

Middleton Medal 2016 reception

The Middleton Medal was given to D. Lavoie and celebrated twice in Quebec City. First, Denis received the medal officially from Michel Malo during a GSC reception and it was later celebrated after hours in a local pub (this was done pre-social media style; so you will not find evidence...). Congrats again Denis on a well deserved award!

Message from the Chair

Happy New Year! After several years of service to the CSRG, Robert MacNaughton decided that it was time to pass the treasurer's torch to another CSRG supporter.

A warm welcome to Robert Sharp (Trans Polar Geological Consultants Inc) and deepest **thanks to Robert MacNaughton (NRCan)** for his many years of service!!

GAC-MAC in Kingston 2017

This year's Annual Meeting of the Geological Association of Canada (GAC-MAC) will be held May 14-18, 2017 in Kingston, ON. Visit <http://www.kingstongacmac.ca/en/> for more information.

Student field trip subsidies at GAC-MAC

CSRG is pleased to offer financial support to students to participate to a field trip at GAC-MAC. Students: Don't miss out on this opportunity! Supervisors: Please tell your graduate students about it! Send your application to the CSRG Chair ASAP!! For more details, please visit: http://www.gac.ca/wp/?page_id=10462

Sponsored sessions at GAC-MAC:

The Department of Geological Sciences & Geological Engineering at Queen's and the GSC will be hosting the meeting, which will have a celebratory flavor this year (the 175th anniversary of the founding of the GSC in Kingston). Hope to see lots of CSRGers at this year's GAC-MAC meeting! Please consider submitting an abstract; the deadline for **abstract submission is February 28th, 2017**. Below is a list of sessions that are specifically sponsored by the CSRG.

Sedimentary Depositional Systems: Local to Basin Scale – Noel James (Queen's); Robert Dalrymple (Queen's). Sedimentary depositional systems throughout geologic history record the complex interactions between near-surface physical, biological, and geochemical processes. The resulting deposits are proxies for understanding all aspects of global terrestrial, and marine environments as well as climate and oceanography on the evolving earth. As such they are also a critical part of any strategy used to search for and extract resources including ground water, hydrocarbons, and mineral deposits. This session will be a venue for researchers and interested practitioners to exchange the latest ideas about links between depositional processes, environmental context, and the nature of the deposits at scales ranging from local facies to basin-scale stratigraphic organization. Presentations are encouraged about sedimentary deposits of all types (siliciclastic, carbonate, evaporite, and geoelemental), ranging in age from the Archean to the modern. Individual research presentations will be supplemented by a number of state-of-the-art reviews that examine individual depositional systems in a global context.

Diagenesis – Steve Beyer (Queen's); Eric E. Hiatt (University of Wisconsin), Charlie Jefferson (GSC). Understanding the nature of the physical, mineralogical, and geochemical changes caused by diagenesis is key to interpreting an ever-broadening spectrum of processes involving paleoenvironmental proxies, the paleohydrology of sedimentary basins, the origin of sedimentary-hosted mineral deposits, the impacts of CO₂ storage, and groundwater systems to name a few. Additionally, developments in micro-analytical techniques and geochemical analyses have made generating large volumes of geochemical data commonplace; however, in many cases, data generation has outpaced our understanding of diagenetic processes. We invite contributions that reflect the current breadth of diagenetic studies and applications in siliciclastic, carbonate, and evaporite successions, in fields that include geochemistry, geochronology, mineral deposits, and petroleum geology. We also seek to showcase research that applies the latest mineralogical and geochemical techniques to diagenetic and integrated basin analysis studies using streamlined treatment of large data volumes. In particular, studies that investigate the role of microbes in the broader geosphere-biosphere processes involved in the upper several kilometers of the Earth's crust are encouraged.

Glacial Processes and Deposits: Advances and Applications – Isabelle McMartin (GSC); Roger Paulen (GSC); Janet Campbell (GSC); Nick Eyles (U of T); Martin

Ross (Waterloo). A considerable portion of the Earth surface was once affected by glaciers, ice sheets or ice shelves during its recent and past history, and modern ice sheets still cover most of Greenland and Antarctica. Glacial landforms and deposits extend across large portions of land and continental shelves and thus support human infrastructure and affect human activities in numerous ways. This session welcomes papers relating to any aspect of glacial processes and deposits with a focus on emerging approaches in glacial landsystem studies, modern and past glacial environments, and applications of economic and environmental significance. Topics may include, but are not restricted to, process sedimentology, glacial erosion and its effects, the identification of glacial sequences in ancient glaciated terrains, glacial sediment provenance studies and implications for glacial stratigraphy, glacial history and resource exploration, development of innovative field and laboratory methods to understand glacial processes, and recent advances in glacial deposit mapping approaches.

Geology of Canada in 3D: new geoscience compilations and related digital tools and methods – Rob Harrap (Queen's), Boyan Brodaric (NRCan), Dave Synder (NRCan), Marc St-Onge (NRCan), Hazen Russell (NRCan). Geological surveys and academic researchers are increasingly producing regional scale compilations in the form of 2D maps and 3D geological models. These then form the basis for diverse geological tasks from mineral exploration through hazard assessment and environmental impact assessment. Topics addressed in this session include how geological models are conceptualized and delivered, both from the perspective of the underlying geoscience issues and the capabilities of the computational tools being used. Investigations may range from attempts to build 'Canada in 3D' down to the scale of an individual outcrop, and include discussions of how we can capture, integrate, analyze, synthesize and deliver high quality geological interpretations to support effective decision making by experts, as well as effective transfer of geoscience knowledge to students and the general public. Submissions are invited across the spectrum from compilation approaches through innovative applications of technology towards geoscience model construction. Case studies grounded in field examples are especially encouraged.

Surficial Geological Investigation and Groundwater Studies: Applications from contaminate to regional water supply studies – Hazen Russell (GSC); Dave Sharpe (GSC); Andy Bajc (OGS). The importance of understanding geologic controls on surface and groundwater flows, and how geologic frameworks can be used to predict where significant recharge and discharge

areas occur, as well as where aquifers are more susceptible to surface contamination is broadly recognized. Improved geological understanding that depict lithofacies and depositional architecture and geometry at length scales of metres to kilometres can provide information on the spatial variability at scales relevant for both local and regional groundwater modeling and resource management. The session will focus on the Quaternary geology and groundwater, updates on geological frameworks, the implications for aquifer /aquitard distribution, connectivity, and heterogeneity. Contributions will be supported by stratigraphic, sedimentological, geophysical and geochemical analysis of the Quaternary geology and hydrogeological datasets.

Call for Session Proposals RFG, 2018

Next year, GAC-MAC and CIM are organizing the Resources for Future Generations conference, an IUGS event; this will be a CONFERENCE ON ENERGY, MINERALS, WATER, and THE EARTH you will not want to miss! When? June 16-21, 2018 | Where? Vancouver Convention Center | Vancouver, BC, CANADA

Session proposals will be accepted until March 2017. Visit <http://www.rfg2018.org/en.aspx> for more information.