MAY **11-14** MAI, 2025 **uOttawa** - Ottawa, Ontario

GAC
MAC
IAH-CNC

AGC
AMC
AIH-SNC

Geoscience Beyond Boundaries

Géoscience au-delà des frontières

PROGRAMME 2025



MINERALOGICAL ASSOCIATION OF CANADA
ASSOCIATION MINÉRALOGIQUE DU CANADA

GEOLOGICAL ASSOCIATION OF CANADA
ASSOCIATION GÉOLOGIQUE DU CANADA

iah aih
CNC - SNC
International Association of Hydrogeologists
Association Internationale des Hydrogéologues

Carleton University

uOttawa

Natural Resources Canada
Ressources naturelles Canada
Canada

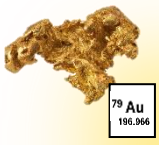
PLATINUM



AGNICO EAGLE

DataStream

GOLD



SciAps

IOS Géosciences
De l'innovation émerge la richesse

Ottawa

SILVER



aquanty

PLANET
ENGINEERING Inc.
Consulting Engineers

BRONZE

BRONZE SPONSOR

SLR

Actlabs

SGS
When you need to be sure

Table of Contents

Sponsors.....1

Welcome to Ottawa 2025.....3

Land Acknowledgement.....4

Sponsoring and Participating Societies.....5

Local Organizing Committee.....6

Delegate Information.....7

Maps.....12

Exhibits.....16

Safety Message.....18

GAC-MAC-IAH Awards.....22

Field Trips.....34

Workshops.....37

Events

- Social Events.....43
- Early Career Events.....44
- Meetings (Invite Only).....44
- Lectures and Information Sessions.....44
- Free Public lecture by Dr. Claudia Schröder-Adams.....46

Public Outreach events.....47

Technical Program at a Glance 49

Technical Program

- Monday.....61
- Tuesday.....83
- Wednesday.....105
- Poster Session.....127

Primary Author Index.....142

Notes.....159

Welcome to Ottawa!

On behalf of the organizing committee, it is our great pleasure to welcome you, virtually or in person, to GAC MAC IAH-CNC 2025, held here in the beautiful city of Ottawa, the capital of Canada. We are truly excited to have you join us for this exceptional gathering of minds, dedicated to advancing our understanding of the Earth, its processes, and its vast, dynamic history. Ottawa, our nation's capital, is renowned not only for its rich history, its universities, and its central role in government, but also for the natural landscapes that define the surrounding area.

GAC MAC IAH-CNC 2025 brings together professionals, researchers, and students from around the world, creating an invaluable opportunity to exchange knowledge, share ideas, and foster collaboration across various branches of geology. From the latest advancements in geoscience to discussions about pressing global challenges, we are certain that the sessions, field trips, and workshops will inspire and stimulate thoughtful conversations and discussions.

This conference would not be possible without the involvement of several people and organizations. We would like to recognize the host organizations of this year's meeting: the Geological Association of Canada, the Mineralogical Association of Canada, and the International Association of Hydrogeologists – Canadian National Chapter. We are thankful for the participation and support of Natural Resources Canada – The Geological Survey of Canada, The University of Ottawa, and Carleton University. We are grateful to our sponsors and exhibitors for their support. Special thanks are owed to the University of Ottawa for hosting us, and in particular, thanks to Daniela Gutiérrez de Pineres, an event manager extraordinaire at the University of Ottawa, for all of her help with the planning of the conference. A resounding thank you to the numerous volunteers that truly made this conference happen. Thank you to all students who volunteered their time and last, but in no way, least, the biggest thank you of all to the members of the Local Organizing Committee who put countless hours into organizing this event. We would also like to take this opportunity to celebrate the 70th anniversary of the Mineralogical Association of Canada, and the 25th anniversary of the GSC's Targeted Geoscience Initiative. Congratulations on these major milestones and we wish both continued success.

As you engage in the sessions and activities planned, we encourage you to connect with your peers, ask questions, challenge ideas, and explore new concepts, in a thoughtful and respectful manner. Once again, welcome to Ottawa. We are excited to share this experience with you and look forward to the exciting and insightful discussions that lie ahead.

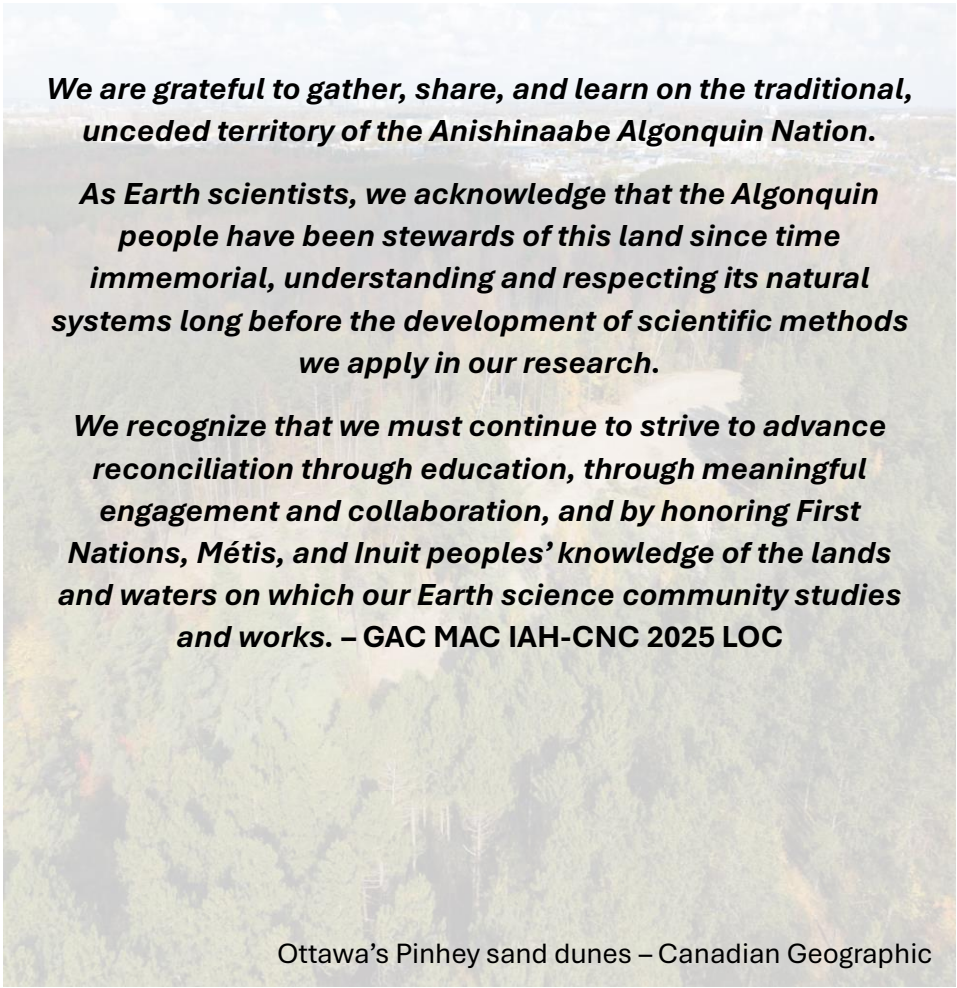
Nikole Bingham-Koslowski and Brian O'Driscoll (co-chairs)

Ottawa Sign in Byward Market, Parliament of Canada & Rideau Canal

We are grateful to gather, share, and learn on the traditional, unceded territory of the Anishinaabe Algonquin Nation.

As Earth scientists, we acknowledge that the Algonquin people have been stewards of this land since time immemorial, understanding and respecting its natural systems long before the development of scientific methods we apply in our research.

***We recognize that we must continue to strive to advance reconciliation through education, through meaningful engagement and collaboration, and by honoring First Nations, Métis, and Inuit peoples' knowledge of the lands and waters on which our Earth science community studies and works.* – GAC MAC IAH-CNC 2025 LOC**



Ottawa's Pinhey sand dunes – Canadian Geographic

The Geological Association of Canada (GAC ®) is a national multidisciplinary geoscience organization. Its academic, industrial, and government members come from all areas of Earth Science. The Association promotes and offers opportunities for the discussion and dissemination of geological knowledge. The GAC® makes significant contributions to the promotion and development of the geological sciences in Canada through publications, awards, conferences, meetings, and exhibitions. It's journal, Geosciences Canada, welcomes technical papers of broad interest.

The Mineralogical Association of Canada (MAC) is a non-profit scientific organization that promotes and advances the knowledge of mineralogy and the allied disciplines of crystallography, petrology, geochemistry, and mineral deposits. Through meetings, short courses, publications, and sponsored symposia, the Association provides a forum for the presentation and dissemination of current knowledge and advances to the worldwide community of earth scientists. Its journal is The Canadian Mineralogist.

The International Association of Hydrogeologists – Canadian National Chapter (IAH-CNC) is a branch of IAH which is a scientific and educational organization that promotes the study of hydrogeological science and its application for common good throughout the world. The IAH-CNC consists of hydrogeologists, scientists, engineers, and others, who have an interest in groundwater resources. It offers members a variety of talks, seminars, networking opportunities, and conferences.

Natural Resources Canada | Ressources naturelles Canada
Canada

uOttawa

Carleton University

Canadian Geological Foundation | Fondation géologique du Canada

Ocean Week Canada | Semaine de l'océan Canada

CGEN RCEG
Canadian Geoscience Education Network
Réseau canadien d'éducation géoscientifique

EdGEO
Canadian Earth Science Teacher Workshop Program

Earth Sciences Museum
University of Waterloo

GAC Chair: Nikole Bingham-Koslowski

MAC Chair: Brian O'Driscoll

IAH_CNC Chair: Tessa Di Iorio

Secretary: Stephanie Lyrette

Finance Chair: Brian Cousens

Accommodations: Olivia King

Exhibits: Marc Beauchamp

Field Trips: Chris Rogers

Short courses: Jeanne Percival

Fundraising / Sponsorship: David Corrigan

Outreach: Beth McLarty-Halfkenny

Publications: Maryam Shahabi Far

Registration Committee: Nadia Mohammadi, Tarryn Cawood & Mohammad Parsa

Safety: Steve Beyer

EDI: Hillary Maddin

Social Events: Dianne Mitchinson

Early Career Events: Ian Honsberger

Website: Kimberly Trebus

Volunteer Co-ordinator: Michelle Coyne

Social Media: Bruna Borba de Carvalho

Technical Program Committee: Christopher Lawley, Abeer Haji Egeh & Wasiu Raji

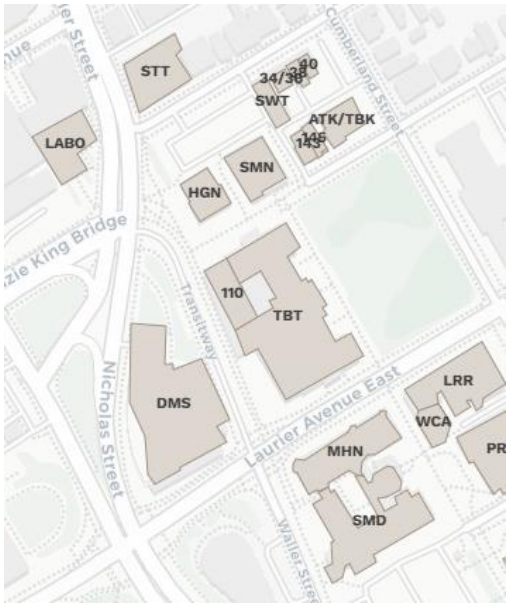
Technical Services: Victoria Maneta & Stephanie Larmagnat

VENUES

GAC MAC IAH-CNC 2025 is hosted at the University of Ottawa, with the conference taking place primarily in Desmarais Hall (DMS). Talks will take place on the first (rooms 1110, 1120, 1130, 1140, 1150, and 1160) and fourth (rooms 4120, 4130, 4140, and 4170) floors. There are also some events and a knowledge special session on the twelfth floor, room 12102. The registration desk is located in the lobby of Desmarais Hall (DMS). Posters and exhibits are split between the lobby of Desmarais Hall and room 4101. The speaker ready room is located in Desmarais 4141 and a quiet/prayer room is available in room 4172.

The GAC, MAC, and IAH-CNC lunches will take place Monday, Tuesday, and Wednesday respectively in Huguette Labelle Hall, in the Tabaret building (TBT). The Mineral Deposits Division lunch will take place Wednesday in Johnson Hall in the Alex Trebek Alumni Hall building (ATK/TBK)

Workshops will take place Saturday, Sunday, Thursday, and Friday in the Simard (SMD) and STEM buildings.



PRESENTATIONS

Oral presentation slots are limited to 20 minutes: 15 minutes of presentation with 5 minutes of questions. Presenters will be cut off if they exceed the 20 minutes. In person presenters are expected to upload their presentations in the speaker-ready room (DMS 4141) prior to the start of their session. If you are in the first morning presentation bracket, please upload your presentation the day before. If you are in the afternoon, please upload your presentation by noon that day. Please do not try and uploading your presentation during your session.

POSTERS

Please put your poster up at your assigned spot the morning of your poster day and take it down after the afternoon poster session. It is required that you be by your poster to present and answer questions during the morning and afternoon coffee breaks, as well as during the afternoon poster session on your assigned day. Student poster prizes will be announced at the closing ceremonies on Wednesday afternoon. **Poster size is 4' x 4'.**

DALY
STEWART
NICHOLAS
STT
SÉRAPHIN - MARION
WILBROD
STATION LAURIER STATION
CUMBERLAND
LAURIER EAST
LAURIER
WLD
HYMAN SOLOWAY
TABARET
DESMARAIS
HAMELIN
SIMARD
LRR
PEREZ
SCR
GSD
LEBLANC
THOMPSON
MORISSET
FAUTEUX
KED
HENDERSON
KING EDWARD
OSGOODE
LOUIS - PASTEUR
WALLER SOUTH
UNIVERSITY CENTRE
UNIVERSITÉ
BROOKS
MONTPETIT
UNIVERSITY
UNIVERSITY SQUARE
PLACE UNIVERSITÉ
FSS
VANIER
LAMOUREUX
LEARNING CROSSROADS
MARIE - CURIE
SOMERSET
CAREG
GENDRON
BIOSCIENCES
D'IORIO
MARION
LPR
POWER PLANT
CENTRALE THERMIQUE
STEM
CRA / ARC
TEMPLETON
STATION OTTAWA STATION
PASSERELLE CORKTOWN BRIDGE
CANAL RIDEAU CANAL
N
W
E
S

PARKING AND TRANSPORTATION

Parking is limited on campus and spots are not guaranteed. The university is serviced by the O-Train as well as several bus routes. Please consult the OC Transpo website for routes, schedules, and fares. It is also in walking distance from downtown Ottawa and the Byward Market.

ADDITIONAL INFORMATION

There are several things to see and do in Ottawa. Ottawa Tourism has set up a website for us to highlight some of these events: **www.ottawatourism.ca/en/gac2025**. Also featured on the website is Ottawa Tourism's "Flash Your Badge" program, which allows you to show your conference badge at various venues (museums, tours, restaurants, and stores) to receive discounted rates (these rates also apply to a guest). Ottawa's famous tulip festival takes place from May 9th to 19th near Dow's Lake.

INTERNET

Wireless access is available to uOttawa visitors through:

- uoPublic wireless network: Free limited bandwidth connection — 12 hours of wireless access per session
- eduroam: Secure roaming wireless access for visitors from participating eduroam institutions
- Sponsored accounts: Limited-time access (maximum one year)

By using the uoPublic network, you agree to all terms and conditions, and to engage in appropriate behaviour, in accordance with uOttawa Policy 116 — Use and Security of Information Technology Assets.

Connecting to uoPublic Wi-Fi:

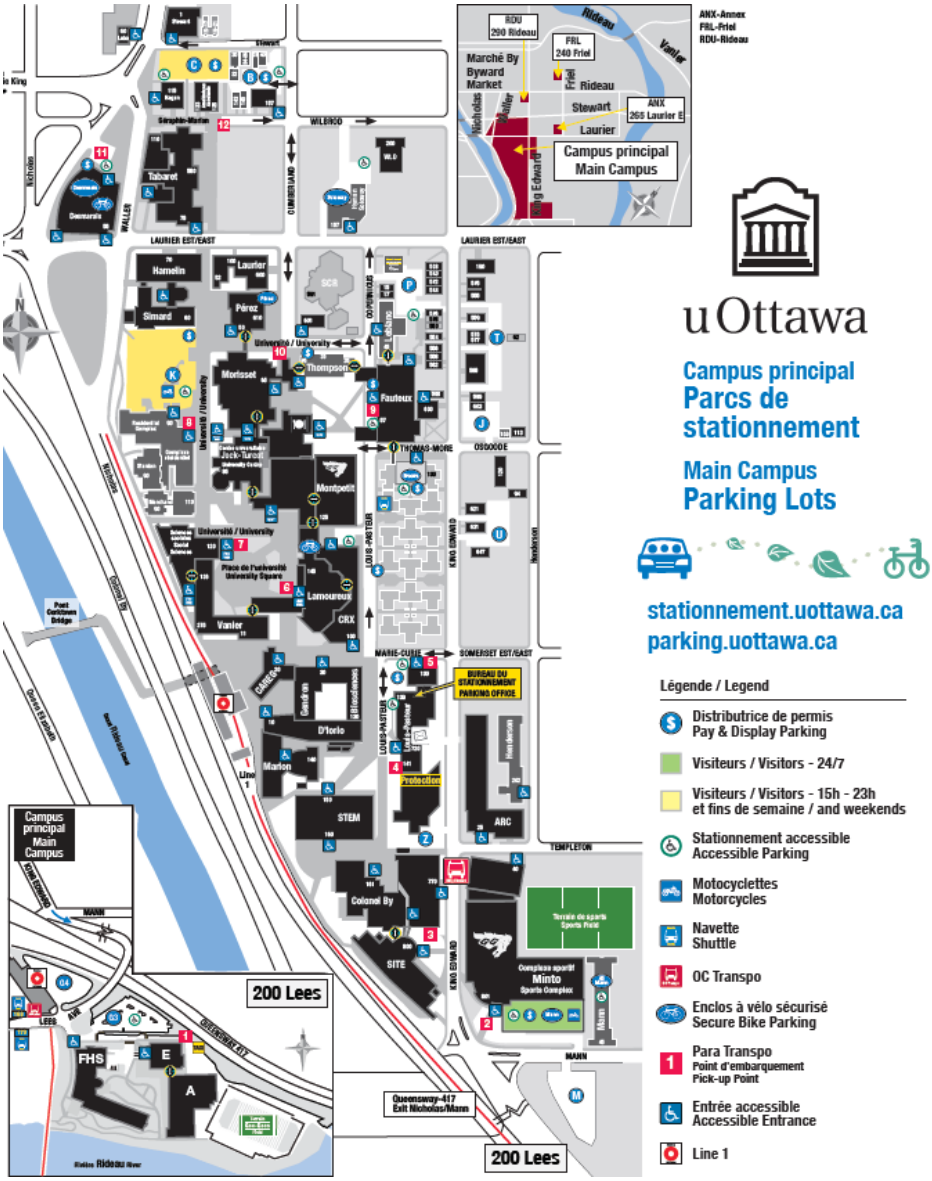
1. On your device, go to your Wi-Fi settings and select the uoPublic network.
2. Enter your name and email address. Then, select the box to accept the Terms of use. Click the Connect button.
3. On the connection details screen, select the Connect button. Your device is now connected to uOttawa guest Wi-Fi.

uoPublic restrictions:

- The uoPublic network is unsecured. Don't use it for personal or sensitive data nor assume that you'll be protected from viruses, spyware and spam.
- The service has limited bandwidth and is meant for basic email and internet browsing, not for multimedia streaming or downloads.
- Users are isolated from the uOttawa network and can't access local resources, such as printers and shared drives.

Support:

- Guest Wi-Fi service is provided "as is." Individual support isn't available.



REGISTRATION

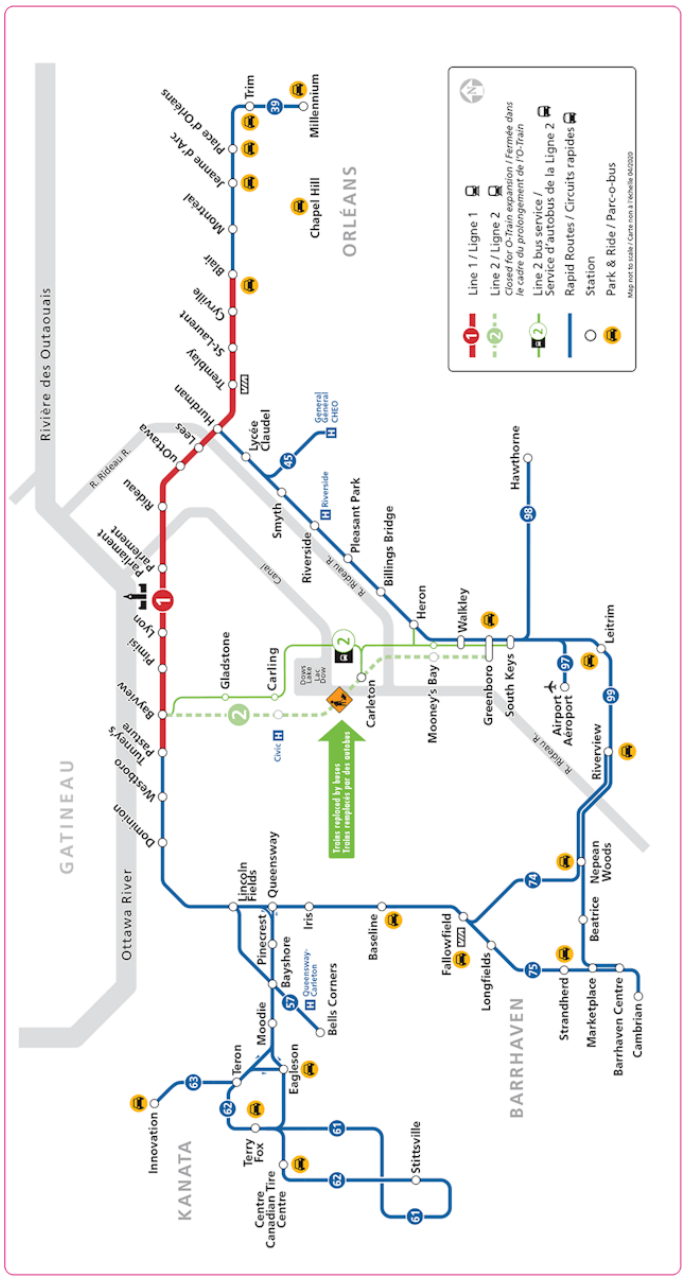
The registration desk is at Desmarais, Lobby.

- Sunday, May 11: 12:00 pm – 5:00 pm
- Monday and Tuesday, May 12 & 13: 7:30 am – 6:00 pm
- Wednesday. May 14: 8:00 am – 4:00 pm

EXHIBIT HOURS

Exhibits are at Desmarais – Lobby and room 4104.

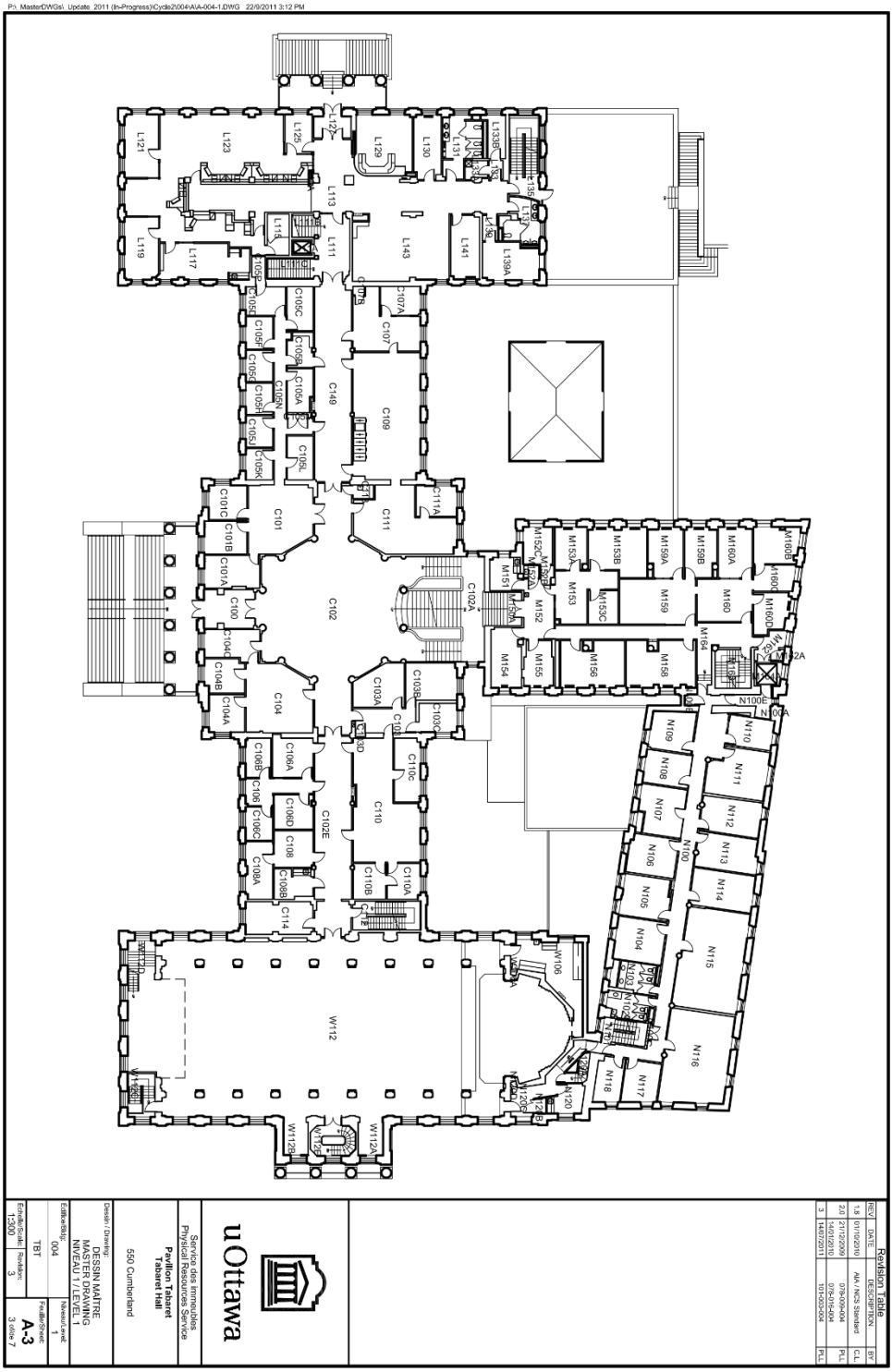
- Monday, May 12: 8:00 am – 6:00 pm
- Tuesday, May 13: 8:00 am – 6:00 pm
- Wednesday, May 14: 8:00 am – 4:00 pm



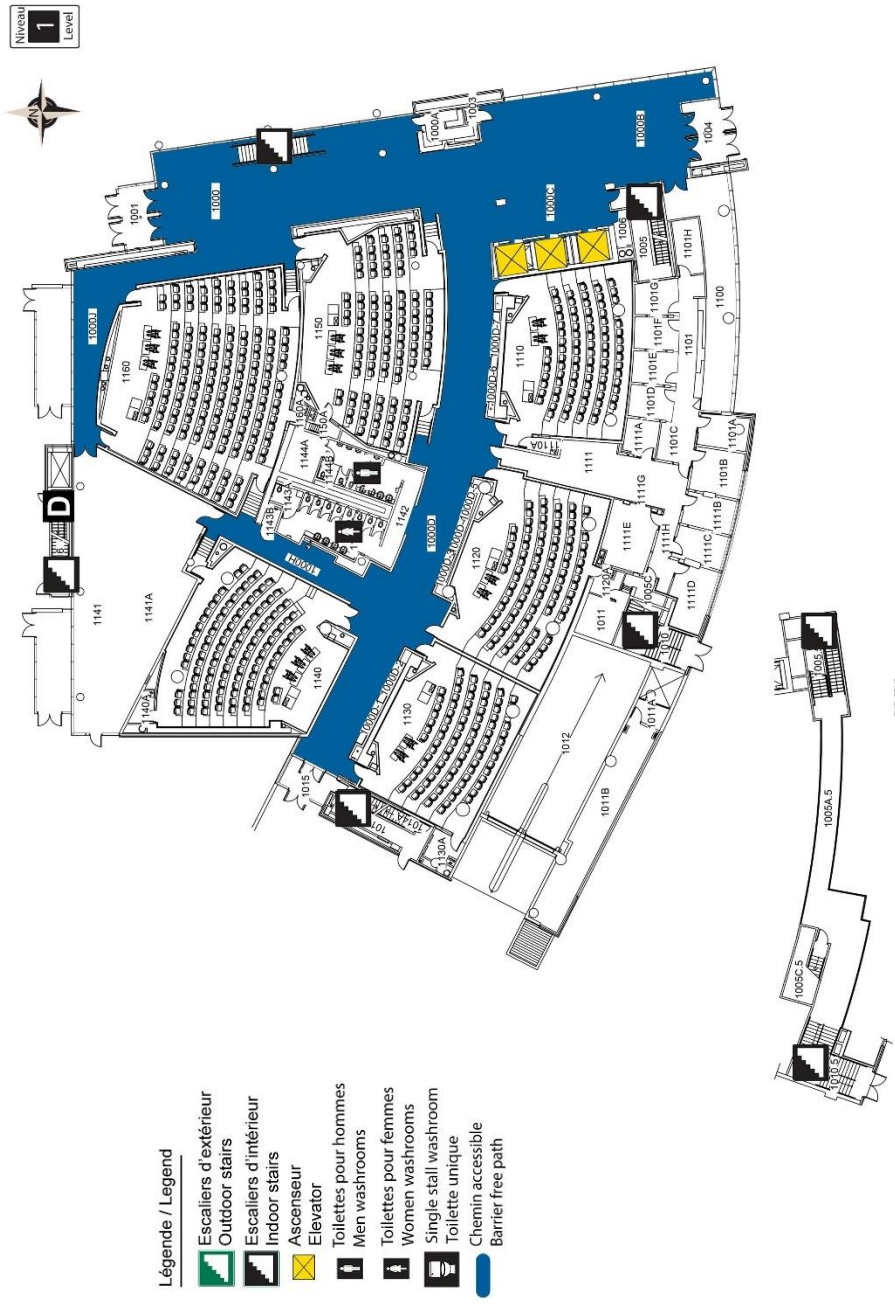
DISCLAIMER

The GAC MAC IAH-CNC 2025 secretariat and organizers cannot assume liability for personal accidents, loss of or damage to private property of the conference participants and accompanying person, either during, or directly arising from the GAC MA CIAH-CNC 2025. The registration fees do not include insurance for participants. Participants should make their own arrangements with respect to health and travel insurance.

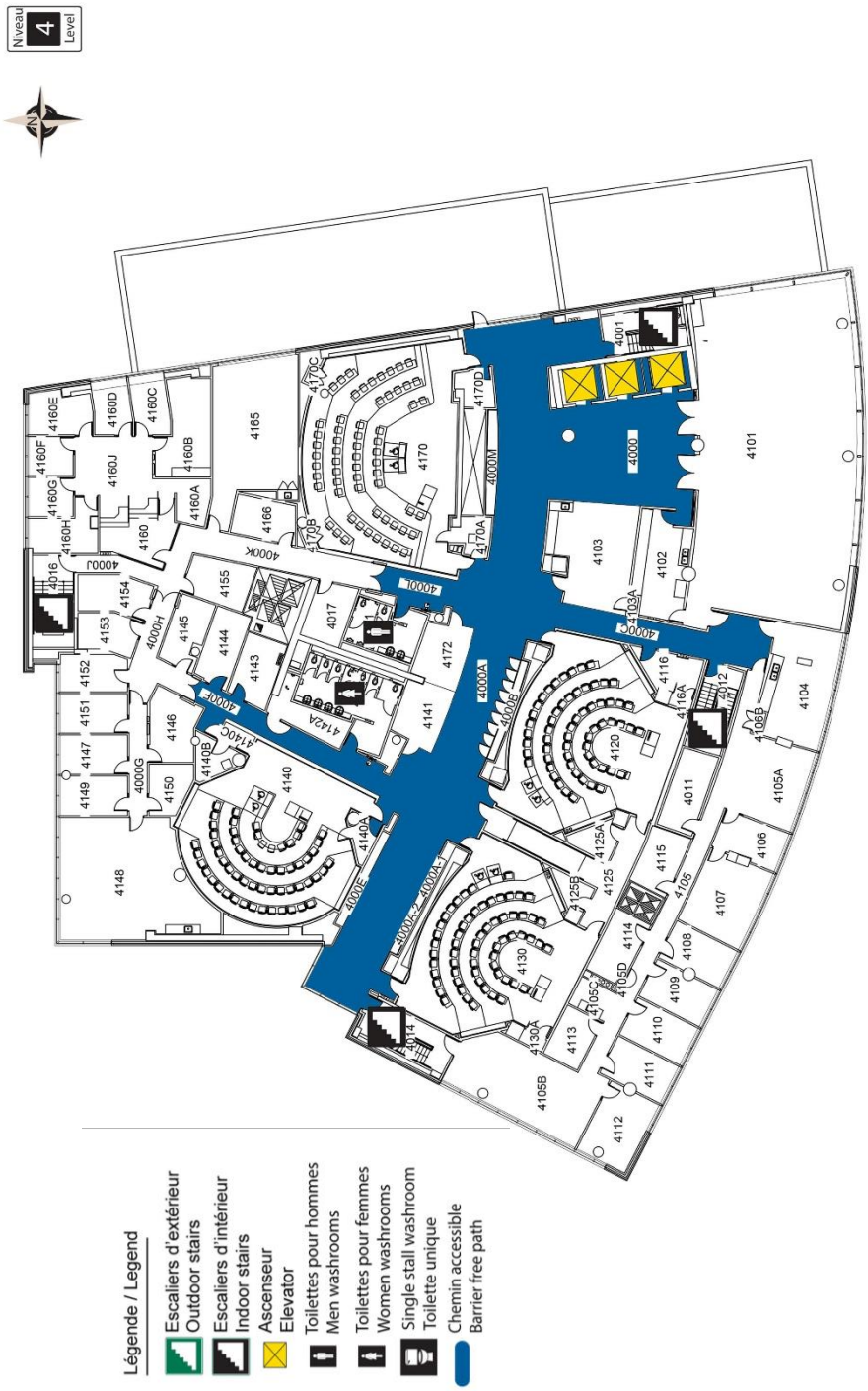
University of Ottawa – Tabaret Hall



University of Ottawa – Desmarais Hall – Level 1

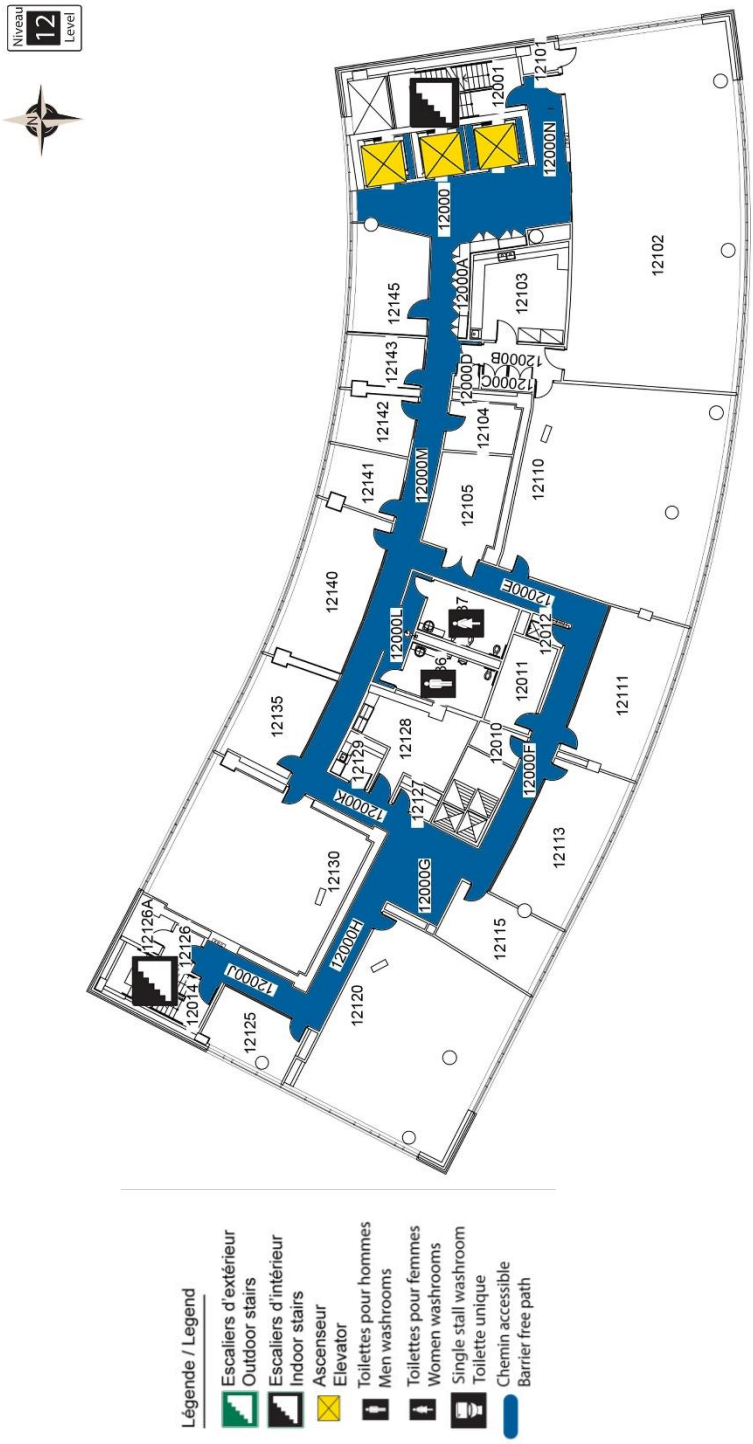


University of Ottawa – Desmarais Hall – Level 4



***** Note: Desmarais 4172 is a quiet/prayer room.**

University of Ottawa – Desmarais Hall – Level 12

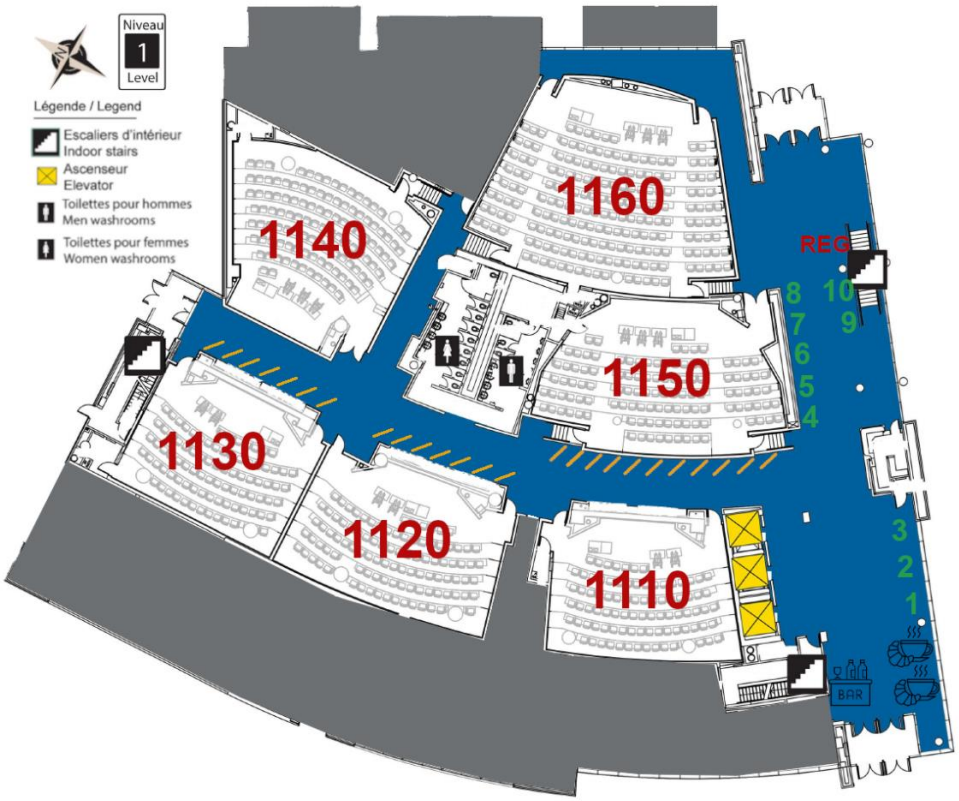


Légende / Legend

- Escaliers d'extérieur / Outdoor stairs
- Escaliers d'intérieur / Indoor stairs
- Ascenseur / Elevator
- Toilettes pour hommes / Men washrooms
- Toilettes pour femmes / Women washrooms
- Single stall washroom / Toilette unique
- Chemin accessible / Barrier free path

Main Floor Exhibitors

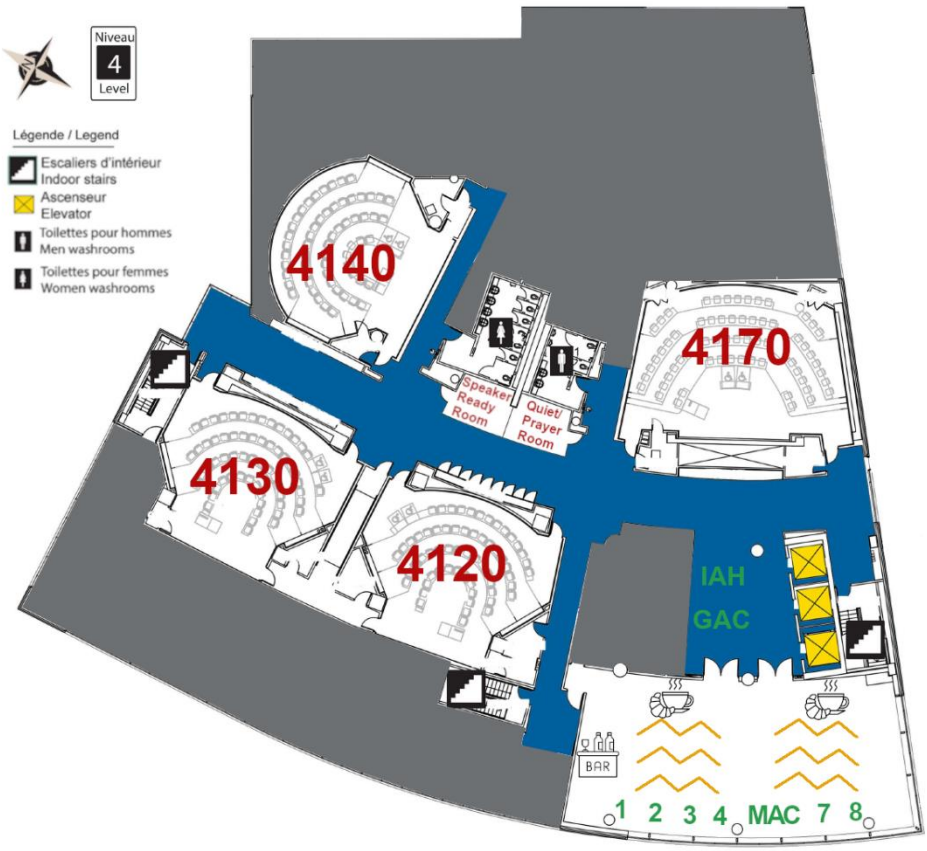
1. Datastream Initiative
2. Aquanty
3. SciAps
4. Geological Survey of Canada
5. Planet Engineering
6. Actlabs
7. Isomass Scientific
8. Memorial University of Newfoundland Department of Earth Sciences
9. Geofirma Engineering
10. University of Manitoba Department of Earth Sciences



4th Floor Exhibitors

Hallway: Geological Association of Canada, International Association of Hydrogeologists – Canadian National Chapter /The Groundwater Project

1. R&D Gems
2. Ontario Geological Survey Geoscience Laboratories
3. International Association on the Genesis of Ore Deposits
4. Canadian Journal of Earth Sciences
5. Mineralogical Association of Canada
6. Mineralogical Association of Canada
7. Overburden Drilling Management Limited
8. Carleton Department of Earth Sciences EDI



GAC Code of Conduct for meetings and events

The Geological Association of Canada (GAC) aims to provide all participants of GAC-related events with a positive, safe, and harassment-free environment in which diverse participants may learn, discuss, and network in an atmosphere of mutual respect, regardless of race, ethnicity, gender or gender identity, gender expression, sexual orientation, country of origin, age, disability, physical appearance, body size, religion, or culture. We recognize the responsibility to create and maintain that diverse environment for the benefit of all and to be active in promoting meaningful participation of individuals from all underrepresented groups and minorities.

Applicability

GAC members and all non-member participants (such as visitors, venue staff, or exhibitors) must adhere to the GAC Code of Ethics and GAC Code of Conduct in all GAC-related events. This applies to all GAC events and events run by the Sections and Divisions of the GAC, including (but not limited to) meetings, field trips, short courses, mentorships, and other supported programs and all virtual events. The GAC Code of Ethics and GAC Code of Conduct also apply to events by organizations other than GAC but held in conjunction with GAC in public or private facilities. Finally, GAC members are expected to abide by the standards set in the GAC Code of Ethics and GAC Code of Conduct in non-GAC related events.

Examples of expected behaviour

- Treat everyone with respect and consideration
- Communicate respectfully and openly with others, critiquing ideas rather than individuals
- Be considerate of views and opinions that are different from your own
- Alert a GAC councilor, an LOC volunteer, or onsite security personnel if you witness unacceptable behaviour or someone in distress
- Honour instructions if photographs or recordings of presentations are not allowed
- If you choose to drink alcohol or to consume other legal intoxicants in accordance with Federal and Provincial laws, do it so responsibly and safely. Be mindful of your responsibility to act professionally and to the standards set in the GAC Code of Ethics and GAC Code of Conduct

- Respect the rules and policies of the conference centre and all associated venues, including but not limited to field trip accommodations and pre- and post-conference events (e.g. workshops)
- Standards for respectful behavior and communication apply in any forum or medium, including in-person or virtual conferences and events, any online interactions, any social media, conference presentations, and media interviews

Examples of unacceptable behaviour

- Harassment and intimidation in any form, including gender-based harassment, and any verbal, written, or physical conduct designed to threaten, intimidate, or coerce
- Discrimination in any form based on race, gender or gender identity, sexual orientation, national origin, age, disability, physical appearance, body size, religion, or culture
- Use of nudity or sexual images in public spaces or presentations.
- Jokes or remarks that reflect stereotyping and denigrate others.
- Stalking in any form, including on-line trolling
- Sexual harassment in any form, including inappropriate, unwanted or unwelcome physical contact such as touching, patting or pinching; insulting comments, gestures, or practical jokes of a sexual nature that cause discomfort or embarrassment; and inappropriate enquiries or comments
- Disrespectful disruption of presentations in all GAC®-related events
- Disparaging remarks, stereotyping, negative language, and ad hominem attacks
- Use of online tools such as chat rooms, any social media, or other forms of digital communication to engage in any form of harassment, stalking, discrimination, or any of the behaviours listed above

Consequences

Anyone requested to stop any form of unacceptable behaviour must comply immediately. If necessary, the Safety Officer or on-site security may take further action, including:

- Verbal warning
- Immediate removal from the event without warning and without a refund

- Submission of a formal misconduct report to the GAC Council

Where complaints submitted to the GAC Council are found to have merit, disciplinary action will be taken against the offender — up to and including prohibiting attendance at any future meeting and revocation of GAC membership or referral of complaints to the offender's employer or legal authorities if criminal actions are involved.

Reporting Unacceptable Behavior

If you experience or witness any form of unacceptable behaviour or have any questions about what is unacceptable behaviour, please contact an LOC volunteer, a GAC councilor, or on-site security personnel member immediately. If reports are made verbally and dealt with by on-site security personnel the LOC Chair should be informed by the person receiving the report after the incident. The incident may also be reported to GAC Council if further action is needed.

Complaints regarding any type of unacceptable behaviour can be made in person on-site or via email to the designated authority for each event, ensuring that the email subject line reflects the urgency of the situation. Complaints submitted to the GAC Council will be handled confidentially to the maximum extent possible and will be investigated and resolved promptly following the procedure outlined in the GAC® Code of Ethics.

The GAC® Code of Ethics strictly prohibits retaliation against anyone for reporting or inquiring in good faith about what that person believes to be unacceptable behaviour or for participating in any related investigation. GAC® will not tolerate retaliatory behaviour from its members, especially from those in senior positions.

If you experience or witness behaviour or actions that are an immediate or serious threat to you, others, or public safety (for example, physical and sexual assault), first consider your safety and then contact emergency services (911) or on-site security immediately.

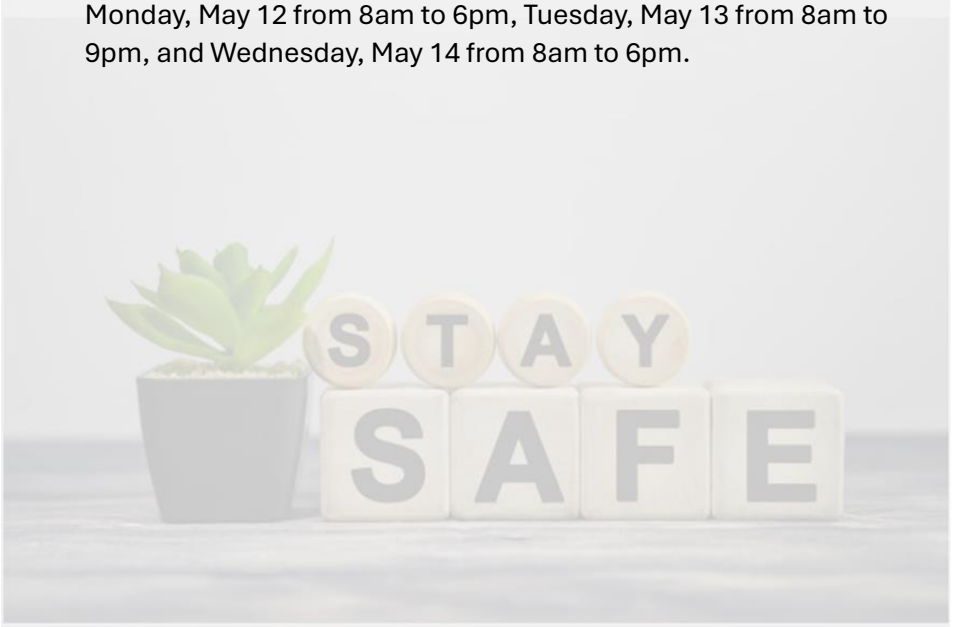
Reporting Emergencies

Protection Services of uOttawa is available 24 hours a day, 7 days a week, and has access to first-aid equipment, including defibrillators.

There are numerous ways to reach Protection Services to report an emergency.

1. On campus: call 613-562-5411
2. Off campus: call 911

3. Use the SecurUO app (available on the App Store for iOS and Google Play for Android); allows you to directly dial the Protection Services emergency line, and access safety features including Friend Walk and Work Alone
4. Use Emergency phones that are located across the uOttawa's campus; simply press the button to establish contact with Protection Services
5. In-Person report: approach an on-duty Protection Services member, or visit our Main Campus Protection Services office at 141 Louis-Pasteur (open 24/7); there will be a member of Protection Services patrolling the ground floor of Desmarais Hall Monday, May 12 from 8am to 6pm, Tuesday, May 13 from 8am to 9pm, and Wednesday, May 14 from 8am to 6pm.



Geological Association of Canada

2025 Logan Medal
Dr. Galen Halverson, *McGill University*

Awarded for his sustained efforts and outstanding contributions as a stratigrapher, sedimentologist, and isotope geochemist to interrogate the rock record and infer Earth's geographic, tectonic, and environmental evolution during the Proterozoic Eon.

Professor Galen Halverson is chair of the Department of Earth and Planetary Sciences at McGill University, where he holds the James McGill Professorship and is the T.H. Clark Chair of Sedimentology and Petroleum Geology. Dr. Halverson is among the world's foremost experts on the Proterozoic Eon, which encompassed the assembly and disintegration of the supercontinents Nuna and Rodinia, the Great Oxidation Event, the origin and early diversification of eukaryotic organisms, and multiple global glaciations. Dr. Halverson's early research, based on extensive fieldwork in the Canadian Arctic, Norway and Namibia, focused on understanding Cryogenian glaciations, including the formulation and testing of the Neoproterozoic snowball Earth hypothesis. He subsequently developed a chronological framework for the Neoproterozoic Era (1000–539 million years ago), which was used to understand the secular evolution of the carbon, strontium, and sulfur isotope compositions of seawater during this time. With his collaborators and students, he has further developed and applied multiple different isotope systems to the Proterozoic, including nitrogen,

iron, zinc, uranium, barium, and neodymium. He has worked extensively on the origin and stratigraphic records of sedimentary basins in northern Canada and across the globe over the past two decades, and this work has yielded new fossils, radiometric ages, and geochemical records that have collectively provided great insight into our understanding of the tectonic, biological, and biogeochemical change through the Proterozoic Eon. He has contributed to calibrating the Proterozoic geologic time scale through a combination of geochronology, astrochronology, and Bayesian age modelling techniques.

2025 Neale Medal
Lesley Hymers, *Mining Matters*



Awarded for her excellence in geoscience communication through over two decades of leadership in education and outreach, fostering connections between science and society, and inspiring professionals and students alike.

Lesley Hymers is the Manager of Education and Outreach Programs for Mining Matters, where she has led many impactful initiatives, including the

Geoscience Aware Challenge, which engaged over 250 participants through STEM-focused activities. While at the Ontario Mining Association, she spearheaded the *So You Think You Know Mining* video contest, which inspired nearly 1,000 creative entries highlighting the mining industry's societal contributions. She also played a pivotal role in the *WHERE Challenge*, launched in 2009 to address the lack of awareness about the origins of everyday materials. Her leadership in national organizations, such as the Canadian Federation of Earth Sciences (CFES) and the Canadian Geoscience Education Network (CGEN), has elevated geoscience education across the country. Lesley Hymer's innovative projects have brought lasting change to the field. She led the redesign of the Earth Science Careers website, ensuring modern, accessible resources for youth and mentors. Her collaboration with Parks Canada resulted in the Geologist in Residence pilot program, which connects communities with geoscientists and fosters appreciation for Canada's geological heritage. As a co-author of *Geoscience and Canada – Understanding our Earth* and a contributor to peer-reviewed publications, Lesley excels in making complex geoscientific concepts accessible and engaging. Beyond her professional achievements, Lesley Hymers is known for her mentorship and approachability. She creates inclusive environments that foster collaboration, confidence, and belonging, leaving lasting impressions on colleagues and students alike. Her leadership, vision, and unwavering commitment have advanced geoscience communication and education, leaving an indelible mark on the discipline and society.

2025 J. Willis Ambrose Medal
Dr. Kurt Konhauser, *University of Alberta*

Awarded for his transformative contributions to the Canadian Earth Science community, which have advanced Canada as a global leader in geobiology, and for championing the development of early career researchers.

Dr. Kurt Konhauser is a Professor at the Department of Earth & Atmospheric Sciences at the University of Alberta. For nearly three decades, Dr. Konhauser has made significant service contributions to the Canadian earth sciences community and the Geological Association of Canada. His efforts have been instrumental in positioning Canada as a global leader in geobiology, promoting the advancement of early career researchers, and enhancing public understanding of the field. Kurt's visionary and transformative initiatives include founding of the journal *Geobiology*, establishing the *Geobiology Society*, and launching the biennial Banff Geobiology Conferences, which have become cornerstones of the global geobiology community. He has also served five times as a panel member for the Natural Science and Engineering Research Council of Canada, including an extra two years during Covid due of his experience, furthering the development of interdisciplinary research at the intersection of biology, geochemistry, and geology within Canada. One of Dr. Konhauser's most

profound contributions lies in his mentorship of early career researchers. He has directly mentored over 90 students or postdoctoral researchers and provided guidance, insights, and active collaboration to many others across Canada. His influence extends locally, nationally, and internationally, with his research and educational efforts earning recognition through numerous awards. Through his long-standing commitment and dedicated service to advancing geobiology, Dr. Kurt Konhauser has helped define Canada as a global hub for the field, with his impact resonating across the country.

2025 Mary-Claire Ward Geoscience Award
Margaret Laverge, *Laurentian University*

Awarded for her outstanding geological field mapping and examination of the structural controls on gold mineralization at the Great Bear Deposit in northwestern Ontario.

Margaret Laverge's MSc thesis research at Laurentian University integrates detailed outcrop mapping, regional structural mapping, drill core logging, petrography, and U-Pb geochronology. She completed two field seasons for the geoscience mapping component of her project, producing nine detailed outcrop maps in addition to regional-scale mapping, and recorded over 1500 structural measurements. Margaret Laverge's research provides important new insights into the Great Bear Deposit's structural evolution, controls on gold mineralization, the timing of mineralization, and the geological context of the deposit within the Red Lake Greenstone Belt.

GAC Mineral Deposit Division (MDD)

2025 William Harvey Gross Award
Dr. Merilie Reynolds, *Northwest Territories Geological Survey*



Dr. Merilie Reynolds has made substantial achievements in the three main realms of economic geology: industry, government, and academia. She has consistently striven and succeeded in enhancing equity, diversity, and inclusion in the geological sciences, especially in field geology.

Dr. Reynolds obtained her bachelor's degree in Geology in 2008 at Smith College. After which she embarked on a career in mineral exploration and worked with Barrick and Teck Resources. She worked at several significant districts, including the Carlin trend in Nevada, Copperbelt in Zambia, and the Red Dog district in Alaska. She developed outstanding leadership and management skills in her roles at these companies, which included planning and running drill programs, training

junior geologists, data governance, and implementation of TruScan data collection. After which she returned to pursue PhD research at the University of Alberta, investigating the formation of the Anarraaq clastic-dominated Zn-Pb-Ag deposit, Red Dog District, Alaska. The significance and excellence of her research was recognized by the prestigious NSERC Vanier Canada Graduate Scholarship and the University of Alberta President's Doctoral Prize of Distinction. This work has been published in high-ranking journals including Geology and Economic Geology.

Dr. Reynolds has taught at the University of Wisconsin, Eau Claire, and MacEwan University, Edmonton. Through a grant from the University of Wisconsin, she made important contributions to teaching by developing course materials to utilize 3D printed and virtual models. Her tools allowed for better visualization of subsurface geology and supported students in achieving learning outcomes during the COVID-19 closures and restrictions.

In her current position as a Mineral Deposits Geologist at the Northwest Territories Geological Survey, she continues to be active in research. Her projects cover a range of economic geology initiatives related to gold deposits, rare earth element deposits, and sediment-hosted deposits in the NWT. Another significant contribution that Dr. Reynolds has made to the field of Economic Geology is her impact on improving equity, diversity, and inclusion in geoscience. She introduced new practices to boost female representation at speaking events and raised awareness on gender-based challenges in field geology. These include co-writing an article for GSA Today aimed at creating a positive bathroom field culture in the geosciences, anecdotally, this is being implemented by both government organizations and companies.

2024 William Harvey Gross Award

Dr. Crystal LaFlamme, *Université Laval*



Dr. LaFlamme is a leading researcher, worldwide, in the field of multiple sulfur isotope geochemistry, including its application to understand precipitation of gold mineralization in orogenic gold deposits, and tracking the sulfur pathways at a crustal scale. Dr. LaFlamme has made significant contributions in the development of in situ analytical protocols to precisely measure sulfur isotope composition of sulfides by SIMS and LA-ICPMS, and these protocols are now widely used by other laboratories worldwide. This has been presented in a larger number of publications which have had an important impact in the field, as shown by ~1200 citations and a h-index of 20, well above typical values at her stage in the career. Her work has been recognized internationally by the SGA (Society for Geology Applied to Mineral Deposits) Young Scientist Award in 2019. Dr.

LaFlamme has established a well-funded research program at Université Laval where she holds a prestigious Tier II Canada Research Chair. She has been supervising a large number of graduate students (6 BSc, 4 MSc, 10 PhD, and 2 PDF) where she has instilled her passion for addressing pressing research questions using advanced analytical methods. In addition to her outstanding scientific achievements, Dr LaFlamme has involved herself in various national and international scientific conferences, including those of GAC, organizing sessions or contributing to LOC. She has been elected Councillor for the SGA (2024-2026). She has co-chaired NSERC Evaluation Committee for Discovery Grants (Geosciences), attesting to her high standing in the geoscience community.

2025 Duncan R Derry Award
Dr. Georges Beaudoin, *Université Laval*



Prof. Georges Beaudoin is a global leader in his contributions to mineral exploration and the genesis of hydrothermal ore deposits. He received his BSc (1985) and MSc (1987) from Université Laval, and his PhD (1991) from the University of Ottawa. Following this, he completed a 2-year postdoctoral fellowship at the Geological Survey of Canada. He was an assistant (1993-1998), associate (1998-2002), and full professor (since 2002) in metallogeny at Université Laval. From 2012 to 2022, Prof Beaudoin held the NSERC-Agnico Eagle Industrial Research Chair in Mineral Exploration at Université Laval. He now leads the Agnico Eagle-Eldorado Gold Québec Research Chair in Mineral Exploration. From 2013 to 2022, he was the Founding Director of the Centre de recherche sur la géologie et l'ingénierie des ressources minérales (E4m), a recognized research centre at Université Laval, consisting of 34 researchers and 150 graduate students and HQP. From 2009 to 2019, he was Director of the DIVEX research network, regrouping researchers in metallogeny from 7 universities in Québec. Georges is an internationally recognized expert in metallogeny, hydrothermal mineral deposits, and isotope geochemistry, in addition to his world-leading research in indicator mineral methodologies for exploration. With his team of HQP he has developed indicator minerals for orogenic gold deposits, in addition to establishing magnetite and hematite as ubiquitous fertility indicator minerals (Dupuis and Beaudoin 2011, 704 citations; Dare et al. 2014, 548 citations). Prof Beaudoin was Chief-Editor of Mineralium Deposita between 2012-2022, contributing to increasing the international scientific journal's impact factor to the highest (5.1) in the field. He was elected as the first Canadian President (2014-2016) of the Society for Geology Applied to Mineral Deposits (SGA), during which he presided over the organization of the 14th Biennial Meeting in Québec in 2017. Prof Beaudoin has published 174 peer-reviewed papers and more than 230 conference abstracts (+8200

citations, h-index=48). He has experience leading large research teams, as shown by his leadership as Research Chair, and his involvement in large research initiatives such as the NSERC CRD Footprints and CFREF Metal Earth programs. In and outside of these initiatives, Prof Beaudoin has trained 10 PDFs, 24 PhD students, 32 MSc students, 24 BSc students, and 12 Research Assistants. Professor Beaudoin is an outstanding geologist in the field of ore deposit geology, having contributed to our understanding of ore deposits and indicator mineral exploration, and therefore a worthy recipient of the Duncan Derry award.

2024 Duncan R Derry Award
Dr. Keiko Hattori, *University of Ottawa*



Dr. Keiko Hattori has conducted research on a broad range of geoscience topics, including volcanology, sedimentary geochemistry, and mantle petrology and geochemistry. These studies have a common theme, understanding the geological framework for metallic mineralization. The work includes the documentation of the paleo-surface environment for uranium placer formation, the metal transport in active volcanoes, recycling of volatiles and metals to arc magmas in subduction zones, and characterization of magmas linked to porphyry copper deposits. She has published more than 170 peer-reviewed papers in numerous journals, including Nature and Science. Her work has contributed to regional exploration for uranium, porphyry copper, and epithermal gold deposits. She has served on executive councils for more than 15 organizations and professional societies, and on government panels, most recently for Canada's Chief Science Advisor and the European Union.

Dr. Keiko has taught courses on mineral deposits, including alteration and ore petrography, as well as geochemistry at the University of Ottawa since 1983. Her open-mindedness and her approach combining geochemical analysis and rigorous field work attracted over 90 students to her research projects. Many of them have gone into leading positions in industry, government and university.

Dr. Keiko's research has been recognized with several awards, including the Takeo Kato Gold Medal from the Japan Society of Resource Geology, and she was appointed as the International Exchange Lecturer for the Society of Economic Geologists, visiting universities throughout Asia, Europe, and the USA. She is elected Fellow of the Royal Society of Canada, where she now serves as Director of the Earth, Ocean and Atmospheric Division, and is also elected Fellow of the Mineralogical Society of America.

Mineralogical Association of Canada

The Peacock Medal
Dr. Anton Chakhmouradian, *University of Manitoba*



Dr. Anton Chakhmouradian grew up in a historic neighborhood of St. Petersburg (Russia), just a stroll away from one of world's largest Earth Science collections at the Mining Institute and two other mineral museums. It was natural then that mineralogy became his major at St. Petersburg State University, where he got enthralled by bizarre igneous rocks, like peralkaline syenites, which largely fell outside the scope of undergraduate courses. This fascination was fostered into a lifelong career commitment by Anton's enthusiastic research supervisors, Andrey Bulakh and Mikhail Evdokimov. After completing his PhD at St. Petersburg State (1997), Anton spent four productive years in Roger Mitchell's lab at Lakehead University, where his most memorable experiences included synthesizing things that should not exist, learning the Rietveld method and a score of other instrumental techniques, teaching his first mineral optics class in English, and getting lost in the Lovozero Mountains with his boss. In 2001, Anton received a professorial appointment at the University of Manitoba and ever since has been working on alkaline rocks, kimberlites, carbonatites and associated mineral deposits worldwide. For 36 years now, Anton's wife Katya has been his field companion, research collaborator, and unwavering supporter, never questioning the rationality of investing family funds into chartering a Mi-8 helicopter to see the world's largest carbonatite complex in Polar Siberia, or putting the most "precious" rock samples in their carry-on. Outside the U of M, Anton has served on several journal editorial boards, as a MAC councillor, and as Communication Officer of the International Mineralogical Association (2014-2022). In 2005, he received MAC's Young Scientist Award, followed by W.W. Hutchison Medal from GAC in 2011.

The Berry Medal
Dr. Andrew McDonald, *Laurentian University*



For Dr. Andy McDonald, growing up in Toronto near the Jane-Finch corridor set him up for a career involving certain 'organized groups', but chance opportunities, including a geology course in high school and a 'well-paid' summer internship at the Royal Ontario Museum changed this, putting him on a collision course for a career in Mineralogy. After an undergraduate degree at the University of Toronto and graduate degrees at

Carleton University, he joined the Harquail School of Earth Sciences (Laurentian) as a Professor of Mineralogy. His educational experiences, which included being unofficially initiated into the Mineralogical Association of Canada as a teenager, put him in great stead to understand the importance of our association, but also, when the time was right, how critical it would be to step up and continue to keep the flame alive. In this respect, he has served the MAC in a variety of roles: as Secretary (2000-2006), in several Presidential positions (2014-2022), as an Associate Editor and as a Senior Editor for *The Canadian Journal of Mineralogy and Petrology* (formerly *The Canadian Mineralogist*; 2006-2011), along with being an organizer for a Berry Summer School in Optical Mineralogy. His commitment to the MAC was strongly influenced by his direct interactions with Joe Mandarino and Bob Gait (Royal Ontario Museum), but also with Bob Martin (McGill), Louis Cabri (CANMET) and Jim Nicholls (Calgary), all of whom worked tirelessly and unselfishly to establish, build and promote this uniquely Canadian organization. Professor McDonald is an applied mineralogist, studying the mineralogy of diverse geological settings including that of agpaitic environments (the evolution of HFSE-dominant silicates), mineralized porphyry systems (crystal chemistry of tourmaline- and alunite-group minerals) and magmatic Cu-Ni-Fe-PGE systems (pyrrhotite, millerite and platinum-group minerals), using the minerals and their chemical and crystal-structure variations, to better understand the conditions under which they developed and evolved. He strongly endorses publication of Canadian-supported research in Canadian-based journals, the first and foremost being the CJMP. His research and collaboration with his students have been recognized through being awarded four Hawley medals (2015, 2018, 2019, 2024) for best papers in the journal. It is with both enormous pride and equally large humility that Professor McDonald is pleased to be honored as the 2025 Berry medalist.

The Hawley Medal

Dr. Robert Dymek *(Washington University in St.Louis)***, Dr. Brent. E. Owens** *(College of William & Mary)***, and Jessica Fuhs *Wyatt*** *(City of Newport News, Virginia)*



The Hawley Medal is awarded to Dr. Dymek, Dr. Owens, and Ms. Wyatt for the best paper published in The Canadian Journal of Mineralogy and Petrology in 2024 and entitled “A Tall Tale of a Tiny Pluton: The L’Enfer Norite, Grenville Province, Québec”.

Professor Dymek utilizes field, chemical, and phase petrology in the study of igneous and metamorphic processes. More recently, he has begun to examine trace elements in sedimentary and metasedimentary rocks as recorders of crustal evolution. Professor

Dymek has carried out extensive field studies in West Greenland investigating high-grade Archaean gneisses, and in the Grenville Province of Canada investigating Proterozoic massif anorthosites and related rocks. He supervises the Department's X-ray fluorescence laboratory and applies data obtained by this method in his research. Dr. Dymek is especially interested in geological problems that have a fundamental bearing on Precambrian Earth history.



Dr. Brent Owens is Emeritus Professor of Geology at the College of William & Mary, where he taught for 26 years. He holds degrees from the University of Kentucky (BS), the University of Massachusetts (MS) and Washington University in S. Louis. His research interests include the petrology of massif anorthosites and related rocks, as well as regional geology of the Piedmont Province in the southeastern Appalachians.



Jessica Fuhs Wyatt is currently a Geographic Information Systems Analyst for the City of Newport News, Virginia. The study of the L'Enfer norite began as her undergraduate senior thesis project at the College of William and Mary, under the guidance and mentorship of Dr. Owens. She earned her B.S. in Geology and a certificate in Geographic Information Science at William and Mary, and her M.S. in Geosciences at Mississippi State University. She began her career teaching high school Earth Science, Chemistry, and AP Chemistry before transitioning into the field of GIS. She currently lives in Yorktown, Virginia with her husband Tim, and her daughters Katherine and Ariana.

International Association of Hydrogeologists – Canadian National Chapter

2025 Darcy Lecture



Dr. Grant Ferguson, *University of Saskatchewan*

Grant Ferguson is a professor of hydrogeology in the Department of Civil, Geological and Environmental Engineering at the University of Saskatchewan. He also holds a joint appointment in the School of Environment and Sustainability at the University of Saskatchewan and is an adjunct professor at the University of Arizona and University of Waterloo. Ferguson holds a B.Sc. from the University of

Waterloo and a Ph.D. from the University of Manitoba. His research focuses on the hydrogeology of deep groundwater systems, paleohydrogeology, the hydrogeology of the Canadian Prairies, and sustainable development of groundwater resources. Ferguson is currently vice president, North America for the International Association of Hydrogeologists and has served as President of their Canadian National Chapter. He is also an associate editor for the journal Groundwater.
Note that the Henry Darcy Distinguished Lecture Series in Groundwater Science is provided by The Groundwater Foundation and the National Groundwater Association.

2025 Robert N. Farvolden Award

Dr. Cathy Ryan, *University of Calgary*

The 2025 Robert N. Farvolden Award, granted jointly by the CGS and the IAH-CNC, has been awarded to Dr. Cathy Ryan of the University of Calgary. Her nomination recognized her excellence in research and in service and education to both the hydrogeology community and the public, and at local, provincial, national and international levels. A few highlights are captured below.



Cathy's exceptional contributions to international service and education have focused on Latin America, following in the footsteps of Bob Farvolden, who developed hydrogeological education programs and undertook research projects there. Starting from her MSc project on nitrogen in groundwater in the Valley of Mexico, Cathy as a professor later served in Director roles for several international development projects that helped grow the capacity of water sector professionals in Latin America via training and education programs in collaboration with Canadian universities. Indeed, >150 M.Sc. students from six countries were trained. Cathy also personally taught many hydrogeology classes in those countries (in Spanish) and mentored students from Latin America, several of whom have become professors at universities in their home country.

Dr. Ryan has also been a champion of hydrogeology service and education more locally, holding various Board, Council, and Committee member positions (sometimes Director or Vice-President) on over a dozen Alberta-based organizations, from professional societies to non-profit and government groups. Her advice has been sought and her research funded by dozens of municipal, provincial, and federal agencies on local and provincial water issues. In 2007, she was awarded the City of Calgary Award for Individual Environmental Achievement. In supporting her own department and the Environmental Science program at Calgary, Cathy has supervised 6 post-docs, 12 PhD and 43 MSc students and an astounding 49 BSc

students, including many who bring diversity to geoscience. Finally, Cathy has helped develop and been a vocal representative of the IAH-CNC project to promote recognition of the importance of groundwater in freshwater management and policy within the federal government.

Over her career, Dr. Ryan has researched and published substantially on a broad range of groundwater-related topics, including impacts of agricultural fertilizers and domestic wastewater, geochemical tools, and gases in groundwater, through solo projects to large collaborative teams. One such international study involving her geyser sampling was recently published in *Nature Microbiology*. Cathy has been interviewed for tv, radio and newspapers about her research, including on CBC Radio's "Quirks and Quarks" science show to discuss hydraulic fracturing. However, unconcerned with the limelight, Cathy often pursues challenging topics that have potential to directly affect people's health. These include investigating:

- Methane in groundwater in areas of oil and gas development
- Breathing wells associated with asphyxiation deaths on rural farms
- Wastewater monitoring of COVID during the pandemic
- Hydrogeologic factors for radon gas exposure in homes
- Improved sanitation methods in developing countries
- Groundwater's role in Calgary's major floods
- And recently, groundwater management in Indigenous Nations

In summary, Dr. Ryan exemplifies the excellence in groundwater science and engineering set forth by Bob Farvolden, having a positive impact on individuals (students, colleagues, communities in need) and all the way to the global groundwater community. She has been a leader for Canadian hydrogeology for much of her career, sometimes quietly and sometimes unabashedly, and is fully deserving of the 2025 Farvolden Award.

Canadian Journal of Earth Sciences Paper

2024 CJES Best Paper Award

Dr. Melanie C. Kelman *(Geological Survey of Canada)* **and Dr. Alexander M. Wilson** *(Seequent)*

Dr. Melanie C. Kelman and Dr. Alexander M. Wilson are the recipients of the 2024 *Canadian Journal of Earth Sciences* Best Paper Award for their paper titled *Assessing the relative threats from Canadian volcanoes* (https://cdnsciencepub.com/doi/full/10.1139/cjes-2023-0074).

This annual award is presented jointly by Canadian Science Publishing (CSP) and the Geological Association of Canada (GAC). The award

recognizes a paper that uses new methods, or reports novel results, or reflects a monumental assembly of information resulting in research likely to have an immediate or long-term impact on one of the many areas of geoscience covered in the journal.



With this award, Melanie C. Kelman and Alexander M. Wilson are recognized for their work on assessing 28 Canadian volcanoes and determining the relative threats to people, aviation, and infrastructure – drawing attention to the gaps in monitoring of Canadian volcanoes. Using this threat assessment, they aim to spur interest in conducting future volcanic hazard and risk assessments, beginning with Canada's three High threat volcanoes (Mt. Cayley, Mt. Price, and Mt. Edziza), and to make existing volcanic hazard assessments easily accessible to the public and end-user organizations. The goal of their research is to encourage more comprehensive monitoring, including the use of seismic stations at key Very High and High threat volcanoes, and to expand other volcanic risk reduction activities such as landslide detection and alerting systems, to bring Canada closer to recommended best practices for volcano risk reduction.

Pre-Conference Field Trips

FT-A5 – Groundwater Methodologies and Approaches from Synoptic to Pore Scale

Organizers: Hazen Russell and Melissa Bunn (Geological Survey of Canada)
Date: May 11th 2025

This one-day field trip will include presentations on methodology (held at the University of Ottawa) and field visits that demonstrate equipment deployments for downhole geophysics, passive seismic, reflection seismic, and hydrogeological-sedimentological investigations.

FT-A6 – Life in Rocks: From Ancient Earth to Mars and Beyond

Organizer: Richard Léveillé (McGill University)

Self-Guided Field Trip

This is half-day excursion will explore outcrops of Ordovician limestone along the Ottawa River which offer some of the best and most easily accessible stromatolites in Canada. These layered and often domed-shaped structures are excellent examples of geobiological interactions and help record the co-evolution of the geosphere and biosphere on Earth. This trip will feature an easy-access stroll to the stromatolite localities and other fossiliferous rocks in the area.

FT-A7 – Discovering Earth Sciences K-12 Educator Professional Training Workshop and Field Trip

Organizer: Beth McLarty Halfkenny (Carleton University)
Date: May 10th 2025

The GAC-MAC conference has a rich history of engaging with local teachers wherever the conference is held, leveraging the expertise of conference attendees to help educators gain the knowledge, resources, and confidence to teach Earth Science topics within their provincial curriculum. The one-day professional training and sharing workshop will include an afternoon field trip to sites in the Ottawa region that showcase exceptional geological features and can be used to illustrate how teachers can build field experiences for their students. Participants will receive a teaching resource kit containing rocks, minerals, fossils, identification tools and guides, other books, posters and digital resources including prepared lesson plans. Participants will also have the opportunity to attend the conference's "Geoscience Education and Communication" technical session with a discounted one-day pass.

This Field trip is part of the SCW_A1 Workshop and open to K-12 Educators only. Please see Workshop SCW-A1 for registration information or contact beth.mclartyhalfkenny@carleton.ca."

FT-A8 – Geoheritage of the National Capital Accessible Field Trip

Organizers: Beth McLarty Halfkenny (Carleton University, Canadian Geoscience Education Network CGEN) and Anita Marshall (University of Florida, GeoSPACE Accessible Planetary Geology Field Course, International Association for Geoscience Diversity IAGD)
Date: May 11th 2025

This is a one-day excursion led by Beth McLarty Halfkenny (Carleton University, Canadian Geoscience Education Network CGEN) and Anita Marshall (University of Florida, GeoSPACE Accessible Planetary Geology Field Course, International Association for Geoscience Diversity IAGD) that is intended to fully include conference participants with accessibility needs, and model the technologies, methods, and considerations for creating inclusive field excursions.
This trip will visit several geoheritage locations in the National Capital Region, chosen for their exceptional geological features for varied physical terrains, and other potential accessibility challenges that can be overcome with thoughtful planning and simple tools. Some needs-based fee waivers are available.
To ensure we have a good mix of people with disabilities and education practitioners, a short application form is required (short URL link to form). Questions? Contact beth.mclartyhalfkenny@carleton.ca.

Post-Conference Field Trips

FT-B1 – Chalk River Laboratories Tour

Organizers: Philip Kompass (Canadian Nuclear Laboratories) and Tessa Di Iorio (City of Ottawa)
Date: May 15th 2025

This one-day excursion consists of a visit to the Chalk River Laboratories (CRL), Canada's large single scientific campus and the birthplace of nuclear technology in Canada. With a site which spans over 3000 hectares, and over 120 unique scientific facilities, a visit to CRL is a unique experience. For more than 60 years, Canadian scientists and technicians have been conducting hydrogeological research, with a particular focus on radionuclide migration in the environment. The site has an extensive groundwater monitoring network and ongoing groundwater remediation measures which will also be discussed. Note that advance registration for security clearances will be required for all participants.

FT-B2 – Late Tectonic Rare-Metal Pegmatitic Magmatism in the Bancroft Area, SW Grenville Province

Organizers: David Lentz (University of New Brunswick, Fredericton)
Date: May 15th to May 16th 2025

The Bancroft region is known as the “Mineral Capital of Canada”. This two-day trip will be led by David Lentz (University of New Brunswick, Fredericton). On the first day, the excursion will visit the Quadville pegmatites, known for beryl and rose quartz, the Craigmont corundum pegmatite and the MacDonald REE-Y-Nb-U pegmatite. On the second day, the excursion will feature the Saranac Zr-REE pegmatite, the Princess sodalite pegmatite, the Goulding-Keene pegmatite, and finally the type perthite locality south of Perth. Other localities including some near the Faraday pegmatite (Madawaska uranium deposit) will also be visited if possible. These iconic localities are very well known for their mineral collecting and former mines, although in recent decades they have become less accessible due to changing land ownership. Scientific discussions will focus on source(s), timing, degrees of fractionation, the role of exsolved volatiles, fractionation history, and structural controls on pegmatite emplacement.

FT-B4 – Subglacial Signature of Paleo-ice Stream in the Ottawa-Bonnenchere Graben, Eastern Ontario Field Trip

Organizers: Riley Mulligan (Ontario Geological Survey) and Roger Paulen (Natural Resources Canada)
Date: May 15th to May 16th 2025

This two-day field trip will introduce participants to key landforms and sections that shed light on a wide range of subglacial events and processes that operated within the Ottawa-Bonnechere Graben region of eastern Ontario. Participants will encounter a wide range of bedrock erosional features, originating from at least three distinct ice flow phases and a complex local pattern of abrasion, plucking, hydraulic jacking and bedrock raft entrainment. Evidence for processes is exposed in road cuts and quarry walls and thick sections of till that display a complex ice flow history. The nature and paleo-glaciological significance of clast macrofabric data measured from sections exposing their internal sediments will also be discussed.

Pre-Conference workshops

SCW-A1 – Earth Science Educator Professional Training Workshop and Field Trip

Organizers: Beth McLarty Halfkenny, Lesley Hymers, Janice Williams, Joanna Hodge
Contact: bethmclartyhalfkenny@cunet.carleton.ca
Sponsors: EdGEO Canadian Earth Science Teacher Workshop Program, Canadian Geoscience Education Network (CGEN), Canadian Geological Foundation (CGF), Carleton University Earth Science Teacher Workshop Fund
Date: May 10th 2025

The GAC-MAC conference has a rich history of engaging with local educators wherever the conference is held, leveraging the expertise of conference attendees to help teachers gain the knowledge, resources and confidence to teach Earth Science topics within their provincial curriculum.

For GAC-MAC-IAH (CNC) 2025 in Ottawa, Carleton University's Earth Sciences Department will host a one-day professional training and sharing workshop for K-12 teachers and informal educators, which will include a morning of learning sessions, and an afternoon field trip to sites in the region that showcase geological features that can be used to illustrate how one can build a field experience for students. Participants will receive a teaching resource kit and the opportunity to attend Special Session K_SS_02 Geoscience Education and Communication Beyond Boundaries with the purchase of a discounted one-day conference registration.

SCW-A3 – Public Geoscience and Machine Learning for Mineral Exploration

Organizers: Christopher Lawley, Dianne Mitchinson, Julie Bourdeau, Steven Zhang and Mohammad Parsa
Contact: christopher.lawley@nrcan-rncan.gc.ca
Date: Saturday May 10, 2025

This one-day workshop will offer hands-on training in machine learning, using public geoscience data from the Geological Survey of Canada. Throughout the day, participants will learn the fundamentals of how to access and work with diverse geophysical, geochemical, and geological map data. Participants will then apply this data to train and validate machine learning models for predicting critical mineral potential. All interactive exercises will be completed using the free and open-source Orange software. No prior coding experience is necessary; however, participants are required to bring their own laptop. The course is intended for students interested in machine learning and professionals working with geoscience data.

SCW-A4 – How to Publish in Geoscience Journal

Organizers: Brendan Murphy and Sally Pehrsson

Contact: sally.pehrsson@nrcan-rncan.gc.ca

Date: May 11th 2025

In association with the 2025 GAC-MAC meeting, Ottawa, the editors of Canadian Journal of Earth Sciences (Brendan Murphy and Sally Pehrsson) will present a 2-hour in-person and virtual workshop on publishing in geoscience journals. The workshop is intended for graduate students and early career researchers, although all are welcome. It will address topics including: (i) defining your research problem and main question; (ii) linking a manuscript's Introduction and Discussion to have conceptual harmony and greater success; (iii) how to select appropriate journals; and (iv) the submission and review process. We encourage participants to bring examples of their work to the workshop in which we will conduct partnered assessments to see how well your framed questions/introductions and discussions communicate your research.

SCW-A7 – Critical Thinking in Pumping Test Interpretation

Organizer: Christopher Neville
Contact: cneville@sspa.com
Sponsor: S.S. Papadopulos & Associates, Inc.
Date: May 11th 2025

It is impossible to exaggerate the significance of reliable interpretations of *in situ* hydraulic tests for all hydrogeologic assessments. Reliable inferences of aquifer structure and representative estimates of aquifer properties are important for assessments that range from the evaluation of groundwater resources, estimation of construction and mine dewatering requirements, prediction of the migration and fate of solutes in groundwater, to the design of remedial measures at contaminated sites. The focus of this one-day workshop is directed to constant-rate pumping tests, the "gold standard" of aquifer tests. Since these tests require major efforts for planning and execution, the data from these tests are worthy of careful interpretation. Pumping tests are generally interpreted using methods based on highly idealized conceptual models of the subsurface. The theory of these methods and their application in simple settings are treated well in several excellent textbooks and monographs. However, more often than not, when a hydrogeologist is charged with interpreting the results of an actual test, he/she often discovers that the data do not look like those in a textbook. Data are typically noisy, do not approximate theoretical curves, and frequently yield inconsistent estimates of aquifer properties.

This one-day course is designed to help groundwater students and practitioners bridge the gap between theory and practice. The objective of

the course is to hone the critical thinking skills of interpreters of data from aquifer tests in complex natural settings. Attendees will be provided with a set of comprehensive course notes. The notes are intended to be formal technical documents that will serve for subsequent self-study.

SCW-A8 – Control on Gold and VMS Deposits in Archean Terranes and Modern Oceans

Organizer: John Ayer
Contact: jayer@laurentian.ca
Sponsor: MERC (sponsoring student fees)
Date: May 11th 2025

The timing and distribution of mineralization in Archean terranes was influenced by a variety of differing geodynamic environments. Volcanogenic Massive Sulfide (VMS) deposits were syn-volcanic occurring in extensional oceanic settings associated with high crustal heat flow. Orogenic gold deposits were formed by later collisional tectonic processes associated with the development of folding, late crustal-scale faults and syn-orogenic sedimentary units. The faults provided critical pathways for hydrothermal mineralizing fluids during repeated reactivations.

Metal Earth's program of reflection seismic, magnetotelluric and gravity surveys have provided crustal-scale imaging from areas with differing gold and base metal endowment across the Superior Craton including world class gold and VMS camps. Talks will highlight the crustal architecture of endowed and less endowed transects utilizing Metal Earth's geophysical studies integrated with focused geological mapping programs, geochemical and geochronological data and also include a presentation on innovative geophysical solutions for smart targeting of mineral deposits. Orogenic gold presentations will cover the diversity of greenstone belt deposits and their exploration significance; a better understanding of their timing, fluid sources and mineralizing controls. They will also provide a better understanding of the regional scale faults system focussing mineralization and gold mineralization associated with metasedimentary terranes in the Superior Craton. Presentations will also include the key features of VMS deposits, their association with critical metals, and their stratigraphic and lithological controls in the highly endowed Abitibi Greenstone belt. The workshop will end with a final presentation highlighting crustal growth and mineral endowment in the modern Indo-Australian Arc-Back-Arc microplate environment, studied with the same geophysical, geochemical and geochronological tools used on Metal Earth's transects in the Superior Craton. The focus will be on the crustal growth and Metal Endowment in modern back-arcs compared with ancient greenstone belts, an area with the fastest growing crust on earth hosting three of the top ten Cu-Au deposits in the world.

Morning

1. Ross Sherlock: Mapping fertile fault systems in the Superior Craton
2. John Ayer: Architecture and endowment of the Timmins - Matheson gold camp
3. Crystal LaFlamme: Towards linking the timing, fluid sources and mineralizing controls in orogenic gold systems of the southern Abitibi

4. Alireza Malehmir: Innovative geophysical solutions for smart targeting of mineral deposits from prototypes to deep-learning algorithms

Afternoon

5. Jack Simmons: Archean gold deposits associated with structurally-controlled metasedimentary belts of the Superior Craton
6. Taus Jorgensen: Assemblage and lithological compilations of the Abitibi Greenstone Belt and their use in assessing differential VMS endowment
7. Stefanie Bruckner: The many faces of VMS deposits: exploration, lithochemistry and critical metals
8. Mark Hannington: Microplate solutions to crustal growth and metal endowment in modern back-arc basins and ancient greenstone belts

Syn-Conference workshops

SCW-S1 – Science Communication: Research and Practice Beyond Boundaries

Organizer: Lesley Hymers
Contact: lhymers@miningmatters.ca
Facilitators: GAC GEC Division President Lesley Hymers and Vice President Courtney Onstad
Sponsors: Geological Association of Canada Geoscience Education and Communication Division (GAC GEC) and the Canadian Geoscience Education Network (CGEN)
Guest Presenter: Cate Larsen (@groovygeologist)
Date: May 12th 2025

Members of the Geoscience Education and Communication Division invite delegates to participate in a Science Communication Workshop with a focus on research and practice. Join us after the GEC technical session for an evening of practical skill building facilitated by Division members and special guests. This Workshop is of interest to geoscience communication researchers and practitioners, informal and formal educators and communicators, Faculty, Graduate Students and Graduate Teaching Assistants, the Museum Sector, Government, and Industry across Canada. The Workshop will be sponsored by the Geological Association of Canada Geoscience Education and Communication Division and the Canadian Geoscience Education Network.

Post-Conference workshops

SCW-B1 – Portable XRF Spectroscopy – Quality Control and Applications

Organizer: Ross Knight and Bruce Kjarsgaard
Contact: ross.knight@nrcan-rncan.gc.ca
Date: May 15th 2025

This one-day workshop will provide the necessary background for participants to become familiar with pXRF spectrometry in order to acquire meaningful data. The workshop will be split into a morning and afternoon session.

Overview

A growing number of geoscientists are using portable X-ray fluorescence spectrometry (pXRF) for the chemical characterization of a variety of geological materials in field and laboratory settings. The application of this technology spans a broad range of geological, environmental, and economic investigations such as mineralization in rock samples, regional surficial geochemical surveys, chemostratigraphy of rock and till cores, trace metal concentrations in soils, and analysis of aerosol particulate matter. Common to each application is the challenge of determining how best to use the pXRF instrument, how to quantify uncertainties associated with their analytical measurements, and how to understand and interpret the resulting data. Upon completion of the one-day workshop participants will have a clear and robust understanding of pXRF spectrometry advantages and shortcomings.

Morning session - Data collection

Development of pXRF as a mainstream geochemical tool, analytical parameters to ensure quality analyses including: sample preparation, sample quantity, moisture content issues, optimal dwell time per element, element interferences, instrument drift, utilization of standards (CRM's, SRM's); data calibration, and assessment of data quality.

Afternoon session - Applications

During the afternoon a series of applications will be discussed including: (i) comparison of pXRF data with laboratory methods - a mineral resource assessment perspective; (ii) integrating in-field pXRF data into a regional bedrock mapping project.; (iii) chemostratigraphy by pXRF - quantifying the invisible; and (iv) integrating pXRF and downhole geophysical data for a Canadian Shield basement to Ordovician cover sequence.

SCW-B2 – Introduction to Planetary Geologic Mapping

Organizers: Myriam Lemelin, Jeannette Luna
Contact: myriam.lemelin@usherbrooke.ca, jluna@tntech.edu
Sponsor: Centre d'applications et de recherches en télédétection (CARTEL)
Date: May 15th 2025

This one-day workshop introduces geoscientists to planetary geologic mapping. Exercises focus on integrating multiple datasets to: (i) identify and define planetary geologic map units; (ii) place these units into a stratigraphic framework; (iii) interpret the timing of key events such as impacts or tectonic activity; and (iv) use the maps to generate testable hypotheses for future missions. Geoscientists at any career stage and graduate students are welcome; no prior experience in planetary mapping required. The exercises are pen-and-paper, and additional materials for digital mapping using ArcGIS Pro or QGIS are provided at the end of the course.

SCW-B3 – HydroGeoSphere Short Course: Introduction to Fully-Integrated Hydrologic Modelling

Organizer: Brayden McNeill
Contact: bmcneill@aquanty.com
Sponsor: Aquanty
Date: May 15th to May 16th 2025

Join the Aquanty team for a **two-day** intensive course which explores the complete integrated hydrologic modelling process using HydroGeoSphere (HGS). This course consists of various lectures and exercises to explore topics such as: (i) the benefits of integrated hydrologic modelling; (ii) the governing equations that control flow in an HGS model; (iii) use of supporting software for model mesh generation and results visualization; (iv) model parameterization and conceptualization of boundary conditions; (v) numerical solution techniques and recommended settings optimal convergence and improved runtimes; and (vi) model convergence troubleshooting, model calibration and more. Participants will receive a temporary license of HydroGeoSphere (30-day), a temporary license of AlgoMesh (2-week), a copy of all course content including lectures (PDF) and exercises, and the opportunity to network with other HydroGeoSphere users and the software development team.

Social Events

SUNDAY, MAY 11TH

- ***Icebreaker Reception:*** 5:00 pm – 8:00 pm, Huguette Labelle Hall, Tabaret, room 112
    - *Dancing and drumming performance by Mādahòkì Indigenous Experiences*

MONDAY, MAY 12TH

- ***GAC Awards Lunch:*** 12:00 pm – 1:20 pm, Huguette Labelle Hall, Tabaret, room 112
    - ***Ticket required***
- ***Poster session:*** 4:40 pm – 6:00 pm, Desmarais Lobby and room 4101

TUESDAY, MAY 13TH

- ***MAC Awards Lunch:*** 12:00 pm – 1:20 pm, Huguette Labelle Hall, Tabaret, room 112
    - ***Ticket required***
- ***Poster session:*** 4:40 pm – 6:00 pm, Desmarais Lobby and room 4101
- ***Mineral Deposits Division (MDD)-Targeted Geoscience Initiative (TGI) student-industry night:*** 6:00 pm – late, The Waverly Restaurant and Gastropub, 339 Elgin St, Ottawa
    - *This social event brings students and industry professionals together in a relaxed setting and offers an opportunity to celebrate the 25th Anniversary of the TGI program*
    - ***Ticket required and includes one drink and canapés***
- ***Public Outreach Evening:*** 6:00 pm – 9:00 pm, Desmarais Lobby
    - MAC Mineral Investigation: 6:00 pm – 8:00 pm
    - GAC Geoscience Education and Communication Division public lecture by Dr. Claudia Schröder-Adams: 8:00 pm – 9:00 pm, room 1160
    - *These events are open to the public and appropriate for all ages*

WEDNESDAY, MAY 14TH

- ***IAH-CNC Awards Lunch:*** 12:00 pm – 1:20 pm, Huguette Labelle Hall, Tabaret, room 112
    - ***Ticket required***
- ***MDD Awards Lunch:*** 12:00 pm – 1:20 pm, Johnson Hall, Alex Trebek Alumni Hall, room 116
    - ***Ticket required***

- ***Closing ceremonies:*** 4:00 pm – 6:00 pm, Huguette Labelle Hall, Tabaret, room 112

Early Career Events

EARLY CAREER AND STUDENT NETWORKING

When: Monday, May 12th, 6:00 pm – 9:00 pm
Where: Lowertown Brewery, 73 York St., Ottawa, ON K1N 5T2
What: *Join for informal socializing and networking. Open to students and early career participants.* ***Ticket required.*** *Appetizers are included with the ticket.*

EARLY CAREER HYDROGEOLOGISTS' NETWORK (ECHN)

When: Tuesday, May 13th, 6:00 pm – 7:00 pm
Where: Desmarais, room 12102
What: Registration required

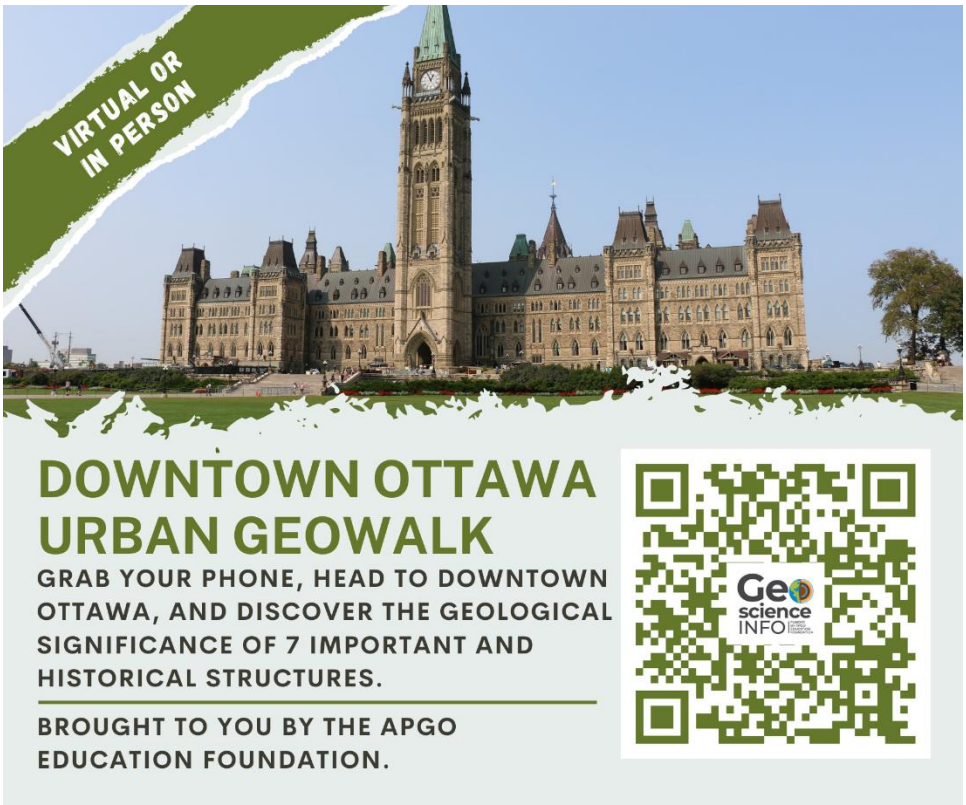
Meetings (Invite Only)

- ***MAC Council Meeting:*** Sunday, May 11th, 9:00 am – 3:00 pm, Faculty of Social Sciences (FFS), room 4006
- ***GAC Council Meeting:*** Sunday, May 11th, 1:00 pm – 3:00 pm, Canada-Vie, Alex Trebek Alumni Hall, room 105
- ***MDD Annual General Meeting:*** Tuesday, May 13th, 12:00 pm – 1:00 pm, Desmarais, room 12102
- ***GAC CSRG Meeting:*** Tuesday, May 13th, 1:30 pm – 2:30 pm, Desmarais, room 12102
- ***GAC MAC Executive Meeting:*** Wednesday, May 14th, 7:00 am – 8:00 am, Canada-Vie, Alex Trebek Alumni Hall, room 105
- ***Canadian Tectonics Group Awards Presentation:*** Wednesday, May 14th, 3:20 pm – 3:40 pm, Desmarais, room 1110
- ***Environmental Earth Science Division Meeting:*** Tuesday, May 13th, 4:40 pm – 5:00 pm, Desmarais, room 1140

Lectures and Information Sessions

- ***MDD Derry Medal Plenaries:*** Monday, May 12th, 11:00 am – 12:00 pm, Desmarais, room 1160, and Tuesday, May 13th, 10:00 am – 11:00 am, Desmarais, room 1160
- ***MDD Gross Medal Plenaries:*** Monday, May 12th, 4:00 pm – 4:40 pm. Desmarais, room 1160

- ***GAC Logan Medal Plenary:*** Tuesday, May 13th, 11:00 am – 12:00 pm, Desmarais, room 1160
- ***IAH-CNC Darcy Lecture Plenary:*** Tuesday, May 13th, 3:40 pm – 4:40 pm. Desmarais, room 1160
- ***MAC Peacock Medal Plenary:*** Wednesday, May 14th, 11:00 am – 12:00 pm, Desmarais, room 1160
- ***NSERC Discovery Grant Information Session:*** Monday, May 12th, 1:20 pm – 3:00 pm, Desmarais, room 4170
    - *Members of NSERC's Geoscience Evaluation Group will present an overview of the Discovery Grant program, how to apply, and provide some updates from NSERC*



Free Public Lecture by Dr. Claudia Schröder-Adams

Tuesday, May 13th, Desmarais 1160, 8:00 pm – 9:00 pm

Join us for a free public lecture by Carleton Professor Emeritus – Dr. Claudia Schröder-Adams

Arctic Ecosystem Changes:
Contrasting the Recent with the Fossil Record

Over the last 40 years the Arctic has experienced two to four times the rate of warming compared to the entire globe; a phenomenon called Arctic amplification. Since we are in an interglacial period, the Holocene, where the poles are marked by icecaps and glaciers, these regions have a vast influence on global climate, sea level, oceanic and atmospheric circulation. The rapid rate of change due to anthropogenic activity such as greenhouse gas emissions is leading to ecosystem changes in polar marine and terrestrial environments alike with far reaching consequences for our planet.

In the fossil record of the Arctic, we can also detect paleoecological changes that attest to a vastly different polar region. The Arctic had ice-free periods during times of global hothouse conditions such as 90 million years ago. Deciphering the rate of change over geological time is challenging, but greenhouse gas emissions, then of natural sources, also played a role.

This talk will contrast drivers of environmental change on planet Earth under recent anthropogenic activity with an ancient planet Earth under natural earth processes. How do both earth systems differ, and can we see some similarities? Comprehensive knowledge of polar environmental and ecosystem transformations controlled by climate change is vital for human beings and their decision making.



A variety of exciting public outreach events are planned for the conference! Be sure to come out and help us share what we do with the public.

May 10: Discovering Earth Sciences K-12 Educator Professional Training Workshop and Field Trip will help educators working in formal and informal settings to gain knowledge, confidence and resources to teach Earth science components of the Ontario curriculum to their students. Sponsored by the Canadian Geoscience Education Network (CGEN), EdGEO Canadian Earth Science Teacher Workshop Program, the Canadian Geological Foundation (CGF) and the Carleton Earth Sciences Outreach Fund. SCW-A1





May 11: Geoheritage of the National Capital Accessible Field Trip will showcase some of the exceptional geosites in the region along with illustrating some methods and simple technologies that can create a more inclusive field experience. Sponsored by the Canadian Geoscience Education Network (CGEN), The Canadian Geological Foundation (CGF) and the Carleton Earth Sciences Outreach Fund. FT-08

May 12: Science Communication: Research and Practice Beyond Boundaries will provide an opportunity to build and practice effective geoscience communication skills, with guest facilitator Cate Larsen (@groovygeologist). This workshop follows the Division Session KSS-02 from 4:00 pm to 6:00 pm. Sponsored by the GAC Geoscience Education and Communication Division and Canadian Geoscience Education Network (CGEN). SCW-S1

May 13, 8:00 pm: Featured Public Lecture "Arctic Ecosystem Changes: Contrasting the Recent with the Fossil Record" with Carleton University Professor Emeritus Dr. Claudia Schröder-Adams. This lecture is part of the free public evening event, and will take place in Room 1160 Desmarais Hall *See lecture description and abstract page 47.

May 13: Minerals, Mining and Oceans, oh my! This free public evening event runs from 6:00 pm to 9:00 pm in the main lobby of Desmarais Hall and features something for everyone:



*The Mineralogical Association of Canada (MAC) will sponsor a mineral identification clinic where folks have a chance to become mineral detective and take home a Mineral ID Kit

Mineralogical Association of Canada
Association minéralogique du Canada



*The *Ocean, Freshwater, and Us* giant floor map sponsored by the Canadian Ocean Literacy Coalition (COLC) will be on hand to help folks explore our connection with the rivers, lakes, and ocean waters in Canada. Come engage with Marine Protected areas, coastal communities, and keystone species using Augmented Reality while walking the map. As seen at GAC-MAC-SGA Sudbury, 2023

CANADIAN OCEAN LITERACY COALITION

*Folks can learn about the importance and challenges of mining in Canada through new interactive and gamified activities created through the University of Waterloo Earth Sciences Museum that showcase leading Canadian research into mine site risk mitigation. Come find out what microbes have to do with mining.



CGEN RCEG
Canadian Geoscience Education Network
Réseau canadien d'éducation géoscientifique

EdGEO
Canadian Earth Science Teacher Workshop Program

Canadian Geological Foundation
Fondation géologique du Canada
1968

MONDAY, MAY 12 - MORNING SESSION										
Room	**DMS_1160**	**DMS_1150**	**DMS_1140**	**DMS_1130**	**DMS_1120**	**DMS_1110**	**DMS_4170**	**DMS_4140**	**DMS_4130**	**DMS_4120**
8:00	**MINERALS_SY_01** A celebration of the Geological Survey of Canada's Targeted Geoscience Initiative and its 25 years of research excellence	**WATER_SS_14** Public groundwater science and policy in Canada: Challenges of jurisdiction, funding, and capacity	**MINERALS_SS_08** Mineralogy-chemical systems related to magmatic, metamorphic, and hydrothermal processes: Honouring the contributions of Donald Hogarth	**EARTH_SS_14** [1 OF 2] Paleogeography and geodynamics of the Earth before Pangea: Celebrating the career accomplishments of Kenneth L. Buchan	**EARTH_SS_16** The Grenville Province and critical metals	**WATER_SS_07** [1 OF 2] Surface water-groundwater interactions through recharge, discharge, and contribution to ecosystems	**KNOWLEDGE_SS_03** Equity, diversity, inclusion	**KNOWLEDGE_SS_02** Geoscience education and communication beyond boundaries	**SPACE_SS_01** Insights into solar system geology from astromaterials and space missions	**LIFE_SS_01** Life in rocks: From ancient Earth to Mars and beyond
9:40	**BREAK**									
10:00	**MINERALS_SY_01** A celebration of the Geological Survey of Canada's Targeted Geoscience Initiative and its 25 years of research excellence	**WATER_SS_14** Public groundwater science and policy in Canada: Challenges of jurisdiction, funding, and capacity	**MINERALS_SS_08** Mineralogy-chemical systems related to magmatic, metamorphic, and hydrothermal processes: Honouring the contributions of Donald Hogarth	**EARTH_SS_14** [1 OF 2] Paleogeography and geodynamics of the Earth before Pangea: Celebrating the career accomplishments of Kenneth L. Buchan	**EARTH_SS_16** The Grenville Province and critical metals	**WATER_SS_09** Aquifer delineation for groundwater management	**KNOWLEDGE_SS_01** Geological collections in Canadian museums: An underutilized resource for research	**KNOWLEDGE_SS_02** Geoscience education and communication beyond boundaries	**SPACE_SS_01** Insights into solar system geology from astromaterials and space missions	**LIFE_SS_02** The evolution of life, ecosystems, and environments over the Phanerozoic in Canada: A time of great innovation and disaster
10:40										
11:00	PLENARY Derry Medal Keiko Hattori									
11:20										**LIFE_GS_01** Paleontology
12:00	**LUNCH_GAC**									

MONDAY, MAY 12 - MORNING SESSION

Room	DMS_1160	DMS_1150	DMS_1140	DMS_1130	DMS_1120	DMS_1110	DMS_4170	DMS_4140	DMS_4130	DMS_4120
8:00	**MINERALS_SY_01** TGI 25th Anniversary Duke	**WATER_SS_14** Groundwater policy Abstract 134 McClain et al.	**MINERALS_SS_08** Donald Hogarth Abstract 137 Martin	**EARTH_SS_14** [1 OF 2] Kenneth Buchan *Abstract 285 Salminen	**EARTH_SS_16** Grenville *Abstract 378 Indares	**WATER_SS_07** [1 OF 2] Surface water interactions Abstract 132 McClain et al.	**KNOWLEDGE_SS_03** Diversity, equity, inclusion Abstract 371 Bursztyn	**KNOWLEDGE_SS_02** Education Abstract 570 Boggs et al.	**SPACE_SS_01** Astromaterials Abstract 569 Labrie et al.	**LIFE_SS_01** Life in rocks Abstract 202 Halverson et al.
8:20	**MINERALS_SY_01** TGI 25th Anniversary Côté-Mantha	**WATER_SS_14** Groundwater policy Abstract 584 Ryan et al.	**MINERALS_SS_08** Donald Hogarth *Abstract 517 McDonald	**EARTH_SS_14 [1 OF 2]** Kenneth Buchan Abstract 198 Evans	**EARTH_SS_16** Grenville Abstract 101 Soucy La Roche et al.	**WATER_SS_07 [1 OF 2]** Surface water interactions Abstract 364 Wiebe et al.	**KNOWLEDGE_SS_03** Diversity, equity, inclusion Abstract 040 Hodge	**KNOWLEDGE_SS_02** Education Abstract 060 Onstad et al.	**SPACE_SS_01** Astromaterials Abstract 327 Peterson	**LIFE_SS_01** Life in rocks Abstract 521 Morrill et al.
8:40	**MINERALS_SY_01** TGI 25th Anniversary Hanley	**WATER_SS_14** Groundwater policy Abstract 383 Kruk et al.	**MINERALS_SS_08** Donald Hogarth Abstract 007 Nicholls	**EARTH_SS_14 [1 OF 2]** Kenneth Buchan Abstract 133 Nguyen et al.	**EARTH_SS_16** Grenville Abstract 330 Blereau et al.	**WATER_SS_07 [1 OF 2]** Surface water interactions Abstract 578 Brunet et al.	**KNOWLEDGE_SS_03** Diversity, equity, inclusion Abstract 713 Pumphrey	**KNOWLEDGE_SS_02** Education Abstract 561 Burt et al.	**SPACE_SS_01** Astromaterials Abstract 316 Herd	**LIFE_SS_01** Life in rocks Abstract 588 Tunney et al.
9:00	**MINERALS_SY_01** TGI 25th Anniversary Martins	**WATER_SS_14** Groundwater policy Abstract 498 Trudeau and Russell	**MINERALS_SS_08** Donald Hogarth Abstract 632 McFarlane et al.	**EARTH_SS_14 [1 OF 2]** Kenneth Buchan Abstract 380 Bleeker et al.	**EARTH_SS_16** Grenville Abstract 091 Asomani-Darko et al.	**WATER_SS_07 [1 OF 2]** Surface water interactions Abstract 448 Pattrick et al.	**KNOWLEDGE_SS_03** Diversity, equity, inclusion Abstract 454 McBeth	**KNOWLEDGE_SS_02** Education Abstract 056 Sabean	**SPACE_SS_01** Astromaterials Abstract 039 Benaroya and Herd	**LIFE_SS_01** Life in rocks Abstract 353 Hartz et al.
9:20	**MINERALS_SY_01** TGI 25th Anniversary Regis	**WATER_SS_14** Groundwater policy Abstract 092 Rivera	**MINERALS_SS_08** Donald Hogarth Abstract 273 Phiilonen et al.	**EARTH_SS3_14 [1 OF 2]** Kenneth Buchan Abstract 213 Hamilton et al.	**EARTH_SS_16** Grenville Abstract 058 Alves et al.	**WATER_SS_07 [1 OF 2]** Surface water interactions Abstract 729 Abbey et al.	**KNOWLEDGE_SS_03** Diversity, equity, inclusion Abstract 235 Boggs	**KNOWLEDGE_SS_02** Education Abstract 051 Hodge et al.	**SPACE_SS_01** Astromaterials Abstract 104 Driscoll and Herd	**LIFE_SS_01** Life in rocks Abstract 529 Léveillé
9:40	**BREAK**									
10:00	**MINERALS_SY_01** TGI 25th Anniversary Bleeker	**WATER_SS_14** Groundwater policy Panel discussion	**MINERALS_SS_08** Donald Hogarth Abstract 516 Lussier et al.	**EARTH_SS_14 [1 OF 2]** Kenneth Buchan *Abstract 492 Denyszyn and Shellnutt	**EARTH_SS_16** Grenville Abstract 075 Yip et al.	**WATER_SS_09** Aquifer delineation Abstract 325 Wang and Moore	**KNOWLEDGE_SS_01** Collections Abstract 603 Beaudoin	**KNOWLEDGE_SS_02** Education Abstract 372 Rakhimbekova	**SPACE_SS_01** Astromaterials Abstract 361 Cabenda et al.	**LIFE_SS_02** Evolution Abstract 116 Morrison et al.
10:20	**MINERALS_SY_01** TGI 25th Anniversary Bédard		**MINERALS_SS_08** Donald Hogarth Abstract 715 Annesley et al.	**EARTH_SS_14 [1 OF 2]** Kenneth Buchan Abstract 280 Accotto et al.	**EARTH_SS_16** Grenville Abstract 150 Fonseca-Martinez et al.	**WATER_SS_09** Aquifer delineation Abstract 457 Boutin et al.	**KNOWLEDGE_SS_01** Collections Abstract 085 Hodge et al.	**KNOWLEDGE_SS_02** Education Abstract 487 Russell et al.	**SPACE_SS_01** Astromaterials Abstract 443 Noonan et al.	**LIFE_SS_02** Evolution Abstract 556 Sproat and McLeod
10:40			**MINERALS_SS_08** Donald Hogarth Abstract 240 Nambaje et al.	**EARTH_SS_14 [1 OF 2]** Kenneth Buchan Abstract 143 Ernst et al.	**EARTH_SS_16** Grenville Abstract 289 Pingitore et al.	**WATER_SS_09** Aquifer delineation Abstract 661 Birks et al.	**KNOWLEDGE_SS_01** Collections Abstract 272 Carter et al.	**KNOWLEDGE_SS_02** Education Abstract 005 Dolphin et al.	**SPACE_SS_01** Astromaterials Abstract 605 Graff and Osinski	**LIFE_SS_02** Evolution Abstract 329 Brand et al.
11:00			**MINERALS_SS_08** Donald Hogarth Abstract 644 Baghban Asgharinezhad et al.	**EARTH_SS_14 [1 OF 2]** Kenneth Buchan Abstract 156 Tarkyth and Eglington	**EARTH_SS_16** Grenville Abstract 637 Simard et al.	**WATER_SS_09** Aquifer delineation Abstract 322 Ligget et al.	**KNOWLEDGE_SS_01** Collections Abstract 551 Daoust et al.	**KNOWLEDGE_SS_02** Education Abstract 566 van Hinsberg et al.	**SPACE_SS_01** Astromaterials Abstract 589 Russell et al.	**LIFE_SS_02** Evolution Abstract 598 Corlett
11:20	**PLENARY** Derry Medal Keiko Hattori		**MINERALS_SS_08** Donald Hogarth Abstract 453 Azadbakht and Coulson	**EARTH_SS_14 [1 OF 2]** Kenneth Buchan Abstract 341 Pearce et al.	**EARTH_SS_16** Grenville Abstract 532 Diyoyo et al.	**WATER_SS_09** Aquifer delineation Abstract 559 Bauman et al.		**KNOWLEDGE_SS_02** Education Abstract 286 Matheson	**SPACE_SS_01** Astromaterials Abstract 597 McFarlane et al.	**LIFE_GS_01** Abstract 654 Landry et al.
11:40			**MINERALS_SS_08** Donald Hogarth Abstract 692 Ngoran et al.	**EARTH_SS_14 [1 OF 2]** Kenneth Buchan Abstract 138 El Bilali and Ernst	**EARTH_SS_16** Grenville Abstract 395 Audet	**WATER_SS_09** Aquifer delineation Abstract 238 Mah and Edsen		**KNOWLEDGE_SS_02** Education Abstract 429 McDonald et al.	**SPACE_SS_01** Astromaterials Abstract 693 Tunney et al.	**LIFE_GS_01** Abstract 652 Lindroos et al.
12:00	**LUNCH_GAC**									

MONDAY, MAY 12 - AFTERNOON SESSION											
Room	**DMS_1160**	**DMS_1150**	**DMS_1140**	**DMS_1130**	**DMS_1120**	**DMS_1110**	**DMS_4170**	**DMS_4140**	**DMS_4130**	**DMS_4120**	**DMS_12102**
13:20		**WATER_SS_14** Public groundwater science and policy in Canada: Challenges of jurisdiction, funding, and capacity	**MINERALS_SS_08** Mineralogy-chemical systems related to magmatic, metamorphic, and hydrothermal processes: Honouring the contributions of Donald Hogarth	**EARTH_SS_20** All that has come before: The influence of structural inheritance on geological processes - in celebration of the career of Dr. Ray Price	**EARTH_SS_19 [1 OF 2]** Metamorphic extravaganza: Cutting-edge advances in petrochronology and metamorphic processes	**WATER_SS_02 [1 OF 2]** Contaminant transport and remediation in groundwater	**NSERC INFORMATION SESSION** Discovery Grant Program Tiffany Lancaster Pete Hollings	**KNOWLEDGE_SS_02** Geoscience education and communication beyond boundaries	**SPACE_SS_01** Insights into solar system geology from astromaterials and space missions	**EARTH_SS_26** Basal conditions, boundary positions, and chronological additions: Updates to our understanding of glacial landscapes	**KNOWLEDGE_SS_04** Beyond Recognition – integrating western geoscience with Indigenous views of the land
13:40	**MINERALS_SS_12** Gold: Celebrating the legacy and future of innovative Targeted Geoscience Initiative (TGI) research								**SPACE_SS_02 [1 OF 2]** Planetary geosciences: Integrating geological mapping with geophysics and modelling		
14:40											
15:00	**BREAK**										
15:20	**MINERALS_SS_12** Gold: Celebrating the legacy and future of innovative Targeted Geoscience Initiative (TGI) research	**WATER_SS_16** Harnessing large scale hydrologic models to assess future water security	**MINERALS_GS_01** Economic geology	**EARTH_SS_20** All that has come before: The influence of structural inheritance on geological processes - in celebration of the career of Dr. Ray Price	**EARTH_SS_19 [1 OF 2]** Metamorphic extravaganza: Cutting-edge advances in petrochronology and metamorphic processes	**WATER_SS_02 [1 OF 2]** Contaminant transport and remediation in groundwater	**EARTH_SS_27 [1 OF 2]** Canadian Journal of Earth Sciences: Celebrating Canadian geoscience and geoscientists	**KNOWLEDGE_SS_02** Geoscience education and communication beyond boundaries	**SPACE_SS_02 [1 OF 2]** Planetary geosciences: Integrating geological mapping with geophysics and modelling	**EARTH_SS_26** Basal conditions, boundary positions, and chronological additions: Updates to our understanding of glacial landscapes	**KNOWLEDGE_SS_04** Beyond Recognition – integrating western geoscience with Indigenous views of the land
16:00	**PLENARY** Gross Medal Crystal LaFlamme							**SCW_S1** Science Communication: Research and Practice Beyond Boundaries			**KNOWLEDGE_SS_0** Andy Fyon
16:20	**PLENARY** Gross Medal Merilie Reynolds										**KNOWLEDGE_SS_04** Closing remarks Art Petahtegoose
16:40	**POSTERS**										

MONDAY, MAY 12 - AFTERNOON SESSION											
Room	**DMS_1160**	**DMS_1150**	**DMS_1140**	**DMS_1130**	**DMS_1120**	**DMS_1110**	**DMS_4170**	**DMS_4140**	**DMS_4130**	**DMS_4120**	**DMS_12102**
13:20		**WATER_SS_14** Groundwater policy Abstract 119 Somera et al.	**MINERALS_SS_08** Donald Hogarth Abstract 624 Yousefi et al.	**EARTH_SS_20** Ray Price Abstract 337 Hinchey et al.	**EARTH_SS_19 [1 OF 2]** Metamorphic petrology Abstract 613 Kendrick	**WATER_SS_02 [1 OF 2]** Contaminants Abstract 390 Kaur et al.	**NSERC INFORMATION SESSION** Discovery Grant Program Tiffany Lancaster Pete Hollings	**KNOWLEDGE_SS_02** Education Abstract 109 Hymers	**SPACE_SS_01** Astromaterials Abstract 464 Bennett et al.	**EARTH_SS_26** Glacial landscapes Abstract 317 Couette et al.	**KNOWLEDGE_SS_04** Opening with Art Petahtegoose
13:40	**MINERALS_SS_12** TGI Gold Abstract 351 Honsberger et al.	**WATER_SS_14** Groundwater policy Abstract 670 Sharpe	**MINERALS_SS_08** Donald Hogarth Abstract 662 Lentz and McFarlane	**EARTH_SS_20** Ray Price Abstract 071 Murphy et al.	**EARTH_SS_19 [1 OF 2]** Metamorphic petrology Abstract 290 Yakymchuk	**WATER_SS_02 [1 OF 2]** Contaminants Abstract 201 Rahimi and Krol	**NSERC INFORMATION SESSION** Discovery Grant Program Tiffany Lancaster Pete Hollings	**KNOWLEDGE_SS_02** Education Abstract 169 Dick et al.	**SPACE_SS_02 [1 OF 2]** Planetary geoscience *Abstract 415 Head and Ivanov	**EARTH_SS_26** Glacial landscapes Abstract 639 Kelley et al.	**KNOWLEDGE_SS_04** Mattagami First Nation Chief Jennifer Constant
14:00	**MINERALS_SS_12** TGI Gold Abstract 463 Bustard et al.	**WATER_SS_14** Groundwater policy Abstract 626 Gerber et al.	**MINERALS_SS_08** Donald Hogarth Abstract 068 Schumann et al.	**EARTH_SS_20** Ray Price Abstract 465 Johns-Buss et al.	**EARTH_SS_19 [1 OF 2]** Metamorphic petrology Abstract 331 Blereau et al.	**WATER_SS_02 [1 OF 2]** Contaminants Abstract 304 Davidson	**NSERC INFORMATION SESSION** Discovery Grant Program Tiffany Lancaster Pete Hollings	**KNOWLEDGE_SS_02** Education Abstract 004 Schwarz	**SPACE_SS_02 [1 OF 2]** Planetary geoscience Abstract 193 El Bilali et al.	**EARTH_SS_26** Glacial landscapes Abstract 080 Bernier et al.	
14:20	**MINERALS_SS_12** TGI Gold *Abstract 660 Lentz	**WATER_SS_14** Groundwater policy Abstract 593 Burt et al.	**MINERALS_SS_08** Donald Hogarth Abstract 315 Broda et al.	**EARTH_SS_20** Ray Price Abstract 621 Maslehat et al.	**EARTH_SS_19 [1 OF 2]** Metamorphic petrology Abstract 345 Regis et al.	**WATER_SS_02 [1 OF 2]** Contaminants Abstract 079 Corriveau et al.	**NSERC INFORMATION SESSION** Discovery Grant Program Tiffany Lancaster Pete Hollings	**KNOWLEDGE_SS_02** Education Abstract 057 Gomez and Gray	**SPACE_SS_02 [1 OF 2]** Planetary geoscience Abstract 125 Shimolina et al.	**EARTH_SS_26** Glacial landscapes Abstract 318 Gauthier et al.	**KNOWLEDGE_SS_04** Panel discussion
14:40	**MINERALS_SS_12** TGI Gold Abstract 147 Ak and Gregory	**WATER_SS_14** Groundwater policy Abstract 485 Russell et al.		**EARTH_SS_20** Ray Price Abstract 111 Koptev et al.	**EARTH_SS_19 [1 OF 2]** Metamorphic petrology Abstract 305 Pattison et al.	**WATER_SS_02 [1 OF 2]** Contaminants Abstract 684 Pumphrey	**NSERC INFORMATION SESSION** Discovery Grant Program Tiffany Lancaster Pete Hollings	**KNOWLEDGE_SS_02** Education Abstract 686 Packard	**SPACE_SS_02 [1 OF 2]** Planetary geoscience Abstract 314 Ernst et al.	**EARTH_SS_26** Glacial landscapes Abstract 301 Mesich et al.	
15:00	**BREAK**										
15:20	**MINERALS_SS_12** TGI Gold Abstract 512 Neyedley et al.	**WATER_SS_16** Groundwater policy Abstract 629 Frey et al.	**MINERALS_GS_01** Abstract 407 Nadeau and DeSouza	**EARTH_SS_20** Ray Price Abstract 313 Pysklywec et al.	**EARTH_SS_19 [1 OF 2]** Metamorphic petrology Abstract 697 Larson et al.	**WATER_SS_02 [1 OF 2]** Contaminants Abstract 607 Wang et al.	**EARTH_SS_27 [1 OF 2]** Canadian Journal of Earth Sciences Abstract 055 Strong and Dickin	**KNOWLEDGE_SS_02** Education Abstract 252 Northover	**SPACE_SS_02 [1 OF 2]** Planetary geoscience Abstract 027 Ben Marzoug et al.	**EARTH_SS_26** Glacial landscapes Abstract 530 Tremblay	
15:40	**MINERALS_SS_12** TGI Gold *Abstract 367 Mercier-Langevin	**WATER_SS_16** Groundwater policy Abstract 506 Brookfield et al.	**MINERALS_GS_01** Abstract 658 M'hamdi Alaoui et al.	**EARTH_SS_20** Ray Price Abstract 494 Rolfe et al.	**EARTH_SS_19 [1 OF 2]** Metamorphic petrology Abstract 409 Laureijs et al.	**WATER_SS_02 [1 OF 2]** Contaminants Abstract 096 Calvert et al.	**EARTH_SS_27 [1 OF 2]** Canadian Journal of Earth Sciences Abstract 065 Dickin and Strong	**KNOWLEDGE_SS_02** Education Abstract 370 Bursztyn	**SPACE_SS_02 [1 OF 2]** Planetary geoscience Abstract 018 Hannour et al.	**EARTH_SS_26** Glacial landscapes Abstract 297 Hagedorn	**KNOWLEDGE_SS_04** Panel discussion
16:00	**PLENARY** Gross Medal Crystal LaFlamme	**WATER_SS_16** Groundwater policy Abstract 192 Bringeland et al.	**MINERALS_GS_01** Abstract 421 Ferraq et al.	**EARTH_SS_20** Ray Price Abstract 126 Godin et al.	**EARTH_SS_19 [1 OF 2]** Metamorphic petrology Abstract 299 Dyer and Yakymchuk	**WATER_SS_02 [1 OF 2]** Contaminants Abstract 210 Chowdhury et al.	**EARTH_SS_27 [1 OF 2]** Canadian Journal of Earth Sciences Abstract 420 Mathiieu	**SCW_S1** Science Communication: Research and Practice Beyond Boundaries	**SPACE_SS_02 [1 OF 2]** Planetary geoscience Abstract 032 Fardy	**EARTH_SS_26** Glacial landscapes Abstract 689 Bukhari	**KNOWLEDGE_SS_0** Andy Fyon
16:20	**PLENARY** Gross Medal Merilie Reynolds	**WATER_SS_16** Groundwater policy Abstract 270 Smerdon et al.	**MINERALS_GS_01** Abstract 386 Eaton-Tessier and Gregory	**EARTH_SS_20** Ray Price Abstract 041 Rolfe et al.	**EARTH_SS_19 [1 OF 2]** Metamorphic petrology Abstract 608 Dasgupta and Gervais	**WATER_SS_02 [1 OF 2]** Contaminants Abstract 688 Godard et al.	**EARTH_SS_27 [1 OF 2]** Canadian Journal of Earth Sciences Abstract 580 Speight et al.		**SPACE_SS_02 [1 OF 2]** Planetary geoscience Abstract 049 Hasanaine et al.	**EARTH_SS_26** Glacial landscapes Abstract 397 Gosse et al.	**KNOWLEDGE_SS_04** Closing remarks Art Petahtegoose
16:40	**POSTERS**										

TUESDAY, MAY 13 - MORNING SESSION										
Room	**DMS_1160**	**DMS_1150**	**DMS_1140**	**DMS_1130**	**DMS_1120**	**DMS_1110**	**DMS_4170**	**DMS_4140**	**DMS_4130**	**DMS_4120**
8:00	**MINERALS_SS_05** A tribute to Dr. Jim Franklin	**WATER_SS_07 [2 OF 2]** Surface water-groundwater interactions through recharge, discharge, and contribution to ecosystems	**MINERALS_SS_09** Application of hand-held tools in the search for critical metals	**EARTH_SS_14 [2 OF 2]** Paleogeography and geodynamics of the Earth before Pangea: Celebrating the career accomplishments of Kenneth L. Buchan	**EARTH_SS_03** Mafic intrusions, associated magmatism and metallogenesis in anorogenic settings	**EARTH_SS_15 [1 OF 2]** Appalachians and beyond - exploring the Laurentian margin through time	**EARTH_GS_01 [1 OF 2]** Geoscience advances	**EARTH_SS_12** The sedimentary record of fluvial systems: Resolving linkages between modern processes and ancient products	**SPACE_SS_02 [2 OF 2]** Planetary geosciences: Integrating geological mapping with geophysics and modelling	**WATER_SS_05** Numerical modeling of groundwater processes in deep geological systems
9:40	**BREAK**									
10:00	**PLENARY** Derry Medal Georges Beaudoin	**WATER_SS_01** Hydrogeology and geochemistry of cold-regions	**MINERALS_SS_07** Applied mineralogy in natural and mining environments: A session in honour of Mati Raudsepp	**EARTH_SS_14 [2 OF 2]** Paleogeography and geodynamics of the Earth before Pangea: Celebrating the career accomplishments of Kenneth L. Buchan	**EARTH_SS_03** Mafic intrusions, associated magmatism and metallogenesis in anorogenic settings	**EARTH_SS_17** Tectonic and Metallogenic evolution of the Canadian Cordillera	**EARTH_SS_25** Celebrating 50 years of Environmental Geoscience	**EARTH_SS_11** Precambrian depositional and environmental systems	**SPACE_SS_03** Lunar geoscience: A new era of lunar science and exploration for Canada	**WATER_SS_06** Re-framing the perspective on groundwater interaction with surface water in urban areas
10:40				**EARTH_SS_05** Metals, Redox, and Volatiles: from the mantle to magmas to mineral deposits, a special session honouring the career of Prof. Keiko Hattori						
11:00	**PLENARY** Logan Medal									
11:20										
11:40										
12:00	**LUNCH_MAC**									

TUESDAY, MAY 13 - MORNING SESSION										
Room	**DMS_1160**	**DMS_1150**	**DMS_1140**	**DMS_1130**	**DMS_1120**	**DMS_1110**	**DMS_4170**	**DMS_4140**	**DMS_4130**	**DMS_4120**
8:00	**MINERALS_SS_05** Jim Franklin Abstract 095 Poulsen	**WATER_SS_07 [2 OF 2]** Surface water interactions Abstract 401 Ju et al.	**MINERALS_SS_09** Handheld instruments *Abstract 675 Turner and Percival	**EARTH_SS_14 [2 OF 2]** Kenneth Buchan Abstract 160 Ernst et al.	**EARTH_SS_03** Mafic intrusions Abstract 703 Mungall et al.	**EARTH_SS_15 [1 OF 2]** Appalachians Abstract 722 Rayhorn and Beranek	**EARTH_GS_01 [1 OF 2]** Geoscience advances Abstract 387 Kinney and Yakymchuk	**EARTH_SS_12** Fluvial systems Abstract 648 Lowe and Bryce	**SPACE_SS_02 [2 OF 2]** Planetary geoscience Abstract 129 McAlpine et al.	**WATER_SS_05** Groundwater modelling Abstract 009 Hokanson et al.
8:20	**MINERALS_SS_05** Jim Franklin Abstract 520 Jørgensen ans Gibson	**WATER_SS_07 [2 OF 2]** Surface water interactions Abstract 727 Shotayo and Allen	**MINERALS_SS_09** Handheld instruments Abstract 343 Connors and Lambton	**EARTH_SS_14 [2 OF 2]** Kenneth Buchan Abstract 374 Eglington et al.	**EARTH_SS_03** Mafic intrusions Abstract 088 Larsen and Sørensen	**EARTH_SS_15 [1 OF 2]** Appalachians Abstract 601 McKeen et al.	**EARTH_GS_01 [1 OF 2]** Geoscience advances Abstract 724 Neil et al.	**EARTH_SS_12** Fluvial systems Abstract 221 Rabbani et al.	**SPACE_SS_02 [2 OF 2]** Planetary geoscience Abstract 038 Duxbury et al.	**WATER_SS_05** Groundwater modelling Abstract 131 Molson et al.
8:40	**MINERALS_SS_05** Jim Franklin Abstract 381 Iles and Ross	**WATER_SS_07 [2 OF 2]** Surface water interactions Abstract 348 Royer-Lavallée et al.	**MINERALS_SS_09** Handheld instruments Abstract 204 Percival et al.	**EARTH_SS_14 [2 OF 2]** Kenneth Buchan Abstract 702 Scotese et al.	**EARTH_SS_03** Mafic intrusions Abstract 418 Prevec and Howarth	**EARTH_SS_15 [1 OF 2]** Appalachians Abstract 595 Beckwith et al.	**EARTH_GS_01 [1 OF 2]** Geoscience advances Abstract 433 Musiyachenko et al.	**EARTH_SS_12** Fluvial systems Abstract 679 Teodoro-Neville et al.	**SPACE_SS_02 [2 OF 2]** Planetary geoscience Abstract 031 Mishra et al.	**WATER_SS_05** Groundwater modelling Abstract 554 Palombi et al.
9:00	**MINERALS_SS_05** Jim Franklin Abstract 375 Mongeau et al.	**WATER_SS_07 [2 OF 2]** Surface water interactions Abstract 061 Zanatta et al.	**MINERALS_SS_09** Handheld instruments Abstract 283 Alarcón Laime et al.	**EARTH_SS_14 [2 OF 2]** Kenneth Buchan Abstract 226 Hamilton et al.	**EARTH_SS_03** Mafic intrusions Abstract 074 Jones and Denyszyn	**EARTH_SS_15 [1 OF 2]** Appalachians Abstract 113 Guna et al.	**EARTH_GS_01 [1 OF 2]** Geoscience advances Abstract 400 Jouhari et al.	**EARTH_SS_12** Fluvial systems Abstract 682 Chun and Steel	**SPACE_SS_02 [2 OF 2]** Planetary geoscience Abstract 030 Tripathi et al.	**WATER_SS_05** Groundwater modelling Abstract 417 Ngombe et al.
9:20	**MINERALS_SS_05** Jim Franklin Abstract 581 Gibson et al.	**WATER_SS_07 [2 OF 2]** Surface water interactions Abstract 335 Pavlovskii et al.	**MINERALS_SS_09** Handheld instruments Abstract 342 Connors	**EARTH_SS_14 [2 OF 2]** Kenneth Buchan Abstract 066 Hodych et al.	**EARTH_SS_03** Mafic intrusions Abstract 428 Tournier et al.	**EARTH_SS_15 [1 OF 2]** Appalachians Abstract 438 Santos	**EARTH_GS_01 [1 OF 2]** Geoscience advances Abstract 350 Polat	**EARTH_SS_12** Fluvial systems Abstract 253 Durkin et al.	**SPACE_SS_02 [2 OF 2]** Planetary geoscience Abstract 699 Zhou	**WATER_SS_05** Groundwater modelling Abstract 064 Calder et al.
9:40	**BREAK**									
10:00		**WATER_SS_01** Cold regions Abstract 312 Conway-White et al.	**MINERALS_SS_07** Mati Raudsepp *Abstract 647 Lindsay	**EARTH_SS_14 [2 OF 2]** Kenneth Buchan Abstract 155 Hoffman and Myrow	**EARTH_SS_03** Mafic intrusions Abstract 015 Shellnutt	**EARTH_SS_17** Cordilleran Abstract 223 King et al.	**EARTH_SS_25** Environmental geoscience *Abstract 174 Lyon	**EARTH_SS_11** Precambrian environments Abstract 538 van Hinsberg et al.	**SPACE_SS_03** Lunar geoscience Abstract 499 Osinski et al.	**WATER_SS_06** Groundwater interactions Abstract 302 Roy
10:20	**PLENARY** Derry Medal Georges Beaudoin	**WATER_SS_01** Cold regions Abstract 011 de Grandpré	**MINERALS_SS_07** Mati Raudsepp Abstract 518 McDonald	**EARTH_SS_14 [2 OF 2]** Kenneth Buchan Abstract 089 Spencer et al.	**EARTH_SS_03** Mafic intrusions Abstract 568 Ernst et al.	**EARTH_SS_17** Cordilleran Abstract 385 Zagorevski et al.	**EARTH_SS_25** Environmental geoscience Abstract 292 Percival and McGregor	**EARTH_SS_11** Precambrian environments Abstract 475 Babechuk et al.	**SPACE_SS_03** Lunar geoscience Abstract 479 Luna et al.	**WATER_SS_06** Groundwater interactions Abstract 446 Risch et al.
10:40		**WATER_SS_01** Cold regions Abstract 338 Bélanger and Greer	**MINERALS_SS_07** Mati Raudsepp Abstract 668 Groat et al.	**EARTH_SS_05** Keiko Hattori Abstract 279 Saumur	**EARTH_SS_03** Mafic intrusions Abstract 733 Rainbird et al.	**EARTH_SS_17** Cordilleran Abstract 363 Tollefson et al.	**EARTH_SS_25** Environmental geoscience Abstract 636 Lebel et al.	**EARTH_SS_11** Precambrian environments Abstract 656 Kunert et al.	**SPACE_SS_03** Lunar geoscience Abstract 585 Srivastava et al.	**WATER_SS_06** Groundwater interactions Abstract 511 N'da et al.
11:00	**PLENARY** Logan Medal	**WATER_SS_01** Cold regions Abstract 120 Somera et al.	**MINERALS_SS_07** Mati Raudsepp Abstract 462 Brueckner and Amissah	**EARTH_SS_05** Keiko Hattori Abstract 087 Guillot	**EARTH_SS_03** Mafic intrusions Abstract 176 Good	**EARTH_SS_17** Cordilleran Abstract 130 Šilerová et al.	**EARTH_SS_25** Environmental geoscience Abstract 411 Power et al.	**EARTH_SS_11** Precambrian environments Abstract 534 McDonald and Partin	**SPACE_SS_03** Lunar geoscience Abstract 073 Lemelin et al.	**WATER_SS_06** Groundwater interactions Abstract 356 Hodgins et al.
11:20		**WATER_SS_01** Cold regions Abstract 082 Douglas et al.	**MINERALS_SS_07** Mati Raudsepp Abstract 698 von der Handt	**EARTH_SS_05** Keiko Hattori Abstract 090 De Hoog and Hattori	**EARTH_SS_03** Mafic intrusions Abstract 146 Riahi Najafabadi et al.	**EARTH_SS_17** Cordilleran Abstract 053 Bowie et al.	**EARTH_SS_25** Environmental geoscience Abstract 505 Abraham et al.	**EARTH_SS_11** Precambrian environments Abstract 355 Pastula et al.	**SPACE_SS_03** Lunar geoscience Abstract 110 Brassard et al.	**WATER_SS_06** Groundwater interactions Abstract 281 Ilg et al.
11:40			**MINERALS_SS_07** Mati Raudsepp Abstract 550 Girard	**EARTH_SS_05** Keiko Hattori Abstract 320 Krampert et al.		**EARTH_SS_17** Cordilleran Abstract 295 Kellett et al.	**EARTH_SS_25** Environmental geoscience Abstract 191 Greenough et al.	**EARTH_SS_11** Precambrian environments Abstract 157 Hoffman and Tasistro-Hart	**SPACE_SS_03** Lunar geoscience Abstract 267 Patel et al.	**WATER_SS_06** Groundwater interactions Abstract 354 Jayawardane et al.
12:00	**LUNCH_MAC**									

TUESDAY, MAY 13 - AFTERNOON SESSION										
Room	**DMS_1160**	**DMS_1150**	**DMS_1140**	**DMS_1130**	**DMS_1120**	**DMS_1110**	**DMS_4170**	**DMS_4140**	**DMS_4130**	**DMS_4120**
13:20	**MINERALS_SS_05** A tribute to Dr. Jim Franklin	**WATER_SS_04** Groundwater modelling to support source water protection	**MINERALS_SS_07** Applied mineralogy in natural and mining environments: A session in honour of Mati Raudsepp	**EARTH_SS_05** Metals, Redox, and Volatiles: from the mantle to magmas to mineral deposits, a special session honouring the career of Prof. Keiko Hattori	**EARTH_SS_02** Carbonatite and alkaline mineral systems and their potential for critical mineral mineralization	**EARTH_SS_17** Tectonic and metallogenic evolution of the Canadian Cordillera	**EARTH_GS_01 [2 OF 2]** Geoscience advances	**EARTH_SS_10** Abrupt environmental change and time preservation in the stratigraphic record	**SPACE_SS_03** Lunar geoscience: A new era of lunar science and exploration for Canada	**WATER_SS_15** Groundwater data - its management and use
13:40						**EARTH_SS_18** The lifecycle of ophiolites through time: Igneous and metamorphic processes, tectonics, subduction				
15:00	**BREAK**									
15:20		**MINERALS_SS_10 [1 OF 2]** Innovative approaches in critical mineral exploration, mining, and recovery	**MINERALS_SS_07** Applied mineralogy in natural and mining environments: A session in honour of Mati Raudsepp	**EARTH_SS_05** Metals, Redox, and Volatiles: from the mantle to magmas to mineral deposits, a special session honouring the career of Prof. Keiko Hattori	**EARTH_SS_02** Carbonatite and alkaline mineral systems and their potential for critical mineral mineralization	**EARTH_SS_18** The lifecycle of ophiolites through time: Igneous and metamorphic processes, tectonics, subduction	**EARTH_SS_09** Clastic marine sedimentology: Advances in sediment transport dynamics, geomorphology, and depositional processes in marine environments	**EARTH_SS_10** Abrupt environmental change and time preservation in the stratigraphic record	**SPACE_SS_03** Lunar geoscience: A new era of lunar science and exploration for Canada	**EARTH_SS_27 [2 OF 2]** Canadian Journal of Earth Sciences: Celebrating Canadian geoscience and geoscientists
15:40	**PLENARY** Darcy Lecture Grant Ferguson									
16:20										
16:40	**POSTERS**									

TUESDAY, MAY 13 - AFTERNOON SESSION										
Room	**DMS_1160**	**DMS_1150**	**DMS_1140**	**DMS_1130**	**DMS_1120**	**DMS_1110**	**DMS_4170**	**DMS_4140**	**DMS_4130**	**DMS_4120**
13:20	**MINERALS_SS_05** Jim Franklin Abstract 276 Schofield et al.	**WATER_SS_04** Source water protection Abstract 528 Reiha	**MINERALS_SS_07** Mati Raudsepp Abstract 685 Dipple	**EARTH_SS_05** Keiko Hattori *Abstract 274 Simon et al.	**EARTH_SS_02** Carbonatite *Abstract 278 Williams-Jones and Vasyukova	**EARTH_SS_17** Cordilleran Abstract 239 Enkelmann and Stephan	**EARTH_GS_01 [2 OF 2]** Geoscience advances Abstract 423 Higgins	**EARTH_SS_10** Environmental change *Abstract 036 Miall	**SPACE_SS_03** Lunar geoscience Abstract 368 Mijajlovic and Herd	**WATER_SS_15** Groundwater data Abstract 634 Shepley
13:40	**MINERALS_SS_05** Jim Franklin Abstract 013 Dana et al.	**WATER_SS_04** Source water protection Abstract 319 Marchildon et al.	**MINERALS_SS_07** Mati Raudsepp Abstract 217 Gardideh and Barati	**EARTH_SS_05** Keiko Hattori Abstract 674 Kontak et al.	**EARTH_SS_02** Carbonatite *Abstract 077 Giulani et al.	**EARTH_SS_18** Ophiolites *Abstract 339 Pearce	**EARTH_GS_01 [2 OF 2]** Geoscience advances Abstract 449 Cousens	**EARTH_SS_10** Environmental change Abstract 237 Bhattacharya	**SPACE_SS_03** Lunar geoscience Abstract 474 Sio et al.	**WATER_SS_15** Groundwater data Abstract 106 Lee
14:00	**MINERALS_SS_05** Jim Franklin Abstract 214 Ballantyne et al.	**WATER_SS_04** Source water protection Abstract 723 Langford et al.	**MINERALS_SS_07** Mati Raudsepp Abstract 393 Burnett et al.	**EARTH_SS_05** Keiko Hattori Abstract 269 Sano et al.	**EARTH_SS_02** Carbonatite Abstract 365 Mitchell	**EARTH_SS_18** Ophiolites Abstract 347 Bedard et al.	**EARTH_GS_01 [2 OF 2]** Geoscience advances Abstract 219 Wang et al.	**EARTH_SS_10** Environmental change Abstract 542 Shillito and Davies	**SPACE_SS_03** Lunar geoscience Abstract 718 Mechem et al.	**WATER_SS_15** Groundwater data Abstract 507 Stotler et al.
14:20	**MINERALS_SS_05** Jim Franklin Abstract 444 Guerra Braga et al.	**WATER_SS_04** Source water protection Abstract 388 Goudarzie et al.	**MINERALS_SS_07** Mati Raudsepp Abstract 533 Spence et al.	**EARTH_SS_05** Keiko Hattori Abstract 665 Hattori and Midea	**EARTH_SS_02** Carbonatite Abstract 716 Chakmouradian et al.	**EARTH_SS_18** Ophiolites Abstract 563 Fournier-Roy et al.	**EARTH_GS_01 [2 OF 2]** Geoscience advances Abstract 098 Ducharme et al.	**EARTH_SS_10** Environmental change Abstract 708 Golding et al.	**SPACE_SS_03** Lunar geoscience Abstract 468 Hayden et al.	**WATER_SS_15** Groundwater data Abstract 575 Barzegar et al.
14:40	**MINERALS_SS_05** Jim Franklin Abstract 627 Hannington et al.	**WATER_SS_04** Source water protection Abstract 406 Labelle	**MINERALS_SS_07** Mati Raudsepp Abstract 704 Vessey et al.	**EARTH_SS_05** Keiko Hattori Abstract 402 Suclan and Hattori	**EARTH_SS_02** Carbonatite Abstract 249 Bhakta et al.	**EARTH_SS_18** Ophiolites Abstract 333 Baron et al.	**EARTH_GS_01 [2 OF 2]** Geoscience advances Abstract 659 Sbabou et al.	**EARTH_SS_10** Environmental change Abstract 700 Stephens et al.	**SPACE_SS_03** Lunar geoscience Abstract 725 Kosche et al.	**WATER_SS_15** Groundwater data Abstract 382 Ayadi et al.
15:00	**BREAK**									
15:20		**MINERALS_SS_10 [1 OF 2]** Innovative methods *Abstract 471 McCutcheon et al.	**MINERALS_SS_07** Mati Raudsepp Abstract 558 Mauws et al.	**EARTH_SS_05** Keiko Hattori Abstract 408 Halloran et al.	**EARTH_SS_02** Carbonatite Abstract 185 Couëslan et al.	**EARTH_SS_18** Ophiolites Abstract 495 Lafrance et al.	**EARTH_SS_09** Clastic marine sedimentology Abstract 099 Ezeh et al.	**EARTH_SS_10** Environmental change Abstract 687 Stewart et al.	**SPACE_SS_03** Lunar geoscience Abstract 103 Diotte et al.	**EARTH_SS_27 [2 OF 2]** Candian Journal of Earth Sciences Abstract 646 Orlóci-Goodison et al.
15:40		**MINERALS_SS_10 [1 OF 2]** Innovative methods Abstract 029 Wilson et al.	**MINERALS_SS_07** Mati Raudsepp Abstract 188 Flemming et al.	**EARTH_SS_05** Keiko Hattori Abstract 503 Pippy et al.	**EARTH_SS_02** Carbonatite Abstract 436 Van Weelderen et al.	**EARTH_SS_18** Ophiolites Abstract 265 Bogatu et al.	**EARTH_SS_09** Clastic marine sedimentology Abstract 328 Chattopadhyay et al.	**EARTH_SS_10** Environmental change Abstract 483 Silva and Alsen	**SPACE_SS_03** Lunar geoscience Abstract 244 Ellery et al.	**EARTH_SS_27 [2 OF 2]** Candian Journal of Earth Sciences Abstract 574 Hanneson et al.
16:00	**PLENARY** Darcy Lecture Grant Ferguson	**MINERALS_SS_10 [1 OF 2]** Innovative methods Abstract 228 Kenney	**MINERALS_SS_07** Mati Raudsepp Abstract 615 Gutierrez Rueda et al.	**EARTH_SS_05** Keiko Hattori Abstract 426 Hashmi	**EARTH_SS_02** Carbonatite Abstract 583 Bedard et al.	**EARTH_SS_18** Ophiolites Abstract 466 Coleman et al.	**EARTH_SS_09** Clastic marine sedimentology Abstract 309 Normandeau et al.	**EARTH_SS_10** Environmental change Abstract 167 Goonetilleke et al.		**EARTH_SS_27 [2 OF 2]** Candian Journal of Earth Sciences Abstract 555 Sproat and Young
16:20		**MINERALS_SS_10 [1 OF 2]** Innovative methods Abstract 216 Shuster et al.	**MINERALS_SS_07** Mati Raudsepp Abstract 392 Ning et al.		**EARTH_SS_02** Carbonatite Abstract 277 Vasyukova et al.	**EARTH_SS_18** Ophiolites Abstract 571 Stern et al.		**EARTH_SS_10** Environmental change Abstract 187 Shchepetkina and Gair		**EARTH_SS_27 [2 OF 2]** Candian Journal of Earth Sciences Abstract 256 Pratt
16:40	**POSTERS**									

WEDNESDAY, MAY 14 - MORNING SESSION										
Room	**DMS_1160**	**DMS_1150**	**DMS_1140**	**DMS_1130**	**DMS_1120**	**DMS_1110**	**DMS_4170**	**DMS_4140**	**DMS_4130**	**DMS_4120**
8:00	**MINERALS_SS_02** Geochemistry of energy-critical elements and critical minerals: Implications to formation of critical mineral deposits, extraction of critical minerals, and geological disposal of nuclear waste	**WATER_SS_12** Outreach and education in hydrogeology	**MINERALS_SS_03** Magmatic ore deposits associated with mafic - ultramafic systems: A tribute to the career of Prof. C. Michael Lesher	**MINERALS_SS_11** Structural and geochemical controls on gold mineralization	**EARTH_SS_04** Petrogenesis of anorogenic magmatism and related mineralization: Decoding magmatic to geodynamic processes – a session to honour Joseph Whalen's contributions	**EARTH_SS_21** Field-based structural geology and tectonics	**WATER_GS_01 [1 OF 2]** Hydrogeology	**MINERALS_SS_10 [2 OF 2]** Innovative approaches in critical mineral exploration, mining, and recovery	**EARTH_SS_24** Evolving knowledge of the Champlain Sea basin	**WATER_SS_02 [2 OF 2]** Contaminant transport and remediation in groundwater
9:20										
9:40	**BREAK**									
10:00	**MINERALS_SS_01** Critical mineral resources in Canada and beyond: Recent developments and new	**WATER_SS_12** Outreach and education in hydrogeology	**MINERALS_SS_03** Magmatic ore deposits associated with mafic - ultramafic systems: A tribute to the career of Prof. C. Michael Lesher	**MINERALS_SS_11** Structural and geochemical controls on gold mineralization	**EARTH_SS_04** Petrogenesis of anorogenic magmatism and related mineralization: Decoding magmatic to geodynamic processes – a session to honour Joseph Whalen's	**EARTH_SS_21** Field-based structural geology and tectonics	**EARTH_SS_08** Advances in reservoir characterization: Geoenergy systems studies towards carbon emissions reduction	**EARTH_SS_15 [2 OF 2]** Appalachians and beyond - exploring the Laurentian margin through time	**EARTH_SS_24** Evolving knowledge of the Champlain Sea basin	**WATER_SS_03** Geogenic contaminants mobilized by natural and human-accelerated processes in groundwater
10:40									**EARTH_GS_05** Sedimentary petrology	
11:00										
11:20	**PLENARY** Peacock Medal Anton Chakhmouradian									
11:40										
12:00	**LUNCH_IAH_MDD**									

WEDNESDAY, MAY 14 - MORNING SESSION										
Room	**DMS_1160**	**DMS_1150**	**DMS_1140**	**DMS_1130**	**DMS_1120**	**DMS_1110**	**DMS_4170**	**DMS_4140**	**DMS_4130**	**DMS_4120**
8:00	**MINERALS_SS_02** Energy minerals *Abstract 069 Lawley et al.	**WATER_SS_12** Outreach hydrogeology *Abstract 508 Cherry	**MINERALS_SS_03** Michael Lesher Abstract 540 Sproule and Houlé	**MINERALS_SS_11** Gold Abstract 296 Dyer et al.	**EARTH_SS_04** Joseph Whalen *Abstract 016 Shellnutt	**EARTH_SS_21** Structural geology Abstract 206 Thiessen et al.	**WATER_GS_01 [1 OF 2]** Abstract 251 Rivard et al.	**MINERALS_SS_10 [2 OF 2]** Innovative methods Abstract 638 McBeth et al.	**EARTH_SS_24** Champlain sea basin Abstract 497 Hinton et al.	**WATER_SS_02 [2 OF 2]** Contaminants Abstract 398 Elsayed et al.
8:20	**MINERALS_SS_02** Energy minerals Abstract 389 Jacques and Fayek	**WATER_SS_12** Outreach hydrogeology Cherry Discussion	**MINERALS_SS_03** Michael Lesher Abstract 044 Lesher and Houlé	**MINERALS_SS_11** Gold Abstract 026 Mugford et al.	**EARTH_SS_04** Joseph Whalen Abstract 416 Whalen and Hildebrand	**EARTH_SS_21** Structural geology Abstract 059 Deane et al.	**WATER_GS_01 [1 OF 2]** Hydrogeology Abstract 564 Ludwig and Allen	**MINERALS_SS_10 [2 OF 2]** Innovative methods Abstract 241 Knaack and Goulet	**EARTH_SS_24** Champlain sea basin Abstract 477 Locat	**WATER_SS_02 [2 OF 2]** Contaminants Abstract 514 Yuan
8:40	**MINERALS_SS_02** Energy minerals Abstract 179 Harmanci et al.	**WATER_SS_12** Outreach hydrogeology Abstract 510 Kalwij	**MINERALS_SS_03** Michael Lesher Abstract 707 Milier et al.	**MINERALS_SS_11** Gold Abstract 048 Simmons et al.	**EARTH_SS_04** Joseph Whalen Abstract 410 Hildebrand and Whalen	**EARTH_SS_21** Structural geology Abstract 086 Crook et al.	**WATER_GS_01 [1 OF 2]**Hydrogeology Abstract 653 Fisher et al.	**MINERALS_SS_10 [2 OF 2]** Innovative methods Abstract 332 Voormeij	**EARTH_SS_24** Champlain sea basin Abstract 344 Brooks	**WATER_SS_02 [2 OF 2]** Contaminants Abstract 480 Prieto-Espinoza et al.
9:00	**MINERALS_SS_02** Energy minerals Abstract 052 Wang et al.	**WATER_SS_12** Outreach hydrogeology Abstract 567 Hubley	**MINERALS_SS_03** Michael Lesher Abstract 310 Ross et al.	**MINERALS_SS_11** Gold Abstract 183 Laverge et al.	**EARTH_SS_04** Joseph Whalen Abstract 002 Shahhosseini et al.	**EARTH_SS_21** Structural geology Abstract 414 Priddell et al.	**WATER_GS_01 [1 OF 2]**Hydrogeology Abstract 459 Boutin and Birks	**MINERALS_SS_10 [2 OF 2]** Innovative methods Abstract 618 Sarkar et al.	**EARTH_SS_24** Champlain sea basin Abstract 706 de Vernal et al.	**WATER_SS_02 [2 OF 2]** Contaminants Abstract 450 Hilger et al.
9:20	**MINERALS_SS_02** Energy minerals Abstract 560 Moyo et al.	**WATER_SS_12** Outreach hydrogeology Abstract 123 Pennefather et al.		**MINERALS_SS_11** Gold Abstract 434 Boehme et al.	**EARTH_SS_04** Joseph Whalen Abstract 021 Murphy et al.	**EARTH_SS_21** Structural geology Abstract 161 Hamel and Thiessen	**WATER_GS_01 [1 OF 2]**Hydrogeology Abstract 509 Estrella-Legal et al.	**MINERALS_SS_10 [2 OF 2]** Innovative methods Abstract 549 Girard and Lahue	**EARTH_SS_24** Champlain sea basin Abstract 500 Hinton et al.	**WATER_SS_02 [2 OF 2]** Contaminants Abstract 047 Flesch et al.
9:40	**BREAK**									
10:00	**MINERALS_SS_01** Critical minerals Abstract 046 Gregory et al.	**WATER_SS_12** Outreach hydrogeology Abstract 501 Stotler et al.	**MINERALS_SS_03** Michael Lesher *Abstract 017 Lafrance et al.	**MINERALS_SS_11** Gold *Abstract 405 Nadeau et al.	**EARTH_SS_04** Joseph Whalen Abstract 478 Neil et al.	**EARTH_SS_21** Structural geology Abstract 225 Gauthier et al.	**EARTH_SS_08** Geoenergy Abstract 655 Guay-Hébert et al.	**EARTH_SS_15 [2 OF 2]** Appalachian Abstract 452 Barr et al.	**EARTH_SS_24** Champlain sea basin Abstract 489 Bajtala et al.	**WATER_SS_03** Geogenic contaminants *Abstract 493 Cloutier et al.
10:20	**MINERALS_SS_01** Critical minerals Abstract 635 Pedreira Pérez et al.	**WATER_SS_12** Outreach hydrogeology Abstract 630 Rosa and Mayappo	**MINERALS_SS_03** Michael Lesher Abstract 672 Peters et al.	**MINERALS_SS_11** Gold Abstract 360 Bertauts et al.	**EARTH_SS_04** Joseph Whalen Abstract 287 Malay et al.	**EARTH_SS_21** Structural geology Abstract 594 Vice et al.	**EARTH_SS_08** Geoenergy Abstract 234 Ibitogbe and Awolayo	**EARTH_SS_15 [2 OF 2]** Appalachian Abstract 623 Waldron et al.	**EARTH_SS_24** Champlain sea basin Abstract 683 Al et al.	**WATER_SS_03** Geogenic contaminants Abstract 650 Islam et al.
10:40	**MINERALS_SS_01** Critical minerals Abstract 199 Cardenas-Vera et al.	**WATER_SS_12** Outreach hydrogeology Abstract 573 Bauman et al.	**MINERALS_SS_03** Michael Lesher Abstract 535 Smith et al.	**MINERALS_SS_11** Gold Abstract 258 Pedemonte Castro et al.	**EARTH_SS_04** Joseph Whalen Abstract 196 Eby	**EARTH_SS_21** Structural geology Abstract 620 Tavakoli Yaraki et al.	**EARTH_SS_08** Geoenergy Abstract 541 Larmagnat et al.	**EARTH_SS_15 [2 OF 2]** Appalachian Abstract 352 Schwangler et al.	**EARTH_GS_05** Sedimentary petrology Abstract 728 Ruiz-Arriaga and Stockli	**WATER_SS_03** Geogenic contaminants Abstract 486 Perreault et al.
11:00	**PLENARY** Peacock Medal Anton Chakhmouradian	**WATER_SS_12** Outreach hydrogeology Abstract 114 Simpson et al.	**MINERALS_SS_03** Michael Lesher Abstract 231 Augustin and Mungall	**MINERALS_SS_11** Gold Abstract 291 Bonin et al.	**EARTH_SS_04** Joseph Whalen Abstract 215 Clark and Brenan	**EARTH_SS_21** Structural geology Abstract 582 Bhalla et al.	**EARTH_SS_08** Geoenergy Abstract 642 Des Roches et al.	**EARTH_SS_15 [2 OF 2]** Appalachian Abstract 690 van Rooyen et al.	**EARTH_GS_05** Sedimentary petrology Abstract 435 Osman et al.	**WATER_SS_03** Geogenic contaminants Abstract 282 Prytulak and Peacock
11:20	**PLENARY** Peacock Medal Anton Chakhmouradian	**WATER_SS_12** Outreach hydrogeology Abstract 732 Lee et al.	**MINERALS_SS_03** Michael Lesher Abstract 162 El Ghawi and Mungall	**MINERALS_SS_11** Gold Abstract 243 Coldebella and LaFlamme	**EARTH_SS_04** Joseph Whalen Abstract 515 Yang et al.	**EARTH_SS_21** Structural geology Abstract 250 Stephan et al.	**EARTH_SS_08** Geoenergy Abstract 023 Fosu-Duah et al.		**EARTH_GS_05** Sedimentary petrology Abstract 194 Swing et al.	**WATER_SS_03** Geogenic contaminants Abstract 557 Li and Hausladen
11:40	**PLENARY** Peacock Medal Anton Chakhmouradian	**WATER_SS_12** Outreach hydrogeology Abstract 547 Walter and Rouleau	**MINERALS_SS_03** Michael Lesher Abstract 323 Maghdour-Mashho and Mungall	**MINERALS_SS_11** Gold Abstract 413 Valente Cavalcant et al.	**EARTH_SS_04** Joseph Whalen Abstract 391 Adlakha et al.	**EARTH_SS_21** Structural geology Abstract 033 Ducharme et al.	**EARTH_SS_08** Geoenergy Abstract 600 Taborda Orti et al.		**EARTH_GS_05** Sedimentary petrology Abstract 441 Bingham-Koslowski et al.	**WATER_SS_03** Geogenic contaminants Abstract 572 Bauman et al.
12:00	**LUNCH_IAH_MDD**									

WEDNESDAY, MAY 14 - AFTERNOON SESSION										
Room	**DMS_1160**	**DMS_1150**	**DMS_1140**	**DMS_1130**	**DMS_1120**	**DMS_1110**	**DMS_4170**	**DMS_4140**	**DMS_4130**	**DMS_4120**
13:20	**MINERALS_SS_01** Critical mineral resources in Canada and beyond: Recent developments and new genetic models	**WATER_SS_11** New paradigms in hydrogeology	**MINERALS_SS_03** Magmatic ore deposits associated with mafic - ultramafic systems: A tribute to the career of Prof. C. Michael Lesher	**MINERALS_SS_11** Structural and geochemical controls on gold mineralization	**EARTH_SS_04** Petrogenesis of anorogenic magmatism and related mineralization: Decoding magmatic to geodynamic processes – a session to honour Joseph Whalen's contributions	**EARTH_SS_21** Field-based structural geology and tectonics	**WATER_GS_01 [2 OF 2]** Hydrogeology	**EARTH_SS_19 [2 OF 2]** Metamorphic extravaganza: Cutting-edge advances in petrochronology and metamorphic processes	**EARTH_SS_06** Advances in marine geology and geodynamics and their application to understanding ancient metallogenic terranes	**EARTH_SS_22** Recent advances in the application of artificial intelligence (AI) in geoscience
14:00				**MINERALS_SS_04** Sedimentary basins hosted mineral deposits– new advances in scientific and conceptual knowledge, and their application to geological and geochemical exploration techniques	**EARTH_SS_01** The structure and properties of silicate melts and glasses: A celebration of the career of Grant Henderson					
14:20										
15:00	**BREAK**									
15:20	**MINERALS_SS_01** Critical mineral resources in Canada and beyond: Recent developments and new genetic models	**WATER_SS_13** Private wells – hidden issues and protection strategies	**MINERALS_SS_03** Magmatic ore deposits associated with mafic - ultramafic systems: A tribute to the career of Prof. C. Michael Lesher	**MINERALS_SS_04** Sedimentary basins hosted mineral deposits– new advances in scientific and conceptual knowledge, and their application to geological and geochemical exploration techniques	**EARTH_SS_01** The structure and properties of silicate melts and glasses: A celebration of the career of Grant Henderson	**CANADIAN TECTONICS GROUP** Award presentation	**WATER_GS_01 [2 OF 2]** Hydrogeology	**EARTH_SS_19 [2 OF 2]** Metamorphic extravaganza: Cutting-edge advances in petrochronology and metamorphic processes	**EARTH_SS_07** The past, present, and future of scientific drilling in Canada	**EARTH_SS_22** Recent advances in the application of artificial intelligence (AI) in geoscience
15:40										
16:00										
16:40	**POSTERS**									

WEDNESDAY, MAY 14 - AFTERNOON SESSION										
Room	**DMS_1160**	**DMS_1150**	**DMS_1140**	**DMS_1130**	**DMS_1120**	**DMS_1110**	**DMS_4170**	**DMS_4140**	**DMS_4130**	**DMS_4120**
13:20	**MINERALS_SS_01** Critical minerals Abstract 182 Santos et al.	**WATER_SS_11** Hydrogeology Abstract 622 Gleeson	**MINERALS_SS_03** Michael Lesher *Abstract 705 Mungall and Yao	**MINERALS_SS_11** Gold Abstract 676 Travers	**EARTH_SS_04** Joseph Whalen Abstract 208 Yousefi et al.	**EARTH_SS_21** Structural geology Abstract 102 Schwerdtner et al.	**WATER_GS_01 [2 OF 2]** Hydrogeology Abstract 008 Bouthaina et al. Sehli et al.	**EARTH_SS_19 [2 OF 2]** Metamorphic petrology Abstract 178 Strowbridge et al.	**EARTH_SS_06** Marine geoscience *Abstract 712 Strongman et al.	**EARTH_SS_22** Artificial Intelligence Abstract 043 Heasman et al.
13:40	**MINERALS_SS_01** Critical minerals Abstract 667 Duguet and Launay	**WATER_SS_11** Hydrogeology Abstract 014 Jackson	**MINERALS_SS_03** Michael Lesher Abstract 003 Goldie	**MINERALS_SS_11** Gold Abstract 255 Román et al.	**EARTH_SS_04** Joseph Whalen Abstract 117 Whattam et al.	**EARTH_SS_21** Structural geology Abstract 346 Demaries-Smith	**WATER_GS_01 [2 OF 2]** Hydrogeology Abstract 084 Pastier et al.	**EARTH_SS_19 [2 OF 2]** Metamorphic petrology Abstract 717 Darveau et al.	**EARTH_SS_06** Marine geoscience Abstract 399 Acuña-Avendaño	**EARTH_SS_22** Artificial Intelligence Abstract 616 Parsa
14:00	**MINERALS_SS_01** Critical minerals Abstract 633 Hastie	**WATER_SS_11** Hydrogeology Abstract 546 Claprood et al.	**MINERALS_SS_03** Michael Lesher Abstract 419 Prevec et al.	**MINERALS_SS_04** Sediment-hosted deposits *Abstract 576 Fischer et al.	**EARTH_SS_01** Grant Henderson *Abstract 271 Calas et al.	**EARTH_SS_21** Structural geology Abstract 671 Whte et al.	**WATER_GS_01 [2 OF 2]** Hydrogeology Abstract 177 Gautrey and Desjardin	**EARTH_SS_19 [2 OF 2]** Metamorphic petrology Abstract 184 Ghazali et al.	**EARTH_SS_06** Marine geoscience Abstract 112 Umbsaar et al.	**EARTH_SS_22** Artificial Intelligence Abstract 144 Bay et al.
14:20	**MINERALS_SS_01** Critical minerals Abstract 612 Beyer et al.	**WATER_SS_11** Hydrogeology Abstract 362 Paradis et al.	**MINERALS_SS_03** Michael Lesher Abstract 696 Mkhonto et al.	**MINERALS_SS_04** Sediment-hosted deposits Abstract 222 Ryuh et al.	**EARTH_SS_01** Grant Henderson Abstract 028 Bancroft et al.	**EARTH_SS_21** Structural geology Abstract 266 Morrell et al.	**WATER_GS_01 [2 OF 2]** Hydrogeology Abstract 154 Meshkin-Far et al.	**EARTH_SS_19 [2 OF 2]** Metamorphic petrology Abstract 610 Goumans et al.	**EARTH_SS_06** Marine geoscience Abstract 731 Galley et al.	**EARTH_SS_22** Artificial Intelligence Abstract 625 Boukadida et al.
14:40	**MINERALS_SS_01** Critical minerals Abstract 455 Mount et al.	**WATER_SS_11** Hydrogeology Panel Cherry and Schwartz	**MINERALS_SS_03** Michael Lesher Abstract 083 Barnes et al.	**MINERALS_SS_04** Sediment-hosted deposits Abstract 311 Hanley et al.	**EARTH_SS_01** Grant Henderson Abstract 403 Neuville and Cormier	**EARTH_SS_21** Structural geology Abstract 097 Ducharme et al.	**WATER_GS_01 [2 OF 2]** Hydrogeology Abstract 592 Gintamo et al.	**EARTH_SS_19 [2 OF 2]** Metamorphic petrology Abstract 424 Siles Malta et al.	**EARTH_SS_06** Marine geoscience Abstract 369 Nichols and Anderson	**EARTH_SS_22** Artificial Intelligence Abstract 430 Hazen
15:00	**BREAK**									
15:20	**MINERALS_SS_01** Critical minerals Abstract 081 Carrothers et al.	**WATER_SS_13** Private wells Abstract 606 Ryan et al.	**MINERALS_SS_03** Michael Lesher Abstract 536 Houlé and Lesher	**MINERALS_SS_04** Sediment-hosted deposits Abstract 505 Bulliard et al.	**EARTH_SS_01** Grant Henderson Abstract 045 Galoisy et al.	**CANADIAN TECTONICS GROUP** Award presentation	**WATER_GS_01 [2 OF 2]** Hydrogeology Abstract 124 Bordeleau et al.	**EARTH_SS_19 [2 OF 2]** Metamorphic petrology Abstract 019 Li and Lin	**EARTH_SS_07** Scientific drilling Abstract 063 Wortmann et al.	**EARTH_SS_22** Artificial Intelligence Abstract 141 Gosselin et al.
15:40	**MINERALS_SS_01** Critical minerals Abstract 142 Yuan and Bennett	**WATER_SS_13** Private wells Abstract 172 Bordeleau et al.	**MINERALS_SS_03** Michael Lesher Abstract 324 Dare et al.	**MINERALS_SS_04** Sediment-hosted deposits Abstract 180 Young et al.	**EARTH_SS_01** Grant Henderson Abstract 326 de Ligny		**WATER_GS_01 [2 OF 2]** Hydrogeology Abstract 236 Belanger et al.	**EARTH_SS_19 [2 OF 2]** Metamorphic petrology Abstract 035 Tang et al.	**EARTH_SS_07** Scientific drilling Abstract 275 Brunet et al.	**EARTH_SS_22** Artificial Intelligence Abstract 439 Ghane et al.
16:00	**MINERALS_SS_01** Critical minerals Abstract 579 Speight et al.	**WATER_SS_13** Private wells Abstract 359 Smith	**MINERALS_SS_03** Michael Lesher Abstract 611 Kieffer et al.	**MINERALS_SS_04** Sediment-hosted deposits Abstract 488 Boulogne et al.	**EARTH_SS_01** Grant Henderson Abstract 260 Brenan and Maciag			**EARTH_SS_19 [2 OF 2]** Metamorphic petrology Abstract 358 Osinchuk et al.	**EARTH_SS_07** Scientific drilling Abstract 171 Tsang et al.	**EARTH_SS_22** Artificial Intelligence Abstract 010 Ersus
16:20	**MINERALS_SS_01** Critical minerals Abstract 308 Belosevic et al.	**WATER_SS_13** Private wells Abstract 115 Simpson and Luymes	**MINERALS_SS_03** Michael Lesher Abstract 306 Malegus	**MINERALS_SS_04** Sediment-hosted deposits Abstract 054 Avery et al.	**EARTH_SS_01** Grant Henderson Abstract 173 Moulton and O'Shaughnessy			**EARTH_SS_19 [2 OF 2]** Metamorphic petrology Abstract 537 Plouffe	**EARTH_SS_07** Scientific drilling Abstract 482 Silva et al.	**EARTH_SS_22** Artificial Intelligence Abstract 666 Lamrani et al.
16:40	**POSTERS**									

MONDAY, MAY 12: MORNING

MINERALS_SY_01: A celebration of the Geological Survey of Canada's Targeted Geoscience Initiative and its 25 years of research excellence

Room: ***DMS_1160***

08:00 **Murray Duke:** Targeted Geoscience Initiative: Origin and Success Factors

Murray Duke joined the Geological Survey of Canada in 1976, following postdoctoral studies at the University of Toronto. As a GSC research scientist, he worked on the economic geology of mafic and ultramafic rocks, publishing about forty papers on Ni-Cu sulphide, PGE, chromite, and asbestos deposits. He became Director of the Mineral Resources Division in 1988 and the Director-General of Minerals and Regional Geoscience Branch in 1995. In these roles, he led the development and implementation of the EXTECH, Metals in the Environment, and Targeted Geoscience Initiatives. Following signing of the first Intergovernmental Geoscience Accord in 1996, he worked with provincial, territorial and industry colleagues to make the case for public geoscience in support of private sector exploration. Murray was also active in the broader geoscience community serving as an associate editor of the journal Economic Geology, and on the executive of the Mineralogical Association of Canada, which awarded him the Leonard G. Berry Medal in 1997. Following retirement from the GSC in 2006, he undertook projects for federal, provincial, and territorial governments as well as the private sector in the areas of strategic planning, program impact assessment, and promoting public geoscience.

08:20 **Olivier Côté-Mantha:** Exploring the impacts of TGI: Agnico Eagle Mines' perspective

Olivier Côté-Mantha holds a PhD in mineral resources from Université du Québec à Chicoutimi, awarded in 2009. Currently serving as the Director of Geoscience at Agnico Eagle Mines, Olivier brings 25 years of experience in exploration and economic geology, including 18 years within Agnico Eagle's exploration group. This extensive background has allowed Olivier to develop a unique blend of theoretical and practical knowledge, which is now being leveraged to promote excellence in geoscience applied to exploration and mining, contributing to the company's success. Much of this

expertise was gained through collaborative experiences and valuable insights from TGI.

08:40 **Jacob Hanley:** Improving our understanding of the magma fertility in critical metal ore systems through coupled zircon-melt inclusion analysis

Jacob Hanley is a full professor and director of the Mineral Exploration and Ore Fluids Laboratory in the Department of Geology, Saint Mary's University in Nova Scotia, Canada. His group's research focuses on characterizing the sources, composition and evolution of fluids and magmas in ore-forming systems. He received the Mineralogical Association of Canada Young Scientist Award in 2016, William Harvey Gross Medal from the Mineral Deposits Division of the Geological Association of Canada (GAC) in 2011, and was the GAC Howard Street Robinson Lecturer in 2013. His research, supported in part by the TGI program, has recently focused on the origin of polymetallic veins systems of the "five-element" classification and in developing melt inclusion methodologies for exploring the metal tenor and evolution of magmas in VMS deposits in the Archean.

09:00 **Tânia Martins:** Impact of the TGI programs for the advancement of geological knowledge in Manitoba

Tânia Martins is the Chief Geologist for the Precambrian section at the Manitoba Geological Survey, Winnipeg, Canada. She is also an Adjunct Professor at the University of Saskatchewan and University of New Brunswick. In 2009, she received her PhD in Geology from the University of Porto, Portugal, focused on the Li-Ta-Sn mineralization of pegmatites from the Barroso-Alvão pegmatite field. Tânia was a post doctoral fellow at the University of Manitoba working on mineralogy of alkaline systems with Anton Chakhmouradian before joining the Manitoba Geological Survey in 2011. Her research interests are in Li-Cs-Sn-Nb-Ta mineralization in granitic pegmatites, critical mineral systems, and how these fit in the tectonic evolution of the Precambrian terrains in Manitoba.

09:20 **Daniele Regis**

09:40 **Refreshment Break**

10:00 **Wouter Bleeker**

10:20 **Jean Bedard**

11:00 **Plenary Talk by Derry Medalist – Dr. Keiko Hattori** *(11 AM to 12 PM)*

12:00 **GAC Luncheon**

WATER_SS_14: Public groundwater science and policy in Canada: Challenges of jurisdiction, funding, and capacity

Room: ***DMS_1150***
Chairs: *Hazen Russell, Christine Rivard, Marie Larocque, Boyan Brodaric, and Eric Boisvert*

08:00 **Cynthia Mcclain, Maggie Mclennon, Cathy Ryan, Randy Stotler, Mike Wei, Reginald Somera, Jonathan Keizer, Brian Smerdon, Brendan Mulligan:** Enhancing Hydrogeology Insights: Results of the IAH-CNC Membership Survey on Groundwater in Canada

08:20 **M. Cathryn Ryan, Kayla Harris, Reginald Somera, Randy Stotler, Mike Wei, Brendan Mulligan, Cynthia Mcclain:** Does Canada Need a Nation-Scale Groundwater Monitoring Strategy?

08:40 **Mary Kruk, Patrick Schaefer, Aislin Livingstone, Katherine Balpataky:** Evolution of Datastream's Open Access Platform to Advance Groundwater Knowledge

09:00 **Mary Trudeau, Hazen Russell:** A Review of Groundwater in Canadian Freshwater Policy Since 1984

09:20 **Alfonso Rivera:** How Do We Move from Groundwater Research to Policy and Management of Groundwater?

09:40 **Refreshment Break**

10:00 **Panel Discussion:** Public groundwater science and policy in Canada: Challenges of jurisdiction, funding, and capacity,
Moderator: Cynthia McClain
Panelists: Gemma Boag, Angela Coleman, Brendan Mulligan, Alfonso Rivera, Sonia Talwar

12:00 **GAC Luncheon**

MINERALS_SS_08: Mineralogy-chemical systems related to magmatic, metamorphic, and hydrothermal processes: Honouring the contributions of Donald Hogarth

Room: ***DMS_1140***
Chairs: *David Lentz and Robert Martin*

08:00 **Robert F. Martin:** The impressive Legacy of Donald David Hogarth

08:20 **Andrew McDonald:** Minerals Matter! An homage to Prof. D.D. Hogarth

08:40 **James Nicholls:** Crossed Axial Plane Dispersion in Titanite and Titanaugite

09:00 **Chris McFarlane, James Roush, Tania Martins:** The Role of Garnet in LCT Pegmatite Petrogenesis

09:20 **Paula Piilonen, Aaron Lussier, Glenn Glenn, Ralph Rowe, Chris Robak:** A New Carbothydrothermal Pegmatite at Moose Creek Valley, Ice River Alkaline Complex, Southeastern British Columbia

09:40 **Refreshment Break**

10:00 **Aaron J. Lussier, Paula C. Piilonen, Glenn Poirier, Chris Robak:** Pseudomorphs After Titanite to Investigate Ti Mobilization in a Novel, Carbohydrothermal Pegmatite at Moose Creek Valley, Ice River Alkaline Complex, Southeastern British Columbia, Canada

10:20 **Irvine R. Annesley, Christine L. McKechnie, Kateryna Poliakovska:** Abyssal-Type (Anatectic) Pegmatites of the Wollaston Fold-Thrust Belt (Saskatchewan): A Review of Composition, Age, Origin, and Critical Minerals Source

10:40 **Claude Nambaje, Christopher R.M. McFarlane, Tania Martins, James Roush, Lee Groat:** Exploration of Rare-Element Pegmatites: Insights from the Cat Lake-Winnipeg River Pegmatite Field, Manitoba, Canada

11:00 **Saeid Baghban Asgharinezhad, David R. Lentz, Christopher McFarlane, Kathleen G. Thorne, Neil Rogers:** >15 Million Years of Hydrothermal Tungsten Mineralization Driven by Successive Intrusion of Highly Fractionated A-Type Granites in The Mount Pleasant Polymetallic Ore Deposit, SW New Brunswick: Decoded by U-Pb Geochronology of Wolframite Using LA-ICP-MS

11:20 **Zeinab Azadbakht, Ian M Coulson:** Characterization of Apatite Within Siluro-Devonian Granitoids in New Brunswick: Linking CL-Spectra With Trace-Element Composition

11:40 **Gilles Ngoran, David Lentz, Gideon Lambiv Dzemua:** Application of Apatite Composition in The Exploration of LCT Pegmatite: An Analysis of Late Archean Yellowknife Pegmatite Province, NWT Canada

12:00 **GAC Luncheon**

EARTH_SS_14: Paleogeography and geodynamics of the Earth before Pangea: Celebrating the career accomplishments of Kenneth L. Buchan

Room: ***DMS_1130***
Chairs: *Phil McCausland, Wouter Bleeker, Mike Hamilton, Richard Ernst, Hafida El Bilali, Joe Hodych, and Henry Halls*

08:00 **Johanna Salminen:** Reconstructing the Paleo-Mesoproterozoic Nuna Supercontinent Using Key Paleomagnetic Poles from Mafic Dyke Swarms

08:20 **David A.D. Evans:** Strategies for Utilizing Dyke Swarms in Pre-Pangea Cratonic Reconstructions

08:40 **Hoang Anh Tu Lavie Nguyen, Bruce Eglington, Dène Tarkyth, Drew Heasman, Jean-Christophe Wrobel-Daveau, Graeme Nicoll:** Automatically and Systematically Investigating Precambrian Global Reconstruction Models to Quantify Supercontinents and Explore Supercontinent Cyclicity

09:00 **Wouter Bleeker, Michael A. Hamilton, Sandra L. Kamo, Sarah Davey, Ross N. Mitchell:** Craton Reconstructions and Mantle Plume Tracks in Deep Time

09:20 **Mike A. Hamilton, Jean Goutier, Kenneth L. Buchan, Wouter Bleeker:** Minto Large Igneous Province: A 2.00 Ga Mafic Magmatic Event in The Eastern Superior Craton Based on U-Pb Baddeleyite Geochronology, Paleomagnetism and Geochemistry

09:40 **Refreshment Break**

10:00 **Steven Denyszyn, J. Gregory Shellnutt:** Geochronological, Geochemical, and Paleomagnetic Investigations of Mafic Rocks in Ancient Cratons: Examples from India and Western Australia

10:20 **Cristina Accotto, Crystal LaFlamme, Carl Guilmette, Simon Tournier, Mehdi Jouhari, Isabelle Therriault, Kyle Larson:** Pre-Trans-Hudson Tectonic Evolution of the Southern Domain (Ungava Orogen) and its Control on Ni-Cu Mineralization

10:40 **Richard E. Ernst, Hafida El Bilali, Kenneth L. Buchan, Simon M. Jowitt, Michael A. Hamilton:** Regional Changes in Stress Patterns of Plume-Generated LIP Events and Links to Mineralization, with Focus on Norilsk and Keweenawan (MCR) Events

11:00 **Dene Tarkyth, Bruce Eglington:** The Influence of Geologic Precursor Events on Metallogenic Fertility of Terranes: Arabian-Nubian Shield Case Study

11:20 **Julian Pearce, Richard Ernst, Kenenth Buchan:** Space-Time Variations in Canadian Proterozoic LIPs: A LIP Printing Interpretation of The Ernst-Buchan Geochemical Database

11:40 **Hafida El Bilali, Richard E. Ernst:** The >3700 Km Long Great Dyke of Atla Regio (GDAR), Venus: Longest Continuously Traced Individual Mafic Dyke in The Solar System

12:00 **GAC Luncheon**

EARTH_SS_16: The Grenville Province and critical metals

Room: ***DMS_1120***
Chairs: *Bertrand Rottier and Sarah Dare*

08:00 **Aphrodite Indares:** The Grenville Province Revisited

08:20 **Renaud Soucy La Roche, Mohamed Ghazali, Muhammad Zahoor Iqbal, Lütfi Ersay, Bertrand Rottier, Kyle Larson:** The

Metamorphic Evolution of the Grenville Province, a Key to Understand the Geodynamic Context During the Genesis of Critical and Strategic Mineral Deposits

08:40 **Eleanore Blereau, Bertrand Rottier, Renaud Soucy La Roche, Carl Guilmette, Abdelai Moukhsil:** Assessing the Detrital Zircon Distribution and Metamorphism of the Western Grenville - A Foundation for Assessing Graphite Mineralisation Distribution

09:00 **Gideon Asomani-Darko, Christopher J. Spencer, Evelyne Leduc, Agatha Dobosz, Emma Scanlan:** Not Always What They Seem: Conflicting Evidence for Sediment Assimilation in Grenville Granitoids

09:20 **Pedro Alves, Bertrand Rottier, Crystal LaFlamme, Abdelali Moukhsil, Joshua H.F.L. Davies, Morgann G. Perrot:** Nearly 100 Myr of Anatectic LREE-Rich Pegmatite Formation in the Central Grenville Province: Insights into Continuous Partial Melting of the Middle Crust During the Grenvillian Orogeny

09:40 **Refreshment Break**

10:00 **Ivan CY Yip, Aphrodite Indares, Greg Dunning:** Orogenic High-T Granitoids of the Central Grenville Province: Characteristics and Geodynamic Implications

10:20 **Arlin Fonseca Martinez, Aphrodite Indares, Gregory R. Dunning:** Unravelling the Magmatic History of the Central Grenville Province: Insights from the Baie Comeau Region

10:40 **Federico Pingitore, Bertrand Rottier, Marc Constantin, Abdelali Moukshil:** Source and Age of the REE-Enriched Riviere Noire Intrusion: New Insights for REE Mineralisation and Geodynamic Evolution of the Central Grenville Province

11:00 **Federico Pingitore, Bertrand Rottier, Marc Constantin, Abdelali Moukshil**: A New Chemical Mapping Tool for Anorthosite Suites, Using Portable XRF, With Applications to the Exploration for Fe-Ti-V-P

11:20 **Jonathan Katako Diyoyo, Sarah Dare, Renée-Luce Simard, Abdelali Moukhsil:** Identifying Prospective Areas for Fe-Ti-V-P Mineralization Using Portable XRF Analyses of Plagioclase: Example from the Southern Margin of the Lac-Saint-Jean Anorthositic Suite

11:40 **Marc-Antoine Audet:** SRQ: Nouvelle Découverte De Ni-Cu Au Lac Brulé, Haute Laurentides

12:00 **GAC Luncheon**

WATER_SS_07: Surface water-groundwater interactions through recharge, discharge, and contribution to ecosystems

Room: ***DMS_1110***
Chairs: *Emmanuel Dubois, Marie Larocque, Eric Rosa, Steven Berg, and Steven Frey*

08:00 **Cynthia N. McClain, Cris Gray, Michael A. Merchant, Jennifer N. Hird, Jacqueline Dennett, David Roberts, Michael Wendlandt, Andrew Underwood, Marshall McKenzie, Emily Herdman:** Mapping Terrestrial Groundwater Dependent Ecosystems in Alberta's Boreal Region: Indicators, Methods, and Insights

08:20 **Andrew J. Wiebe, Corey M. Zanatta, David L. Rudolph:** Estimating Groundwater Fluxes to Streams via One-Dimensional Vertical Profiles: Are We Looking in the Right Direction?

08:40 **Mélanie Brunet, Randy Stotler, Andrea Brookfield, David Rudolph, Grant Ferguson:** Graphical Analysis of Monitoring Well Data to Evaluate Groundwater Recovery Across a Provincial Scale in Alberta, Canada

09:00 **Elli Pattrick, Jana Levison, Andrew Binns, Marie Larocque, Pradeep Goel:** Examining Phosphorus Transport and Groundwater-Surface Water Interactions in a Great Lakes Basin Setting

09:20 **Daron G. Abbey, Steve Murray, Chris S. Gabriel, Bill Blackport, Ron Scheckenberger, Leah Lefler, David Van Vliet, Simon Martin, Colleen Gammie, Margot Ursic:** Integrated Water Modelling for Nature-Based Solutions in Community Planning: Protecting Water Resource and Natural Heritage Systems, and Striving for Timely Implementation

09:40 **Refreshment Break**

WATER_SS_09: Aquifer delineation for groundwater management

Room: ***DMS_1110***
Chairs: *Dan Palombi and Jean Birks*

10:00 **Zijian Wang, Kayla Moore:** Yield Assessment of the Assiniboine Delta Aquifer (ADA), Manitoba, with FEFLOW

10:20 **Ashok Shaw, Simon Martin, David Van Vliet, Louis-Charles Boutin:** City of Guelph - Regional Quaternary Mapping Updates

10:40 **Jean Birks, Andrea Brookfield, Brandi Newton, Mike Moncur, Tricia Stadnyk, Benjamin Kissinger, Tegan Holmes, Dan**

Palombi: Regional Mapping of Groundwater Surface Water Interactions to Support Water Resource Management

11:00 **Jessica E. Liggett, Tony Lemay, Jessica Warrack, Kathryn E. Pooley, Gregory M.D. Hartman, Dan Palombi:** Delineating Aquifer Management Units in Southern Alberta to Support Regulatory Decisions on Groundwater Licensing

11:20 **Paul Bauman, Landon Woods, Erin Ernst, Eric Johnson, Colin Miazga:** Electrical Resistivity Tomography (ERT) and Towed Transient Electromagnetics (tTEM): Effective Methods for Water Exploration in Regolith Aquifers in Western Canada and Sub-Saharan Africa

11:40 **Patrick Mah, Anders Edsen:** Utilizing Time-Domain Electromagnetics (TEM) to Map Subsurface Groundwater Resources and Assessing their Vulnerability

12:00 **GAC Luncheon**

KNOWLEDGE_SS_03: Equity, diversity, inclusion

Room: ***DMS_4170***
Chair: *Kerry-Anne Pumphrey*

08:00 **Natalie Bursztyn, Bart Masters:** Teaching Geologic Mapping Concepts through Immersive Virtual Reality

08:20 **Joanna Hodge:** Informing Accessible Field Education Through Universal Design for Learning

08:40 **Kerry-Anne Pumphrey:** Addressing the Challenge of Attracting and Retaining Women and Minorities in Geosciences

09:00 **Joyce McBeth:** Re-Envisioning Introductory Environmental Geoscience through an Inclusive Lens

09:20 **Katherine Boggs, Glenn Dolphin, Amrine Dubois Gafar, David Eaton, Lilian Navarro, Jerry Demorcy, Holly Bley, Simone Booker:** International Geological Congress (IGC) 2028 Coming to Canada: Geoscience Education, Communication and Outreach Plans

09:40 **Refreshment Break**

KNOWLEDGE_SS_01: Geological collections in Canadian museums: An underutilized resource for research

Room: ***DMS_4170***
Chairs: *Alwynne Beaudoin and Tim Fedak*

10:00 **Alwynne B. Beaudoin:** Museums and Geoscientists in Canada: Developing a Productive Relationship

10:20 **Lindsay Nelson, Kirsten F. Hodge, Fred O. Beeby Maglaque, Francis Jones:** A Centennial Action Plan for Change: Revitalizing and Reimagining the Pacific Museum of Earth's Geological Collections

10:40 **Delaney Carter, Jacob Hanley, Anna Terekhova, Paige Drake, Catherine Cottreau-Robins, Roger Lewis, Brent Suttie, Brandon Boucher:** The Application of Laser Ablation ICP-MS in Geochemical Provenance Studies of Copper in Pre-Contact Artifacts from the Maritimes Basin, Canada

11:00 **Pascale Daoust, Michelle Coyne, Caroline Cloutier, André Desrochers:** From Anticosti to UNESCO: The Fossil Collection that Tells Earth's Ancient Story

11:20

11:40

12:00 **GAC Luncheon**

KNOWLEDGE_SS_02: Geoscience education and communication beyond boundaries

Room: ***DMS_4140***
Chairs: *Lesley Hymers, Beth Halfkenney, and Courtney Onstad*

08:00 **Katherine Boggs, Benjamin Daniels, Courtney Onstad, Stephen Johnston, David Eaton, Lebel Daniel, Andrea Waldie, Paul Hubley, Alwynne Beaudoin, Glenn Dolphin, Guy Narbonne, John Ludden, Jean Hsieh, Imad Alainachi, Beth McLarty Halfkenny, Janices Zinck:** Geosciences Are Important to Humanity! A Model for Enhancing Interest in the Geosciences Across Canada

08:20 **Courtney Onstad1, Eileen van der Flier-Keller:** Preliminary Insights into Science Communication Strategies in Canadian Mining Messaging: A Mixed-Methods Perspective

08:40 **Abigail K. Burt, Laura M. Colgrove, Peter A. Gray, Riley P.M. Mulligan:** From Small Moments to Grand Gestures - Developing Outreach and Communication Skills for Diverse Audiences

09:00 **Jennifer Sabean:** Introducing the New Version of the Earth Sciences Canada Careers Website

09:20 **Joanna Hodge, Cyndy Broughton, Carly Robillard:** Geologists in Residence at Pukaskwa National Park: A Successful Example of Geoscience Outreach in Public Spaces.

09:40 **Refreshment Break**

10:00 **Sabina Rakhimbekova:** Beyond the Rocks: Preparing Versatile Geoscience Professionals for a Dynamic Workforce

10:20 **Hazen A.J. Russell, Zbigniew Małolepszy, Jordan Clark, John Johnston, Heidi Daxberger, Charles E. Logan, Terry R. Carter, Connor MacLeod, Matthew A. Dupont:** The Role of Web-Based 3-D Geological Map Viewers in Geoscience Education

10:40 **Glenn Dolphin, Haidar Putra, Paul Nesbit, Steve Hubbard:** How Students Learn in both Field and Virtual Field Environments

11:00 **Vincent van Hinsberg, Simon Vriend, Arnold van Dijk:** Field Teaching the Integrated Nature of System Earth

11:20 **Edward (Ted) J. Matheson:** Don't Let Learning Flatline: The Benefits of Gamifying Geoscience with Ocean Dead Zone Mysteries, Environmental Decision Making, and More!

11:40 **Corina McDonald, Amanda Helka, Lesley Hymers, Beth McLarty Halfkenny, Charly Bank:** Resource Responsibilities: Innovation for Responsible Mining through the Classroom

12:00 **GAC Luncheon**

SPACE_SS_01: Insights into solar system geology from astromaterials and space missions

Room: ***DMS_4130***
Chairs: *Chris Herd, Gordon Ozinski, and Roberta Flemming*

08:00 **Josh Labrie, Mariek Schmidt, Tanya Kizovski, Joel Hurowitz, Kirtee Ramo, Lydia Hallis, Nicole Moore, David Klevang, Kirsten Siebach, Ellie Moreland, Fiona Thiessen, Abigail Allwood, Morgan Cable, Michael Tice:** Mars 2020 PIXL-Analogous Petrological Characterization of Mars Sample Return Jezero Crater Floor Terrestrial Analogue Igneous Rocks from Rùm, Scotland and Hart Mountain, OR, USA

08:20 **R.C. Peterson:** Rietveld Analysis of Martian Materials and the Implications for the Mars Sample Return Mission

08:40 **Christopher D. K. Herd:** Meteorites from Mars: Where We're at and Where We Need to Go

09:00 **Sophie Benaroya, Chris D. K. Herd:** The Magmatic Oxygen Fugacity of Basaltic Shergottites: Insights from Experimentally-Calibrated V-Oxybarometry

09:20 **Eran Driscoll, Christopher Herd:** Testing Models for Source Craters with New Martian Meteorite Samples

09:40 **Refreshment Break**

10:00 **Quinn Cabenda, Phil J.A. McCausland, Roberta L. Flemming:** Investigating the Mineralogy and Flow Fabrics of Theo's Flow

10:20 **Gillian G Noonan, Roberta L Flemming, Phil J A McCausland:** Quantifying Shock-Related Strain in Ordinary Chondrite Meteorites Using 2D Micro X-Ray Diffraction

10:40 **Jamie Graff, Gordon Osinski**: A Comparison of Lithic and Glass Clast Distribution in Impact Melt-Bearing Breccias Using Detailed Image Analysis Techniques

11:00 **Mackenzie S. Russell, Gordon R. Osinski, Lauren E. McFarlane, Tara Hayden:** Reevaluating Impact Melt-Bearing Impactites at Brent Crater, Ontario, Canada

11:20 **Lauren McFarlane, Gordon Osinski, Roberta Flemming, Mackenzie Russell, Tara Hayden:** Investigating Hydrothermal Alteration in the Brent Impact Structure, Ontario, Canada

11:40 **Libby D. Tunney, Allyson L. Brady, Kim T. Tait, Veronica Di Cecco, Gregory F. Slater:** Organosulfur of CV Carbonaceous Chondrites: Implications for Prebiotic Chemistry

12:00 **GAC Luncheon**

LIFE_SS_01: Life in rocks: From ancient Earth to Mars and beyond

Room: ***DMS_4120***
Chair: *Richard Léveillé*

08:00 **Galen P. Halverson, Maxwell Lechte, Leigh Anne Riedman, Susannah M. Porter:** Geological Insights into the Nature of Early Eukaryotes

08:20 **Penny L. Morrill, Melissa C. Cook, Mary J. Whelan, Matthew J. Gill, Ian A. Coxon, Oladapo Simeon, Andrew Lang, Margaret Butt, Gregory Ventura:** Signatures of Subsurface Life Detected in Serpentinite-hosted Groundwater Springs

08:40 **Greg Slater, Julie Hartz, Sebastien Joannin, Lilit Sahakyan, Claude Colombie:** Exploring Biosignatures Associated with The Microbialites of Lake Sevan, Armenia

09:00 **Julie Hartz, Luisa I. Falcon, Sang-Tae Kim, Eduard G. Reinhardt, Richard A. White III, Gregory F. Slater:** Phospho-Lipid Fatty-Acids and Stable Carbon Isotopes in Freshwater Microbialites from Cenote Azul, Mexico

09:20 **Richard Léveillé:** Biosignature Potential for Silica-Rich Deposits from Mars Analogue Environments

09:40 **Refreshment Break**

LIFE_SS_02: The evolution of life, ecosystems, and environments over the Phanerozoic in Canada: A time of great innovation and disaster

Room: ***DMS_4120***
Chairs: *Audrey Morrison, Jessica Mcleod-Mitchell, and Colin Sproat*

10:00 **Audrey Morrison, Claire Rollion-Bard, Maria Aleksandra Bitner, Danièle Gaspard, Uwe Brand:** Brachiopods as Biomineral Archives in Deep Time: A Growth Rate and Seasonality Investigation

10:20 **Colin D. Sproat, Jessica S.A. Mcleod:** Brachiopods from the Upper Ordovician of the Mackenzie Mountains: A New Perspective on an Old Collection

10:40 **Uwe Brand, Jisuo Jin, M. Aleksandra Bitner, Sylvia Riechelmann, Karem Azmy, Audrey K. Morrison:** A High-Resolution Multi-Archive and Proxy Assessment of the Termination of the Cambro-Ordovician Biotic Explosion

11:00 **Hilary Corlett:** A Shift in Reef Composition During the Expansion of Forests in the Late Frasnian

LIFE_GS_01: Paleontology

Room: ***DMS_4120***
Chair: *Nikole Bingham-Koslowski*

11:20 **Zoe Landry, Clement Bataille, Laure Calviere-Tonasso, Lorelei Chauvey, Danielle Fraser, Joshua Miller, Stephanie Schiavinato, Eric Scott, Gaetan Tressieres, Grant Zazula, Ludovic Orlando:** New Cranial Material and Nuclear Genome Sequences Clarify Evolutionary Relationships of Haringtonhippus Francisci

11:40 **Eve Lindroos, Clément Bataille, Auguste Hassler, Danielle Fraser, Scott Rufolo, Gregory Rand, Zoe Landry:** Multi-Isotope Dietary Reconstruction of Modern and Beringian Gray Wolves

12:00 **GAC Luncheon**

MINERALS_SS_12: Gold: Celebrating the legacy and future of innovative Targeted Geoscience Initiative (TGI) research

Room: ***DMS_1160***
Chairs: *Jean-Luc Pilote, Sébastien Castonguay, Ian Honsberger, and Valérie Bécu*

13:40 **Ian W. Honsberger, Hamish A.I. Sandeman, Wouter Bleeker, Sandra L. Kamo, Aaron L. Bustard, Dustin R.L. Dahn, James Conliffe, Crystal Laflamme**: Siluro-Devonian Process Evolution of Canadian Appalachian Gold Belts

14:00 **Aaron L. Bustard, Dustin R.L. Dahn, David R. Lentz, James A. Walker:** Gold Mineralization of the Chaleur Bay Synclinorium, Northern New Brunswick

14:20 **David Lentz:** Toasting to Roasting to Digesting in the Genesis of Intrusion-Related Gold Deposit Systems: Insights from 25 Years of Research

14:40 **Oya Ak, Daniel Gregory:** Macro- to Micro-Scale Analyses in the Young-Davidson Orogenic Gold Deposit, Matachewan, Ontario, Canada

15:00 **Refreshment Break**

15:20 **Kevin Neyedley, Jacob J Hanley, Patrick Mercier-Langevin, Richard Stern, Mostafa Fayek:** Ore Mineralogy, Sulfide Geochemistry and S Isotopes of Magmatic-Hydrothermal Au Mineralization Associated with the Mooshla Intrusive Complex (Mic), Doyon-Bousquet-Laronde Mining Camp, Abitibi Greenstone Belt, Québec

15:40 **Patrick Mercier-Langevin:** TGI Research on Gold Systems: Milestones and Opportunities

16:00 **Plenary Talk by 2024 William Harvey Gross Medalist – Dr. Crystal LaFlamme**

16:20 **Plenary Talk by 2025 William Harvey Gross Medalist – Dr. Merilie Reynolds**

16:40 **Posters**

WATER_SS_14: Public groundwater science and policy in Canada: Challenges of jurisdiction, funding, and capacity

Room: ***DMS_1150***
Chairs: *Hazen Russell, Christine Rivard, Marie Larocque, Boyan Brodaric, and Eric Boisvert*

13:20 **Reginald Somera, Jonathan Keizer, Cathy Ryan, Randy Stotler, Maggie McLennon, Mike Wei, Brendan Mulligan, Cynthia McClain:** Demographic and Professional Trends in Canadian Hydrogeology: Insights from IAH-CNC Membership

13:40 **David Sharpe:** Partnerships in Development of Conceptual Frameworks for Hydrogeological Understanding

14:00 **Richard Gerber, Steve Holysh, Mason Marchildon, Steve Shikaze:** The Oak Ridges Moraine Groundwater Program: Collaborative Inter-Governmental Water Resource Management Initiatives at Various Government Levels

14:20 **Abigail K. Burt, Patty Meyer, Sonja Strynatka, Jim Baxter, Albanie Douglas, Leslea McKie, Ashok Shaw, Emmanuelle Arnaud:** Survey-Client Collaboration - Ripples in a Pond

14:40 **Hazen A.J. Russell, Eric Boisvert, Alfonso Rivera, Yves Michaud, David R. Sharpe, L. Harvey Thorleifson, Boyan Brodaric, Christine Rivard:** Canada, Groundwater, and the Geological Survey of Canada - 150 Years of Growth and Evolution

15:00 **Refreshment Break**

WATER_SS_16: Harnessing large scale hydrologic models to assess future water security

Room: ***DMS_1150***
Chairs: *Melissa Bunn, Brian Smerdon, and Steven Frey*

15:20 **Steven Frey, Hazen Russell, Omar Khader, Andre Erler, Melissa Bunn, Eric Kessel, John Crowley, Mani Mahdinia, Tyler Herrington, David Lapen, Dan McKenney, Ed Sudicky, William Peltier:** Assessing Climate Change Impacts to Surface and Subsurface Water Resources in The Mackenzie River Basin Using the Canada1Water Framework

15:40 **Adam Calvert, Andrea Brookfield, Ali Nowamooz:** Assessing the Sensitivity of Subsurface Mine-Dewatering Simulations to Surface Water Representation

16:00 **Stephanie Bringeland, Steven K. Frey, Georgia Fotopoulos, John Crowley, Bruce Xu, Omar Khader, Hyung Eum, Babak Farjad, Anil Gupta:** Analysis of Total Water Storage Variability in

Southern Alberta with GRACE/GRACE-FO Observations and Fully-Integrated Groundwater - Surface Water Modelling

16:20 **Brian Smerdon, Luis Carlos Serrano Diaz, Melissa Bunn, Hazen A.J. Russell:** Regional Scale Hydrologic Models of The Canadian Prairies: Have Groundwater Flow Systems Been Forgotten?

16:40 **Posters**

MINERALS_SS_08: Mineralogy-chemical systems related to magmatic, metamorphic, and hydrothermal processes: Honouring the contributions of Donald Hogarth

Room: ***DMS_1140***
Chairs: *David Lentz and Robert Martin*

13:20 **Fazilat Yousefi, David R. Lentz, James A. Walker, Kathleen G. Thorne:** REE-Rich Apatite from The Benjamin River IOA Deposit, Northern New Brunswick: Petrogenetic Analysis Including The Role of Dissolution-Reprecipitation During Hematization

13:40 **David Lentz, Christopher McFarlane:** Yttrian Andradite Genesis in Grenvillian Pegmatites: Hypersolidus Endoskarn Reaction Mechanisms

14:00 **Dirk Schumann, Robert F. Martin, Jeffrey de Fourestier, Sebastian Fuchs:** Varicolored Marble in The Central Metasedimentary Belt, Grenville Supergroup: Evidence for a Carbonate Melt

14:20 **Kiera R. Broda, Anthony E. Williams-Jones, Olga V. Vasyukova:** A Record of Alteration in The Turnagain Alaskan-Type Mafic-Ultramafic Complex, British Columbia: The Olivine Story

14:40

15:00 **Refreshment Break**

MINERALS_GS_01: Economic geology

Room: ***DMS_1140***
Chair: *Hannah Eaton-Tessier*

15:20 **Olivier Nadeau, Stephane DeSouza:** Mixing of Subduction Zone and Intracontinental Magmas at Dexing Porphyry Cu (Au-Mo) Deposit, China, Evidenced from Field Relations, Petrography, and Ti Isotopic Compositions

15:40 **Ilham M'hamdi Alaoui, Ahmed Akhssas, Anas Bahi, Hassan Ibouh, Saloua Mnissar Himyari, Nour Eddine Berkat, Hicham Khebbi, Fatima Zahra Sbabou:** Integrating Remote Sensing and Geophysical Approaches to Understand Ore Deposits in The Alma Inlier, Western Anti-Atlas, Morocco

16:00 **Mariam Ferraq, Saïd Belkacim, Li Zhen Cheng, Joshua H.F.L. Davies, Morgann G Perrot, Mohammed Bouabdellah:** The Imourkhssen Cu-Mo-Au-Ag Mineralization: A Late Ediacaran Porphyry Ore Deposit in The Saghro Domain, Morocco

16:20 **Hannah Eaton-Tessier, Daniel Gregory:** Trace Element Content of Pyrite in Orogenic Gold Deposits Across Northwestern Ontario

16:40 **Posters**

EARTH_SS_20: All that has come before: The influence of structural inheritance on geological processes - in celebration of the career of Dr. Ray Price

Room: ***DMS_1130***

Chairs: *Taylor Rae Morrell, Laurent Godin, Daniel Gibson, and Renaud Soucy La Roche*

13:20 **Alana Hinchey, Nicole Rayner, Hamish Sandeman, Jared Butler, David Diekrup, Daniela Mendoza Marin:** Lithospheric Structural Controls on Precambrian Basin Development: Insights from Labrador

13:40 **J. Brendan Murphy, R. Damian Nance, Karel Schulmann, Yvette Kuiper, José Ramón Martínez Catalán:** Complex Morphology of Colliding Margins in Laurussia-Gondwana Supercollision

14:00 **Emily Johns-Buss, Luke P. Beranek, Eva Enkelmann**: Tracing Polyphase Fault Reactivation Through Wilson Cycles: Thermochronological Insights from The Newfoundland Appalachians

14:20 **Mahdi Maslehat, Shawna White, Andrew MacRae:** Provenance of Rift-Related Units of Eastern Laurentia: Determining the Geometry and Evolution of The Laurentian Margin

14:40 **Egor Koptev, Alexander Peace, Joseph Boyce:** Mesozoic Reactivation of The St. Lawrence Rift System as a Driver of Intraplate Magmatism in The Superior Province

15:00 **Refreshment Break**

15:20 **Russell Pysklywec, Phil Heron, Tasca Santimano, Randell Stephenson:** Even the Mantle May Have Structural Inheritance that Dominates Tectonic Activation

15:40 **Olivia Rolfe, Eric de Kemp, Dawn Kellett, Azadeh Ashoori Pareshkoohi, Aurore Laurent, Roger Niyongira, Kieran Daly, Chloë Letcher, Amelie Lo, Luke Bajtala, Andrew Drane, Anna Dalton-Framst:** Encoding Canada's Complex Structural Evolution Through a New, Well-Attributed National Fault Inventory

16:00 **Laurent Godin, Taylor R. Morrell, Michelle Pearce, Renaud Soucy La Roche:** Indian Continental Lithospheric Subduction Tears, Himalayan Orogenesis, Seismicity, and Geomorphology

16:20 **Olivia Rolfe, Renelle Dubosq, David Schneider, Bernhard Grasemann:** Positive Feedback: Cataclasis and Interface-Coupled Reactions in Ultracataclastic Veins Hosted in The Naxos Granodiorite, Greece

16:40 **Posters**

EARTH_SS_19: Metamorphic extravaganza: Cutting-edge advances in petrochronology and metamorphic processes

Room: ***DMS_1120***

Chairs: *Jillian Kendrick, Antoine Godet, Jamie Cutts, Daniele Regis, Renaud Soucy La Roche, and Brendan Dyck*

13:20 **Jillian Kendrick:** The Evolution of Metamorphic Petrology in Canada

13:40 **Chris Yakymchuk:** Mohometry? A Petrological Modelling Assessment

14:00 **Eleanore Blereau, Sandra Piazolo, Patrick Trimby, Etienne Skrzypek, Christoph Hauzenberger:** Multidisciplinary Analysis of Aluminosilicates as a Tool for Constraining Partial Melting Processes

14:20 **Daniele Regis, Mary Sanborn-Barrie, Duane C. Petts, Janina Czas:** Poly-Cyclic Orosirian Metamorphism on Boothia-Somerset, NU: A New Understanding of The Architecture and Evolution of the Thelon Orogen

14:40 **Dave Pattison, Jacob Forshaw:** Modelling vs. Reality: Contact-Metamorphosed to Regionally-Metamorphosed Pelites

15:00 **Refreshment Break**

15:20 **Kyle P. Larson, John M. Cottle, Sudip Shrestha, Mark Button, Alfredo Camacho, Matthew Steele-MacInnis, David Lageson, Steven Creighton:** Geochronological And Thermal Histories of the Mount Everest Massif

15:40 **Christiaan T. Laureijs, Carl Guilmette, Crystal Laflamme, Taylor Ducharme, Jérémie Darveau, Antoine Godet, Isaac S. Malta:** Slow and Unsteady: Controls on Cooling Age Distributions from In-Situ Rb-Sr Mica Dates from the Pontiac Subprovince (Superior Craton)

16:00 **Sabastien Dyer, Chris Yakymchuk:** Getting Out of Hot Water: Regionally Extensive H_2O-Fluxed Melting in the Grenville Province

16:20 **Anamitra Dasgupta, Félix Gervais:** Komatiite Dehydration and Archean Crust Formation: New Constraints on the Origin and

Subsequent Evolution of the 3.3 Ga. Komatiite from WDC and their Role in Continental Magmatism

16:40 **Posters**

WATER_SS_02: Contaminant transport and remediation in groundwater

Room: ***DMS_1110***

Chairs: *Cole Van De Ven, Sabina Rakhimbekova, and Kevin Mumford*

13:20 **Gurpreet Kaur, Ginelle Aziz, Satinder Kaur Brar, Magdalena Krol:** Geothermal Remediation: Coupling of Geothermal Heating with Bioremediation for Enhanced BTEX Degradation

13:40 **Reza Rahimi, Magdalena Krol:** Optimizing Electrical Resistance Heating Using a Combined Modeling Approach

14:00 **Mitchell A. Davidson:** A Case Study: The Use of Chemical and Biological Techniques to Remediate a cVOC Plume at a Former Landfill

14:20 **Madeleine Corriveau, Rich Schmidt, Michael Duchene, Shelley Willock:** Successful Pilot-Scale Test of a Permeable Reactive Barrier for Treatment of Groundwater Impacted by Acid Rock Drainage

14:40 **Kerry-Anne Pumphrey:** Managing, Assessing, and Presenting Imperfect Chlorinated Solvent Data in Support of Environmental Litigation

15:00 **Refreshment Break**

15:20 **Jiahe Wang, David Wilson, Jeff G. Bain, David W. Blowes, Carol J. Ptacek:** Field Study of Seasonal CO_2 Emissions in Mine Tailings with Different Cover Systems

15:40 **Madeline M. Calvert, Cole J.C. Van De Ven, Dru J. Heagle, Kevin G. Mumford:** Multicomponent Mass Transfer of Gases in Groundwater: Important Parameters and Implications for Assessing Fate and Transport

16:00 **Aditi Chowdhury, Farhana Chowdhury, Tarek L. Rashwan, Pulin Mondal, Mehran Behazin, Peter G. Keech, Magdalena Krol:** Investigating the Effect of Temperature on Bromide Diffusion Through Gapfill Materials Under Anticipated Deep Geological Repository Conditions

16:20 **Michel Godard, Magalie Roy, Vincent Cloutier, Éric Rosa:** Evaluating Water Quality in Boreal Groundwater Springs Fed by Eskers

16:40 **Posters**

NSERC INFORMATION SESSION – Discovery Grant Program

Room: ***DMS_4170***
Presenters: ***Tiffany Lancaster and Pete Hollings***
Time: **13:20 to 15:00**

EARTH_SS_27: Canadian Journal of Earth Sciences: Celebrating Canadian geoscience and geoscientists

Room: ***DMS_4170***
Chairs: *Brendan Murphy and Sally Pehrsson*

15:20 **Jacob Strong, Alan Dickin:** Application of the Depaolo-Style Depleted Mantle Model for Hf Isotopes in Zircon, Superior Province

15:40 **Alan Dickin, Jacob Strong:** Mapping Must Come Before Modelling: Data Versus Collective Opinion in the Grenville Province

16:00 **Lucie Mathieu:** Neoarchean Alkaline Magmatism: Onset and Metallogenic Importance

16:20 **Sarah Speight, Christopher McFarlane, Jacob Hanley:** Geodynamic Evolution of Felsic Magmatism in the Yellowknife Greenstone Belt, N.W.T., Canada: Evidence for Archean Magmatism in A Volatile-Saturated Environment

16:40 **Posters**

KNOWLEDGE_SS_02: Geoscience education and communication beyond boundaries

Room: ***DMS_4140***
Chairs: *Lesley Hymers, Beth Halfkenney, and Courtney Onstad*

13:20 **Lesley Hymers:** Critical Minerals Educational Resources - Indigenous Educator Advisory Council Project

13:40 **Daniel Dick, Keira Hum, Leah Smith, Kayci Street, Joseph Hansen, Paige Schotanus, Deana Schwarz, Elli Papangelakis, Alexander Peace, Carolyn Eyles:** Improving Accessibility of Paleontological Geoheritage Via Digital Conservation

14:00 **Deana Schwarz:** Improving Public Education in Geoscience through Accessible Virtual Tours at GeoscienceINFO

14:20 **Peter Gray, Beatriz Gomez:** Reimagining Water Stewardship: Educating the Current and Next Generation to Protect Our Water Future

14:40 **Jeffrey J. Packard:** Foundations: The Science Beneath the Art - An Update on a STEAM Initiative

15:00 **Refreshment Break**

15:20 **Joanna Northover:** T. Rex Did NOT Have Wings: The Struggle of Dealing with Misinformation and Misconceptions on Social Media

15:40 **Natalie Bursztyn:** Knitting the Fabric of Fogo Island, Newfoundland

16:00 **SCW_S1: Science Communication: Research and Practice Beyond Boundaries**

16:20 **Posters**

16:40

SPACE_SS_01: Insights into solar system geology from astromaterials and space missions

Room: ***DMS_4130***
Chairs: *Chris Herd, Gordon Ozinski, and Roberta Flemming*

13:20 **Neil Bennett, Jessica Verschoor, Shannon Murtonen, Corliss Sio**: Light Element Effects on Isotope Fractionation in Planetary Cores

SPACE_SS_02: Planetary geosciences: Integrating geological mapping with geophysics and modelling

Room: ***DMS_4130***
Chairs: *Hafida El Bilali and Richard Ernst*

13:40 **James Head, Mikhail Ivanov:** Global Geological Mapping of Venus from Magellan/Venera 15-16: What Have We Learned and How Can New Missions Address Outstanding Questions?

14:00 **Hafida El Bilali, Richard E. Ernst, James W. Head:** Activities of the International Venus Research Group (IVRG): Detailed Mapping to Develop Geological Histories of 40+ Areas of Venus

14:20 **Arina S. Shimolina, Richard E. Ernst, Hafida El Bilali, Danil G. Malyshev, Vadim E. Rozhin, Ekaterina G. Antropova:** Geological History of Theia Mons, Beta Regio, Venus: Two Main Magmatic Centers for Flows, Radiating Dyke Swarms and Triple Junction Rifting

14:40 **Richard E. Ernst, Hafida El Bilali, Kenneth L. Buchan, James W. Head: Mafic Dyke Swarms:** Key to Understanding Magmatism and Tectonics on Venus

15:00 **Refreshment Break**

15:20 **Mohamed Ben Marzoug, Hafida El Bilali, Richard Ernst, Kenneth Buchan, Naima Hannour, James W. Head:**

Quetzalpetlatl Corona, Venus: 1:500,000 Mapping Nearly Triples Its Estimated Radius, Unveiling New Radial and Circumferential Swarms and their Interactions with Neighboring Lada Terra Coronae

15:40 **Naima Hannour, Hafida El Bilali, Richard E. Ernst, Kenneth L. Buchan, Mohamed Ben Marzoug, James W. Head:** Dyke Swarms of Eastern Ovda Regio, Venus: Evidence for Rifting and Mantle Plume Arrival

16:00 **Ike Fardy:** Dyke Swarm History of the Eve Corona Region on the Southern Side of Alpha Regio (Tessera), Venus, And Potential Implications for the Upcoming DAVINCI Mission

16:20 **Abderrazzak Hasanaine, Hafida El Bilali, Richard E. Ernst, Kenneth L. Buchan:** Relative Ages of Magmatic Centres of Eastern Eistla Regio, Venus: Based Mainly on their Dyke Swarm Record

16:40 **Posters**

EARTH_SS_26: Basal conditions, boundary positions, and chronological additions: Updates to our understanding of glacial landscapes

Room: ***DMS_4120***
Chairs: *Jessey Rice, Jessi Steinke, and Pierre-Marc Godbout*

13:20 **Pierre-Olivier Couette, Pascal Bernatchez, Vincent Rinterknecht, Jérôme Dubé, Bernard Hétu, Patrick Lajeunesse:** Deglacial Chronology on Anticosti Island (Gulf of St. Lawrence) Determined Using Multiple Geochronological Approaches

13:40 **Samuel E. Kelley, Clara Crowell, Nathaniel Lifton, Simon Pendleton:** Using in Situ Cosmogenic 10Be and 14C Measurements to Examine Past Ice Sheet Thickness in Scotland and Ireland

14:00 **Jean-François Bernier, Patrick Lajeunesse, Pierre-Olivier Couette, Karim Lebeaupin, Sydney W. Meury, Vincent Rinterknecht, Jean-François Ghienne:** Reconstructing Greenland Ice Sheet Margin Evolution in the Tasiusaq Fjord Region (Disko Bay, Southwest Greenland) Using High-Resolution UAV Data

14:20 **Michelle Gauthier, Tyler Hodder, Olav Lian, Maria Schaarschmidt:** Re-Evaluating the Age of Glacial Landscapes Far from Ice Divides

14:40 **Nickolas Mesich, Martin Ross, Michelle Gauthier, Tyler Hodder, Julia Hathaway:** Unravelling the Complex Quaternary History of the Gods and Yakaw Rivers, Northeastern Manitoba
15:00 **Refreshment Break**
15:20 **Tommy Tremblay:** The Recycling of Surficial Deposits During Successive Glacial Episodes in Cold-Based Glacial Landscapes from Arctic Canada
15:40 **Grant W. Hagedorn:** Ice Flow History and till Composition of the Georgia Lake Area, Northwestern Ontario
16:00 **Syed Bukhari:** LiDAR Based Geospatial Analysis of Modern and Ancient Glaciated Terrains
16:20 **John C. Gosse, Albert Zondervan, Liam Zonruiter:** Measurements of in-situ cosmogenic isotopes at Lalonde AMS Lab
16:40 **Posters**

KNOWLEDGE_SS_04: Beyond Recognition – integrating western geoscience with Indigenous views of the land

Room: ***DMS_12102***
Chairs: *Carla Petahtegoose and Rasmus Haugaard*

13:20 Opening with Art Petahtegoose
13:40 Mattagami First Nation Presentation, Chief Jennifer Constant
14:00 Panel discussion:
14:20
14:40
- Chief Jennifer Constant; Mattagami Representative
- John Vallely; Atikameksheng Anishnawbek, Lead Negotiator
- Andy Fyon; Author and Former Director of Ontario Geological Survey
- Colin Sproat; University of Saskatchewan

15:00 **Refreshment Break**
15:20 Panel discussion:
15:40
- Chief Jennifer Constant; Mattagami Representative
- John Vallely; Atikameksheng Anishnawbek, Lead Negotiator
- Andy Fyon; Author and Former Director of Ontario Geological Survey

Colin Sproat; University of Saskatchewan
16:00 Non-Indigenous Presentation – Dr. Andy Fyon
16:20 Closing remarks and closing of the session w. Art Petahtegoose
16:40 **Posters**

TUESDAY, MAY 13: MORNING

MINERALS_SS_05: A tribute to Dr. Jim Franklin

Room: ***DMS_1160***
Chairs: Peter Hollings, Steve Piercey, Dan Layton-Matthews, Dan Marshal, Mark Hannington, and Lyn Anglin

08:00 **K. Howard Poulsen:** Mattabi-Type Massive Sulfide Deposits

08:20 **Taus R. C. Jørgensen, Harold L. Gibson:** Quantifying the Distribution of Felsic Volcanic Rocks in the Abitibi Subprovince with Implications for Volcanogenic Massive Sulfide and Crustal Evolution

08:40 **Kieran Iles, Pierre-Simon Ross**: Links Between VMS Endowment, Host Rock Geochemistry and Petrogenesis in the Deloro Assemblage, Abitibi Greenstone Belt

09:00 **Philippe Mongeau, Steven Hollis, Mark Cooper, Stephen Piercey, Sean Mc Clenaghan, Ian Butler:** Mineralisation Styles and Critical Metal Potential of VMS Occurrences in the Tyrone Igneous Complex, Northern Ireland

09:20 **Harold Gibson, Mike A. Hamilton, Marina Schofield, Howard Poulsen, Taus Jørgensen, Gerald Riverin:** Revised Metallogenic History of the Noranda District

09:40 **Refreshment Break**

10:00
10:20
10:40 **Plenary Talk by Derry Medalist – Dr. Georges Beaudoin** *(10 AM to 11 AM)*
11:00

11:20
11:40 **Plenary Talk by Logan Medalist** *(11 AM to 12 PM)*

12:00 **MAC Luncheon**

WATER_SS_07: Surface water-groundwater interactions through recharge, discharge, and contribution to ecosystems

Room: ***DMS_1150***
Chairs: *Emmanuel Dubois, Marie Larocque, Eric Rosa, Steven Berg, and Steven Frey*

08:00 **Jiangyue Ju1, David Rudolph1, Steven Frey:** Tile Drainage and Groundwater Dynamics: A Modeling Approach to Understanding Tile Water Partitioning and Hydrological Impacts

08:20 **Pelumi Shotayo, Diana Allen:** Induced Streamflow Depletion in the Transboundary Bertrand Creek Watershed

08:40 **Alexandre Royer-Lavallée, Eric Rosa, Lucie Coudert, Carmen Mihaela Neculita:** Mine Dewatering Impact on a Boreal Peatland

09:00 **Corey Zanatta, David Rudolph, Andrew Wiebe:** Identifying and Quantifying Seasonal Groundwater Discharge Using Streambed Temperature Profiles within the Alder Creek Watershed, ON

09:20 **Igor Pavlovskii, Connie Romano, Richard B. Simms, Jarod M. Devries:** Integrated Flow Modelling to Forecast Surface Water - Groundwater Interaction at Iona Wastewater Treatment Plant (BC, Canada)

09:40 **Refreshment Break**

WATER_SS_01: Hydrogeology and geochemistry of cold-regions

Room: ***DMS_1150***
Chairs: *Elliott Skierszkan and Jeffrey McKenzie*

10:00 **Oliver Conway-White, Colby M. Steelman, David L. Rudolph:** Assessing Permafrost Distribution in Northern Watersheds Using Airborne and Surface Electrical Measurements

10:20 **Isabelle de Grandpré:** Why Is (Almost) Nobody Using Groundwater in the Northwest Territories? Cultural, Historical and Geological Perspectives

10:40 **Christine Bélanger, Karen Greer:** Securing Potable Water Demands for Northern Communities in Challenging Hydrogeological Conditions

11:00 **Reginald Somera, Jean-Michel Lemieux, Jean Birks, Philippe Fortier, Alexandra Bélanger, Aaron A. Mohammed:** Quantifying Groundwater Exchanges in the Water Balance of Small Thermokarst Ponds: Implications for Carbon Cycling

11:20 **Peter Douglas, Melanie Burnett, Isabelle Laurion, Cynthia Kallenbach, Jéròme Comte, Roxane Maranger, Martial Leroy:** Using Dual Carbon Isotope Measurements and Bayesian Mixing Models to Decipher Dissolved Organic Carbon Sources in Permafrost Thaw Ponds

11:40

12:00 **MAC Luncheon**

MINERALS_SS_09: Application of hand-held tools in the search for critical metals

Room: ***DMS_1140***
Chair: *Jeanne Percival*

08:00 **David Turner, Jeanne Percival:** Utilizing VNIR-SWIR Spectroscopy for REE Detection and Mineral Identification

08:20 **Brendan Connors, Gabrielle Lambton:** Portable Handheld VIS-NIR for Rapid In-Field Mineral Identification

08:40 **Jeanne B. Percival, David J. Turner, Jessica Tomacic, Marc Beauchamp, Pierre Pelchat, Sarah Sleigh:** Comparison of Mineralogical and Geochemical Results for REE-Bearing Reference Minerals Using Traditional and Field Portable Analyses

09:00 **Lidbert Alarcón, Georges Beaudoin, Bertrand Rottier, Tim Baker, Jacques Simoneau:** Vectoring Orogenic Gold Mineralization Using Short-Wave Infrared (SWIR) Spectroscopy in the Triangle Mine, Quebec, Canada

09:20 **Brendan Connors:** Field-Portable XRF Analysis of Rare Earth Elements

09:40 **Refreshment Break**

MINERALS_SS_07: Applied mineralogy in natural and mining environments: A session in honour of Mati Raudsepp

Room: ***DMS_1140***
Chairs: *Andrew McDonald, Lee Groat, and Sasha Wilson*

10:00 **Matthew B. J. Lindsay:** Environmental Mineralogy of Sulfide Mine Wastes

10:20 **Andrew McDonald:** Twinning in Millerite from Cu-Ni-Fe-PGE Footwall Deposits, Sudbury, ON, Nature and Geological Relevance

10:40 **Lee A. Groat, Cem Ozyalcin, Catriona Breasley:** Abundant Beryl Mineralization Associated with the Black River Batholith, Yukon Territory

11:00 **Robert Amissah, Stefanie Brueckner:** Metamorphic Remobilization of Precious Metals and Critical Metals as Function of Pyrite Texture, Composition and Brittle-Ductile Behavior: Example from the Epithermal Haile Deposit, South Carolina, USA

11:20 **Anette von der Handt, Ian R. Goan, Nichole Moerhuis, James S. Scoates:** Establishing Bulk Composition and Phase Proportions of Exsolved Fe-Ti Oxides

11:40 **Réjean Girard:** Metal Deportments in Lake Bottom Sediment: A Mineral Exploration Perspective

12:00 **MAC Luncheon**

EARTH_SS_14: Paleogeography and geodynamics of the Earth before Pangea: Celebrating the career accomplishments of Kenneth L. Buchan

Room: ***DMS_1130***

Chairs: *Phil McCausland, Wouter Bleeker, Mike Hamilton, Richard Ernst, Hafida El Bilali, Joe Hodych, and Henry Halls*

08:00 **Richard E. Ernst, Hafida El Bilali, Kenneth L. Buchan:** Mantle Plumes and Their Lips and Dyke Swarms: Integrating Lessons from Venus and Earth

08:20 **Bruce Eglington, Hoanh Anh Tu (Lavie) Nguyen, Dene Tarkyth:** Regional Climate Variations in Deep Time; Possible Influences on Mineralisation

08:40 **Christopher R. Scotese, Reece P. Elling, Wen Du:** Plate Tectonic Reconstructions for the Mesoproterozoic, Neoproterozoic, and Early Paleozoic (1600- 400 Ma)

09:00 **Tugce Sahin, Kenneth L. Buchan, Mike A. Hamilton:** U-Pb Geochronology, Paleomagnetism and Geochemistry of Mesoproterozoic Mafic Dykes in the Southern Nain Province, Labrador, Canada

09:20 **Joseph Hodych, Kenneth L. Buchan:** A Primary Paleomagnetic Pole for ca. 606 Ma Volcanics, Avalonian Newfoundland: Implications for Ediacaran Paleogeography and Hypotheses of Extreme True Polar Wander and Weak Anomalous Magnetic Fields

09:40 **Refreshment Break**

10:00 **Paul F. Hoffman, Paul M. Myrow:** Did Subduction-Induced Mantle Downflow Create Accommodation for Post-Collisional Athabasca-Type Alluvial Superfans of Gondwana and Nuna?

10:20 **Chris Spencer, Tom Gernon, Neil Davies, Will McMahon, Andrew Merdith:** From Plant Roots to Mountain Roots: Impact of Land Plants on Subduction Zone Magmatism

EARTH_SS_05: Metals, Redox, and Volatiles: from the mantle to magmas to mineral deposits, a special session honouring the career of Prof. Keiko Hattori

Room: ***DMS_1130***
Chairs: *Erin Adlakh, Lilianne Dagenais, and Cees-Jan De Hoog*

10:40 **BM Saumur:** How Metamorphism Affects Cr-Spinel in Serpentinite: Confessions of a Former Student and "Geochemistry Moonlighter"

11:00 **Stephane Guillot:** A Journey with Keiko Hattori in the Hydrated Mantle

11:20 **Jan C. M. De Hoog, Keiko Hattori:** Mantle Wedge Olivine Modifies Slab-Derived Fluids: Implications for Fluid Transport from Slab to Arc Magma Source

11:40 **Luis Krampert, Bertrand Rottier, Crystal LaFlamme, Guillaume Barré, Georges Beaudoin, Sarah Dare, Dany Savard:** Development of in Situ S Isotope Analysis of Apatite by LA-ICP-MS/MS

12:00 **MAC Luncheon**

EARTH_SS_03: Mafic intrusions, associated magmatism and metallogenesis in anorogenic settings

Room: ***DMS_1120***
Chairs: *Steven Denyszyn, Stephen Prevec, and Gregory Shellnutt*

08:00 **James Mungall, Zhuo-sen Yao, Richard Ernst, Nico Kastek:** Structural Controls on Chonolith Formation

08:20 **Rune B. Larsen, Bjørn E. Sørensen:** Magma-Mixing, Liquid Immiscibility, Volatile-Rich Melts and Ore-Formation at 1 GPa in an Ediacaran Continental Rift

08:40 **Stephen Prevec, Geoffrey Howarth:** Constraints on Fe-Ti-Oxide Ore Formation in Mafic-Ultramafic Intrusions

09:00 **Vanessa Jones, Steven Denyszyn:** Geochronology and Geochemistry of West African Mafic Dykes Define a Trans-Supercontinental Mafic Magmatic Province Preceding Gondwana Breakup

09:20 **Simon Tournier, Crystal LaFlamme, Cristina Accotto, Carl Guilmette, Pierre-Simon Ross, Pierre Cartigny, Guillaume Barré, Marc-Antoine Vanier:** Recycling of the Superior Craton During Paleoproterozoic Continental Rifting in the Cape Smith Belt, Nunavik, Québec?

09:40 **Refreshment Break**

10:00 **J. Gregory Shellnutt:** Layered Mafic Intrusions of the Emeishan Large Igneous Province and Their Petrological Association with Peralkaline Quartz-Bearing A1-Type Granites

10:20 **Richard E. Ernst, Hafida El Bilali, Simon M. Jowitt, Kenneth L. Buchan, Kevin R. Chamberlain, David A. D. Evans, Rajesh K. Srivastava:** Novel Exploration Strategies for a Wide Range of Commodity Types (Including Orthomagmatic, Hydrothermal, Sediment-Hosted, Orogenic/Subduction Related) Using the Plumes/Lips Paradigm

10:40 **Robert Rainbird, Michael Hamilton, Anthony LeCheminant, Marie-Claude Williamson:** On the Possible Impact Initiation of the 1.27 Ga Mackenzie Large Igneous Province, Canada

11:00 **David J. Good:** Relationships Between Basalt Genesis and Melt Trajectories During the Midcontinent Rift Event: A Synthesis of Incompatible Trace Element Data

11:20 **Shokouh Riahi, James Mungall, Richard Ernst:** Application of Magnetic Vector Inversion (MVI) on High-Resolution Aeromagnetic Data of Tamarack Area

11:40

12:00 **MAC Luncheon**

EARTH_SS_15: Appalachians and beyond - exploring the Laurentian margin through time

Room: ***DMS_1110***
Chair: *Deanne van Rooyen*

08:00 **Bryanna Rayhorn, Luke Beranek:** Evaluating the Ordovician Tectonic Evolution of Eastern Laurentia Through Taconic Foreland Basin Stratigraphy on the Port Au Port Peninsula, Western Newfoundland

08:20 **Dylan J. McKeen, Deanne van Rooyen, Chris E. White, Sandra M. Barr, Robert P. Raeside:** Stratigraphy and Structural Geology of the Clyburn Brook Formation, Cape Breton Highlands, Nova Scotia; Insights into Transpressional Deformation Along the Eastern Highlands Shear Zone

08:40 **Jessica Beckwith, Shawna E. White, John W. F. Waldron, Catherine M. Mottram:** Re-Evaluating Regional Structural Relationships and Deformational History of the Appalachian Orogen in Gros Morne National Park, Newfoundland

09:00 **Ai Gusti Guna, Alexander L Peace, Phil J.A. McCausland:** Tectono-Paleomagnetic Insights into the Southern North Atlantic Rifting: An Integrated Onshore-Offshore Study of the Newfoundland Margin, Eastern Canada

09:20 **Gabriel S. Santos:** Ordovician-Silurian Tectonic History in South-Central Newfoundland Revealed by the Geology of the Bay D'espoir Group and Associated Plutonic Rocks.

09:40 **Refreshment Break**

EARTH_SS_17: Tectonic and metallogenic evolution of the Canadian Cordillera

Room: ***DMS_1110***
Chairs: *Dawn Kellett, Alex Zagorevski, and Nathan Cleven*

10:00 **Olivia A. King, Peter W. Crockford, Alex Zagorevski, Nikole Bingham-Koslowski, Aeron Vaillancourt, Riccardo Graziani:** Age, Environment and Climatic Changes in the Carboniferous Carbonates of the Cache Creek Terrane of the Yukon, Canada

10:20 **Alex Zagorevski, Mitch Mihalunuk, Aeron Vaillancourt:** Reimagining the Terrane Framework of the Intermontane Superterrane of the Northern Canadian Cordillera

10:40 **Kyle T. Tollefson, Kyle P. Larson, Brendan Dyck, Nathan R. Cleven, Jeff D. Vervoort**: Stepwise Metamorphism and Accretion of UHP Rocks in the Northern Canadian Cordillera as Informed by Lu-Hf Garnet Geochronology and Phase Equilibrium Modeling

11:00 **Dana Šilerová, Dawn Kellett, Catherine Mottram, Laura Nania, Sarah Bowie:** Mesozoic to Cenozoic History of the Llewellyn-Tally Ho Deformation Corridor, Yukon: Microstructural and Geochronological Constraints

11:20 **Sarah Bowie, Catherine Mottram, Dawn Kellett, Maria Shtereva, Monica Barrington:** Tracking the Thermo-Temporal Evolution of a Porphyry-Skarn Deposit Using Multi-Phase U-Pb Geochronology

11:40 **Dawn Kellett, Sean Kelly, Laura Nania, Dana Silerova, Sarah Bowie, Joel Padgett, Anastasia Kulchycki, Catherine Mottram, Eva Enkelmann, Kyle Larson, Diane Skipton, Djordje Grujic, Isabelle Coutand, Jeremy Powell, Horst Zwingmann, David Whipp, Nicolas Pinet:** Reconstructing the Northern Canadian Cordillera's Post-Accretionary Fault, Fluid and Landscape Evolution

12:00 **MAC Luncheon**

EARTH_GS_01: Geoscience advances

Room: ***DMS_4170***
Chairs: *Benjamin Neil and Carson Kinney*

08:00 **Carson Kinney, Chris Yakymchuk:** Crustal Heat-Production Records Long-Term Dilating and Oscillatory Continent Growth

08:20 **Benjamin Neil, Graham Pearson, Bruce Kjarsgaard, Jesse Reimink, John Ketchum, Michael Ackerson:** Isotopic Structure of the Slave Craton Revisited: A LA-MS-ICPMS Pb Isotope Study of K-Feldspar in Granitoids

08:40 **Kira Musiyachenko, Matthijs A. Smit, Maya G. Kopylova, Andrey V. Korsakov**: Advances in Lu-Hf Geochronometry of Garnet from Mantle Xenoliths

09:00 **Mehdi Jouhari, Carl Guilmette, Kyle Larson, Cristina Accotto, Isabelle Therriault, Marc-Antoine Vanier:** Tectono-Metamorphic Evolution of the Ungava Orogen Hinterland: New Contributions from U-Pb Zircon and Monazite Geochronology

09:20 **Ali Polat:** Petrogenetic and Geodynamic Origin of the Neoarchean Shawmere Anorthosite Complex, Kapuskasing Uplift, Superior Province

09:40 **Refreshment Break**

EARTH_SS_25: Celebrating 50 years of Environmental Geoscience

Room: ***DMS_4170***
Chair: *Kenneth Lyon*

10:00 **Ken Lyon:** 50 Years of Environmental Geoscience: Shaping the Next Geo-Paradigm Revolution

10:20 **Jeanne Percival, Rick McGregor:** Environmental Earth Sciences as Part of the Fabric of the Geological Association of Canada

10:40 **Daniel Lebel, Rob Raeside, Katherine Boggs, Paul Hubley:** Recent Labour and Education Trends Regarding Geoscientists and Geological Engineers in Canada: Challenges and Opportunities

11:00 **Ian M. Power, Carlos Paulo, Kwon Rausis, Zivi R. Schaffer, Duncan T.E. McDonald, Heather Klyn-Hesselink, Minger Guo:** The Mining Industry's Role in Enhanced Weathering and Mineralization for Carbon Dioxide Removal

11:20 **Jillian Abraham, Lianna Smith, Valerie Schoepfer, Tom Al:** Aqueous Digestions of Arsenic Trioxide from Giant Mine Roaster Waste and Characterization of the Residues

11:40 **John Greenough, Nathan Logan, Jeff Curtis, Mark Button:** Average Element Concentrations in Canadian Vegetation

12:00 **MAC Luncheon**

EARTH_SS_12: The sedimentary record of fluvial systems: Resolving linkages between modern processes and ancient products

Room: ***DMS_4140***
Chair: *Paul Durkin*

08:00 **David Lowe, Juvani Bryce:** Dynamics of an Ediacaran Proximal Foreland Alluvial Plain and Its Hinterlands: Sedimentologic, Stratal, and Provenance Evolution of Braided Fluvial to Alluvial Fan Growth Sequences of the Flatrock Cove Formation, Newfoundland

08:20 **Aneesa Ijaz Rabbani, Bijal Chauhan, Janok Bhattacharya:** Not an Alluvial Fan: Steep Gradient, Coarse Grained Meandering Tributary Channels Systems, Cretaceous Dunvegan Formation, Liard Basin, NWT, Canada

08:40 **Cassidy L. Teodoro-Neville, Elisabeth Steel, Jennifer J. Day:** Stratigraphy and Depositional Processes of the Hopewell Rocks Member of the Hopewell Cape Formation, Hopewell Rocks Provincial Park, New Brunswick, Canada

09:00 **Byong-suk Chun, Elisabeth Steel**: Impacts of Sea Level Rise on Deltaic Distributary Channel Morphodynamics: Insights from Physical Experiments

09:20 **Paul Durkin, Claire Morrow, Zoltan Sylvester:** Controls on Rapid Point-Bar Growth During Recent Extreme Floods, Assiniboine River, Manitoba

09:40 **Refreshment Break**

EARTH_SS_11: Precambrian depositional and environmental systems

Room: ***DMS_4140***
Chairs: *Nabil Shawwa, Robert Rainbird, Michael Babechuk, and Camille Partin*

10:00 **Vincent van Hinsberg, Dominic d'Amato, Jillian Kendrick:** Isua Tourmaline: A Record of a Boron-Rich Archaean Ocean?

10:20 **Ian N.A. Coxon, Michael G. Babechuk, Nabil A. Shawwa, Robert H. Rainbird, Sarah P. Slotznick, Christopher M. Fedo:**

Huronian Redox Redux: New Fe-Based Constraints on Terrestrial Sedimentary Oxidation During the GOE

10:40 **Alexandra Kunert, Leigh Anne Riedman, Maxwell Lechte, Brian Kendall:** Manganese Oxides in the Late Paleoproterozoic Oceans—Evidence from Authigenic Thallium Isotopes

11:00 **Brayden McDonald, Camille Partin:** Combining Stratigraphy and Provenance Analysis to Envision the Tectonic Significance of the Omarolluk Submarine Fan on the Superior Craton Margin During the Trans-Hudson Orogen

11:20 **Chelsea Pastula, Camille Partin, Brayden McDonald, Tyler Hodder, Tania Martins:** Using Whole Rock Geochemistry and Detrital Zircon U-Pb Geochronology of the Omarolluk Formation of Nunavut and Omars of Manitoba to Test the 'Omar Hypothesis'

11:40 **Paul F. Hoffman, Adrian Tasistro-Hart:** A Giant Glacial Erratic (130×52 M) of Cryogenian (End-Sturtian) Age in NW Namibia: Perched Atop an Erosional Pedestal of Tillite 134 M High, Preserved by and Restored Using Postglacial Marine Depositional Onlap

12:00 **MAC Luncheon**

SPACE_SS_02: Planetary geosciences: Integrating geological mapping with geophysics and modelling

Room: ***DMS_4130***
Chairs: *Hafida El Bilali and Richard Ernst*

08:00 **Hailey M.E. McAlpine, Richard E. Ernst, Hafida El Bilali:** Dyke Swarm History of the Bagbartu Mons Region in Metis Quadrangle (V-6), Northern Venus

08:20 **Erin Duxbury, Hafida El Bilali, Richard Ernst:** Dyke Swarm and Mantle Plume/Diapir History of the Tefnut Mons Region, East of Themis Regio, Venus

08:40 **Aastha Mishra, Richard Ernst, Hafida El Bilali, Rajesh Srivastava:** Mantle Plume Linked Dyke Swarms from Anala and Irnini Montes and Libera Corona, Central Eistla Regio, Venus

09:00 **Priya Tripathi, Richard Ernst, Hafida El Bilali, Rajesh Srivastava:** Dyke Swarms in Bereghinya Planitia, North of Central Eistla Regio, Venus

09:20 **Zhiyu Zhou:** Spatial Distribution and Magnitude-Frequency Analysis of Marsquakes from Insight Mission Data (2019-2022)

09:40 **Refreshment Break**

SPACE_SS_03: Lunar geoscience: A new era of lunar science and exploration for Canada

Room: ***DMS_4130***
Chairs: *Gordon Osinski, Chris Herd, Roberta Flemming, and Myriam Lemelin*

10:00 **Gordon R. Osinski, Ed Cloutis, Myriam Lemelin, Perry Edmindson, Caroline-Emmanuel Morisset, Martin Picard, Tom Lamarche, Benjamin T. Greenhagen, Martin B. Smith, Livio L. Tornabene, LRM Science Team:** Canada's First Planetary Exploration Rover Mission

10:20 **Jeannette Luna, Isaac Hollingsworth, Anthony Lamantia, Olufunke Adepoju, Peter Li, Charles Sutherland:** Geologic Maps and Geospatial Tools for Traverse Planning on the Moon

10:40 **Ananya Srivastava, Alexandra Huff, Gordon Osinski, Livio Tornabene:** Hydration Mapping at Candidate Lunar South Pole Landing Sites Using Chandrayaan M^3 and IIRS Data

11:00 **Myriam Lemelin, Eldar Noe Dobrea, Shuai Li, Hiroyuki Sato, Christian Tai Udovicic, Roksana Sheikholmolouki, Anthony Colaprete:** High Spatial Resolution Spectral Characterization of the Viper Mission Area from Orbital Observations

11:20 **Éloïse Brassard, Myriam Lemelin, Ed A. Cloutis, Livio L. Tornabene:** Fine-Grained Hematite on the Moon and Mars: A Spectroscopic Perspective

11:40 **Deep Patel, Dr. Gordon Osinski, Dr. Shreekumari Patel:** Mapping the Ejecta Blanket of Rutherfurd Crater: Insights from Radar and Optical Data

12:00 **MAC Luncheon**

WATER_SS_05: Numerical modeling of groundwater processes in deep geological systems

Room: ***DMS_4120***
Chairs: *Nicola Calder and Robert Walsh*

08:00 **Kelly J. Hokanson, Randi Thompson, Willy Zawadzki, Catherine Banton:** In-Situ Testing and Numerical Assessment of Inflow Mitigation Using Grouting for a Proposed Underground Mine Extending Beneath a Lake

08:20 **Audrey Bourdon, John Molson, Heather Crow, Peeter Pehme:** Characterising Thermal Signatures of Natural Radiogenic Heat

Sources Using Numerical Simulations in Discretely-Fractured Rock

08:40 **Dan Palombi, Jianhua Jiang, Tony Lemay, Shilong Mei:** Numerical Modeling of Groundwater-Gas Migration to Evaluate Commingled Well Abandonment in Large Geologically Complex Gas Fields of Central Alberta

09:00 **Othniel Glodie Dominique NGOMBE, Julien Walter, John Molson, Romain Chesnaux:** A Combined Approach Using Numerical Modeling and Isotopic Analyses to Investigate Upwelling and Mixing of Deep, Old Groundwater with Shallow Water Within the Grenville Province of the Canadian Shield

09:20 **Nicola Calder, Mathieu Le Coz, Nicholas Sgro, John Avis:** Supporting Radioactive Waste DGR Safety Assessments with Detailed Groundwater Models

09:40 **Refreshment Break**

WATER_SS_06: Re-framing the perspective on groundwater interaction with surface water in urban areas

Room: ***DMS_4120***
Chairs: *Brian Smerdon, Edwin Cey, and Jim Roy*

10:00 **James W. Roy:** Illustrative Examples and Discussion of Various Methods to Investigate Groundwater Contaminant Inputs to Urban Surface Waters

10:20 **Valerie Risch, Jana Levison, Ceilidh Mackie, James W. Roy:** Evaluating Trends in Chloride Concentrations in the Groundwater and Surface Water of an Urbanizing Watershed in Southern Ontario

10:40 **Angoran Baudelaire N'da, Vincent Cloutier, René Therrien, François Proulx, Yohann Tremblay, Laura Gâtel, Antoine Picard, Florent Barbecot, Benjamin Frot, Brahim Maylal, Jean-Michel Lemieux:** Impact of De-Icing Salts on Water Quality in a Drinking Water Supply Watershed: A Case Study of the Clement Lake Area Within the Saint-Charles River Watershed, Quebec, Canada

11:00 **Grant Hodgins, James Roy, Clare Robinson:** Mobilization of Phosphorus and Metals from Streambed Sediments Caused by Fluctuating Sodium Chloride Concentrations in Shallow Groundwater Discharging to Streams

11:20 **Daniel Ilg, Sean Elliot, Edwin Cey, Bert van Duin, Leta van Duin, Masaki Hayashi, Jennifer He, Angus Chu:** Investigation of the Water Budget and Subsurface Hydrology of Two Rain Gardens in Calgary, Alberta

11:40 **Laurence Jayawardane, Gregory M.D. Hartman, Nigel Atkinson, Steven M. Pawley:** Developing an Urban Geomodel for the Edmonton Area: The First Step in Understanding the Complexities of Urban Hydrology

12:00 **MAC Luncheon**

TUESDAY, MAY 13: AFTERNOON

MINERALS_SS_05: A tribute to Dr. Jim Franklin1

Room: ***DMS_1160***
Chairs: Peter Hollings, Steve Piercey, Dan Layton-Matthews, Dan Marshall, Mark Hannington, and ‘Lyn Anglin

13:20 **Marina D. Schofield, Rodney L. Allen, Greg W. Sparkes, Mike A. Hamilton, Paul Moore, David Butler:** Volcanic-Facies Mapping and New U-Pb Age Constraints within the Buchans Mining District, Central Newfoundland: Implications for Exploration Potential

13:40 **Cendi Dana, Steven Hollis, Kazuhide Mimura, Moei Yano, Junichiro Ohta, Yusuke Kuwahara, Stijn Glorie, David Selby, Yasuhiro Kato, Megan James, Darryl Podmore:** Multiple Geochronological Approaches Reveal the Syn-Genetic Age of the King Metamorphosed VMS Deposit, Yilgarn Craton, Western Australia

14:00 **Sheila Ballantyne, Melissa Anderson, Margaret Stewart, Chantal Venturi, Neil Richardson:** Variations in Alteration and Ore Mineralogy Across Two Contemporaneous Ancient Volcanogenic Massive Sulphide Deposits at the Snow Lake Camp, Manitoba, Canada

14:20 **Carlos H. G. Braga, Alan T. Baxter, Mark D. Hannington:** Insights on Volcanism, Tectonism and Seafloor Massive Sulfide Deposits from A New Geologic Map of the Juan De Fuca Plate

14:40 **Mark Hannington, John Jamieson:** Canada's Seafloor Minerals Program: Retrospective from JM Franklin and a Look Forward

15:00 **Refreshment Break**

15:20

15:40

16:00 **Plenary Talk by Darcy Lecturer – Dr. Grant Ferguson** *(3:40 PM to 4:40 PM)*

16:20

16:40 **Posters**

WATER_SS_04: Groundwater modelling to support source water protection

Room: ***DMS_1150***
Chairs: *Sean Stirling and Tessa Di Iorio*

13:20 **Blythe Reiha:** "25 Years" Has Elapsed: Are Our WHPAS Still Safeguarding Future Water Supply?

13:40 **Mason Marchildon, Mike Doughty, Steve Holysh, Rick Gerber, Steve Shikaze, Britt Smith:** Maintaining Source Water Protection Groundwater Models: An Effort to Update Recharge Inputs for Numerical Model Custodianship and Sharing

14:00 **Joelle Langford, Paul Martin, Patricia Meyer:** Enhanced Characterization of Groundwater Flow and Transport of VOC Plumes in the City of Barrie Using Detailed Numerical Modelling

14:20 **Amirabbas Goudarzie, Usman T. Khan, Magdalena Krol:** From Trend Detection to Predictive Modelling: A Data-Driven Study of Groundwater Resources in Southern Ontario

14:40 **Laurence Labelle:** Les Enjeux de la Protection de L'eau Potable Chez les Premières Nations: Les 25 Ans du Programme de Formation Itinérante

15:00 **Refreshment Break**

MINERALS_SS_10: Innovative approaches in critical mineral exploration, mining, and recovery

Room: ***DMS_1150***
Chairs: *Aleksandra Mloszewski, Dan Alessi, and Matt Lindsey*

15:20 **Jenine McCutcheon, Sana Ahmad, Decla McParland, Wing Lam Savina Tam, Kristina Mironova, Joseph Spagnolo, Emily Zelenyt, Natasha Bell, Thomas Ray Jones, Minger Guo, Brian Kendall, Ian M. Power, Gordon Southam:** Mine Site Biogeochemistry and Critical Minerals - What's New? What's Next?

15:40 **Sasha Wilson, Annah Moyo, Arif Hussain, Connor Turvey, Baolin Wang, Makoto Honda-McNeil, Jonathan Spence, Maximilian Mann, Amy McBride, Dan Su, Zhen Wang, Jaswanth Yaddala, Andrew Frierdich, Jessica Hamilton, Laura Lammers, Ian Power, Phil Renforth, Nina Zeyen**: Leaching of Ultramafic Mine Tailings for Enhanced Metal Recovery and CO_2 Mineralization

16:00 **Janice P. L. Kenney:** Environmental Interfaces as Natural Sorbents for Critical Metal Recovery

16:20 **Jeremiah Shuster, Wendy Wang, Angelica M. Rea:** Re-Assessing Gold Biogeochemical Cycling: a 2000-Year-Old "Experiment" from Ancient Rome

16:40 **Posters**

MINERALS_SS_07: Applied mineralogy in natural and mining environments: A session in honour of Mati Raudsepp

Room: ***DMS_1140***
Chairs: *Andrew McDonald, Lee Groat, and Sasha Wilson*

13:20 **Gregory Dipple:** Mineralogical Control of Carbon Dioxide Removal Using Ultramafic Mine Tailings

13:40 **Sara Gardideh, Mansoor Barati:** Optimization of CO_2 Sequestration Via Aqueous Mineral Carbonation of Ultramafic Tailings

14:00 **Jamie J. Burnett, Ian M. Power, Anna L. Harrison, Baichan Li:** Quantifying Carbonation Rates of Brucite and Periclase Powders at Elevated $_{P}CO_2$: Implications for Utilizing CO_2 Sources for Efficient and Scalable MgO Looping

14:20 **Jonathan Spence, Sasha Wilson, Benoit Rivard, Ian Power, Anna Harrison:** Modelling Silicate Mineral Weathering Rates in Soils to Assess CCUS Potential from Enhanced Rock Weathering

14:40 **Colton Vessey, Maija Raudsepp, Maria Arizaleta, Sasha Wilson, Anna Harrison, Kwon Rausis, Kelly Rozanitis, Ian Power, Helen Brand, Kurt Konhauser:** Mineralogical Examination of Pathways Influencing Low Temperature Magnesite Formation in Hypersaline Playas

15:00 **Refreshment Break**

15:20 **Cole Mauws, Jenny Lai, Lan Kato, Anette von der Handt, Matthijs Smit:** Quantitative Clay Mineral X-Ray Diffraction Analysis Using a Hybrid Calibration-Model Based Rietveld Approach

15:40 **Roberta L. Flemming, Jennifer D. Newman, Gordon R. Osinski:** Investigating Shock Effects in Dolomite and Calcite Using Rietveld Refinement of X-Ray Diffraction Data

16:00 **Daniela Gutierrez Rueda, Janice Kenney, Daniel Alessi, Kurt Konhauser:** A Drying Protocol to Minimize Water Interference in the Analysis of Silica Gels by FTIR

16:20 **Guangrong Ning, Zeyu Zhang, Dongsheng Li:** Identification and Color Cause of Purple Jadeite Jade

16:40 **Posters**

EARTH_SS_05: Metals, Redox, and Volatiles: from the mantle to magmas to mineral deposits, a special session honouring the career of Prof. Keiko Hattori

Room: ***DMS_1130***
Chairs: *Erin Adlakh, Lilianne Dagenais, and Cees-Jan De Hoog*

13:20 **Adam Simon, Deng-Yang He, Kun-Feng Qiu, Gleb Pokrovski, Hao-Cheng Yu, James A.D. Connolly, Shan-Shan Li, Simon Turner, Qing-Fei Wang, Jun Deng:** Mantle Oxidation by Sulfur Drives the Formation of Giant Gold Deposits in Subduction Zones

13:40 **Daniel J. Kontak, Blandine Gourcerol, Evsan C.G. Hasti:** Catch and Release: What LA-ICP-MS Elemental Mapping Says About the Orogenic Gold Paradigm

14:00 **Yuji Sano, Naoto Takahata, Kotaro Shirai, Sheng Xu, Ye Yang, Takuya Matsuzaki, Akira Usui:** Helium Isotopes and Beryllium-10 Dating of Manganese Crust in the Central Pacific Ocean

14:20 **Keiko Hattori, William Midea:** Oxidized Subarc Mantle Contributed to Mount Pinatubo Dacitic Magma Chamber for Over 2.5 M.y.

14:40 **Catherine Suclan, Keiko Hattori:** Volcanism During the Mineralization at the Hishikari Gold Deposit, Japan

15:00 **Refreshment Break**

15:20 **Jack Halloran, Jeffrey W. Hedenquist, Keiko Hattori, Jeanne B. Percival:** Alteration Mineralogy and Patchy Textures Below the Valeriano Lithocap Forming a Carapace Over Cu-Au Mineralized Porphyry Intrusions, Chile

15:40 **Ryan Pippy, Erin Adlakha, Gabriela Fuentes Waye, Shawna White:** Evidence for Hypersaline Solutions Forming Metasomatic Fe Deposits in Halogen-Rich Minerals Across the Cobequid-Chedabucto Fault Zone, Nova Scotia

16:00 **Sarah Hashmi:** Targeting Precious and Critical Metal Mineralization in Surficial Media in the Alexis River Valley Region, Southeastern Labrador

16:20

16:40 **Posters**

EARTH_SS_02: Carbonatite and alkaline mineral systems and their potential for critical mineral mineralization

Room: ***DMS_1120***
Chairs: *Anne-Aurélie Sappin and Paul Bédard*

13:20 **Anthony E. Williams-Jones, Olga V. Vasyukova:** Carbonatites: Magmatism, Metasomatism and Critical Metals

13:40 **Max W. Schmidt, Andrea Giuliani, Stefano Poli:** The Origin of Carbonatites - Combining the Rock Record with Available Experimental Constrains

14:00 **Roger Mitchell:** Carbothermalites: Mineralogy, Genetic Types and Relationships to Magmatic Carbonatites

14:20 **Anton Chakhmouradian, Ekaterina Reguir, Sven Dahlgren, Yan Liu:** Pyrochlore-Group Minerals from Carbonatites as a Petrogenetic Indicator

14:40 **Jake Bhakta, Anton Chakhmouradian, Jarrod Brown:** REE Mineralogy of the Eastern Ice River Complex, British Columbia

15:00 **Refreshment Break**

15:20 **Chris Couëslan, Anton Chakhmouradian, Tania Martins, Tyler Hnatiuk, Matthew Friesen, Christian Böhm:** The Trans-Hudson Alkaline-Carbonatite Suite: An Alkaline-Carbonatite Province in the Reindeer Zone of Manitoba

15:40 **Nils Van Weelderen, Anne-Aurélie Sappin, Paul Bédard, Michel Grégoire, Nicole Rayner, Ross Stevenson**: Exploring the Influence of the Magma Source on Niobium Mineralization Potential of Carbonatites: Insights from Four Intrusions in the Saguenay Graben, QC, Canada

16:00 **L.Paul Bedard, Nils Van Weederlen, Anne-Aurélie Sappin, Michel Gregoire:** Magmatic and Hydrothermal Processes Driving Nb and REE Mineralization in the Saint-Honoré Alkaline Complex (Québec, Canada)

16:20 **Olga V. Vasyukova, Anthony E. Williams-Jones, Lionel Bonhomme, Peter Colbert:** Carbonatite-Induced Melting, Alkaline Rocks and Niobium: The Lackner Lake Complex

16:40 **Posters**

EARTH_SS_17: Tectonic and metallogenic evolution of the Canadian Cordillera

Room: ***DMS_1110***
Chairs: *Dawn Kellett, Alex Zagorevski, and Nathan Cleven*

13:20 **Eva Enkelmann, Tobias Stephan:** What Drives Cenozoic to Ongoing Deformation in the Northern Cordillera?

EARTH_SS_18: The lifecycle of ophiolites through time: Igneous and metamorphic processes, tectonics, subduction

Room: ***DMS_1110***
Chairs: *Mark Coleman, Jared Butler, Gabriel Dos Santos, Victor Garcia; Azam Soltanmohammadi, and Jean Bedard*

13:40 **Julian Pearce:** Subduction Initiation Ophiolites in the Geological Record: An Assessment of Their Role as Plate Tectonic Indicators

14:00 **Jean Bédard, Carl Guilmette, Alana Hinchey, Véronika Varfalvy, Réjean Hébert, Azam Soltanmohammadi:** A Revised Paleo-Tectonic Geometry for the Bay of Islands Ophiolite

14:20 **François Fournier-Roy, Carl Guilmette, Mark Coleman, Kyle Larson, Douglas Tinkham, Alana M. Hinchey, Jean H. Bédard, Antoine Godet:** Subduction Initiation and Early Subduction Zone Development: Insights from P-T-T Paths of the Bay of Islands Metamorphic Sole

14:40 **Frédérique Baron, Mark Coleman, François Fournier-Roy, Carl Guilmette:** Protolith History of the Mont Albert Metamorphic Sole: Evidence for Peri-Laurentian Subduction Initiation

15:00 **Refreshment Break**

15:20 **Sacha Lafrance, Carl Guilmette, Jean H. Bédard, Nicole Rayner, Guillaume Mathieu:** The Geological Record of Precambrian Mid-Ocean Ridges; Revisiting the Paleoproterozoic Purtuniq Ophiolite Sheeted Dike Complex, Nunavik, Canada

15:40 **Adina Bogatu, Alain Tremblay, Jean H. Bédard, Alex Zagorevski:** Ancient Oceanic Core Complexes: Insights from the Ophiolite Record

16:00 **Mark Coleman, François Fournier-Roy, Christiaan Laureijs, Frédérique Baron, Alana Hinchey, Jean Bédard, John Wakabayashi, Carl Guilmette:** In-Situ Rb-Sr Dates and Geochemical Analysis of a Greenschist Facies Metamorphic Sole Reveals Differential Syn-Subduction Exhumation

16:20 **Fabio Stern, Keiko Hattori, Jean Bédard:** Origin and Evolution of Ultramafic Rocks in the Bay of Islands Ophiolite Complex, Newfoundland Appalachia.

16:40 **Posters**

EARTH_GS_01: Geoscience advances

Room: ***DMS_4170***
Chairs: *Benjamin Neil and Carson Kinney*

13:20 **Michael Higgins:** Plumes of Mafic Enclave-Rich Material in a Granodiorite Give Insights into Enclave Formation Processes

13:40 **Brian Cousens, Christopher Henry, Martina Boddy, Sabrina Chan, Julia Sullivan, Ann Timmermans, Annabel Kabore, Brynja Chleirich:** Basement Influences on Cenozoic Ancestral Cascades Arc Volcanic Rock Isotopic Compositions in Eastern California and Northern Nevada, USA

14:00 **Yu Wang, Junyi Sun, Liyun Zhou:** Tectonic Transformation Corresponding to the Environmental Changes in China Continent Since 25 Myr

14:20 **Christina Bakowsky, David Schneider, Bernhard Grasemann, Renelle Dubosq, Taylor Ducharme:** Rock Solid Observations: Resolving the Crustal Architecture of a Greek Tectonic Window Using Structural Mapping and Low-Temperature Geochronology

14:40 **Fatima Zahra Sbabou, Abdelaziz Lahmili, Fatiha Ait El Haj, Victor Ongoma, Oualid HAKAM, Ilham M'hamdi Alaoui:** Impact of Climate Change on Land Cover Dynamics and Soil Erosion in the Lakhdar Sub-Basin, Morocco

15:00 **Refreshment Break**

EARTH_SS_09: Clastic marine sedimentology: Advances in sediment transport dynamics, geomorphology, and depositional processes in marine environments

Room: ***DMS_4170***
Chairs: *Elisabeth Steel and Alexandre Normandeau*

15:20 **Sunny C. Ezeh, Rachel Schincariol, Janok P. Bhattacharya, Eduard G. Reinhardt, Timothy M. Dellapenna, Chen Xu, Joseph A. Carlin:** Sediment Distribution, Sedimentation Rates and Effects of Biogenic Activity on Event Bed Preservation in the Brazos Delta, Gulf of Mexico, USA

15:40 **Arijit Chattopadhyay, Elisabeth Steel, Junho Choi, Ruby Saban:** Impact of Depositional Slope and Sediment

Concentration on Flow Dynamics of Experimental Turbidity Currents

16:00 **Alexandre Normandeau, Kevin MacKillop, Clark Richards, Genevieve Philibert, Jean-Carlos Montero-Serrano, Meaghan Macquarrie, Robbie Bennett:** Processes and Products of Turbidity Currents and Submarine Landslides: Insight from Direct Monitoring, Repeat Seabed Mapping and Sediment Coring of a Glacierized Fjord

16:20

16:40 **Posters**

EARTH_SS_10: Abrupt environmental change and time preservation in the stratigraphic record

Room: ***DMS_4140***
Chairs: *Ricardo Silva, Alina Shchepetkina, Andrew Miall, Stephanile Erhunmwunsee, and Matt Braun*

13:20 **Andrew D. Miall:** Stratigraphy and Time: A Review

13:40 **Janok Bhattacharya:** Time Stratigraphy and Event Preservation in Deltas

14:00 **Anthony P. Shillito, Neil S. Davies:** Time in the Third Dimension: Filling the Gaps with True Substrates

14:20 **Martyn L. Golding, Matthew B. Stephens, Ciara R. Stewart, Jon M. Husson, John-Paul Zonneveld, Josh H.F.L. Davies, Nikole Bingham-Koslowski, Lynn T. Dafoe, Andrew H. Caruthers, Mahdiyeh Gholizadeh, Valeria Olan-Rubio:** Carnian (Late Triassic) Conodonts from Northeastern B.C. and a Biostratigraphic Framework for Studying the Carnian Pluvial Episode in North America

14:40 **M.B. Stephens, C.R. Stewart, M. Gholizadeh, V. Olan-Rubio, L. Dafoe, J.H.F.L. Davies, A. Caruthers, N. Bingham-Koslowski, J.-P. Zonneveld, M.L. Golding, J.M. Husson:** Carbon Isotope Analysis from Northeastern B.C. Sedimentary Formations for the Purpose of Examining the Global Carbon Cycle During the Carnian Pluvial Episode

15:00 **Refreshment Break**

15:20 **Ciara R. Stewart, Matthew B. Stephens, Mahdiyeh Gholizadeh, Lynn Dafoe, Joshua H.F.L. Davies, Nikole Bingham-Koslowski, Jon M. Husson, Martyn L. Golding, John-Paul Zonneveld:** Exploring Geochemical Variations and Sedimentology in Northeastern BC: Seeking Clues of the Carnian Pluvial Episode

15:40 **Ricardo L Silva, Peter Alsen:** The Early Callovian Positive Carbon Isotopic Excursion as a Secondary Marker of the Base of the Callovian and Associated Environmental Trends

16:00 **Muditha Goonetilleke, Ricardo L. Silva, Paul R. Durkin:** A Record of the Late Campanian Negative Carbon Isotopic Excursion (Late Campanian Event) in the Dinosaur Park Formation in Dinosaur Provincial Park, Alberta, Canada

16:20 **Alina Shchepetkina, Eric Gair:** Trace Fossils as Time Capsules: Unraveling Climate and Ocean Changes During the Eocene-Oligocene Transition (IODP Exp. 390 and 393)

16:40 **Posters**

SPACE_SS_03: Lunar geoscience: A new era of lunar science and exploration for Canada

Room: ***DMS_4130***
Chairs: *Gordon Osinski, Chris Herd, Roberta Flemming, and Myriam Lemelin*

13:20 **Tatiana Mijajlovic, Christopher D.K. Herd:** Constraining Lunar Source Craters Through Shock Metamorphism

13:40 **Corliss Kin I Sio, Josh Wimpenny, Lars E. Borg, Shannon Murtonen, Katherine Bormann, Neil R. Bennett, Michael Y. Hu, Jiyong Zhao, Ercan E. Alp, Barbara Lavina:** The Dichotomy of Fe Isotope Compositions of Lunar Basalts

14:00 **Marc E. Mechem, Tara S. Hayden, Gordon R. Osinski, Roberta L. Flemming:** Geochemical Diversity of Lithic and Melt Clasts in Apollo 66075, 60

14:20 **Tara S. Hayden, Gordon R. Osinski, Liane Loiselle, Neeraja S. Chinchalkar, Marc E. Mechem:** Reconstructing the Lunar Crust: Petrography and Geochemistry of Anorthositic Meteorites Gadamis 003 and 005

14:40 **Katie Kosche, Gordon Osinski, Tara Hayden:** Impact Melt Rocks from Apollo 17 Boulder 1, Station 2 Indicative of a Multi-Stage Impact Sequence of the Serenitatis Basin

15:00 **Refreshment Break**

15:20 **Frédéric Diotte, Myriam Lemelin, Edward A. Cloutis, Rachel L. Klima, David T. Blewett:** Shape-From-Shading Refinement of Digital Elevation Models from In-Situ Microscopic Images of Regolith

15:40 **Xavier Walls, Bertrand Thibodeau, Alex Ellery, Priti Wanjara, Katherine Marczenko:** Extraction of Resources from Lunar Highland Simulant without Waste

16:00

16:20

16:40 **Posters**

WATER_SS_15: Groundwater data - its management and use

Room: ***DMS_4120***
Chairs: *Steve Shikaze, Rick Gerber, and Steve Holysh*

13:20 **Martin Shepley:** Groundwater Level Hydrographs - from Measurements to Automated Interpretations
13:40 **Sharon K.Y. Lee:** City of Ottawa Geoscience Information Platform (GIP) Program - Digital Infrastructure Asset Management
14:00 **Randy Stotler, Lamine Boumaiza, Shaun Frape:** Insights from the New Precambrian Canadian Shield Groundwater and Gas Geochemistry (PCSG3) Database
14:20 **Rahim Barzegar, Vincent Cloutier, Eric Rosa:** Downscaling of Grace-Derived Groundwater Anomalies Using Machine Learning and Geospatial Analytics in the Province of Quebec
14:40 **Maha Ayadi, Julien Walter, Romain Chesnaux:** Caractérisation Des Sources De Salinisation Des Eaux Souterraines Dans La Région Du Saguenay-Lac-St-Jean Et Quantification Des Mélanges Par L'approche Mathématique M3
15:00 **Refreshment Break**

EARTH_SS_27: Canadian Journal of Earth Sciences: Celebrating Canadian geoscience and geoscientists

Room: ***DMS_4120***
Chairs: *Brendan Murphy and Sally Pehrsson*

15:20 **Ruth Orlóci-Goodison, Bruno Lafrance, Georges Beaudoin, Olivier Côté-Mantha:** Structural Geology of the Archean Upper Beaver Gold-Copper Deposit, Ontario, Canada
15:40 **Cedar Hanneson, Martyn Unsworth, Claire Currie:** Lithospheric Thickness and the Backarc-Craton Lithosphere Step in Southwestern Canada
16:00 **Graham A. Young, Colin D. Sproat:** An Unusual Strophomenide Brachiopod Association in the Late Ordovician William Lake Lagerstätte, Williams Member of the Stony Mountain Formation (Latest Katian), Manitoba
16:20 **Brian R. Pratt:** The Odyssey of Bellerophon in the Silurian
16:40 **Posters**

WEDNESDAY, MAY 14: MORNING

MINERALS_SS_02: Geochemistry of energy-critical elements and critical minerals: Implications to formation of critical mineral deposits, extraction of critical minerals, and geological disposal of nuclear waste

Room: ***DMS_1160***
Chairs: *Yongliang Xiong, Guoziang Chi, and Tammy Yang*

08:00 **Christopher J.M. Lawley, Duane C. Petts, Well-Shen Lee, Yamila Cajal, Carlos Corrasco-Godoy, Ian H. Campbell, Joanna Dlugosz, Kyle P. Larson, Dany Savard, Ingrid Kjarsgaard, Bram I. van Straaten:** Critical Raw Material Potential of the Golden Triangle, Northwest British Columbia, Canada

08:20 **Issac J. Jacques, Mostafa Fayek:** An Experimental Approach to Understanding REE Patterns in Fluorite Associated with Critical Mineral Deposits

08:40 **Goktug Harmanci, Guoxiang Chi, Yumeng Wang, Nahanni Young, Jeremy Powell, Janina Czas, Duane Petts, Victoria Tschirhart, Huimin Su, Shaoyong Jiang:** Accessory Minerals in Sandstone as a Potential Source for U and REE Mineralization in the Athabasca Basin

09:00 **Yufei Wang, Zhilin Wang, Daniel D. Gregory, Shaohao Zou, Deru Xu:** Pyrite Texture and Geochemistry and their Implications for Cobalt Remobilization During Tectonic-Hydrothermal Overprinting: A Case Study

09:20 **Annah Moyo, Arif Hussain, Connor Turvey, Zhen Wang, Maximilian Mann, Adam Majusiak, Ben Kronholm, Kwon Rausis, Dan Su, Jaswanth Yaddala, Amy McBride, Ian Power, Laura Lammers, Jessica Hamilton, Andrew Frierdich, Phil Renforth, Sasha Wilson:** Understanding the Leaching Behaviour of Ultramafic Minerals for Nickel and Magnesium Extraction

09:40 **Refreshment Break**

MINERALS_SS_01: Critical mineral resources in Canada and beyond: Recent developments and new genetic models

Room: ***DMS_1160***
Chairs: *Stefanie Brueckner, Christopher Lawley, Tania Martins, Camille Partin*

10:00 **Daniel Gregory, Merilie Reynolds, Anthony Chappaz, Danielle McGill, Ozgur Tekin, Daryll Cancepcion, Ashley N. Martin,**

Stephan Schuth: An Updated Model for Vanadium Enrichment in Shales

10:20 **Rocío Pedreira Pérez, Stéphane De Souza, Joshua Davies, James Purchase, Benoît Saumur:** Geology of the Northern Nemiscau Subprovince LCT Pegmatite Field: Implications for the Genesis of the Galaxy Lithium Deposit (Eeyou Istchee James Bay, Quebec)

10:40 **Alan Cardenas-Vera, Ana Cláudia Santos, Joseph Bravo, Irvine R. Annesley, Tania Martins, Camille A. Partin:** A Synthesis of Known Pegmatite Occurrences in the Wollaston Domain and their REE Potential, Northern Saskatchewan: What We Know and What We Aim to Know

11:00 **Plenary Talk by Peacock Medalist – Dr. AntonChakhmouradian**

11:20 *(11 AM to 12 PM)*

11:40

12:00 **IAH-CNC Luncheon, MDD Luncheon**

WATER_SS_12: Outreach and education in hydrogeology

Room: ***DMS_1150***

Chairs: *John Cherry, Ineke Kalwij, and Amanda Sills*

08:00 **John Cherry:** The Water Crisis and the Need for Improved & Accessible Groundwater Education

08:20 **Discussion**

08:40 **Ineke Kalwij:** The Groundwater Project - Our Expanded Vision to Meet the Challenges of a Global Water Crisis

09:00 **Paul Hubley:** The Capture Zone of Professional Geoscience in Canada

09:20 **Caroline Pennefather, Paul Hubley, Sebastian Meissner:** Invisible Groundwater in Canadian School Curriculums

09:40 **Refreshment Break**

10:00 **Randy Stotler, Walter Illman, David Rudolph, Colby Steelman:** A New Approach to Training the Next Generation of Hydrogeologists

10:20 **Eric Rosa, Dylan Mayappo:** Knowledge Sharing: Lessons from the Ȧᐠᒣᓐ (Îsmen, Eastmain) Groundwater Project

10:40 **Paul Bauman, Naama Gorodischer, Landon Woods:** Child Soldiers to Community Water Well Providers: Hydrogeology Training in Northern Uganda from 2015 to 2025

11:00 **Hugh Simpson, Sheri Longboat, Heather M. Murphy, Jana Levison:** Using a Transdisciplinary Community-Based Research Approach to Engage and Collaborate with Private Water Well Owners to Develop Guidance Materials

11:20 **David Lee, Danny Kurkiewicz, Claire Milloy:** Bringing Groundwater Education to High Schools Using Seepage Meters and Other Inexpensive Tools

11:40 **Julien Walter, Alain Rouleau:** Engaging Land-Use Planners and Stakeholders in In-Depth Discussions on Groundwater Issues

12:00 **IAH-CNC Luncheon, MDD Luncheon**

MINERALS_SS_03: Magmatic ore deposits associated with mafic - ultramafic systems: A tribute to the career of Prof. C. Michael Lesher

Room: ***DMS_1140***

Chairs: *Michel Houlé, Anne-Aurélie Sappin, and Benoit Saumur*

08:00 **Rebecca A. Sproule, Michel G. Houlé:** Professor C. Michael Lesher: a Legacy in Ni-Cu-PGEs, Cr-PGEs, and Fe-Ti-V Ore Deposits

08:20 **C.M. Lesher, M.G. Houlé:** Magmatic Ni-Cu-(PGE), PGE-(Cu)-(Ni), Cr ± PGE, and Fe-Ti-V Deposits

08:40 **Killian Milier, Michel G. Houlé, Benoit M. Saumur:** The Grasset Ultramafic Complex of the Northern Abitibi Greenstone Belt, Québec: Geology and Geochemical Signatures

09:00 **Mélanie Beaudette, Pierre-Simon Ross, Donald W. Davis:** The 1.88 Ga Circum-Superior Large Igneous Province Includes the Parent Group in the Northern Domain of the Cape Smith Belt, Quebec: Implications for CSLIP Petrology and Ni-Cu-Co-PGE Exploration

09:20 **Rebecca A. Sproule, Michel G. Houlé:** Professor C. Michael Lesher: a Legacy in Ni-Cu-PGEs, Cr-PGEs, and Fe-Ti-V Ore Deposits

09:40 **Refreshment Break**

10:00 **Bruno Lafrance, Joshua Mukwakwami, C. Michael Lesher, Sandra Baurier Aymat:** Structural Modification of Magmatic Ni-Cu-PGE Deposits Along the South Range of the Sudbury Impact Structure, Ontario

10:20 **Dustin Peters, C. Michael Lesher, Edward F. Pattison:** Variable Impact Devolatilization in the Sudbury Igneous Complex and Its Relevance for Ni-Cu-(PGE) Sulfide Ore Formation

10:40 **Jennifer Smith, Victoria Tschirhart, Krista Kaski, Randy Enkin:** Petrophysical Properties of Ni-Cu-PGE Targets in the Midcontinent Rift: Implications for 3D Geophysical Inversions

11:00 **Claudia Augustin, James Mungall:** Sulfide Mineralogical Variations in the Tamarack Intrusive Complex, Minnesota

11:20 **Karim El Ghawi, James Mungall:** Application of FactSage to Model the Sulfide Evolution at the Main Zone of the Tamarack Intrusive Complex

11:40 **Samer R. Maghdour-Mashhour, James Mungall:** Thermodynamic Insights into Cubanite and Chalcopyrite Stability in Ni-Cu Sulfide Systems

12:00 **IAH-CNC Luncheon, MDD Luncheon**

MINERALS_SS_11: Structural and geochemical controls on gold mineralization

Room: ***DMS_1130***
Chairs: *Crystal LaFlamme and Ross Sherlock*

08:00 **Jason Dyer, Pete Hollings, Scott Halley, Nafiu Sulyman, Ned Howard, Logan Kucherhan:** The Effects of Early Hydrothermal Alteration on the Evolution of Orogenic Gold Systems: A Case Study on the McFinley Gold Deposit, Red Lake, Ontario

08:20 **Taylor Mugford, Bruno Lafrance, Ross Sherlock, Györgyi Tuba, Daniel Ruiz Arriaga, Chris Evans, Monica Oosterman:** Structural Architecture of the Kirkland Lake Gold Camp, Northeastern, Ontario

08:40 **Jack M. Simmons, Bruno Lafrance, Harold L. Gibson, Stefanie Brueckner, Mike Hamilton, Margaret Laverge, Dylan Langille, Prestyn Sider, Ross Sherlock, Doug Tinkham:** The Neoarchean Great Bear Gold Deposit: Evidence for a Second Major Mineralisation Event in the Red Lake Greenstone Belt?

09:00 **Margaret Laverge, Bruno Lafrance, Jack Simmons, Stefanie Brueckner, Wieland Boehme, Doug Tinkham, Juan Carlos Ordonez Calderon:** Structural Controls on Gold Mineralization at the Great Bear Property, Red Lake, ON

09:20 **Wieland H. Boehme, Stefanie M. Brueckner, Bruno Lafrance, Margaret Laverge, Jack Simmons, Doug Tinkham, Juan C. Ordóñez Calderón:** Host Lithology, Ore Mineralogy and Textures of Gold Mineralization at the LP Zone of the Great Bear Deposit, ON, Canada

09:40 **Refreshment Break**

10:00 **Olivier Nadeau, Matthew L. Leybourne, Alexandre Voinot, André Poirier:** Metamorphic Remobilization of Archean Gold in the Superior Province: Insights from Li Isotopes at Hemlo Au, Canada

10:20 **Maxime Bertauts, Bertrand Rottier, Giovanni Pedemonte Castro, Georges Beaudouin:** Deciphering Gold Precipitation Events through Pyrite Infrared Imaging: Insights from Triangle and Ormaque Orogenic Gold Deposits (Val-D'Or)

10:40 **Giovanni Pedemonte Castro, Bertrand Rottier, Maxime Bertauts, Georges Beaudoin, Tim Baker, Jacques Simoneau:** Unravelling Different Au Precipitation Events in Orogenic Gold Deposits Through Infrared Textural Analysis of Pyrite: A Case Study of the Triangle Deposit

11:00 **François-Xavier Bonin, Crystal LaFlamme, Georges Beaudoin, Laure Martin:** Evidence of Multi-Stage Orogenic Gold Mineralization at the Bonnefond Deposit, Val-D'Or, Québec

11:20 **Bruna Coldebella, Crystal LaFlamme:** Redox Controls on Gold Mineralization: Orenada 4 Deposit, Southern Abitibi Subprovince, Canada

11:40 **Gil Pedro V.C. Albuquerque, Stéphane De Souza, Benoit M. Saumur, Ludovic Bigot:** Gold Mineralization, Hydrothermal Alteration and Structural Controls on the Menarik Property Vein Field in James-Bay, Northern Québec

12:00 **IAH-CNC Luncheon, MDD Luncheon**

EARTH_SS_04: Petrogenesis of anorogenic magmatism and related mineralization: Decoding magmatic to geodynamic processes – a session to honour Joseph Whalen's contributions

Room: ***DMS_1120***
Chairs: *Ian Coulson and Fazilat Yousefi*

08:00 **J. Gregory Shellnutt:** A-Type Granites of the Seychelles Microcontinent: What a Difference 700 Million Years Makes

08:20 **Joseph B. Whalen, Robert S. Hildebrand:** Orogenic Magmas, Part 1: Discrimination of Arc, Slab Failure and A-Type Magmatism

08:40 **Robert S. Hildebrand, Joseph B. Whalen:** Orogenic Magmas, Part 2: Generation of Continental Crust by Arc and Slab Failure Magmatism

09:00 **Kimia Shahhosseini, Hamid Reza Javadi, Abdollah Saidi, Marzieh Esterabi Ashtiani:** Magmatic Map of the Middle-East Based on Geodynamic Events

09:20 **J. Brendan Murphy, J. Gregory Shellnutt, William J. Collins, Donnelly B. Archibald, R. Damian Nance, John W.F. Waldron:** Repeated Genesis of a Type Magmas in Contrasting Tectonic Environments: An Example from Avalonia in Mainland Nova Scotia

09:40 **Refreshment Break**

10:00 **Benjamin Neil, Thomas Chacko, Larry Heaman, Andy Dufrane, Robert Creaser, Edith Martel, Rebecca Canam, Graham Pearson:** Petrogenesis and Tectonic Setting of 2.4-2.3 Ga Granitoids in the Southwestern Rae Craton, Northwest Territories, Canada: Implications for the Global Tectono-Magmatic Lull

10:20 **Kiersty Malay, Donnelly Archibald, James Conliffe, Fred Jourdan:** Age and Mineralogy of the Pollucite-Bearing Hydra LCT Pegmatite in Southwestern Newfoundland

10:40 **Nelson Eby:** Mesozoic Anorogenic Magmatism in New England and Quebec

11:00 **Kathleen Clark, James Brenan:** Magmatic Evolution and Ore Metal Enrichment as Recorded in Apatite and Biotite Chemistry: Davis Lake Pluton, Nova Scotia

11:20 **Xue-Ming Yang, David R. Lentz, Fazilat Yousefi, Christopher J.M. Lawley:** Linking Alkali-Lime Index (ALI) to Rittmann Serial Index (σ): Insights into Magmatic Alkalinity and Petrogenesis of Alkaline Rocks

11:40 **Andree Roy-Garand, Erin Adlakha, Hendrik Falck:** The A-Type Thek Stock, Alkali Metasomatism, and Critical Mineral Occurrences of the Nonacho Basin, Rae Craton

12:00 **IAH-CNC Luncheon, MDD Luncheon**

EARTH_SS_21: Field-based structural geology and tectonics

Room: ***DMS_1110***
Chairs: *Eric Thiessen, Kathryn Bethune, Dan Gibson, and Shawna White*

08:00 **Eric Thiessen, Ghazaleh Khan Mohammadi, Gemma Andersen Jones:** 2.4 Ga to 1.8 Ga Extensional and Orogenic Evolution of the Rae-Slave Margin from Field Relations, U-Pb Zircon-Monazite and Rb-Sr Muscovite Petrochronology: Northern Taltson Magmatic Zone, NWT

08:20 **Jordan Deane, Kathryn Bethune, Ken Ashton, Nicholas Montenegro:** Geologic History of the Waugh Lake Group, Southern Taltson Orogen; New Insights on Tectonic Setting from Field Mapping, Geochemical, and Isotopic (Sm-Nd, U-Pb) Study

08:40 **Connor Crook, Kathryn Bethune, Ken Ashton, Rebecca Canam, Nicholas Montenegro, Jordan Deane:** Structural-Metamorphic Study of the Tazin River Shear Zone in the Hill Island Lake Area, Southern Taltson Orogen, Northwest Territories

09:00 **Taggert Priddell, Kathryn Bethune, Sally Pehrsson, Jamie Cutts:** Preliminary Study of Low-Grade Supracrustal Assemblages of Possible Paleoproterozoic Age Along the Snowbird Tectonic Zone (STZ) at Angikuni Lake, Nunavut, Canada

09:20 **Kiera Hamel, Eric Thiessen:** 2.4 Ga Metamorphism Followed by 1.9 Ga High-Grade Strain and Rapid Exhumation Recorded in the Striding Mylonite Zone, Rae Province, NWT

09:40 **Refreshment Break**

10:00 **Nia Gauthier, Stéphane Perrouty, Ben M. Frieman:** Lithostratigraphic Transect of the Winnipeg River Pinkstone Belt,

NW Ontario, Canada: Cyclic Magmatism and Crustal Reworking Throughout a Billion Years of Archean Craton Evolution

10:20 **Lianna Vice, Stéphane Perrouty, H. Dan Gibson:** Lithostratigraphic Mapping of the Eastern Michipicoten Greenstone Belt, Ontario, Canada: Neoarchean Supracrustal Rocks with Evidence for Mesoarchean Crustal Substrate

10:40 **Mehdi Tavakoli Yaraki, Bruno Lafrance, Ross Sherlock, Mostafa Naghizadeh, Rajesh Vayavur:** Tectonic History and Deep Structure of the Archean Quetico Fault, Western Superior Province: Insights from Geophysical and Field Data

11:00 **Shalaila Bhalla, Bruno Lafrance, Ross Sherlock, Tim Baker, Jacques Simoneau, Kirk C. Ross:** Variations on a Common Theme: Orogenic Gold Deposits in the Val-D'Or Camp with Emphasis on the Extensional Vein-Dominated Ormaque Deposit

11:20 **Tobias Stephan, Hanna Tiitto, Michael Nwakanma, Adrian Perez, Noah Phillips, Peter Hollings, Peter Flindell:** Going with the Flow - Changes of Vorticity Control Gold Enrichment in Archean Shear Zones of the Shebandowan Greenstone Belt (Superior Province, Canada)

11:40 **Taylor Ducharme, Jérémie Darveau, Carl Guilmette, Renelle Dubosq:** Driving a Wedge into Archean Tectonics: Assessing Geodynamic Models for the Pontiac Subprovince Using Field-Based Structural Observations

12:00 **IAH-CNC Luncheon, MDD Luncheon**

WATER_GS_01: Hydrogeology

Room: ***DMS_4170***
Chairs: *Francois Richard, Cole Van De Ven, and Tessa Di Iorio*

08:00 **Christine Rivard, Denis Lavoie, Geneviève Bordeleau, Abigail Burt, Laura Colgrove, Jana Levison, Steve Frey, Colby Steelman, Mary Kang, Rohini Patel, Dawn Martin-Hill:** Initiation of an Aquifer and Groundwater Characterization Project in Southern Ontario, West of the Niagara Peninsula

08:20 **Eric G. Ludwig, Diana M. Allen:** Characterizing Rates of Groundwater Recession in British Columbia's Mountainous Aquifers

08:40 **Cody Fisher, Jana Levison, Colby Steelman, Emmanuelle Arnaud, Lauren Mulkerns, Rhiannon James:** Impacts of Contour and Pattern Tile Drain Systems on Groundwater Quality and Quantity in Southwestern Ontario

09:00 **Louis-Charles Boutin, Jean Birks:** Alberta Environment and Protected Areas - Development of a Water Availability Evaluation Tool

09:20 **Paulynn Estrella-Legal, Jeffrey J. Bell, Justin E. Neufeld:** Managing Groundwater Challenges: Municipal Groundwater Supply for the Municipality of Ritchot, Manitoba

09:40 **Refreshment Break**

EARTH_SS_08: Advances in reservoir characterization: Geoenergy systems studies towards carbon emissions reduction

Room: ***DMS_4170***
Chairs: *Stéphanie Larmagnat, Mathieu Des Roches, Christine Rivard, and Jasmin Raymond*

10:00 **Philip-Alex Guay-Hébert, Julien Walter, Geneviève Bordeleau:** Investigation of Natural Hydrogen Occurrences in Saguenay-Lac-Saint-Jean Graben: Geological and Biological Interactions

10:20 **Enoch Ibitogbe, Adedapo N. Awolayo:** Evaluation of Hydrogen Trapping and Recovery Efficiency in Basaltic Rocks

10:40 **Stéphanie Larmagnat, Mathieu Des Roches, Christine Rivard, Jasmin Raymond, Pierre Francus:** Characterizing Thermofacies: A Laboratory Perspective on Thermal Properties at Multiple Scales

11:00 **Mathieu Des Roches, Pierre Francus, Jasmin Raymond, Christine Rivard, Stéphanie Larmagnat:** From 1D to 3D: Upscaling Thermal Conductivity Using X-Ray Imaging and Machine Learning

11:20 **EvelynLove Fosu-Duah, Luis Zerpa, Kyubo Noh, Andrei Swidinsky:** Optimizing CO_2-Water-Alternating-Gas Injection Strategies Through Deep Reinforcement Learning

11:40 **Maria Alejandra Taborda Ortiz, Stéphanie Larmagnat, Geneviève Bordeleau, Mathieu Des Roches, Jasmin Raymond, Arnaud De Coninck, Christine Rivard:** Experimental Set up to Assess Rock Thermohydraulic Properties and Water-Rock Interactions Upon Exposure to CO_2

12:00 **IAH-CNC Luncheon, MDD Luncheon**

MINERALS_SS_10: Innovative approaches in critical mineral exploration, mining, and recovery

Room: ***DMS_4140***
Chairs: *Aleksandra Mloszewski, Dan Alessi, and Matt Lindsey*

08:00 **Joyce M. McBeth, Collin A. Burelle, Kagan D. Meier, Gary Schudel:** Assessing Lab-Scale Permeable Reactive Barrier

Function Using Integrated Geochemical, Microbiological, and Chemical Characterization Approaches

08:20 **Derek R. Knaack, Richard R. Goulet:** Rare Earth Element Fluxes from Flooded Uranium Mine Tailings

08:40 **Danae A. Voormeij:** Mineral Exploration using Portable XRF Analyzer on Common Tree Lichens

09:00 **Shramana Sarkar, Michael G. Babechuk, James Conliffe, Huy Dang, Gabrielle Ledesma:** Testing Aqueous Geochemical Exploration Strategies for Li-Cs-Ta (LCT) Pegmatite Mineralization Using Streams Draining Known Deposits in Southern Newfoundland

09:20 **Réjean Girard, Rémi Lahue:** Geometallurgy and Flake Size Distribution in Graphite Deposits.

09:40 **Refreshment Break**

EARTH_SS_15: Appalachians and beyond - exploring the Laurentian margin through time

Room: ***DMS_4140***
Chairs: *Deanne van Rooyen*

10:00 **Sandra M. Barr, Chris E. White, Deanne van Rooyen, Amanda M. Smith, Tiernan Davies, Ulf Linnemann, Johannes Zieger, Mandy Zieger-Hofmann:** The Cobequid Highlands of Northern Mainland Nova Scotia, Canada: A Unique Part of Avalonia

10:20 **John W.F. Waldron, Sandra M. Barr, Chris E. White, Deanne van Rooyen, Phil McCausland, David I. Schofield, Chunzeng Wang:** Deconstructing the "Iapetus Suture": Diachronous Accretion of Terrane Assemblages in the Appalachian-Caledonide Collage

10:40 **Martin Schwangler, John W.F. Waldron, Alfredo Camacho, S. Andrew DuFrane, Jordan M. Koop:** Deformation of a Continental Margin During Subduction Polarity Reversal: Appalachians of Western Newfoundland

11:00 **Chris E. White, Deanne van Rooyen, Sandra M. Barr, Kyle J. Kucker:** Intra-Terrane Juxtapositions Across the Western Highlands Shear Zone in the Aspy Terrane of Cape Breton Island, Nova Scotia.

11:20

11:40

12:00 **IAH-CNC Luncheon, MDD Luncheon**

EARTH_SS_24: Evolving knowledge of the Champlain Sea basin

Room: ***DMS_4130***
Chairs: *Marc Hinton and Tom Al*

08:00 **Marc Hinton, Sam Alpay, Heather Crow, Omar Al-Mufti, Tom Al, Anne de Vernal, Randy Enkin, Tiffany Audet, Barbara Dietiker, William Arnott, Hazen A.J. Russell:** Enhancing Geological, Geotechnical and Hydrogeological Understanding of Western Champlain Sea Sediments Through Interdisciplinary Geoscience, Ottawa, Ontario

08:20 **Ariane Locat:** Études Et Compréhension Des Glissements De Terrain Dans Les Argiles Sensibles Du Québec

08:40 **Gregory R. Brooks:** Triggers of Sensitive Clay Landslides Along Terraces and Paleochannels of the Proto-Ottawa River, Ottawa Valley, Ontario-Quebec

09:00 **Anne de Vernal, Tiffany Audet, Bianca Fréchette, Claude Hillaire-Marcel, Marc Hinton:** Paleoclimatology and Paleoecology of the Western Champlain Sea Based on Palynological, Microfaunal and Isotopic Data

09:20 **Marc Hinton, Sam Alpay, Heather Crow, Tom Al:** Porewater Evolution in Western Champlain Sea Sediments

09:40 **Refreshment Break**

10:00 **Luke Z. Bajtala, Chantal Lurette, Marc Hinton, Sam Alpay, Tom Al:** Diffusion Measurements in Champlain Sea Mud from Ottawa, Ontario

10:20 **Magda Celejewski, Marc Hinton, Sam Alpay, Tom Al:** Testing Methods of Porewater Extraction for Geochemical Profiling in Champlain Sea Mud

EARTH_GS_05: Sedimentary petrology

Room: ***DMS_4130***
Chairs: *Megan Swing and Daniel Ruiz-Arriaga*

10:40 **Daniel Ruiz-Arriaga, Daniel Stockli:** Leveraging Morphological Bias in Detrital Zircon U-Pb Geochronology for Maximal Depositional Ages - Improved Chronostratigraphy of the Todos Santos Group, Mexico.

11:00 **Mutasim Osman, Osman Abdullatif, Mazin Bashri:** Proximal to Distal Evolution of Quaternary Fluvial Systems: A Case Study from Wadi Yiba, Red Sea Coast, Saudi Arabia

11:20 **Megan R. Swing, Daniel D. Gregory, Daniel E. Perea, Sandra D. Taylor, Mark G. Wirth, Jeremy J. Bougoure, Maria C. Figueroa, Christopher K. Jones, Timothy W. Lyons:** Distribution of Trace

Elements in Framboidal Pyrite at the Nanoscopic Scale from Modern Euxinic and Seasonally Anoxic Environments

11:40 **Nikole Bingham-Koslowski, Peir Pufahl, Kai Boggild, Millie Kong, Danny Privé:** Mysteries of the Deep: Exploring the Origin of Carbonate Hardgrounds from the Alpha Ridge, Arctic Ocean

12:00 **IAH-CNC Luncheon, MDD Luncheon**

WATER_SS_02: Contaminant transport and remediation in groundwater

Room: ***DMS_4120***
Chairs: *Cole Van De Ven, Sabina Rakhimbekova, and Kevin Mumford*

08:00 **Ahmed Elsayed, Jana Levison, Andrew Binns, Marie Larocque, Pradeep Goel:** Implementation of Machine Learning Regression Models for Predicting Groundwater Quality in a Sand Plain Agricultural Sub-Watershed

08:20 **Yizhi Yuan:** Occurrence and Fate of Selected Pharmaceuticals and Personal Care Products and Artificial Sweeteners in Groundwater at the Strathcona Tailings Management System Remediated with a Municipal Biosolids Cover System, ON, Canada

08:40 **Maria Prieto-Espinoza, David M. Hilger, David Wilson, Carol J. Ptacek, David W. Blowes:** Oxidative and Reductive Dissolution of As-Bearing Minerals in a Sub-Arctic Tailings Impoundment

09:00 **David M. Hilger, David W. Blowes, Jeff G. Bain, Tauhid-Brian Thomas, Carol J. Ptacek:** Arsenic Mobility in a Gold Mine Tailings Containment Area: The Effects of Mine Dewatering-Effluent Cycling

09:20 **Mark Flesch, Hanika Rizo, Rich Amos:** Investigation of Tungsten Stable Isotope Fractionation During Adsorption to Iron (Oxy)Hydroxides in Mine Tailings

09:40 **Refreshment Break**

WATER_SS_03: Geogenic contaminants mobilized by natural and human-accelerated processes in groundwater

Room: ***DMS_4120***
Chairs: *Debra Hausladen, Elliott Skierszkan, and Cynthia McClain*

10:00 **Vincent Cloutier, Raphaël Bondu, Eric Rosa, Magalie Roy, Christelle Guilhe-Batiot, Yohann Cousquer, Rahim Barzegar:** Spatial Distribution of Geogenic Contaminants in Groundwater of the Abitibi Region, Western Québec

10:20 **Md Muhyminul Islam, Janie Masse-Dufresne, James W. Roy, Debra Hausladen:** Hydrobiogeochemical and Wastewater Influences on Manganese Mobilization in Fractured-Bedrock Wells

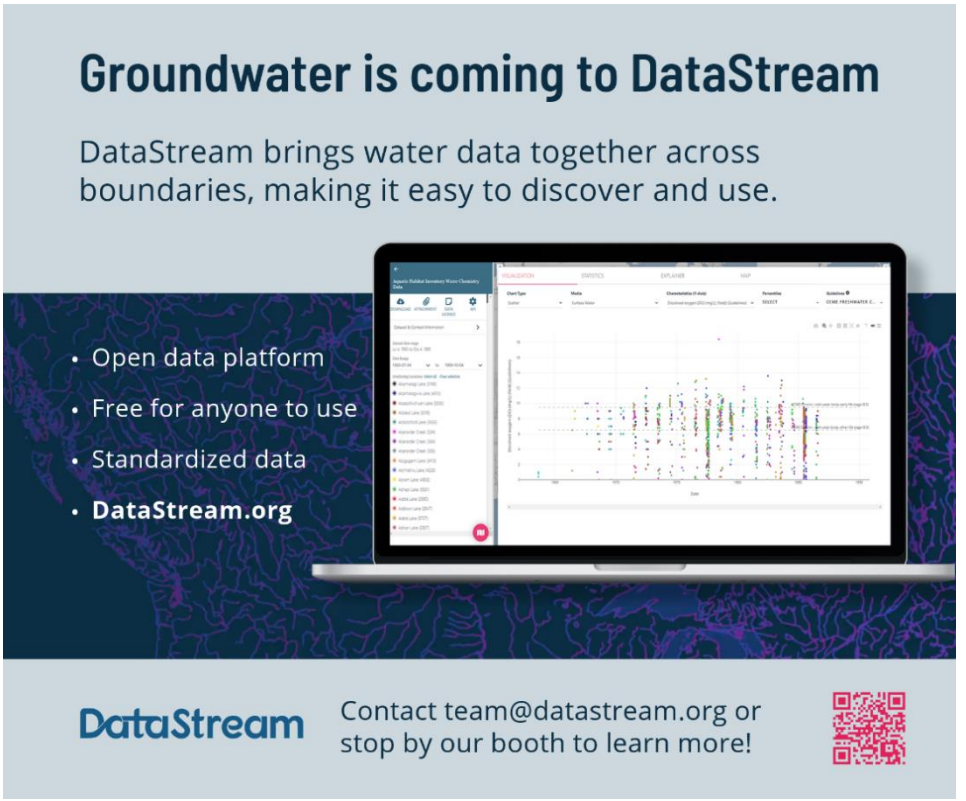
10:40 **Emilie Perreault, Jamie Pope, Elliott Skierszkan, Brendan Mulligan, Mary Samolczyk, Panya Lipovsky, Matthew Lindsay:** Groundwater Geochemistry in the Greater Whitehorse Area, Yukon, Canada

11:00 **Julie Prytulak, Caroline L Peacock:** An Experimental Approach to Isotopically Determine Vanadium Toxicity in Aqueous Environments

11:20 **Qianqian Li, Debra Hausladen:** Impact of Carbon on Mn Release, Colloid Formation, and Aggregation in Surface and Groundwater

11:40 **Paul Bauman, Landon Woods, Erin Ernst:** Geophysical Exploration for Low Fluoride Aquifers in the Kakuma Refugee Camp, Turkana County, Kenya

12:00 **IAH-CNC Luncheon, MDD Luncheon**



MINERALS_SS_01: Geochemistry of energy-critical elements and critical minerals: Implications to formation of critical mineral deposits, extraction of critical minerals, and geological disposal of nuclear waste

Room: ***DMS_1160***
Chairs: *Yongliang Xiong, Guoziang Chi and Tammy Yang*

13:20 **Ana Claudia Santos, Alan Cardenas-Vera, Joseph Bravo, Irvine R. Annesley, Tania Martins, Camille A. Partin:** Towards Understanding Enrichment Mechanisms of REE-Bearing Pegmatites at Fraser Lakes Zone B and Kulyk Lake in Northern Saskatchewan, Canada

13:40 **Manuel Duguet, Gaetan Launay:** Spatial Statistical Analysis of the Structural Control on the Georgia Lake Lithium-Cesium-Tantalu-Type Pegmatite Field, Quetico Subprovince, Ontario

14:00 **Evan C.G. Hastie:** Critical Minerals in Gold Ores: Tellurium in Ontario, Canada

14:20 **Steve R. Beyer, Tarryn K. Cawood, Petts Duane, Janina Czas, Marc Beauchamp, Antoine Godet, Garth Drever:** Major- to Trace-Element Composition of Garnet in LCT Pegmatites and Leucogranites, Archean Superior Province, Northwestern Ontario

14:40 **Sarah Mount, Corliss K. Sio, Neil R. Bennett:** Using the Ionic Model to Predict Fe-Isotope Fractionation Between Molten Salts and Magnetite in IOA Deposits

15:00 **Refreshment Break**

15:20 **Eve Carrothers, Daniel Gregory, Merilie Reynolds:** Investigating Vanadium Enrichment of the Duo Lake Formation at Howard's Pass, Yukon and Northwest Territories

15:40 **Zhongzheng Yuan, Neil Bennett:** The Role of Molten Salts in Iron-Oxide-Apatite (IOA) Deposit Formation: Experimental Insights into Magnetite Solubility and Element Partitioning

16:00 **Sarah Speight, Jacob Hanley, Stephen Piercey, Jim Crowley:** Magmatic Contributions to Metallogeny in the Timmins Mining Camp: Insights from Quartz-Hosted Melt Inclusions in the Porcupine Intrusive Suite

16:20 **Michael B.K. Belosevic, Nicholas O. Montenegro, Russell A. Hartlaub, Eric C. Morley, Dean M. Meek:** An Investigation of the Critical Mineral Potential of the Leland Lakes and Andrew Lake Areas of Northeastern Alberta

16:40 **Posters**

WATER_SS_11: New paradigms in hydrogeology

Room: ***DMS_1150***
Chairs: *Eric Rosa Julien Walter and Rahim Barzegar*

13:20 **Tom Gleeson:** Groundwater Sustainability Across Disciplines as Well as Time and Space Scales: Considering Natural Disasters, Social-Ecological Systems, Art, Community-Based Research and Equity in Our Practices

13:40 **Richard Jackson:** How Contaminant Hydrogeology Developed by Adopting and Integrating Existing Paradigms

14:00 **Maxime Claprood, Louis-Charles Boutin, Erwan Gloaguen, Julien Walter:** From a Deterministic to a Probabilistic Assessment of Hydrogeological Models

14:20 **Daniel Paradis, René Lefebvre, Erwan Gloaguen:** Is Recognizing Aquifer Heterogeneity and Anisotropy Essential for Advancing Hydrogeological Modeling?

14:40 **Panel Discussion –** Paradigms in hydrogeology discussion – John Cherry and Frank Schwartz

15:00 **Refreshment Break**

WATER_SS_13: Private wells – hidden issues and protection strategies

Room: ***DMS_1150***
Chairs: *Michel Kearney, Tessa Di Iorio and Claire Milloy*

15:20 **Sebastian Champagne, Andrew Arshinoff, Michael Weiser, Dustin Pearson, Aaron Goodarzi, M. Cathryn Ryan:** Are 'Breathing' Water Wells Conduits for Unintended Geogenic Radon Gas Migration?

15:40 **Geneviève Bordeleau, Yachar Ben Arous, Erwan Gloaguen:** Combined Use of Water Levels and Stable Isotopes Ton Assess the Risk of Contamination in Private Wells Near a Flood-Prone River

16:00 **Travis Smith:** Private Wells and Municipal Responsibility Related to New Lot Creation

16:20 **Hugh Simpson, Melisa Luymes:** Opportunities for Private Wellhead Protection in a Source Water Protection Context

16:40 **Posters**

MINERALS_SS_03: Magmatic ore deposits associated with mafic - ultramafic systems: A tribute to the career of Prof. C. Michael Lesher

Room: ***DMS_1140***
Chairs: *Michel Houlé, Anne-Aurélie Sappin, and Benoit Saumur*

13:20 **James Mungall, Zhuo-sen Yao:** Maximizing Value in Ni Systems

13:40 **Raymond J Goldie:** The Case Against Using "Metal Equivalents" to Report Assays from Ni-Cu-PGE Exploration Projects

14:00 **Stephen Prevec, Savvas Largatzis, Will Brownscombe, Tobias Salge:** Evidence for Post-Emplacement Hydrochromatographic PGE Mobility in the Merensky Reef, Bushveld Complex, South Africa, as a Primary PGE Concentration Mechanism

14:20 **Sharlotte Mkhonto, Matthew Leybourne, Derek Knaack, Pedro Jugo, Daniel Laytton-Matthews:** Oxygen and S Isotopes through the Platreef in the Northern Limb of the Bushveld Igneous Complex: Implications on Whether Contamination Is Proximal or Distal to PGE-Ni-Cu Mineralization

14:40 **Sarah-Jane Barnes, Wolfgang D Maier, Dany D Savard, Steve Prevec:** Major and Trace Element Concentrations in Chromite and Silicate Minerals of the Critical Zone of the Bushveld Complex, South Africa: Effects of Re-Equilibration Versus Crystal Fractionation on Chromite Composition

15:00 **Refreshment Break**

15:20 **Michel G. Houlé, C. Michael Lesher:** Diversity of Cr ± PGE Deposits in Canada

15:40 **Sarah Dare, Randolph Maier, William Smith, Eduardo Mansur, Joshua Davies, Morgann Perrot:** Petrogenesis of V Mineralisation in Proterozoic Anorthosite Suites

16:00 **Marie A. Kieffer, Sarah A.S. Dare, Olivier Namur, Sarah-Jane Barnes:** Fe-Ti Oxides in Sept-Iles Layered Intrusions (Grenville Province, Quebec): Can They Be Used as Reliable Tracers of Magmatic Processes?

16:20 **Paul Malegus:** Titanium and Vanadium Potential in the Confederation Lake Area, Red Lake District, Ontario

16:40 **Posters**

MINERALS_SS_11: Structural and geochemical controls on gold mineralization

Room: ***DMS_1130***
Chairs: *Crystal LaFlamme and Ross Sherlock*

13:20 **Laurine Travers:** Distribution and Structural Control on Gold Mineralization in the Barberton Greenstone Belt (South Africa, Eswatini).

13:40 **Nelson Román, Daniel D. Gregory, Robert J. Chapman, James K. Mortensen, Jay M. Thompson, Peter Tallman:** Distinguishing Vein Gold Occurrences Using Gold Alloy Trace Element Geochemistry in the Klondike District, Yukon

MINERALS_SS_04: Sedimentary basins hosted mineral deposits – new advances in scientific and conceptual knowledge, and their application to geological and

Room: ***DMS_1130***
Chairs: *Guoxiang Chi, Mostafa Fayek, and Julien Mercadier*

14:00 **Emmy Fischer, Gaétan Milesi, Thomas Obin, Mehdi Serdoun, Manon Bulliard, Quentin Boulogne, Olivier Gerbeaud, Vincent Rousset, Magdalena Anderson, Shawn Harvey, Gerard Zaluski, Julien Mercadier:** Structural Network at the Basement/Cover Interface Reveals Fluid Overpressure Associated to Uranium Mineralisation in the Eastern Athabasca Basin (Saskatchewan, Canada)

14:20 **Yon-Gyung Ryuh, Randy Stotler, Shaun Frape:** Chlorine and Bromine Isotopic Variability in the Silurian Salina Formation Evaporites

14:40 **Jacob Hanley, Corwin Trottier, Jordan Burke, Luke Ootes, Ryan Sharpe, Mostafa Fayek, Alexandra Tsay:** A Revised Model for High Grade Ni-Co-As-Ag-U-Sb-Bi Deposits: The Product of Heating and Oxidation of Marine Evaporite Brines and Hydrocarbons from Intracratonic Basins

15:00 **Refreshment Break**

15:20 **Manon Bulliard, Roger Soliva, Gaétan Milesi, Olivier Gerbeaud, Alexandre Laramas, Julien Mercadier:** Tectonic Conditions for Fault Reactivation and Structural Network in Unconformity Uranium Deposits of North-Eastern Athabasca (Saskatchewan, Canada): Insights from Waterfound

15:40 **Nahanni Young, Guoxiang Chi, Jeremy Powell, Janina Czas, Duane Petts, Victoria Tschirthard, Fenfei Feng, Morteza Rabiei, Yumeng Wang, Goktug Harmanci:** Geochemical Characterization of the Ore-Forming Fluids of the Maw Zone REE Deposit in the Proterozoic Athabasca Basin, Saskatchewan

16:00 **Quentin Boulogne, Gaétan Milesi, Marc Brouand, Thomas Obin, Pierre Martz, Olivier Gerbaud, Emmy Fischer, Johan Villeneuve, Magdalena Anderson, Chantal Peiffert, Andreï Lecomte, Delphine Charpentier, Julien Mercadier:** Deciphering Uranium Mobilities in Unconformity-Related Uranium Deposit: The Waterfound Case Study

16:20 **Gracie P. Avery, Erin Adlakha, Jeremy W. Powell:** The Source of Uranium for the Lac Cinquante Uranium Deposit, Nunavut, Canada

16:40 **Posters**

EARTH_SS_04: Petrogenesis of anorogenic magmatism and related mineralization: Decoding magmatic to geodynamic processes – a session to honour Joseph Whalen's contributions

Room: ***DMS_1120***
Chairs: *Ian Coulson and Fazilat Yousefi*

13:20 **Fazilat Yousefi, David R. Lentz, Eric Yang: Geochemical Characteristics of Pantellerite and Comendite:** Insights into Petrogenesis and Metallogenesis of Peralkaline A-Type Granites with Implications for their Sources

13:40 **Scott Whattam, Wafa Al-Hakimi, Faris Sulistyohariyanto, Mutasim Osman:** Neoproterozoic Arc Construction, NW Midyan Terrane, Arabian Shield: 50 M.y. of Slab Failure

EARTH _SS_01: The structure and properties of silicate melts and glasses: A celebration of the career of Grant Henderson

Room: ***DMS_1120***
Chairs: *Ben Moulton, James Brenan, Neil Bennet, and Duane Smythe*

13:20 **Georges Calas, Laurence Galoisy, Laurent Cormier, Gérald Lelong:** Structure-Property Relationships of Transition Elements in Glass/Melt Systems.

13:40 **G.Michael Bancroft, Grant S. Henderson, H. Wayne Nesbitt, Cedrick O'Shaughnessy, Ben J.A. Moulton:** Assignment and

Quantification of Q Species from the Raman Spectra of Binary Silicate Glasses and Melts: The Importance of Free Oxide

14:00 **Daniel Neuville, Laurent Cormier:** X-Ray Absorption Spectroscopy in Glasses and Melts

14:20 **Georges Calas, Laurence Galoisy, Laurent Cormier, Gérald Lelong:** Structure-Property Relationships of Transition Elements in Glass/Melt Systems.

14:40 **G.Michael Bancroft, Grant S. Henderson, H. Wayne Nesbitt, Cedrick O'Shaughnessy, Ben J.A. Moulton:** Assignment and Quantification of Q Species from the Raman Spectra of Binary Silicate Glasses and Melts: The Importance of Free Oxide

15:00 **Refreshment Break**

15:20 **Laurence Galoisy, Déa Jaïs, Claudine Loisel, Barbara Trichereau, Georges Calas:** Identification of Yellow Chromophores Used in Stained Glasses Since the Middle Ages

15:40 **Dominique de Ligny:** Glass Memory Effect: An Overview of Its Possible Applications

16:00 **James Brenan, Bryan Maciag:** Arsenic in Magmatic Systems: Controls on Speciation, Solubility and Partitioning

16:20 **Benjamin Moulton, Cedrick O'Shaughnessy:** Raman and X-Ray Spectroscopies in Oxide Glass and Melt Structure Determination: A Reflection on Grant Henderson's Contributions to the State-of-the-Art

16:40 **Posters**

EARTH_SS_21: Field-based structural geology and tectonics

Room: ***DMS_1110***
Chairs: *Eric Thiessen, Kathryn Bethune, Dan Gibson, and Shawna White*

13:20 **Walfried Schwerdtner, Dennis Waddington, Toby Rivers, Amaru Izarra-Jacome, Anjali Jarvis:** Reinterpretation of the Harvey-Cardiff Granitoid Complexes, Composite Arc Belt, Grenville Province of Southeastern Ontario: Repeatedly Deformed Litho-Structural Units Rather Than Subcircular to Oval Domes

13:40 **Jesse Demaries-Smith, John W.F. Waldron, Mo Snyder:** Field and Archival Exploration Data Integration: Evaporite Deformation South of a Late Paleozoic Transform Fault, Nova Scotia

14:00 **Dylan McKeen, Shawna White, Catherine Mottram, Dawn Kellett, John Waldron:** Dating Generation and Reactivation of the Northern Appalachian Structural Front in West Newfoundland

14:20 **Taylor Rae Morrell, Laurent Godin, Renaud Soucy La Roche:** Structural Mapping of the Almora Klippe, Northwestern Indian Himalaya

14:40 **Taylor Ducharme, David Schneider, Christina Bakowsky, Victoria Scoging, Mark Coleman, Bernhard Grasemann:** Anatomy of a Cycladic Crustal-Scale Extensional Detachment

15:00 **Refreshment Break**

15:20 **Canadian Tectonic Group: Award Presentations**

15:40

16:00

16:20

16:40 **Posters**

WATER_GS_01: Hydrogeology

Room: ***DMS_4170***

Chairs: *Francois Richard, Cole Van De Ven, and Tessa Di Iorio*

13:20 **Bouthaina Sehli, Janie Masse-Dufresne, Jérôme Ducret, Benoit Barbeau:** Long Term Effects of Bank Filtration on Water Quality: Insights into Fe and Mn Mobilization

13:40 **Élisa Pastier, Élise Lhoste, Alain Delisle, Kévin Brown, David Jaclin, Cassandre Lazar, Violaine Ponsin:** Sources of Energy, Carbon and Nitrogen Used by Microorganisms in the Blackburn Mine, Quebec

14:00 **Simon Gautrey, Mathieu Desjardin:** A Review of Aquifer Drawdown and Recovery at the Former Victor Diamond Mine 2003-2025

14:20 **Azadeh Meshkin-Far, Olivier Pontlevoy, Ali Nowamooz:** Hydrogeological Assessment of Seepage and Contaminant Transport in Dry-Stack Tailings Under Northern Quebec's Climate Condition

14:40 **Tesfaye Tessema Gintamo, Ffion Atkins, Mark New:** Climate Change and Groundwater in South Africa: A Systematic Review

15:00 **Refreshment Break**

15:20 **Geneviève Bordeleau, Manon Lévesque, Erwan Gloaguen, Bernard Giroux:** Modern-Day Dowsers**:** What Possible Contribution to Groundwater Research?

15:40 **Matthew Belanger, Andrei Swidinsky, Kyubo Noh:** Applications of Deep Reinforcement Learning for Enhancing Groundwater Management Scenarios

16:00

16:20

16:40 **Posters**

EARTH_SS_19: Metamorphic extravaganza: Cutting-edge advances in petrochronology and metamorphic processes

Room: ***DMS_4140***
Chairs: *Jillian Kendrick, Antoine Godet, Jamie Cutts, Daniele Regis, Renaud Soucy La Roche, and Brendan Dyck*

13:20 **Susan Strowbridge, Aphrodite Indares, Greg Dunning, Caroline Lotout:** Exhumation of the Appalachian Basement, Baie Verte Peninsula, Newfoundland: Insights from Petrochronology

13:40 **Jérémie Darveau, Carl Guilmette, Antoine Godet, Marine Jouvent, Myriam Côté-Roberge, Kyle Larson:** Unlocking the Mafic Dyke Record in Polymetamorphic Granulitic Terranes: Lessons from the Grenville Front Tectonic Zone

14:00 **Mohamed Ghazali, Renaud Soucy La Roche, Kyle Larson:** Metamorphic Evolution in the Haute-Mauricie Area, Central Grenville Province: Contribution of In-Situ Petrochronology on Monazite and Garnet

14:20 **Jeroen Goumans, Matthijs Smit, Kira Musiyachenko:** Pulsed Fluid Flow in Subducted Oceanic Crust along the Seismogenic Zone

14:40 **Isaac Siles Malta, Carl Guilmette, Antoine Godet, Douglas Tinkham, Matthijs Smit, Kira Musiyachenko, Bruna Coldebella, Georges Beaudoin, Crystal LaFlamme, Jeffrey Marsh:** Neoarchean Tectonothermal Evolution of the Northern Metasedimentary Pontiac Subprovince (Superior Craton; Canada): Insights from Garnet and Monazite/Zircon Petrochronology

15:00 **Refreshment Break**

15:20 **Wenxuan Li, Shoufa Lin:** Low-Temperature High-Pressure Metamorphism in Middle Permian: A Record of Subduction-Accretion Orogenesis in Northwest China

15:40 **Shuang Tang, Jinrui Zhang, Chris Yackymchuk, Chunjing Wei, Hang Chu, Yidan Wang, Yuan Li:** The Continuous Subduction and Rollback of the Paleo-Asian Ocean During the Late Paleozoic: Insight from Multiple Phases of Metamorphism in the Baoyintu Group, Central-Western Inner Mongolia

16:00 **Alix Osinchuk, Brendan V. Dyck, Jesse Walters:** Local Chemical Potential Gradients Influence Amphibole Rheology

16:20 **Justin Plouffe:** Investigating the Genesis of Ruby-Corundum in Variscan Metamorphic Rocks of the French Massif Central

16:40 **Posters**

EARTH_SS_06: Advances in marine geology and geodynamics and their application to understanding ancient metallogenic terranes

Room: ***DMS_4130***
Chairs: *Alan Baxter, Erin Bethell, Chris Galley, and Mark Hannington*

13:20 **Keaton Strongman, Mark Hannington, Christopher Galley, Erin Bethell, Alan Baxter, Harold Gibson:** Granite-Greenstone Subprovinces and Possible Modern Analogs: A Metallogenic Comparison

13:40 **Octavio Acuña-Avendaño:** A New Geologic Map of the Mariana and Parece Vela Backarc Basins (Se Philippine Sea Plate): the Role of Tectonic Inheritance on Ridge Segmentation, Ridge Jumping and Volcanism Distribution During Episodic Opening of Two Backarc Basins

14:00 **Jade Umbsaar, Melissa Anderson, Daniel Gregory, David Butterfield, Jeffrey Beeson, David Caress, Jennifer Paduan:** The Tectonic, Volcanic, and Hydrothermal Evolution of the Grappe Deux Non-Transform Discontinuity: Serpentinization and Concurrent Axial Volcanism?

14:20 **Christopher Galley, Mark Hannington, Keaton Strongman, Erin Bethell, Alan Baxter:** A Study of the Superior Province's Moho Topography; Abitibi vs. the Western Superior

14:40 **Sam J. T. Nichols, Melissa O. Anderson:** The Tectonic and Magmatic Evolution of the Mid-Atlantic Ridge Between 22.6° N and 19.6° N

15:00 **Refreshment Break**

EARTH_SS_07: The past, present, and future of scientific drilling in Canada

Room: ***DMS_4130***
Chairs: *Ricardo Silva, Peter Douglas, John Jamieson, and Elisabeth Steel*

15:20 **Ulrich G. Wortmann, Tina Tsan, Mahrukh Niazi, Irene A Ma, Ruben Navasardyan, Magnus-Roland Marun, Bernardo S Chede, Jingwen Zhong, Morgan Wolfe:** The Earth Science Box Modeling Toolkit ESBMTK: A Python Library for Research and Teaching

15:40 **Morgane Brunet, Piero Bellanova, Mai-Linh Doan:** Tracking the Sedimentary Signature of Major Earthquakes in the Japan Trench: Insights from the IODP Expedition 386 and X-Ray Microtomography

16:00 **Man-Yin Tsang, Evan A. Solomon, Shuoshuo Han:** Pore Water Solute Profiles Reveal Significant Contemporary Slip along a Large-Offset Splay Fault at the Hikurangi Subduction Zone

16:20 **Ricardo L Silva, Lynn T. Dafoe, R. Andrew MacRae, Vânia Correia, M. Kevin Cooper, Carla Skinner, Robert A. Fensome, Graham L. Williams:** A New Record of the Early Aptian OAE 1a on the Western Atlantic Margin (Scotian Basin, Canada)

16:40 **Posters**

EARTH_SS_22: Recent advances in the application of artificial intelligence (AI) in geoscience

Room: ***DMS_4120***
Chairs: *Mohammad Parsa, Christopher Lawley, Steven Zhang, and Andrei Swidinsky*

13:20 **Drew Heasman, Bruce Eglington, Lavie Nguyen Hoang Anh Tu, Dène Tarkyth:** Building a Geoscience Knowledge Database: Leveraging NlP and Text Mining for Research and Exploration Insights

13:40 **Mohammad Parsa:** Large Language Models for Geoscience Machine Learning Applications

14:00 **Nyah Bay, Mohammad Parsa, Andrei Swidinksy:** Enhancing Prospectivity Modeling with BERT-Based Natural Language Processing

14:20 **Marwa Boukadida, Kevin Bouchard, Julien Maitre, Paul Bédard:** Enhancing Mineral Segmentation in Thin Sections: Towards an Adaptive AI Model

14:40 **Robert M. Hazen:** Recent Advances Applying Machine Learning to Mineralogy, Petrology, and Paleobiology

15:00 **Refreshment Break**

15:20 **Eve Gosselin, Erwan Gloaguen, Shiva Tirdad:** Handling Missing Geochemical Data for Predictive Mapping of VMS Deposits: A Case Study of the Bathurst Mining Camp (NB, Canada)

15:40 **Babak Ghane, David R Lentz, Kathleen G Thorne:** Mineral Prospectivity Mapping of Orogenic Gold Mineralization in Southwestern New Brunswick, Canada

16:00 **Berkay Ersus:** AI-Driven Mineral Prospectivity Mapping to Detect Potential Gold Deposits in the Baie Verte Peninsula, Newfoundland

16:20 **Rim Lamrani, Ahmed Akhssas, Fatiha Ait El Haj, Anas Bahi:** Optimizing Hydrogeological Delineation in Morocco's Souss Watershed: Harnessing GIS, Remote Sensing, and AI Integration Opportunities

16:40 **Posters**

POSTER SESSION – MONDAY

1 **Ai Gusti Guna, Phil J.A. McCausland, Alexander L. Peace:** New Paleomagnetic Results from the 148 Ma Notre Dame Bay Magmatic Province, Newfoundland, Eastern Canada: Insights on Southern North Atlantic Rifting

2 **Jacques Tchouanmoe, Phil J.A. McCausland, Mike A. Hamilton, Wouter Bleeker, David A. Evans:** Testing the Reverse to Normal Polarity Change in the Matachewan Dyke Swarm, on the 2461.0 ± 0.9 Ma Timmins West Dyke

3 **Sabina Bergelt, Jacob Hanley, Mitchell Kerr, Chris Yakymchuk:** Characterising Battery-Grade Graphite in the Grenville Province

4 **Bruna da Silva Ricardo, Michael Easton, Sandra Kamo:** U-Pb Geochronological Investigation South of Sudbury, Ontario, for Understanding the Geological History and Assessing the Economic Potential of Rocks Within the Grenville Front Tectonic Zone

5 **Kimberly Trebus, Fred Gaidies:** The Metamorphism of Fe^{3+}-bearing Metasediments from the Flinton Group (Mazinaw Domain, Grenville Province): Results from Thermodynamic Modeling

6 **M. Thereza A.G. Yogi, Fred Gaidies, Olivier K.A. Heldwein, A. Hugh N. Rice:** Constraints on Major and Trace Element Equilibration During Garnet Growth in the Lower Kalak Nappe Complex (Scandinavian Caledonides)

7 **Anaëlle Mathy, Christopher Spencer, Brendan Murphy, Rob Strachan, Craig Storey:** Testing the Migmatite-To-Granite Connection in the Transpressional Cadomian Orogen, Brittany, France

8 **Alexander Peace, Joseph Boyce, Abigail Clark, Lawrence Wejuli, Wayna Sattar:** Pop-Up Structures in Southern Ontario: UAV-Lidar and GPR Insights into Basement Inheritance, Intraplate Stress and Seismic Hazards

9 **Jonathan E. Rich, Phil J. Heron, Grace E. Shephard:** The Role of Structural Inheritance in the Opening of the Arctic Ocean

10 **Ethan Davies, Joseph Boyce, Alexander Peace, Keeley Aird, Julia Nielsen:** Multi-Method Geophysical Study of Possible Neotectonic Bedrock Faults, Prince Edward County, Southern Ontario

11 **Tobias Stephan:** Does Plate Boundary Obliquity Predict Interplate Deformation?

12 **Matthew Sayles, H. Dan Gibson, Sally Pehrsson, Jamie Cutts:** Tectonometamorphic and Kinematic Analysis of the Angikuni Lake Region, Nunavut, Canada: Implications for the Snowbird Tectonic Zone

13 **Michelle Pearce, Laurent Godin, Hom Nath Gharti:** Influence of Inherited Lithospheric Scale Basement Faults on Himalayan Seismicity: A Numerical Modelling Approach

14 **Keeley A. Aird, Joseph I. Boyce, Alexander L. Peace, Hernan Ugalde, William A. Morris, Ethan Davies:** Geophysical Investigation of Bedrock Faulting and Possible Basement Structural Controls on the Dundas Buried Valley (Hamilton, Ontario)

15 **Christopher J.M. Lawley, Paige Giddy, Laura Katz, Natalie Chu, Aaron Francis, Juan Carvajal, Matchellon Pinheiro, Alexa Dettman, Howard Chen, Francis Aucoin:** Canada Geological Map Compilation

16 **Mary Kruk, Patrick Schaefer, Aislin Livingstone, Katherine Balpataky:** Harmonizing Freshwater Data with Datastream at National and Transboundary Scales

17 **Joseph Colgan, Samuel Johnstone:** A Process for Creating Harmonized Geologic Maps of the Conterminous United States

18 **Leland Spangler:** Harmonizing 3D Geologic Framework Models Across Borders: Examples from the Michigan and Williston Basins

19 **Dan Palombi, Allison Rubin, Dan Utting, Isabelle de Grandpré:** Geoscience Data Compilation for Groundwater Mapping Across the Alberta and Northwest Territories Transboundary Region

20 **Marie-Aude Cormier, Patrick Lajeunesse, Etienne Brouard, Jean-François Bernier:** Revisiting Retreat Patterns of the Laurentide Ice Sheet Margin During the Late Pleistocene in Southern Québec Using LIDAR Imagery

21 **April S. Dalton, Roger C. Paulen, M. Beth McClenaghan, Ron N.W. DiLabio:** The 'Owl Creek' Records from Timmins, Ontario: Preliminary Analysis and Importance for Unifying Stratigraphic Records Across the Continent

22 **Myriam Thériault, Patrick Lajeunesse, Jean-François Bernier, Jean-François Ghienne, Pierre-Olivier Couette, Sydney W. Meury:** Evolution and Glacial Dynamics of the Grand Méan, Évettes and Vallonnet Glaciers (French Alps) since the Little Ice Age

23 **Clara Crowell, Sam Kelley, Etienne Brouard, Janet Campbell, John Gosse, Tommy Tremblay:** Assessing Glacial Modification: New Digital Mapping of Eastern Northwest Territories (NTS Map 75P) and Cosmogenic 10Be from Dubawnt Lake, Nunavut

24 **Jessey Rice, Roger Paulen, Heather Campbell, Maria Schaarschmidt, Olav Lian, John Gosse, Pierre-Marc Godbout, Etienne Brouard:** Timing and Geometry of Laurentide Ice Sheet Retreat Along the Labrador Coast

25 **Thomas Malo:** Investigating the Genesis and Chronology of the Harricana Moraine: Insights from Sedimentology, Provenance Analysis, and Surface Exposure Dating

26 **Bailey R. Grondin, Denise M. Brushett, John C. Gosse, Roger C. Paulen:** Characterizing Till Transport Distance to Enhance Mineral Exploration in Southwestern Nova Scotia

27 **Riley Mulligan, Roger Paulen:** The Geomorphic Imprint of Paleo-Ice Streams in Eastern Ontario Based on LIDAR and Field Data

28 **Emer McConnell-Radford, Christopher J. Spencer, Aaron J. Cavosie:** Identification of Shock Features in the Holleford Impact Structure, Ontario, Canada

29 **Zara Zaman, Janok Bhattacharya:** Constraining the Formation Timescale of the Eberswalde Delta on Mars Using Sediment Transport Models

30 **Holly N. Bley, Katherine J.E. Boggs, Christine Pendleton, Jordan Shackman, Ember Varga, Shane Herrington, Parke Fontaine, Hendrick G. Wehnes, Richard E. Ernst, Hafida El Bilali, Erin M. Bethell:** What is the Extent of the Artemis Tectonomagmatic Feature Influence Across the Henie Quadrangle (V-58) in Southern Venus?

31 **Jerry Demorcy, Katherine Boggs, Richard Ernst, Hafida El Bilali, Jordan Shackman, Holly Bley, Hendrik Wehnes, Mahdi Chowdhury:** Venusian Canali Morphologies, and Cross Cutting Relationships with Wrinkle Ridges, Fluctus, and Graben Across the Henie Quadrangle (V-58), Southern Venus

32 **Katherine Boggs, Jerry Demorcy, Holly Bley, Ember Varga, Jess Hall, Shane Herrington, Jordan Shackman, Christine Pendleton, Hendrik Wehnes, Julia Shustova, Bridgette Dear, Lovleen Dhami, Mahdi Chowdhury, Aatish Mann, Richard Ernst, Hafida El Bilali:** Modelling Greenhouse Gas (GHG) Emissions from Volcanic Processes Across the Henie Quadrangle (V-58), Southern Venus, Preliminary Results

33 **Marilys Mercure Nadeau, Violaine Ponsin, Marie Larocque:** Application of Polar Organic Chemical Integrative Samplers (POCIS) for Continuous Pesticide Detection: A Case Study of Covey Hill

34 **Owen Donnelly, Sabina Rakhimbekova, Yunpeng Gao, Clare E. Robinson:** Assessment of Potential Vulnerability of Onsite Wastewater Treatment Systems Near Lake Erie Shoreline to Flooding and Erosion as the Climate Changes

35 **Yancy Laniel, Chantal Cloutier, Marie Larocque, David Widory, Violaine Ponsin:** Overview of Pesticide Presence on Covey Hill (Montérégie, Québec)

36 **Arielle J. Santos, James W. Roy, Christopher Jobity, Evan Angus, Thomas E. Edge, Kayla Bruce, Pamela Collins, Reza Pasheai, Clare E. Robinson:** Importance of Subsurface Drainage Infrastructure in Delivering Contaminants from Onsite Wastewater Treatment Systems to Surface Waters

37 **Madeline Swart, James W. Roy, Denis M. O'Carroll, James McDonald, Clare Robinson:** Fate of Emerging Contaminants Within and Downgradient of an Advanced Onsite Wastewater Treatment System

38 **Aref Panjeh Fouladgaran, Clare Robinson:** Meta-Analysis of Factors Controlling the Salinity Distribution and Mixing Conditions in Shallow Nearshore Subterranean Estuaries

39 **Lauren Mulkerns, Jana Levison, Colby Steelman, Emmanuelle Arnaud, Cody Fisher, Rhiannon James:** Developing an Integrated Watershed Model in Mid-Western Ontario to Examine the Impact of Tile Drainage System Design on Groundwater, Water Balance and Nutrient Transport

40 **Adam Mitton, Diana Allen:** Summer Flow Variability in Fraser Lowland Streams

41 **Xuanqi Wang, Daniele Pinti, Florent Barbecot, Oliver Warr:** Aquifer Flow Dynamics in Montérégie Est: Integrating Numerical Modeling and Hydrochemical Analysis

42 **Somayeh Asadi Shekafti, Jonathan Kennel, Jessica Flynn, Colby Steelman, Beth Parker:** Method Comparison of Depth-Discrete Hydraulic Head Profiles to Assess Hydrogeologic Units and Flow System Conditions in the Dunvegan Formation, Northwest Territories, Canada

43 **Gaëlle Belleau-Magnat, Myriam Lemelin, Edward Cloutis, Richard Léveillé:** Mineralogy, Geochemistry and Morphology of Arctic Gossans on Axel Heiberg Island, NU, Canada: Spectroscopic Investigation and Implications for Mars

44 **Kael Doomernik:** Investigating Putative Ichnofossils in Basaltic Volcanic Glasses in Pahvant Butte Utah

45 **Angelina A. Abi Daoud, Janok P. Bhattacharya:** Tracing the Past: An Archetypal Zoophycos Ichnofacies in the Sikanni Formation and Its Implications for Marine Conditions in the Late Albian Seaway, Northwest Territories, Canada

46 **Katherine Hahn, Catherine Béland Otis, Frank Brunton:** Defining the Turinian-Chatfieldian Black River-Trenton Group Contact in Southeastern Ontario

47 **Jennifer Cann, Daniel Gregory, Evan Hastie:** The Trace Element Content of Pyrite from the Orogenic Gold Deposits of the Abitibi Belt

48 **Julia P. Nielsen, Hernan Ugalde, Alexander L. Peace:** Visualising the Pabineau Falls Granite, Northern New Brunswick: A Geophysical Perspective

49 **Kaleb Jacobo-Reyes:** Characterization and Contrasts Between the Epithermal Veins 'San Juan' and 'Carlos Pacheco' and Their Relationship with the Porphyric Bodies of the 'Santa Teresa' Area, for Exploration Purposes, Zacualpan, State of Mexico, Mexico.

50 **Jordan Pawlowski, Neil Bennett:** Trace Element Partitioning in Hydrothermal Systems: An Experimental Study

51 **Silvia C. Castilla, Corliss K. Sio:** Can Minor and Trace Elements be used to Identify the Origin of Mineral Zoning?

52 **Duane Smythe, Corliss Sio, Daniel Gregory, Xu Chu, Neil Bennett:** Evaluating Matrix Effects for Isotope Analyses by FS-LA-MC-ICPMS

53 **Nicholas O. Montenegro, Jordan M.K. Deane, Kathryn M. Bethune:** Tectonic Evolution and Structural Architecture of the Waugh Lake Group: Insights into Mineral Potential of the Paleoproterozoic Southern Taltson Orogen

54 **Joseph A. Bravo, Irvine R. Annesley, Camille A. Partin:** Preliminary 3D Geophysical-Geological Modeling for Rare Earth Elements (REE) Exploration at Kulyk Lake, Northern Saskatchewan: A Multi-Sourced Data Integration Approach

55 **Eva Yu, Daniel Gregory, Merilie Reynolds, Eve Carrothers:** The Depositional Redox Conditions of the Stratigraphy Hosting the Howard's Pass Deposit

56 **Juan D. Bello-Rodríguez, Dan Gregory, Merilie A. Reynolds:** Unraveling the Distribution of Germanium in the Zn-Pb-Ag Prairie Creek Deposit, NWT, Canada.

57 **Shannon E. Murtonen, Zhongzheng Yuan, Sarah Mount, Corliss K. Sio, Neil R. Bennett:** Ironing Out the Petrogenesis of IOA Deposits: Determining Equilibrium Fe Isotope Fractionation Between Magnetite and Carbonate Melts

58 **Niyayesh Khorshidi, Michael B. Parsons, David R. Lentz, Amirabbas Karbalaeiramezanali:** Primary and Secondary Antimony Resources in Atlantic Canada

59 **Mathieu Geliot, Stéphane De Souza, Michel Jébrak, Aurélien Eglinger, Rocío Pedreira Pérez, Vincent van Hinsberg, Kim Berlo, Joshua Davies, Daniele Pinti:** Geology of the Sirmac Li-Pegmatites, Frotet-Evans Greenstone Belt, Superior Province of Québec.

60 **Djelika Sogoba, Michael Schindler, Stefanie Brueckner:** Formation, Aggregation and Transport Mechanisms of Native Silver in Five Element Veins, Cobalt Embayment, Ontario, Canada

61 **Olivia Clay, Carol Ptacek, Mike Moncur, Jeff Bain, David Wilson, Atindra Sapkota, David Blowes:** Geochemical Characterization of Highly Weathered Sherridon Mine Tailings: Linkages Between Acid-Generation Potential and Revalorization Potential

62 **Ryan Pippy, Erin Adlakha:** Magnetite Trace Element Chemistry from the Bass River Fe-Co-REE Deposit, Cobequid-Chedabucto Fault Zone, Nova Scotia: An Fe-Co Iron Oxide Copper Gold Variant

63 **Harry G. Barnes, Johanna Lippmann-Pipke, Florian Eichinger, Niko Kampman, Carl Dietl, Oliver Warr:** First Lessons Learned

in Evaluating Solid-State Noble Gas Extraction for Deep Geological System Understanding Utilizing a Round Robin Approach

64 **Willian V. Coqueiro Sanches, Daniel Layton-Matthews, Pedro de Paula Garcia, Beth McClenaghan, Alexandre Voinot, Agatha Dobosz, Brian Joy, James Kidder, Lyndsay Moore:** Approaches to PGE Exploration: Mineralogical Insights from the Marathon Cu-PGE Deposit

65 **Othman Bounour, Sarah Dare, Renée-Luce Simard, Abdelali Moukhsil:** The Formation of Ni-Sulfide Mineralisation in the Northern Margin of the Lac-Saint-Jean Anorthositic Suite, Central Grenville Province, Quebec.

66 **Gokhan Yildirim, Alfredo Camacho, Andrew G. Conly, Mostafa Fayek, Ryan Sharpe, Michael Schindler:** Characteristics and Origin of Graphite in the Neoarchean Rocks of the Eastern Part of the Shebandowan Greenstone Belt, Canada

67 **James Roush, Chris McFarlane, Tania Martins, Lee Groat:** Monazite and Holmquistite from Host Rock at the Eagle Pegmatite, Cat Lake Pegmatite Field, Southeastern Manitoba - Evidence of Exsolved Pegmatitic Fluids and Metasomatism

68 **Nicole Schoenherr, Sheila Ballantyne, Melissa Anderson, Margaret Stewart, Nelson Campos, Neil Richardson, Chantal Venturi:** Hydrothermal Alteration Patterns and Short-Wavelength Infrared Spectroscopy (SWIR) Results in 3D Geological Models of Two Ancient Volcanogenic Massive Sulfide Deposits in Snow Lake, Manitoba, Canada

69 **Jieci Yang, Michael Welland, Shinya Nagasaki, Satoru Tsushima:** DFT and THM Modelling of Se(-II) Sorption and Migration Behaviour

70 **Matteo Clemente, Daniel Gregory, Evan Hastie, Jennifer Cann:** Utilizing Trace Element Content of Pyrite to Interpret Fluid Chemistry of Five Historic Au Deposits in SE Ontario

71 **Tramaine James, Stephane Perrouty, Daniel Kontak:** Geochemical Discrimination of IRG and ORG Systems in the Mazaruni Greenstone Belt, Guiana Shield, South America

72 **Valentin Drouillot, Bertrand Rottier, Crystal Laflamme, Georges Beaudoin, Tim Baker, Jacques Simoneau:** Descriptions and Mineral Chemistry of Alterations Associated with the Triangle and Ormaque Orogenic Gold Deposits

73 **Ahmed Hamdy, Crystal Laflamme, Georges Beaudoin, Patrick Mercier-Langevin, Olivier Côté-Mantha:** Vein Paragenesis at the Meliadine Gold District, Nunavut

74 **Larissa De Santana Do Nascimento, Ross Stevenson, Georges Beaudoin, Guillaume Raymond, Roman Hanes:** Stable Strontium Isotope (Δ88/86Sr) Fractionation in Archean

Hydrothermal Systems and Implications for the Formation of Orogenic Gold Deposits in Québec, Canada

75 **Louise Benisti, Stéphane De Souza, Jean-Luc Pilote, François Robert:** Structural and Lithological Controls and Hydrothermal Evolution of the 123 Ore Zone, Casa Berardi Gold Deposit, Abitibi Subprovince

76 **Nafiu Sulyman, Peter Hollings, Jason Dyer, Ivan Belousov, Ned Howard, Logan Kucherhan:** Pyrite Trace Element Chemistry of Orogenic Gold Deposits in the Red Lake Belt, NW Ontario, Canada

77 **Rhian Evans, Michelle Coyne, Michelle Côté:** Earth Material Collections at the Geological Survey of Canada: 183 Years of Sample Collection and Curation for the People of Canada

78 **Amrine Dubois Gafar, Katherine Boggs, Charles Neild, Jennifer Humphries, Kelly Kamo-McHugh, Alice Wilson:** Citizen Science to 'Science with Society': An Example from the Community Science Liaison Program in Calgary

79 **Heidi Daxberger, John Johnston, Jordan Clark, Matt Dupont, Connor MacLeod, Hazen A.J. Russell, Terry Carter:** Evolution of an Effective Teaching Framework Utilizing 3D Geological Models in the Education Curriculum of Ontario Schools, Universities, and Outreach Efforts.

80 **Roger C. Paulen, I. Rod Smith, Meerna Homayed, Rebecca Pearson, Jessey M. Rice, Tom Kingdon, Kate Clark:** Understanding a Surficial Geology Map: Applications for the Non-Geologist

81 **Jordan K. Clark, Connor MacLeod, Charles Logan, Matthew Dupont, Hazen A.J. Russell:** Innovative Approaches to Geoscience Education: Integrating 3D Printing and Virtual Visualization for Experiential Learning

82 **Shona V.Z. de Jong, Matthew Leybourne:** The State of Earthquake Science Education in Canada: Application of the Canadian Earthquake Science Communication Framework to Gain New Insights

83 **Shona V.Z. de Jong:** The Race to Recall Geophysical Concepts: Earthquake Science Crisis E-Learning Specifications for NRCan Earthquake Early Warning System

84 **Fiona D'Arcy, Tabetha Sheppard, Lilian Navarro:** Earth Science in Canada: Working Towards a Sustainable and Inclusive Future

85 **Jen Parks, John W. Johnston, Corina McDonald, Savannah Sloat:** An Evolution of Meaningful Relationship Building Between a University and Indigenous Communities: A Perspective from the Earth and Environmental Sciences Department at the University of Waterloo

86 **Colin D. Sproat, Christopher Mancuso, Emily Head, Jessica S.A. McLeod, Mitchell Maracle, Gavin Woodburn, Jade Atkins,**

Desmond Moser, Katherine Boggs: Indigenous Inclusion and Involvement in Geoscience (I3G) Pathway; National Geoscience Research Plan

87 **Martyn Golding, Jim Haggart, Morgan Ritchie, Rhy McMillan, Zina Boileau-Morrison, Glyn Williams-Jones, Jim Ryan, Dan Gibson, Jerram Ritchie, Michelle Côté, Rod Bartlett, Mike Ellerbeck:** The Harrison Lake Project: A Collaborative Research Project of the Geological Survey of Canada and Sts'ailes in Southwestern British Columbia

POSTER SESSION – TUESDAY

1 **Guillaume Bats, Pierre-Simon Ross, François Leclerc:** Volcanism of the Opémisca Group at Chapais-Chibougamau (Québec), in the Abitibi Subprovince

2 **Dayan Wang:** Cumulative Plastic Strain and Critical Dynamic Stress of Frozen Clay Under Principal Stress Rotation

3 **Ruth Orlóci-Goodison, Carl Guilmette, Nicholas Wray:** Geochemistry of Neoarchean Mafic to Felsic Volcanic Rocks of the Hope Bay Greenstone Belt, Nunavut

4 **Cristhian Nicolas Gomez, David Lowe:** Unraveling Glacial Influence on Detrital U-Pb Geochronology of Titanite and Apatite: An Example of the Gaskiers Glaciation in Newfoundland

5 **Tommy Tremblay:** A New, Versatile Design for Geological Analyzes Compilation: The Nunavut Surficial Materials Analysis Database

6 **Anne-Aurélie Sappin, Michel G. Houlé, Wouter Bleeker:** Distribution and Genesis of REE-Nb-Ta Deposits Associated with Carbonatites and Alkaline Complexes: Insights from a Canada-Wide Compilation

7 **Nadia Mohammadi, Neil Rogers, Anne-Aurélie Sappin, William J. Davis, Kathryn Goodenough, Nolwenn Coint, Isabelle Lafrance, Hélène Legros, Bruce Kjarsgaard:** Protracted Mesoproterozoic Magmatism and Rare Metals Mineralization in the Eastern Canadian Shield: Insights from the Mistastin Batholith and Strange Lake Intrusion

8 **Diana Marcela Sánchez Celis, L. Paul Bedard, Renée-Luce Simard, Dominique Genna:** Niobium Deposits in Saint-Honoré Carbonatite: A Trimineral Approach

9 **Cesar Tarazona, Brian O'Driscoll, Marie-Claude Williamson:** A Microstructural Study of Chromite Mineralization in the Muskox Layered Intrusion (Nunavut, Canada).

10 **Thomas Blanchet-Gavouyere, Joshua H.F.L. Davies, Richard Stern, Urs Schaltegger, Vincent J. van Hinsberg, Andrea**

Boscaini, Morgann G. Perrot: Understanding the Complexity of the U-Pb System in Baddeleyite (ZrO_2)

11 **Nadia Mohammadi, Neil Rogers, Christopher R.M. McFarlane, David R. Lentz, Jim Walker, Brian Cousens, Kathleen Thorne, Fazilat Yousefi, Dawn Kellett:** Late Devonian Magmatism and Molybdenite Mineralization in the Nicholas-Denys Granodiorite (NE New Brunswick): A Geochronological and Metallogenic Perspective

12 **Faris Sulistyohariyanto, Scott Whattam, Sabyasachi Chattopadhyay, Robert Stern, Simone Pilia:** Petrogenesis of the HFSE and REE Mineralized Al-Ghurayyah Granite Pluton, NW Saudi Arabia

13 **Ping Shen, Changhao Li, Hongdi Pan:** Accretionary-Type Porphyry Copper Deposits in the Central Asian Metallogenic Domain

14 **Imogen Addis, Hanika Rizo, Emmanuel A. Codillo, Richard M. Gaschnig:** Investigating the Controls on Tungsten Mobility in Subduction Zones: Insights from the Exhumed High-Pressure Voltri Massif (Ligurian Alps, Italy)

15 **Jessa Gareau, Myles Schulz, Shaun Frape, Chris Yakymchuk:** Scapolite as a Monitor of Chlorine Movement Through the Crust

16 **Esther Bou, Dominique Genna, Michel Jébrak, Dany Savard:** From Melt to Ore: Micrometer-Scale Chemical Mapping of Ferro-Magnesian Minerals in Sanukitoid Magmas, Neoarchean Lac Bachelor Gold Deposit, Abitibi Greenstone Belt, Canada

17 **Reid A. Legere, Keiko Hattori, Vyacheslav Akinin:** Adularia in High-Grade Epithermal Au-Ag Deposits, Russian Far East

18 **Jiawei Cui:** Paleogene-Neogene Environmental Evolution and the Uplift-Sedimentation Response of the NE Tibetan Plateau

19 **Poppy Wynter, Alina Shchepetkina, Darren Gröcke:** Alteration of Carbon Isotope Signals by Trace Fossils During the Middle Miocene Climate Optimum in the South Atlantic Gyre: IODP Expedition 393

20 **Stephaniie Erhunmwunsee, Ricardo L. Silva, Andrew MacRae, Todd Ventura:** Chemostratigraphy of the Lower Cretaceous (Barremian-Albian) Panuke B-90 Drill Core Sedimentary Rocks from the Scotian Shelf, Nova Scotia.

21 **Natasha C. Bell, Brian Kendall:** Thallium Isotope Data from Multiple Cores of the Exshaw Formation Reveal the Effects of Paleogeography and Global Ocean Redox Changes During the End-Devonian Hangenberg Crisis

22 **Elizabeth Sullivan, Lyle Nelson, Dana Polomski, Amanda Urist, Miquela Ingalls, Nabil Shawwa, Akshay Mehra, Peter Crockford:** Refining Earth's First Exit from Oxygenation

23 **Sabs Wimmer, Elizabeth C. Sullivan, Watts L. Dietrich, Elizabeth C. Turner, Miquela Ingalls, Dalton S. Hardisty, Nabil**

A. Shawwa, Robert H. Rainbird, Peter W. Crockford: Bridging the Gap Between Earth's Initial Oxygenation and a Possible Oxygen Overshoot: A New Look at the Espanola Formation, Canada

24 **Annika Junek, Rizzieri Balestra, Lyle Nelson, Peter Crockford:** Chemostratigraphic Correlation of the Mesoproterozoic Crystal Springs Formation

25 **Michelle Stevens, Peter W. Crockford, Elizabeth Sullivan, Nabil A. Shawwa, Miquela Ingalls, Lyle L. Nelson:** Assessing the Positive Carbonate Carbon Isotopes of the Lomagundi-Jatuli Event in the Nash Fork Formation, Wyoming

26 **Andrea Boscaini, Biaca R. Spiering, Ajani Bissick, Frederik J. Hilgen, Brandt M. Gibson, Peter R. Liberty, Marc Laflamme, Galen P. Halverson, Joshua H.F.L. Davies:** Apatite as a Potential Tool for Stratigraphic Correlations and the Characterization of Volcanic Activity: An Example from the Ediacaran Nama Group, Southern Namibia

27 **Rizzieri Balestra, Peter Crockford, Darrel Long, Keith Dewing, Lyle Nelson:** Chemostratigraphy of the Neoproterozoic Kennedy Channel and Ella Bay Formations, Ellesmere Island

28 **Eduard Linares, Camille Partin, Kevin Ansdell:** Detrital Zircon U-Pb and Hf Isotopic Study of Paleoproterozoic Metasedimentary Rocks from the Pine Lake Greenstone Belt, Glennie Domain, Northern Saskatchewan, Canada: Preliminary Results

29 **Anthony Shillito, Anna Brooks, Camille Partin:** Depositional and Tectonic Setting of the Paleoproterozoic Nûkavsak Formation, Karrat Group, West Greenland

30 **Aidan Petersen, Elisabeth Steel, Taewoo Chun:** Influence of Constant Sea Level Rise on Distributary Channel Morphology in an Experimental Delta

31 **Arielle K.Y. Oeur, Ian W. Honsberger, Jonathan O'Neil, Hamish A.I. Sandeman:** Contact Metamorphism Within a Middle Devonian Thermal Aureole, North-Central Newfoundland Appalachians

32 **Héloïse Pinon, Joshua H.F.L. Davies, Claire Musajo, Morgann G. Perrot, Alain Tremblay, Galen P. Halverson, Brigitte Gagné, Éric Chartier, Catherine Béland-Otis:** Understanding the Extent and Origin of Ordovician Volcanic Ash from Québec, Ontario, and New England Using Zircon and Apatite Chemistry

33 **Rémi Naulot, Bertrand Rottier, Hélène Legros:** Nature and Timing of Siluro-Devonian Magmatism and Copper Mineralization in the Gaspé Peninsula (Québec Appalachians)

34 **Sandra M. Barr, Mike A. Hamilton, Susan C. Johnson, Deanne van Rooyen, Chris E. White, James L. Crowley:** Unravelling Avalonia and Ganderia in Southern New Brunswick, Canada: New U-Pb Zircon Dating Results

35 **Chris E. White, James Morris, Deanne van Rooyen, Donnelly B. Archibald, Sandra M. Barr:** Revised Stratigraphy and Geological History in the Canso Area of the Meguma Terrane, Nova Scotia, Canada.

36 **John W.F. Waldron, Sandra M Barr, David I Schofield, Doug Reusch, Chunzeng Wang, Chris White, Shawna White:** Terrane Assemblage Map of the Northern Appalachian and Western Caledonide Orogens

37 **Azam Soltanmohammadi, Jean H. Bedard, Alana Hinchey:** Tracing Base Metal Sulfides in the Lower Crust of the Bay of Islands Ophiolite Complex

38 **Scott Whattam, Faris Sulistyohariyanto, Keewook Yi, Mutasim Osman, Oktarian Iskandar, Jieun Seo:** Tectonic Evolution of the Crustal Section of the Neoproterozoic Jabal Ess Ophiolite-Arc Complex, Midyan Terrane, NW Arabian Shield

39 **Carolina Paz Jaramillo, Brian O'Driscoll, Jean Bédard, James M.D Day, Alana Hinchey:** Deciphering Mantle Depletion and Melt Interaction in Harzburgites from North Arm Mountain Mantle Section, Newfoundland

40 **Victor B. Garcia, Brian O'Driscoll, Alana M. Hinchey, James M.D. Day, Gabriel S. Santos, Daniela M. Marin:** Melt-Percolation in Abyssal Mantle of the White Hills Peridotite, St. Anthony Complex, Newfoundland.

41 **Laurence Hamel, Taylor Ducharme, David Schneider, Bernhard Grasemann:** A Modern Analogue: Orogenic-Style Lode Gold Controlled by Cenozoic Post-Orogenic Low-Angle Normal Faulting, Cyclades, Greece

42 **Jennifer Spalding, David Schneider, Benjamin Huet, Bernhard Grasemann, Gerd Rantitsch:** Opening the Window Slightly Earlier: Oligocene East-Directed Extension Along the East Tauern Detachment System

43 **Josep M. Casas, Alejandro Díez-Montes, Núria Pujol-Solà, Aratz Beranoaguirre, Joaquín A. Proenza, Teresa Sánchez-García, J. Javier Álvaro, J. Brendan Murphy:** The Ordovician Events in the Pyrenees (Canigó Massif)

44 **Kaan Onat, David Schneider, Bernhard Grasemann:** Extreme S-Vergent Extension and Thinning of the Kırşehir Massif, Central Türkiye

45 **Eloi González-Esvertit, Josep Maria Casas, Àngels Canals, Enrique Gomez-Rivas, Marlina Elburg, Tobias Fusswinkel, Thomas Wagner, Claudia Prieto-Torrell, Fernando Nieto, Joyce Neilson, Aratz Beranoaguirre, Kevin Konrad, Maria-Gema Llorens, Paul D. Bons:** Sheared Rocks, Silica Stocks: Rethinking Giant Quartz Vein Formation

46 **Camryn Salo, David Schneider, Bernhard Grasemann:** Re-Evaluating the South Cyclades Shear Zone, Ios, Greece

47 **Isabelle Therriault, Kyle Larson, Mehdi Jouhari, Carl Guilmette:** Reassessing the Regional Basal Décollement of the Ungava Orogen, Nunavik, Northern Québec

48 **Elizabeth Xu, Melissa O. Anderson:** Remote-Predictive Geological Map of the Southern New Hebrides Backarc Rifts

49 **Emma Burnett, Margaret Stewart, Ryley Penner:** Tectonics and Off-Axis Magmatism at Emerging Plate Boundaries in the Northwestern Lau Basin

50 **Magnus Roland Marun, Ulrich G. Wortmann:** A Python-Based Reactive Transport Model for Phosphorus Burial and Regeneration During Early Diagenesis in Marine Sediments

51 **Ricardo L. Silva:** The Middle Jurassic Earth System and Timescale Project: M-Jet

52 **Justiina T. S. Devries, Alexander L. Peace, Adedapo Awolayo:** Assessment of Carbon Sequestration Feasibility in the Grand Banks, Offshore Newfoundland, Canada

53 **Santiago Diaz-Hoyos, Alina Shchepetkina, Milovan Fustic:** Iron Mineralization in Trace Fossils as a Proxy for Assessing CO_2 Mineral Trapping Potential of Glauconite-Bearing Sandstone Reservoirs

54 **Matheus Cardoso Pavon, Erwan Gloaguen, Victor Silva dos Santos:** Lithological Mapping in Northeastern Québec with a Deep Learning Algorithm (SCB-Net) Integrating Field Samples and Remote Sensing Data

55 **Catherine Kupiec, Alexander Peace:** Rockfall Change Detection and Risk Assessment Along the Niagara Escarpment Using Airborne Lidar Surveys

56 **Gagan Josan, Greg Slater, Allyson Brady, Peter Dunfield:** Investigating Biosignatures of Aerobic and Anaerobic Methane Oxidation in Oil Sands Tailings Facilities

57 **Benjaman Michalchuk, Joseph Boyce, Eduard Reinhardt:** Multi-Proxy Paleoenvironmental Study of Post-Colonial Land Use Changes and Contaminant Impacts in Lake Ontario Coastal Lagoons (Frenchman's Bay, Lynde Creek, Ontario)

58 **Larissa M.M. Wallisch, Minger Guo, Ian M. Power, Shaun Watmough:** Weathering of Wollastonite and Diopside in Brunisolic Soils: Implications for CO_2 Removal and Base Cation Pools

59 **Tommy B. Avram, Eduardo Marquez, Matthew B.J. Lindsay:** Geochemical Response of Oil Sands Froth Treatment Tailings to Reclamation Soil Covers: Initial Results from Field Lysimeter Experiments

60 **Mayra G. Munoz, Matthew S. Ross, Janice P.L. Kenney, Daniel S. Alessi:** Photoaging of Polyvinyl Chloride and Polystyrene Under Uva Radiation in Diverse Environmental Conditions

61 **Alexandre Voinot, Zhaoping Yang, Lilianne Pagé, Sabrina Chan, Aleksandra Mloszewski, Steve Beyer, Paul Gammon:** Innovative Method for Li Isotope Analysis of Geological Materials: Implications to Li Exploration

62 **Aleksandra Mloszewski, Alexandre Voinot, Steven Rossiter, Lyndsay N Moore, Stephen Day, Margaret Lintell:** Tree Bark as Potential Biogeochemical Indicators of an Unconventional Li Occurrence (Flume Ridge, Southwestern New Brunswick)

63 **Steven Rossiter, Alexandre Voinot, Aleksandra Mloszewski, Lyndsay Moore, Stephen Day, Margaret Linttell:** The Discovery of Lithium-rich Clay in the Late Devonian Mount Pleasant Caldera Complex, Southwestern New Brunswick, Canada

64 **Arif Hussain, Connor Turvey, Annah Moyo, Zhen Wang, Maximilian Mann, Adam Majusiak, Ben Kronholm, Kwon Rausis, Dan Su, Jaswanth Yaddala, Amy McBride, Ian Power, Laura Lammers, Jessica Hamilton, Andrew Frierdich, Phil Renforth, Sasha Wilsom:** Producing Artificial Nickel Laterites from Ultramafic Mine Waste for Enhanced Critical Metal Recovery and Carbon Mineralization

65 **Clifford R. Stanley, Gregory Morris, Terry Goodwin:** Lithogeochemistry of the Brazil Lake Spodumene-Bearing Pegmatite Field, Yarmouth County, Nova Scotia

66 **Imen Ben Dhifallah, Benoit Saumur, Michel Houlé, Mathieu Richer, Guillaume Augereau:** Preliminary Observations on the Inukshuk Ni-Cu-(PGE) Deposit Hosted Within the Expo Subsuite of the Lac Esker Suite, Cape Smith Belt, Nunavik, Québec

67 **Zhiquan Li, Nabil A. Shawwa, Balazs Nemeth, James Isbister, Nathan Morgan, Leslie J. Robbins:** Controls on Roof Failure During Potash Mining in Southern Saskatchewan: An Investigation of the Shadowband Clay

68 **Marie Gerardin, Danièle Bartier, Gaétan Milesi, Pierre Martz, Julien Mercadier:** Dating Hydrothermal Episodes in Metal Deposits Using Fault Clays

69 **Bruno A.A. Monteiro, Kim Berlo, Vincent Van Hinsberg, Eleanor Berryman:** Combining Simulation, Quantitative Mineralogy and In-Situ Analysis to Characterize Multi-Phase Dust Samples Around Mines

70 **Kidus Woldemedehn, Avni S. Patel, Sasha Wilson:** Tracking the Carbonation Efficiency of Brucite and Portlandite Mixtures During Mg-Ca Looping for CO_2 Sequestration

71 **Mariam Coulibaly, Marc Constantin, Silum Ghebreyesus, Jonathan Côté:** Development and Optimization of Portable LIBS for Lithium Quantification in the Lithium Amérique Du Nord and Whabouchi Deposits

72 **Ella Curtis, Daniel Gregory, Oya Ak Kaykun:** Analyzing the Alteration Halos of Young-Davidson Orogenic Gold Deposit Using Short Wavelength Infrared (SWIR).

73 **Hailey Jack, David Blowes, Carol Ptacek:** Microbial Sulfate Reduction for Treating Arsenic- and Antimony-contaminated Mine Water at Giant Mine, Canada

74 **Léa Géring, Georges Beaudoin, Carl Guilmette:** Automation of Indicator Mineral Identification and Characterisation

75 **Rémi Lahue, L. Paul Bédard, Réjean Girard:** Automated Quantification of Graphite Flake Size by Petrographic Image Analysis

76 **Victoria Hatten, Benjamin Bates, Ian M. Power, Verônica M. Rosa, Sasha Wilson:** Integrated CO_2 Mineralization and Metal Recovery Strategies for Non-Mafic Mine Wastes

77 **Tsz Ho Chiu, Santonu Sanyal, Jeremiah Shuster:** Mobilization of Gold by Fungi and its Potential Applications for Gold Recovery from Historic Mine Tailings in Ontario

78 **Sharini Kanni Suresh Babu, Catherine D. Neish, Gordon R. Osinski:** Identifying Glass in Lunar Impact Melt Deposits through its Optical Properties

79 **Guilhem Calas:** Investigation of the Depth-To-Diameter Ratio of Craters at Lunar Mare Swirls

80 **Hugo Busnel, René Lefebvre, Roxane Lavoie, Daniel Paradis, Jimmy Mayrand:** Development of a Dashboard to Support Regional Water Management

81 **Paulynn Estrella-Legal, Jeffrey J. Bell, Justin E. Neufeld:** Investigation of Groundwater Seepage Potential - District General Hospital in Portage La Prairie, Manitoba

82 **Paulynn Estrella-Legal, Justin E. Neufeld, Jeffrey J. Bell:** A Collaborative Management Approach to the Brandon Channel Aquifer in Brandon, Manitoba

83 **Ava Bebbington, Cole Van De Ven, Stephanie Wright, Greg Siemens:** Climate Change Impacts on Northern Drilling-Mud Sumps: Effects of Contaminant Concentration on Permafrost Thaw and Contaminant Transport

84 **Sausann Omran, Daniel Gregory, Charles Diamond:** From Rust to Risk: The Mobilization of Trace Elements in Kobuk Valley, Alaska

85 **Jiaqi Weng:** Multiscale Studies of Permafrost Degradation and Solute Fate in Discontinuous Permafrost

86 **Alexandre Guillerez, Elliott Skierszkan, Joel Cubley, Emilie Perrault, Matthew Lindsay:** Geological Drivers of Uranium Mobilisation in Groundwater Along the Whitehorse Copper Belt, Yukon

87 **Jacob Szaranski, Alexandre Guillerez, Matthew Lindsay, Joel Cubley, Emilie Perreault, Brendan Mulligan, Elliott Skierszkan:**

Strontium Isotope Signatures of Rock-Water Interaction in Whitehorse, Yukon Groundwater

88 **Tanuj Mahajan, Samuel Shaheen, Oliver Warr:** Tracing Fluid Mixing in Abandoned Oil and Gas Wells: A Hydrogeochemical and Stable Isotope Study from the Northwest Appalachian Basin

89 **Emmanuel Dubois, Marie Larocque, Julien Chene, Jonathan Chabot-Gregoire:** Groundwater Modelling for Supporting Sustainable Water Management to Avoid Water Usage Conflict in Lanoraie Peatland (Quebec, Canada)

90 **HAMED MOHAMADIAN, Clare Robinson:** Performance of a Stormwater Exfiltration System in Reducing Stormwater Runoff Volumes and Its Potential Impact on Groundwater Contamination

91 **Ceilidh Mackie, Valerie Risch, Jana Levison, Jim Roy:** Assessing Groundwater-Surface Water Interactions and Chloride Transport in an Urban Southern Ontario Stream

92 **Vincent Adombi:** Integrating Causal Constraints into Physics-Embedded Machine Learning: Towards New Hydrogeological Insights

93 **Simon Delattaignant, René Lefebvre, Jimmy Mayrand, Roxane Lavoie, Daniel Paradis:** Inventory of Water Management Actions in Montérégie Ouest, Québec, Canada

A

Abbey, Daron	WATER_SS_07
Abi Daoud, Angelina A.	LIFE_SS_02
Abraham, Jillian	EARTH_SS_25
Accotto, Cristina	EARTH_SS_14
Acuña-Avendaño, Octavio	EARTH_SS_06
Addis, Imogen	EARTH_SS_05
Adlakha, Erin	EARTH_SS_04
Adombi, Vincent	WATER_SS_11
Aird, Keeley A.	EARTH_SS_20
Ak, Oya	MINERALS_SS_12
Al, Tom	EARTH_SS_24
Alarcón Laime, Lidbert	MINERALS_SS_09
Alves, Pedro	EARTH_SS_16
Annesley, Irvine	MINERALS_SS_08
Asadi Shekafti, Somayeh	WATER_SS_09
Asomani-Darko, Gideon	EARTH_SS_16
Audet, Marc-Antoine	EARTH_SS_16
Augustin, Claudia	MINERALS_SS_03
Avery, Gracie	MINERALS_SS_04
Avram, Tommy	EARTH_SS_25
Ayadi, Maha	WATER_SS_15
Azadbakht, Zeinab	MINERALS_SS_08

B

Babechuk, Michael	EARTH_SS_11
Baghban Asgharinezhad, Saeid	MINERALS_SS_08
Bajtala, Luke	EARTH_SS_24
Balestra, Rizzieri	EARTH_SS_11
Ballantyne, Sheila	MINERALS_SS_05
Bancroft, G.Michael	EARTH_SS_01
Barnes, Harry	MINERALS_SS_02
Barnes, Sarah-Jane	MINERALS_SS_03
Baron, Frédérique	EARTH_SS_18
Barr, Sandra M.	EARTH_SS_15
Barr, Sandra M.	EARTH_SS_15
Barzegar, Rahim	WATER_SS_15
Bats, Guillaume	EARTH_GS_01
Bauman, Paul	WATER_SS_03
Bauman, Paul	WATER_SS_09
Bauman, Paul	WATER_SS_12
Bay, Nyah	EARTH_SS_22
Beaudoin, Alwynne	KNOWLEDGE_SS_01
Bebbington, Ava	WATER_SS_01
Beckwith, Jessica	EARTH_SS_15
Bedard, L.Paul	EARTH_SS_02
Bedard, Jean	EARTH_SS_18

Belanger, Matthew	WATER_GS_01	Bley, Holly	SPACE_SS_02
Bélanger, Christine	WATER_SS_01	Boehme, Wieland	MINERALS_SS_11
Bell, Natasha C.	EARTH_SS_10	Bogatu, Adina	EARTH_SS_18
Belleau-Magnat, Gaëlle	LIFE_SS_01	Boggs, Katherine	KNOWLEDGE_SS_02
Bello Rodríguez, Juan David	MINERALS_SS_01	Boggs, Katherine	KNOWLEDGE_SS_03
Belosevic, Michael	MINERALS_SS_01	Boggs, Katherine	SPACE_SS_02
Ben Marzoug, Mohamed	SPACE_SS_02	Bonin, François-Xavier	MINERALS_SS_11
Benaroya, Sophie	SPACE_SS_01	Bordeleau, Geneviève	WATER_GS_01
Benisti, Louise	MINERALS_SS_12	Bordeleau, Geneviève	WATER_SS_13
Bennett, Neil	SPACE_SS_01	Boscaini, Andrea	EARTH_SS_11
Bergelt, Sabina	EARTH_SS_16	Bou, Esther	EARTH_SS_05
Bernier, Jean-François	EARTH_SS_26	Boukadida, Marwa	EARTH_SS_22
Bertauts, Ma	MINERALS_SS_11	Boulogne, Quentin	MINERALS_SS_04
Beyer, Steve	MINERALS_SS_01	Bounour, Othman	MINERALS_SS_03
Bhakta, Jake	EARTH_SS_02	Boutin, Louis-Charles	WATER_GS_01
Bhalla, Shalaila	EARTH_SS_21	Boutin, Louis-Charles	WATER_SS_09
Bhattacharya, Janok	EARTH_SS_10	Bowie, Sarah	EARTH_SS_17
Bingham-Koslowski, Nikole	EARTH_GS_05	Brand, Uwe	LIFE_SS_02
Birks, Jean	WATER_SS_09	Brassard, Éloïse	SPACE_SS_03
Blanchet-Gavouyere, Thomas	EARTH_SS_03	Bravo, Joseph A.	MINERALS_SS_01
Bleeker, Wouter	EARTH_SS_14	Brenan, James	EARTH_SS_01
Blereau, Eleanore	EARTH_SS_16	Bringeland, Stephanie	WATER_SS_16
Blereau, Eleanore	EARTH_SS_19	Broda, Kiera	MINERALS_SS_08

Brookfield, Andrea	WATER_SS_16	Cardoso Pavon, Matheus	EARTH_SS_22
Brooks, Greg	EARTH_SS_24	Carrothers, Eve	MINERALS_SS_01
Brueckner, Stefanie	MINERALS_SS_07	Carter, Delaney	KNOWLEDGE_SS_01
Brunet, Morgane	EARTH_SS_07	Casas, Josep M	EARTH_SS_21
Brunet, Mélanie	WATER_SS_07	Casas, Josep Maria	EARTH_SS_21
Bukhari, Syed	EARTH_SS_26	Castilla, Silvia	MINERALS_GS_01
Bulliard, Manon	MINERALS_SS_04	Chakhmouradian, Anton	EARTH_SS_02
Burnett, Emma	EARTH_SS_06	Chattopadhyay, Arijit	EARTH_SS_09
Burnett, Jamie	MINERALS_SS_07	Cherry, John	WATER_SS_12
Bursztyn, Natalie	KNOWLEDGE_SS_02	Chiu, Tsz Ho	MINERALS_SS_10
Bursztyn, Natalie	KNOWLEDGE_SS_03	Chowdhury, Aditi	WATER_SS_02
Burt, Abigail	KNOWLEDGE_SS_02	Chun, Byong-suk	EARTH_SS_12
Burt, Abigail	WATER_SS_14	Claprood, Maxime	WATER_SS_11
Busnel, Hugo	WATER_GS_01	Clark, Kathleen	EARTH_SS_04
Bustard, Aaron	MINERALS_SS_12	Clark, Jordan	KNOWLEDGE_SS_02
C		Clay, Olivia	MINERALS_SS_02
Cabenda, Quinn	SPACE_SS_01	Clemente, Matteo	MINERALS_SS_11
Calas, Georges	EARTH_SS_01	Cloutier, Vincent	WATER_SS_03
Calas, Guilhem	SPACE_SS_03	Coldebella, Bruna	MINERALS_SS_11
Calder, Nicola	WATER_SS_05	Coleman, Mark	EARTH_SS_18
Calvert, Madeline	WATER_SS_02	Colgan, Joseph	EARTH_SS_23
Cann, Jennifer	MINERALS_GS_01	Connors, Brendan	MINERALS_SS_09
Cardenas-Vera, Alan	MINERALS_SS_01	Connors, Brendan	MINERALS_SS_09

Conway-White, Oliver	WATER_SS_01	DASGUPTA, ANAMITRA	EARTH_SS_19
Coqueiro Sanches, Willian Valentin	MINERALS_SS_03	Davidson, Mitchell	WATER_SS_02
Corlett, Hilary	LIFE_SS_02	Davies, Ethan	EARTH_SS_20
Cormier, Marie-Aude	EARTH_SS_26	Daxberger, Heidi	KNOWLEDGE_SS_02
Corriveau, Madeleine	WATER_SS_02	de Grandpré, Isabelle	WATER_SS_01
Côté, Michelle	KNOWLEDGE_SS_01	De Hoog, Cees-Jan	EARTH_SS_05
Couëslan, Chris	EARTH_SS_02	de Jong, Shona V.Z.	KNOWLEDGE_SS_02
Couette, Pierre-Olivier	EARTH_SS_26	de Jong, Shona V.Z.	KNOWLEDGE_SS_03
Coulibaly, Mariam	MINERALS_SS_09	de Ligny, Dominique	EARTH_SS_01
Cousens, Brian	EARTH_GS_01	De Santana Do Nascimento, Larissa	MINERALS_SS_11
Crook, Connor	EARTH_SS_21	de Vernal, Anne	EARTH_SS_24
Crowell, Clara	EARTH_SS_26	Deane, Jordan	EARTH_SS_21
Cui, Jiawei	EARTH_SS_10	Delattaignant, Simon	WATER_SS_15
Curtis, Ella	MINERALS_SS_10	Demaries-Smith, Jesse	EARTH_SS_21
D		DEMORCY, JERRY	SPACE_SS_02
da Silva Ricardo, Bruna	EARTH_SS_16	Denyszyn, Steven	EARTH_SS_14
Dana, Cendi	MINERALS_SS_05	Des Roches, Mathieu	EARTH_SS_08
Daniele, Regis	EARTH_SS_19	Devries, Justiina	EARTH_SS_08
Daoust, Pascale	KNOWLEDGE_SS_01	Diaz-Hoyos, Santiago	EARTH_SS_08
D'Arcy, Fiona	KNOWLEDGE_SS_03	Dick, Daniel	KNOWLEDGE_SS_02
Dare, Sarah	MINERALS_SS_03	Dickin, Alan	EARTH_SS_27
Darveau, Jérémie	EARTH_SS_19	Diotte, Frédéric	SPACE_SS_03

Dipple, Gregory	MINERALS_SS_07	El Bilali, Hafida	SPACE_SS_02
Diyoyo, Jonathan Katako	EARTH_SS_16	El Ghawi, Karim	MINERALS_SS_03
Dolphin, Glenn	KNOWLEDGE_SS_02	Ellery, Alex	SPACE_SS_03
Donnelly, Owen	WATER_SS_02	Elsayed, Ahmed	WATER_SS_02
Doomernik, Kael	LIFE_SS_01	Enkelmann, Eva	EARTH_SS_17
Douglas, Peter	WATER_SS_01	Erhunmwunsee, Stephaniie	EARTH_SS_10
Driscoll, Eran	SPACE_SS_01	Ernst, Richard	EARTH_SS_03
Drouillot, Valentin	MINERALS_SS_11	Ernst, Richard	EARTH_SS_14
Dubois, Emmanuel	WATER_SS_04	Ernst, Richard	EARTH_SS_14
Dubois Gafar, Amrine	KNOWLEDGE_SS_02	Ernst, Richard	SPACE_SS_02
Ducharme, Taylor	EARTH_GS_01	Ersus, Berkay	EARTH_SS_22
Ducharme, Taylor	EARTH_SS_21	Estrella-Legal, Paulynn	WATER_GS_01
Ducharme, Taylor	EARTH_SS_21	Estrella-Legal, Paulynn	WATER_GS_01
Duguet, Manuel	MINERALS_SS_01	Estrella-Legal, Paulynn	WATER_GS_01
Durkin, Paul	EARTH_SS_12	Evans, David	EARTH_SS_14
Duxbury, Erin	SPACE_SS_02	Ezeh, Sunny	EARTH_SS_09
Dyer, Sabastien	EARTH_SS_19	**F**	
Dyer, Jason	MINERALS_SS_11	Fardy, Ike	SPACE_SS_02
E		Ferraq, Mariam	MINERALS_GS_01
Eaton-Tessier, Hannah	MINERALS_GS_01	Fischer, Emmy	MINERALS_SS_04
Eby, Nelson	EARTH_SS_04	Fisher, Cody	WATER_GS_01
Eglington, Bruce	EARTH_SS_14	Flemming, Roberta	MINERALS_SS_07
El Bilali, Hafida	EARTH_SS_14	Flesch, Mark	WATER_SS_02

Fonseca-Martinez, Arlin	EARTH_SS_16	Giuliani, Andrea	EARTH_SS_02
Fosu-Duah, EvelynLove	EARTH_SS_08	Gleeson, Tom	WATER_SS_11
Fournier-Roy, François	EARTH_SS_18	Godard, Michel	WATER_SS_02
Frey, Steve	WATER_SS_16	Godin, Laurent	EARTH_SS_20
G		Goldie, Raymond J	MINERALS_SS_03
Galley, Christopher	EARTH_SS_06	Golding, Martyn	EARTH_SS_10
Galoisy, Laurence	EARTH_SS_01	Golding, Martyn	KNOWLEDGE_SS_05
Garcia, Victor	EARTH_SS_18	Gomez, Cristhian Nicolas	EARTH_GS_05
Gardideh, Sara	MINERALS_SS_07	Gomez, Beatriz	KNOWLEDGE_SS_02
Gareau, Jessa	EARTH_SS_05	Good, David	EARTH_SS_03
Gauthier, Nia	EARTH_SS_21	Goonetilleke, Muditha	EARTH_SS_10
Gauthier, Michelle	EARTH_SS_26	Gosse, John	EARTH_SS_26
Gautrey, Simon	WATER_GS_01	Gosselin, Eve	EARTH_SS_22
Geliot, Mathieu	MINERALS_SS_01	Goudarzie, Amirabbas	WATER_SS_04
GERARDIN, Marie	MINERALS_SS_04	Goumans, Jeroen	EARTH_SS_19
Gerber, Richard	WATER_SS_14	Graff, Jamie	SPACE_SS_01
Géring, Léa	MINERALS_SS_10	Greenough, John	EARTH_SS_25
Ghane, Babak	EARTH_SS_22	Gregory, Daniel	MINERALS_SS_01
Ghazali, Mohamed	EARTH_SS_19	Groat, Lee	MINERALS_SS_07
Gibson, Harold	MINERALS_SS_05	Grondin, Bailey	EARTH_SS_26
Gintamo, Tesfaye Tessema	WATER_GS_01	Guay-Hébert, Philip-Alex	EARTH_SS_08
Girard, Réjean	MINERALS_SS_07	Guerra Braga, Carlos Henrique	MINERALS_SS_05
Girard, Réjean	MINERALS_SS_10		

Guillerez, Alexandre	WATER_SS_03	Hastie, Evan	MINERALS_SS_01
Guillot, Stephane	EARTH_SS_05	Hatten, Victoria	MINERALS_SS_10
Guna, Ai Gusti	EARTH_SS_14	Hattori, Keiko	EARTH_SS_05
Guna, Ai Gusti	EARTH_SS_15	Hayden, Tara	SPACE_SS_03
Gutierrez Rueda, Daniela	MINERALS_SS_07	Hazen, Robert	EARTH_SS_22
		Head, James	SPACE_SS_02

H

Hagedorn, Grant	EARTH_SS_26	Heasman, Drew	EARTH_SS_22
Hahn, Katie	LIFE_SS_02	Herd, Christopher	SPACE_SS_01
Halloran, Jack	EARTH_SS_05	Higgins, M	EARTH_GS_01
Halverson, Galen	LIFE_SS_01	Hildebrand, Robert S.	EARTH_SS_04
Hamdy, Ahmed	MINERALS_SS_11	Hilger, David	WATER_SS_02
Hamel, Laurence	EARTH_SS_21	Hinchey, Alana	EARTH_SS_20
Hamel, Kiera	EARTH_SS_21	Hinton, Marc	EARTH_SS_24
Hamilton, Mike	EARTH_SS_14	Hinton, Marc	EARTH_SS_24
Hamilton, Mike	EARTH_SS_14	Hodge, Kirsten	KNOWLEDGE_SS_01
Hanley, Jacob	MINERALS_SS_04	Hodge, Joanna	KNOWLEDGE_SS_02
Hanneson, Cedar	EARTH_SS_27	Hodge, Joanna	KNOWLEDGE_SS_03
Hannington, Mark	MINERALS_SS_05	Hodgins, Grant	WATER_SS_06
Hannour, Naima	SPACE_SS_02	Hodych, Joseph	EARTH_SS_14
Harmanci, Goktug	MINERALS_SS_02	Hoffman, Paul F.	EARTH_SS_11
Hartz, Julie	LIFE_SS_01	Hoffman, Paul F.	EARTH_SS_14
Hasanaine, Abderrazzak	SPACE_SS_02	Hokanson, Kelly	WATER_SS_05
Hashmi, Sarah	EARTH_SS_05		

Honsberger, Ian	EARTH_SS_15
Honsberger, Ian	MINERALS_SS_12
Houlé, Michel G.	MINERALS_SS_03
Hubley, Paul	WATER_SS_12
Hussain, Arif	MINERALS_SS_01
Hymers, Lesley	KNOWLEDGE_SS_02

I

Ibitogbe, Enoch	EARTH_SS_08
Iles, Kieran	MINERALS_SS_05
Ilg, Daniel	WATER_SS_06
Indares, Aphrodite	EARTH_SS_16
Islam, Md Muhyminul	WATER_SS_03

J

Jack, Hailey	MINERALS_SS_10
Jackson, Richard	WATER_SS_11
Jacobo-Reyes, Kaleb	MINERALS_GS_01
JACQUES, Issac	MINERALS_SS_02
James, Tramaine	MINERALS_SS_11
Jayawardane, Laurence	WATER_SS_06
Johns-Buss, Emily	EARTH_SS_20
Jones, Vanessa	EARTH_SS_03
Jørgensen, Taus	MINERALS_SS_05
Josan, Gagan	EARTH_SS_25
Jouhari, Mehdi	EARTH_GS_01
Ju, Jiangyue	WATER_SS_07
Junek, Annika	EARTH_SS_11

K

Kalwij, Ineke	WATER_SS_12
Kanni Suresh Babu, Sharini	SPACE_SS_03
Kaur, Gurpreet	WATER_SS_02
Kellett, Dawn	EARTH_SS_17
Kelley, Samuel	EARTH_SS_26
Kendrick, Jillian	EARTH_SS_19
Kenney, Janice	MINERALS_SS_10
Khorshidi, Niyayesh	MINERALS_SS_01
Kieffer, Marie	MINERALS_SS_03
King, Olivia	EARTH_SS_17
Kinney, Carson	EARTH_GS_01
Knaack, Derek	MINERALS_SS_10
Kontak, Daniel J.	EARTH_SS_05
Koptev, Egor	EARTH_SS_20
Kosche, Katherine	SPACE_SS_03
Krampert, Luis	EARTH_SS_05
Kruk, Mary	EARTH_SS_23
Kruk, Mary	WATER_SS_14
Kunert, Alexandra	EARTH_SS_11

Kupiec, Catherine	EARTH_SS_25	Lemelin, Myriam	SPACE_SS_03
L		Lentz, David	MINERALS_SS_08
Labelle, Laurence	WATER_SS_04	Lentz, David	MINERALS_SS_12
Labrie, Josh	SPACE_SS_01	Lesher, Michael	MINERALS_SS_03
Lafrance, Sacha	EARTH_SS_18	Léveillé, Richard	LIFE_SS_01
Lafrance, Bruno	MINERALS_SS_03	Li, Wenxuan	EARTH_SS_19
LAHUE, Rémi	MINERALS_SS_10	Li, Qianqian	WATER_SS_03
Lamrani, Rim	EARTH_SS_22	Liggett, Jessica	WATER_SS_09
Landry, Zoe	LIFE_GS_01	Linares, Eduard	EARTH_SS_11
Langford, Joelle	WATER_SS_04	Lindroos, Eve	LIFE_GS_01
Larmagnat, Stéphanie	EARTH_SS_08	Lindsay, Matthew B. J.	MINERALS_SS_07
Larsen, Rune B.	EARTH_SS_03	Locat, Ariane	EARTH_SS_24
Larson, Kyle	EARTH_SS_19	Lowe, David	EARTH_SS_12
Last name, First name	CJML_SESSION	Ludwig, Eric	WATER_GS_01
Laureijs, Christiaan	EARTH_SS_19	Luna, Jeannette	SPACE_SS_03
Laverge, Margaret	MINERALS_SS_11	Lussier, Aaron	MINERALS_SS_08
Lawley, Christopher	EARTH_SS_23	Lyon, Ken	EARTH_SS_25
Lawley, Christopher	MINERALS_SS_02	**M**	
Lebel, Daniel	EARTH_SS_25	Mackie, Ceilidh	WATER_SS_06
Lee, Dave	WATER_SS_12	Maghdour Mashhour, Samer R.	MINERALS_SS_03
Lee, Sharon	WATER_SS_15	Mah, Patrick	WATER_SS_09
Legere, Reid	EARTH_SS_05	Mahajan, Tanuj	WATER_SS_03

Malay, Kiersty	EARTH_SS_04	Mechem, Marc	SPACE_SS_03
Malegus, Paul	MINERALS_SS_03	Mercier-Langevin, Patrick	MINERALS_SS_12
Malo, Thomas	EARTH_SS_26	Mercure Nadeau, Marilys	WATER_SS_02
Marchildon, Mason	WATER_SS_04	Meshkin-Far, Azadeh	WATER_GS_01
Martin, Robert F.	MINERALS_SS_08	Mesich, Nickolas	EARTH_SS_26
Maslehat, Mahdi	EARTH_SS_20	M'hamdi Alaoui, Ilham	MINERALS_GS_01
Matheson, Edward (Ted) J.	KNOWLEDGE_SS_02	Miall, Andrew	EARTH_SS_10
Mathieu, Lucie	EARTH_SS_27	Michalchuk, Ben	EARTH_SS_25
Mathy, Anaëlle	EARTH_SS_19	Mijajlovic, Tatiana	SPACE_SS_03
Mauws, Cole	MINERALS_SS_07	Milier, Killian	MINERALS_SS_03
McAlpine, Hailey	SPACE_SS_02	Mishra, Aastha	SPACE_SS_02
McBeth, Joyce	KNOWLEDGE_SS_03	Mitchell, Roger	EARTH_SS_02
McBeth, Joyce	MINERALS_SS_10	Mitton, Adam	WATER_SS_07
McClain, Cynthia	WATER_SS_07	Mkhonto, Sharlotte	MINERALS_SS_03
McClain, Cynthia	WATER_SS_14	Mloszewski, Aleksandra	MINERALS_SS_01
McCutcheon, Jenine	MINERALS_SS_10	MOHAMADIAN, HAMED	WATER_SS_06
McDonald, Brayden	EARTH_SS_11	Mohammadi, Nadia	EARTH_SS_02
McDonald, Corina	KNOWLEDGE_SS_02	Mohammadi, Nadia	EARTH_SS_04
McDonald, Andrew	MINERALS_SS_07	Molson, John	WATER_SS_05
McDonald, Andrew	MINERALS_SS_08	Mongeau, Philippe	MINERALS_SS_05
McFarlane, Chris	MINERALS_SS_08	Monteiro, Bruno	MINERALS_SS_07
McFarlane, Lauren	SPACE_SS_01	Montenegro, Nicholas	MINERALS_GS_01
McKeen, Dylan	EARTH_SS_15		

Morrell, Taylor Rae	EARTH_SS_21	Neil, Benjamin	EARTH_SS_04
Morrill, Penny	LIFE_SS_01	Neuville, Daniel	EARTH_SS_01
Morrison, Audrey	LIFE_SS_02	Neyedley, Kevin	MINERALS_SS_12
Moulton, Benjamin	EARTH_SS_01	NGOMBE, Othniel Glodie Dominique	WATER_SS_05
Mount, Sarah	MINERALS_SS_01	Ngoran, Gilles	MINERALS_SS_08
Moyo, Annah	MINERALS_SS_02	Nguyen, Hoang Anh Tu Lavie	EARTH_SS_14
Mugford, Taylor	MINERALS_SS_11	Nicholls, James	MINERALS_SS_08
Mulkerns, Lauren	WATER_SS_07	Nichols, Sam	EARTH_SS_06
Mulligan, Riley	EARTH_SS_26	Nielsen, Julia	MINERALS_GS_01
Mungall, James	EARTH_SS_03	Ning, Guangrong	MINERALS_SS_07
Mungall, James	MINERALS_SS_03	Noonan, Gillian	SPACE_SS_01
Munoz, Mayra	EARTH_SS_25	Normandeau, Alexandre	EARTH_SS_09
Murphy, J. Brendan	EARTH_SS_04	Northover, Joanna	KNOWLEDGE_SS_02
Murphy, J. Brendan	EARTH_SS_20		
Murtonen, Shannon	MINERALS_SS_01	Omran, Sausann	WATER_SS_01
Musiyachenko, Kira	EARTH_GS_01	Onat, Kaan	EARTH_SS_21
		Onstad, Courtney	KNOWLEDGE_SS_02
Nadeau, Olivier	MINERALS_GS_01	Orlóci-Goodison, Ruth	EARTH_GS_01
Nadeau, Olivier	MINERALS_SS_11	Orlóci-Goodison, Ruth	EARTH_SS_27
Nambaje, Claude	MINERALS_SS_08	Osinchuk, Alix	EARTH_SS_19
Naulot, Rémi	EARTH_SS_15	Osinski, Gordon	SPACE_SS_03
N'da, Angoran Baudelaire	WATER_SS_06	Osman, Mutasim	EARTH_GS_05
Neil, Benjamin	EARTH_GS_01		

N

O

P

Packard, Jeffrey J.	KNOWLEDGE_SS_02	Pearce, Michelle	EARTH_SS_20
Palombi, Dan	EARTH_SS_23	Pedemonte Castro, Giovanni	MINERALS_SS_11
Palombi, Dan	WATER_SS_05	Pedreira Pérez, Rocío	MINERALS_SS_01
PANJEH FOULADGARAN, AREF	WATER_SS_07	Pennefather, Caroline	WATER_SS_12
Paradis, Daniel	WATER_SS_11	Percival, Jeanne	EARTH_SS_25
Parks, Jen	KNOWLEDGE_SS_05	Percival, Jeanne	MINERALS_SS_09
Parsa, Mohammad	EARTH_SS_22	Perreault, Emilie	WATER_SS_03
Partin, Camille	EARTH_SS_11	Peters, Dustin	MINERALS_SS_03
Pastier, Elisa	WATER_GS_01	Petersen, Aidan	EARTH_SS_12
Pastula, Chelsea	EARTH_SS_11	Peterson, Ronald	SPACE_SS_01
Patel, Deep	SPACE_SS_03	Piilonen, Paula	MINERALS_SS_08
Pattison, David	EARTH_SS_19	Pingitore, Federico	EARTH_SS_16
Pattrick, Elli	WATER_SS_07	Pinon, Héloïse	EARTH_SS_15
Paulen, Roger C.	EARTH_SS_26	Pippy, Ryan	EARTH_SS_05
Paulen, Roger	KNOWLEDGE_SS_02	Pippy, Ryan	MINERALS_SS_02
Pavlovskii, Igor	WATER_SS_07	Plouffe, Justin	EARTH_SS_19
Pawlowski, Jordan	MINERALS_GS_01	Polat, Ali	EARTH_GS_01
Paz Jaramillo, Carolina	EARTH_SS_18	Ponsin, Violaine	WATER_SS_02
Peace, Alexander	EARTH_SS_20	Poulsen, Howard	MINERALS_SS_05
Pearce, Julian	EARTH_SS_14	Power, Ian	EARTH_SS_25
Pearce, Julian	EARTH_SS_18	Pratt, Brian	EARTH_SS_27

Prevec, Stephen	EARTH_SS_03	Román, Nelson	MINERALS_SS_11
Prevec, Stephen	MINERALS_SS_03	Rosa, Eric	WATER_SS_12
Priddell, Taggert	EARTH_SS_21	Ross, Pierre-Simon	MINERALS_SS_03
Prieto-Espinoza, Maria	WATER_SS_02	Rossiter, Steven	MINERALS_SS_01
Prytulak, Julie	WATER_SS_03	Roush, James	MINERALS_SS_08
Pumphrey, Kerry-Anne	KNOWLEDGE_SS_03	Roy, James W.	WATER_SS_06
Pumphrey, Kerry-Anne	WATER_SS_02	Royer-Lavallée, Alexandre	WATER_SS_07
Pysklywec, Russell	EARTH_SS_20	Ruiz-Arriaga, Daniel	EARTH_GS_05
R		Russell, Hazen	KNOWLEDGE_SS_02
Rabbani, Aneesa Ijaz	EARTH_SS_12	Russell, Hazen	WATER_SS_14
Rahimi, Reza	WATER_SS_02	Russell, Mackenzie	SPACE_SS_01
Rainbird, Robert	EARTH_SS_03	Ryan, Cathy	WATER_SS_13
Rakhimbekova, Sabina	KNOWLEDGE_SS_02	Ryan, Cathy	WATER_SS_14
Rayhorn, Bryanna	EARTH_SS_15	Ryuh, Yoni	MINERALS_SS_04
Reiha, Blythe	WATER_SS_04	**S**	
Riahi Najafabadi, Shokouh	EARTH_SS_03	Sabean, Jenn	KNOWLEDGE_SS_02
Rice, Jessey	EARTH_SS_26	Salminen, Johanna	EARTH_SS_14
Rich, Jonathan	EARTH_SS_20	Salo, Camryn	EARTH_SS_21
Risch, Valerie	WATER_SS_06	Sánchez Celis, Diana Marcela	EARTH_SS_02
Rivard, Christine	WATER_GS_01	Sano, Yuji	EARTH_SS_05
Rivera, Alfonso	WATER_SS_14	Santos, Gabriel	EARTH_SS_15
Roland Marun, Magnus	EARTH_SS_07	Santos, Ana Claudia	MINERALS_SS_01
Rolfe, Olivia	EARTH_SS_20	Santos, Arielle	WATER_SS_02

Sappin, Anne-Aurélie	EARTH_SS_02	Shimolina, Arina	SPACE_SS_02
Sarkar, Shramana	MINERALS_SS_10	Shotayo, Pelumi	WATER_SS_07
Saumur, Benoit	EARTH_SS_05	Shuster, Jeremiah	MINERALS_SS_10
Saumur, Benoit	MINERALS_SS_03	Šilerová, Dana	EARTH_SS_17
Sayles, Matthew	EARTH_SS_20	Siles Malta, Isaac	EARTH_SS_19
Sbabou, Fatima Zahra	EARTH_GS_01	Silva, Ricardo L.	EARTH_SS_07
Schoenherr, Nicole	MINERALS_SS_08	Silva, Ricardo L.	EARTH_SS_07
Schofield, Marina	MINERALS_SS_05	Silva, Ricardo L.	EARTH_SS_10
Schumann, Dirk	MINERALS_SS_08	Simard, Renée-Luce	EARTH_SS_16
Schwangler, Martin	EARTH_SS_15	Simmons, Jack	MINERALS_SS_11
Schwarz, Deana	KNOWLEDGE_SS_02	Simon, Adam	EARTH_SS_05
Schwerdtner, Walfried	EARTH_SS_21	Simpson, Hugh	WATER_SS_12
Scotese, Christopher R.	EARTH_SS_14	Simpson, Hugh	WATER_SS_13
Sehli, Bouthaina	WATER_GS_01	Sio, Corliss Kin I	SPACE_SS_03
Shahhosseini, Kimia	EARTH_SS_04	Slater, Greg	LIFE_SS_01
Sharpe, David	WATER_SS_14	Smerdon, Brian	WATER_SS_16
Shawwa, Nabil	MINERALS_SS_04	Smith, Jennifer	MINERALS_SS_03
Shchepetkina, Alina	EARTH_SS_10	Smith, Travis	WATER_SS_13
Shellnutt, Greg	EARTH_SS_03	Smythe, Duane	MINERALS_GS_01
Shellnutt, Greg	EARTH_SS_04	Sogoba, Djelika	MINERALS_SS_01
Shen, Ping	EARTH_SS_05	Soltanmohammadi, Azam	EARTH_SS_18
Shepley, Martin	WATER_SS_15	Somera, Reginald	WATER_SS_01
Shillito, Anthony P.	EARTH_SS_10	Somera, Reginald	WATER_SS_14

Soucy La Roche, Renaud	EARTH_SS_16	Strongman, Keaton	EARTH_SS_06
Spalding, Jennifer	EARTH_SS_21	Strowbridge, Susan	EARTH_SS_19
Spangler, Leland	EARTH_SS_23	Suclan, Catherine	EARTH_SS_05
Speight, Sarah	EARTH_SS_27	Sulistyohariyanto, Faris	EARTH_SS_04
Speight, Sarah	MINERALS_SS_01	Sullivan, Elizabeth	EARTH_SS_11
Spence, Jonathan	MINERALS_SS_07	Sulyman, Nafiu	MINERALS_SS_12
Spencer, Chris	EARTH_SS_14	Swart, Madeline	WATER_SS_02
Spencer, Christopher	SPACE_SS_01	Swing, Megan	EARTH_GS_05
Sproat, Colin	EARTH_SS_27	Szaranski, Jacob	WATER_SS_03
Sproat, Colin	KNOWLEDGE_SS_05	**T**	
Sproat, Colin	LIFE_SS_02	Taborda Ortiz, Maria Alejandra	EARTH_SS_08
Sproule, Rebecca A.	MINERALS_SS_03	Tang, Shuang	EARTH_SS_19
Srivastava, Ananya	SPACE_SS_03	Tarazona, Cesar	EARTH_SS_03
Stanley, Cliff	MINERALS_SS_02	Tarkyth, Dene	EARTH_SS_14
Stephan, Tobias	EARTH_SS_20	Tavakoli Yaraki, Mehdi	EARTH_SS_21
Stephan, Tobias	EARTH_SS_21	Tchouanmoe, Jacques	EARTH_SS_14
Stephens, Matthew	EARTH_SS_10	Teodoro-Neville, Cassidy	EARTH_SS_12
STERN, FABIO	EARTH_SS_18	Thériault, Myriam	EARTH_SS_26
Stevens, Michelle	EARTH_SS_11	Therriault, Isabelle	EARTH_SS_21
Stewart, Ciara	EARTH_SS_10	Thiessen, Eric	EARTH_SS_21
Stotler, Randy	WATER_SS_12	Tollefson, Kyle	EARTH_SS_17
Stotler, Randy	WATER_SS_15	Tournier, Simon	EARTH_SS_03
Strong, Jacob	EARTH_SS_27	Travers, Laurine	MINERALS_SS_11

Trebus, Kimberly	EARTH_SS_19	Voormeij, Danae	MINERALS_SS_10
Tremblay, Tommy	EARTH_GS_05	**W**	
Tremblay, Tommy	EARTH_SS_26	Waldron, John	EARTH_SS_15
Tripathi, Priya	SPACE_SS_02	Waldron, John	EARTH_SS_15
Trudeau, Mary	WATER_SS_14	Wallisch, Larissa	EARTH_SS_25
Tsang, Man-Yin	EARTH_SS_07	Walter, Julien	WATER_SS_12
Tunney, Libby	SPACE_SS_01	Wang, Dayan	EARTH_GS_01
Turner, David	MINERALS_SS_09	Wang, Yu	EARTH_GS_01
U		Wang, Yufei	MINERALS_SS_02
Umbsaar, Jade	EARTH_SS_06	Wang, Jiahe	WATER_SS_02
V		Wang, Xuanqi	WATER_SS_09
Valente Cavalcanti de Albuquerque, Gil Pedro	MINERALS_SS_11	Wang, Zijian	WATER_SS_09
van Hinsberg, Vincent	EARTH_SS_11	WENG, JIAQI	WATER_SS_01
van Hinsberg, Vincent	KNOWLEDGE_SS_02	Whalen, Joseph B.	EARTH_SS_04
van Rooyen, Deanne	EARTH_SS_15	Whattam, Scott	EARTH_SS_04
van Rooyen, Deanne	EARTH_SS_15	Whattam, Scott	EARTH_SS_18
Van Weelderen, Nils	EARTH_SS_02	White, Shawna	EARTH_SS_21
Vasyukova, Olga	EARTH_SS_02	Wiebe, Andrew	WATER_SS_07
Vessey, Colton	MINERALS_SS_07	Williams-Jones, Anthony	EARTH_SS_02
Vice, Lianna	EARTH_SS_21	Voormeij, Danae	MINERALS_SS_10
Voinot, Alexandre	MINERALS_SS_01	Wilson, Sasha	MINERALS_SS_10
von der Handt, Anette	MINERALS_SS_07	Wimmer, Sabs	EARTH_SS_11

Woldemedehn, Kidus	MINERALS_SS_07
Wortmann, Ulrich	EARTH_SS_07
Wynter, Poppy	EARTH_SS_10

X

Xu, Elizabeth	EARTH_SS_06

Y

Yakymchuk, Chris	EARTH_SS_19
Yang, Xue-Ming	EARTH_SS_04
Yang, Jieci	MINERALS_SS_08
YILDIRIM, Gokhan	MINERALS_SS_08
Yip, Cheuk Yin	EARTH_SS_16
Yogi, M. Thereza	EARTH_SS_19
Young, Nahanni	MINERALS_SS_04
Yousefi, Fazilat	EARTH_SS_04
Yousefi, Fazilat	MINERALS_SS_08
Yu, Eva	MINERALS_SS_01
Yuan, Zhongzheng	MINERALS_SS_01
Yuan, Yizhi	WATER_SS_02

Z

Zagorevski, Alex	EARTH_SS_17
Zaman, Zara	SPACE_SS_02
Zanatta, Corey	WATER_SS_07
Zhou, Zhiyu	SPACE_SS_02

St. John's 2026
GAC-MAC | AGC–AMC

Join us next year for GAC-MAC I AGC-AMC
in St. John's NL from May 25-28, 2026!

https://event.fourwaves.com/stjohns2026

