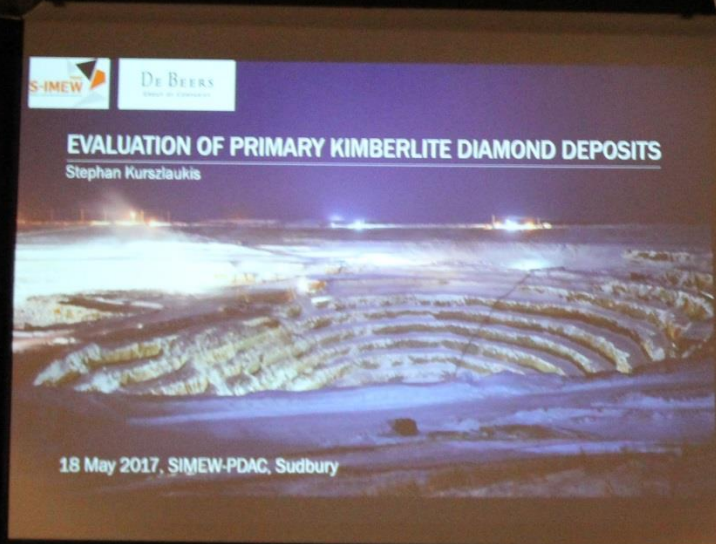


DIAMONDS

THEY ARE NOT MADE IN A DAY

- The term diamond is derived from the ancient Greek "adamas" meaning unbreakable.
- Hardest known naturally occurring bulk material with remarkable optical and physical properties such as hardness, thermal conductivity, and optical dispersion
- Diamonds are often described in terms of their carat weight, one carat is 200 milligrams or 0.2 g.
- The term carat is derived from the carob seed – a pea-sized seed used as a unit of weight in the middle 13th century.

**Presentation on Exploration for Diamond Deposits
Nicole Januszczak (DeBeers)**



Presentation by Stephan Kurszlaukis (DeBeers)



Thanks for presenting the Shore Gold Case Study
Sara (Brock) & Dan Leroux (SGS)



**Who will find the diamond first?
Matt (UWO) & Sara (Laval)**



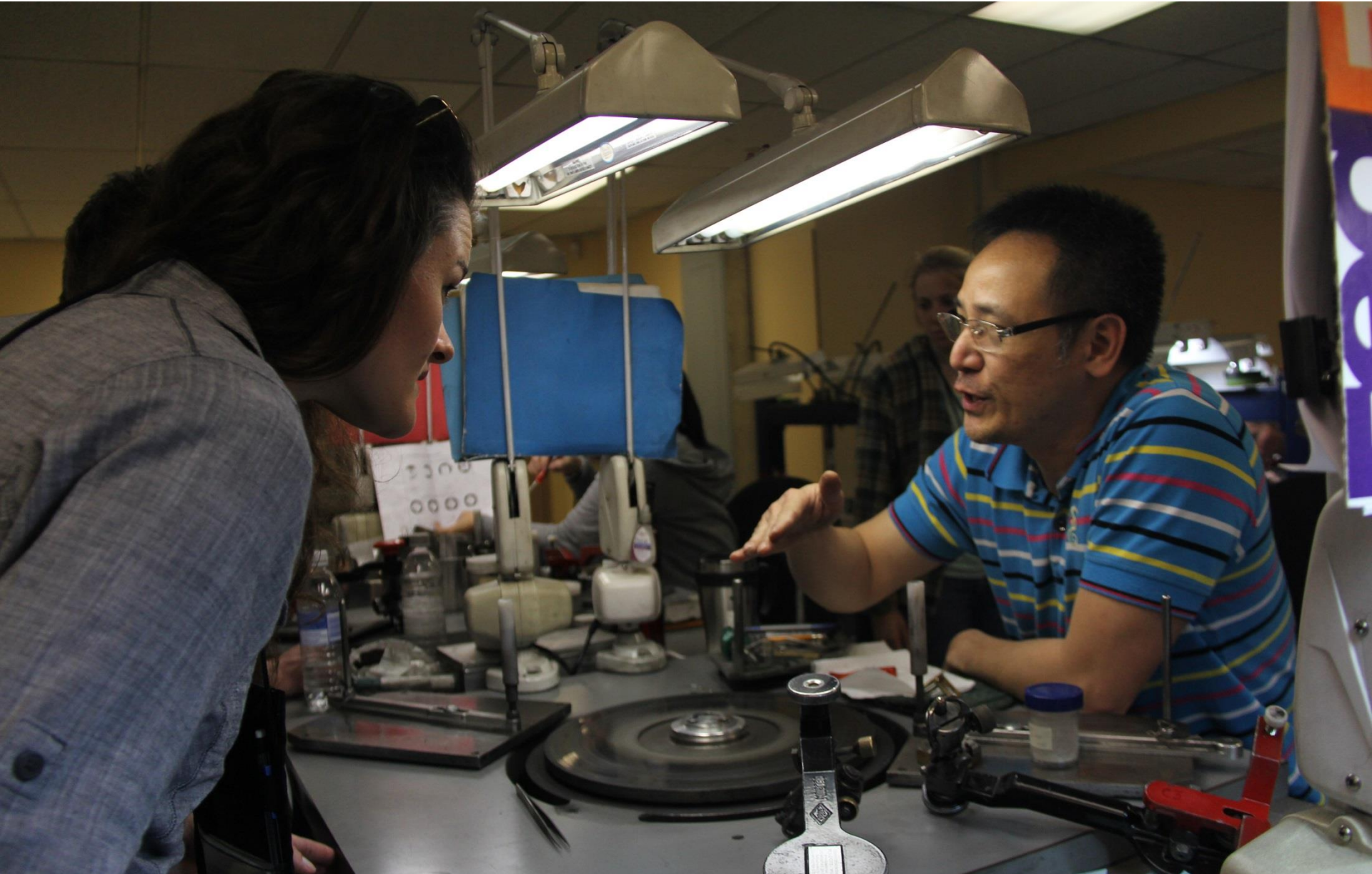
The core boxes double as a stage!



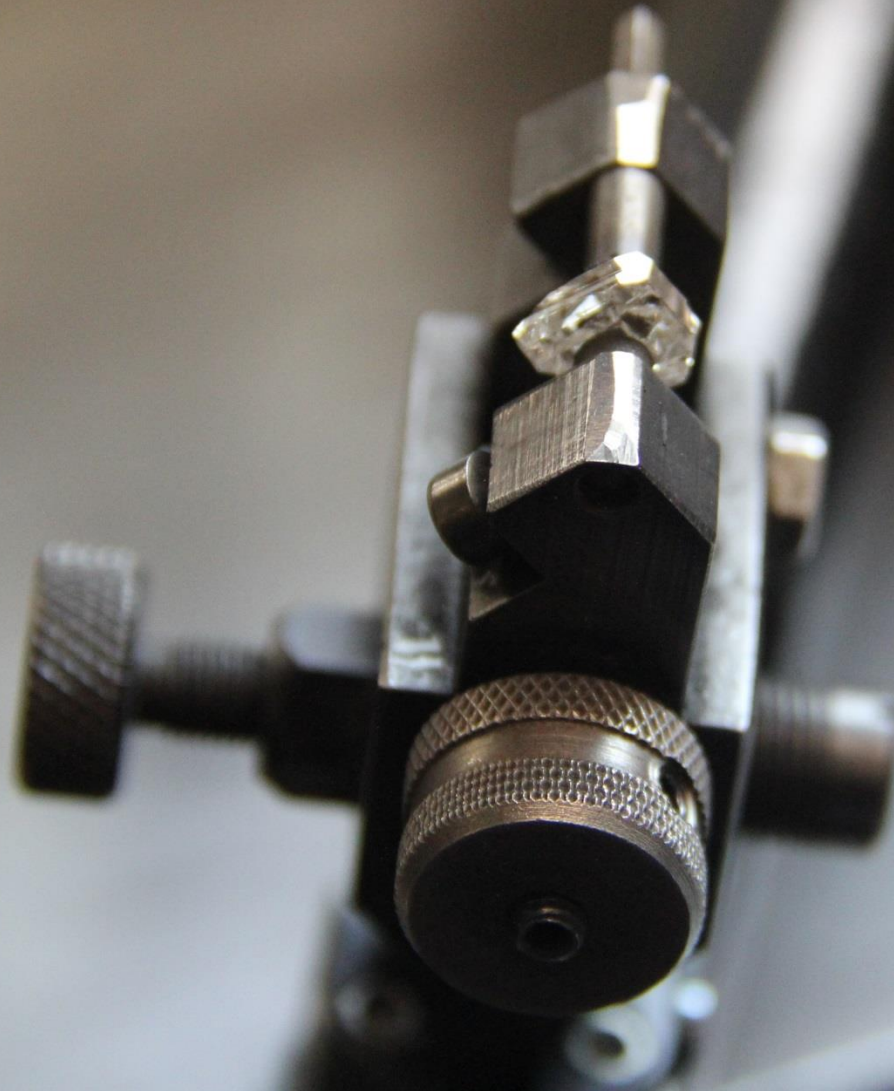
Shine bright like a diamond!



**Abrading diamonds!
Louise (UofC)**



**A captive audience!
Madeline (Queens)**



Princess cut?



**Sherlock, is that you?
Mark (SFU)**

Follow our journey on social media



facebook.com/PDACStudents



@PDAC_Students

@the_PDAC