

Pre-Conference Guide

This is a live document, designed to help in preparations for the 2024 conference.

This document will be updated with any schedule changes, new exhibitors, new sponsors and new events as needed

Last update: April 5, 2024

June 17 - 19

Calgary Telus Convention Center

July 15 – October 30

On-Demand







Sponsorship Opportunities are Available

GeoConvention and our Partner Societies are very grateful for the support of our sponsors, without which GeoConvention would not be able to provide the best-in-class integrated geoscience content, knowledge sharing and valuable networking opportunities. All GeoConvention proceeds are distributed directly to our non-profit partner technical societies to assist them in their education and outreach programs aimed at advancing the earth sciences; on behalf of our earth science community, thank you for your consideration.

SILVER LEVEL SPONSORS





























BRONZE LEVEL SPONSORS













MEDIA SPONSOR





Welcome to GeoConvention 2024

Dear GeoConvention Attendees,

Greetings from the GeoConvention 2024 organizing committee, the GeoConvention Partnership Board, and partner societies!

We extend a warm welcome to all participants as we convene for GeoConvention 2024, where we gather this June to share insights, exchange ideas, and collectively map our trajectory towards greater achievements.

Through the diligent efforts of our session chairs and the invaluable contributions of countless earth science professionals, our comprehensive program promises a journey of reflection, celebration of past milestones, exploration of emerging science and methodologies, and collaborative exploration of present and future prospects, both within and beyond the realms of oil and gas.

GeoConvention serves not only as a forum for intellectual discourse but also as a hub for fostering connections, rekindling friendships, and expanding networks. We encourage all delegates to actively engage, learn, and interact, as we strive to elevate our understanding of earth science to unprecedented heights.

May your time at the conference be both enriching and enjoyable.

We express our heartfelt gratitude to our organizing committee, session chairs, presenters, sponsoring organizations, participants, and volunteers for their unwavering dedication and contributions, which form the bedrock of the conference.

We extend our sincere appreciation for the continued support of the CSEG and CEGA, and extend a warm welcome to GeoConvention 2024!



geoconvention partnership

On behalf of the GeoConvention Partnership, the partner societies CEGA and CSEG, and the Organizing Committee, we thank you for joining us.

Devika Naidu CSEG General Chair



Gary Bugden
CEGA General Chair



TABLE OF CONTENTS

Conference Features	4
Opening Keynote	5
Exhibition	6
GeoConvention Extras	Coming Soon
Poster Listing	7-10
Poster Listing Monday Program	7 – 10 11–14

PROGRAM SUBJECT TO CHANGE

For the most up-to-date information check out the online program

PLEASE NO PHOTOS OR VIDEOS OF PRESENTATION MATERIALS

GeoConvention provides a means to share, publish, and collaborate on the latest developments in geoscience research and applications. By registering for GeoConvention 2024, you agree to not record, screen capture, or in any way reproduce material presented at the conference. Abstracts will be publicly available. Presentation materials (audio and visual) are intellectual properties of the authors and should not be disseminated, in any way, by registrants.



ORGANIZING COMMITTEE

General Co-Chair General Co-Chair Posters Chair Judging Chair Finance Chair Student Outreach Social Media Digital Production Committee Member Committee Member Committee Member

Committee Member

Devika Naidu
Gary Bugden
Shannon Hiebert
Julia Davison
Spryng Kubicek
Nicole Virginillo
Jesus Parra
Chris Harrison
Alexandra Gauci
Ahmed Alawa

Richard Baker

Catherina Khairallah



Energy Innovation Pavilion

New for 2024, GeoConvention is excited to feature an energy innovation pavilion to highlight the vast amount of work that is being done within the energy industry to drive efficiencies and change.

Featuring a stage surrounded by booth space, the pavilion space will be a space where companies and delegates can network and learn during this exciting time in our development.

The stage program will be available as confirmed and is set to include panel discussions, fire-side chats and individual presentations focused on the following:

- Energy Security
- Training, Talent and Skills
- Emissions Reduction
- Roll of Geoscience in the Energy Systems Future
- Carbon and Carbon Capture Basics
- Software advances and AI
- Company-specific successes and lessons learned

register now

Mobile App

The GeoConvention Mobile App, accessed by downloading the PheedLoop Go! App. This will be your go-to for the latest schedule, presenter information, connecting with attendees, evaluating the talks you take in and playing our in-conference game!

Once the virtual platform welcome emails have been sent, download the app and search for GeoConvention to add the conference app to your dashboard.

Core Showcase

Located in two separate areas of the exhibit floor, the 2024 Core Showcase will allow delegates to view core samples and learn about the stories behind them. With unique core and presenters featured each day, you will want to be sure to stop by often! The showcase will feature a selection of core from various formations. Program and core sample information coming soon!

Networking and Luncheons

GeoConvention 2024 will host an opening icebreaker after the keynote on Monday, June 17th, 4:30pm and a follow up networking event on the exhibit floor on Tuesday, June 18, 4:00pm.

The CSEG will be hosting a Networking Luncheon at the Palomino Smokehouse on Tuesday, June 18. Tickets to the CSEG networking lunch are \$35.

CEGA will be hosting a luncheon featuring Ellie MacInnes from CGG and a discussion on how Society needs Geoscience. Now, more than ever; individual tickets are \$70.

Join the Conversation

Join us through our social media channels to gain the latest insights from the GeoConvention Team and participating individuals and companies!

#geocon2024

















GeoConvention is excited to welcome Adam Waterous, Arjun Murti, Glen McCrimmon and moderator Shelley Leggitt

Monday, June 17, 3:30pm Exhibit Hall E

GeoConvention invites you to a thoughtful discussion on the global energy climate and Canada's low-carbon goals with Adam Waterous from Waterous Energy Fund and Strathcona Resources, Arjun Murti from Veriten, and Glen McCrimmon from Clean Resource Innovation Network (CRIN), moderated by Shelley Leggitt, VP Geoscience at Kiwetinohk Energy Corporation. The Opening Keynote will be delivered June 17, 3:30pm on the Exhibit Hall E stage.



Shelley Leggitt, Moderator

Shelley Leggitt, VP of Geoscience at Kiwetinohk Energy Corporation (KEC), boasts 35 years of expertise in conventional and unconventional plays in Western Canada. Previously serving as VP of Geoscience at Velvet Energy, she oversaw teams pioneering Montney development at Gold Creek and Pouce Coupe, advancing seismic techniques for deep basin gas exploitation. At NAL Resources, she directed exploration across assets spanning SE Saskatchewan to AB's Sturgeon Lake Montney. Notably, at EOG Canada, she spearheaded early Horn River Basin development and Duvernay East Shale exploration. With leadership roles at Enerplus and Encana/PanCanadian, she's contributed significantly to the industry. Holding a Master's in Geology from McMaster University, Shelley is a registered Professional Geologist in Alberta and actively engaged with CEGA, serving as President-Elect.

Adam Waterous

Adam, former Global Head of Investment Banking at Scotiabank, founded Waterous Energy Fund in 2017. He led Scotia Waterous to prominence in oil and gas acquisitions globally from 2005 to 2016. Co-founding Waterous & Co., acquired by Scotia Capital in 2005, Adam began his career at First Boston Corporation and McKinsey & Company. Beyond finance, he's active in community and industry endeavors, earning accolades such as the Queen Elizabeth II Diamond and Platinum Jubilee Medals. Adam chaired Calgary Economic Development's CEO Roundtable and served on the Harvard College Fund Executive Committee. He cofounded Invest Alberta Corporation and holds degrees from the University of Western Ontario and Harvard Business School.as distinguished as a Baker Scholar.





Arjun Murti

Arjun Murti, with over 30 years' experience on Wall Street, has covered the global energy sector extensively as a sell-side equity research analyst, buy-side investor, advisor, and board member. Notably, he spent 15 years at Goldman Sachs before retiring in 2014 as Co-Director of Americas Equity Research. Arjun began his career at Petrie Parkman & Co in 1992 and later joined J.P. Morgan Investment Management. Currently, he directs Super-Spiked, a Substack newsletter and podcast on the energy transition. Arjun serves as a Director on the Board of ConocoPhillips, Senior Advisor to Warburg Pincus' Energy Group, and advisory roles at Columbia University and The Nature Conservancy's India Advisory Board. Joining Veriten aligns with his mission for truth in energy and navigating the complex energy transition landscape. Beyond work, Arjun enjoys golf and family time. He graduated with a B.S.B.A. in Finance from the University of Denver in 1992.

G. Glen McCrimmon MSc. P. Geo

Glen McCrimmon, Director of Operations at CRIN, is a seasoned energy leader renowned for fostering innovation and driving change. With a wealth of experience in corporate innovation, subsurface technicalities, portfolio management, and strategic planning, he champions progress by emphasizing that "better is always different." Formerly Husky Energy's Chief of Innovation, Glen orchestrated collaborative efforts to nurture innovation industry-wide. His journey includes roles as Chief Geologist and Manager of Frontier Exploration at Husky, alongside tenure at Imperial Oil. Glen's career spans diverse locations like Houston, St. John's, and Calgary. He holds a BSc in Geology from the University of Regina and an MSc in Earth Sciences from the University of Ottawa.



EXHIBITION HOURS

June 17th

MONDAY

4:30 PM - 7:00 PM

June 18th

TUESDAY 8:20 AM – 6:30 PM June 19th

WEDNESDAY

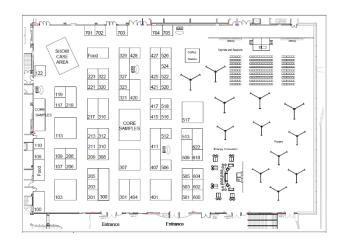
8:20 AM - 3:30 PM

EXHIBITION REGISTRATION IS OPEN

Be part of where oil finders and decision makers gather. We invite you to exhibit in-person and as a part of our virtual offering as we target an international audience of geoscience and energy professionals. GeoConvention gives companies the opportunity to display their products and services to a highly focused audience of earth science professionals.

The 2024 Conference is positioned to attract a strong local turnout as well as national and international participants through a virtual presence, with a forecast of up to 3100 people expected to attend.

submit application



CURRENT EXHIBITORS

COMPANY (listed in alphabetical order, as of Thursday, April 4, 2024)

AGAT Laboratories

Alberta Energy and Minerals

Alberta Energy Regulator

Alberta Geological Survey

Applied Petroleum Technology

Association of Professional Engineers and Geoscientists of

Alberta (APEGA)

Atlas 2027

Belloy / GazServ

BitCap Inc.

Cabra Consulting, Ltd

Canadian Coalition of Women in Engineering, Science, Trades,

and Technology

Canadian Discovery

Canadian Energy Geoscience Association

Canadian Society of Exploration Geophysicists

CHAD Data

Chinook Consulting

DigitCore

DownUnder GeoSolutions (America) LLC

Enverus

Environmental Isotope Lab, University of Waterloo

EVA by Turing Analytics

Geo ExPro

GeoConvention Partnership

Geospace Technologies Canada, Inc.

Geothermal Canada

Government of Newfoundland and Labrador

Green Imaging

Hydrocarbon Data Systems, Inc.

Ikon Science

Instrumental Software Technologies, Inc

Loring Tarcore Labs Ltd.

Nanometrics

Natural Resources Canada

OptiSeis Solutions Ltd.

Petrocraft Products Ltd

Petro-Explorers Inc.

Pro Geo Consultants

Prostate Cancer Centre

Pulse Seismic

Queen's University - MEERL

Rock Flow Dynamics

ROGII

Rose & Associates Canada, Ltd.

RPS Energy Canada Ltd.

S&P Global Commodity Insights

SeisPetro Geoconsulting

SeisWare International Inc

ShearFRAC

Slb

Sound QI Solutions Ltd

Spectrum Geosciences Ltd.

subsurfaceAl Inc

TGS

WellSight Systems Inc

Energy Innovation Pavilion

Eavor Technologies Inc.



Analysis of rock type and flow units in clastic reservoirs using core samples from the Bredasdorp

Analysis of the Relationship between Hydraulic Fracture Pressure Curve Patterns and Facies of the

Application of GIS and Remote Sensing for Solid

Waste Management In Peshawar -Pakistan

Basin (Field F-A) in South Africa

Montney Formation

Poster Sponsors:		Prestack Seismic Data - An Offshore Eastern Canada case study.	Elena Polyaeva
TOURMALINE KING	wetinohk° energy	Archie's Rocks in Virtual Laboratory	Leon Fedenczuk
Paper Title	Presenter	Assessing the Efficacy of Geostatistical Simulation and Simultaneous Inversion in Characterizing Thin Beds and Prospective Zones	Qazi Imran
A Comprehensive Comparison Study between Energy Storage Systems along the Oldman River Basin	Mojtaba Rahmani	Assessing the Potential of Hydrogen Storage in Salt Caverns -A Lotsberg Case Study	Lin Yuan
A numerical simulation study of rock matrix dissolution in different tight carbonate gas reservoirs during CO2 injection and sequestration process	Jiangyuan Yao	Assessment of the probability of success and risking in hydrocarbon exploration: A case study from Zindapir Anticline, Sulaiman Foldbelt, Indus Basin, Pakistan	Adeel Nazeer
A specific type of modeling error evaluation for viscoelastic full waveform inversion	Tianze Zhang	Basin and Petroleum System Modeling of the Lake Edward Basin, Albertine Graben, Uganda	Joshua Ssuubi
Accelerating Subsurface workflows thru Automated Data and ML Pipelines	Raj Kannan	Business Model and Feasibility of Carbon Capture and Storage in Depleted Fields and Large Subsurface Geological Sites in Pakistan	Waqas Habib
AI Modeling of CO2 and H2S Pure Gas and Their Mixture Solubility in Water and NaCl Brine	Wei Wei	Canadian Policy Opportunities for the Geothermal Energy Industry - 2024	Alison Thompson
Alberta's Mineral Mapping Program: Public Geoscience to Support Alberta's Mineral Strategy	Levi Knapp	CO2 solubility and diffusivity in brines: insights from laboratory tests and implications for geological CO2 storages	Xiaojun (Albert) Cui
An Overview of Petroleum Potential of Pakistan Offshore	Adeel Nazeer	Comparison Of Density Based Toc And Passey Method	Umer Abdur Rehman

Appraising Hydrocarbon Potential with Regional

Creation of a stratigraphical consistent seismic

Decarbonizing remote communities in Canada: A

Deep Learning-Based Recognition and Phase

Detection of Microseismic Events: Real-World

Application and Validation with Synthetic Elastic

Case Study of Tu Deh-Kah geothermal project, Fort

profile for machine learning

Nelson, BC

Prestack Seismic Data - An Offshore Eastern Canada

Elena Polyaeva

	Seismic Models	
Application of LS-SVM Method in Probabilistic Stability Analysis of Saturated Soil Slopes	Fatemeh Pariafsai	

Omar Derder

Nicole Virginillo

Muhammad Iqbal

David Emery

Mohammad

Hossein khosravi

Davood Nowroozi

POSTERS

Density, Porosity, and Permeability Measurements in Granite for Nuclear Waste Site Characterization	Nathan Deisman	Exploring Geothermal Energy with Large Language Models	Kamran Haddadian
Direct measurement of frequency-dependent phase velocities from snowflake data	Chioma Chineke	Exploring in Angola, West Africa for Oil and Gas in Lower Cretaceous Carbonates in the Offshore and Onshore Lower Congo and Kwanza Basins	Tako Koning
Distribution of upper Paleozoic coal seams in the southeastern Ordos Basin	Yunwen Guan	Feasibility Study of CO2 Capture and Storage in Canadian Unconventional Reservoirs and the Associated Geothermal Energy Production	Wanju Yuan
Effect of Dual Casings Design on Casing Collapse Prevention in High Pressure Formations, Case Study: One of Iranian Southwest Oilfields	Hamed Naderi	Fracture Characterization of Devonian Carbonates in Northern AB, using image logs and cores	Simona Costin
Effects of CO2 / H2S Acid Gas Injection on Sandstone: A Physical Characterization	Michael Obermajer	Geochemistry of Duperow Formation brines: Mechanisms of enrichment and obstacles for direct Li extraction	Thomas Avram
Elastic and Thermal Cross-Property Relationships in Porous Media: An Inverse Modelling Approach	Ali Madani	Geologic hydrogen exploration in lithosphere	SUNJAY SUNJAY
End-to-End Workflow for Managing Large Volume Data from CCUS	Sue Carr	Geomodelling Weather Patterns of Canada in 2050: Predictions and Implications	Muhammad Karim Khan
Energy Analysis of Geothermal Heat Pump for Indoor Aquatic Facilities	Rama Murugan	Ground-source Heat Pump Systems for Sustainable Greenhouse Facilities	Madhu Ramanathan
Enhancing Carbon Sequestration with Geothermal Energy and Critical Element Recovery: A Circular Economy Approach in Alberta	Nilesh P Joisar	High-resolution Three-Dimensional outcrop-based characterization of shoreface sequence architectures on an uplifting interbasinal relay zone: the Late Pleistocene Corinth Rift, Greece	Junaid Arif
Enhancing Geological Model Development through Machine Learning Integration in Mapping Workflows: A Case Study of the Bendigo Zone, Victoria, Australia	limin xu	How Big is Carbon Capture: visualizing the size of emission and proposed storage	Calin Dragoie
Enhancing Reservoir Characterization with RTAPK Methods	Mohammadebrahim Shabani	How can we use VSP?	Michelle Montano Spagnolo
Epithermal Ag-Au mineralization at Galim- Legalgorou, Cameroon Volcanic Line: evidence from ore mineralogy and electrum microchemistry	Terence Cho Ngang	Hydrogen UnderGround (HUG)	Timo Hietava
Existence of Mineral Sands and Economic Minerals for the Potential Resource in Bangladesh	Anowar Hossen	Improved Advanced Reservoir Characterization through Inversion Techniques: A Comparative Study	Hamza Hamid

POSTERS

In-Situ Water-Rock Interactions as the Source of Brine-Hosted Lithium: Implications for Developing a Deposit Model	Brendan Bishop	On the development of enhanced geothermal gradients in the southwestern Northwest Territories	Taís Pinto
Integrated geophysical investigation to explore magnesite and chromite at Nosratabad, South-East of Iran	Seyedeh Sahar Raeiszadeh	On the stability of stress inversions from earthquake mechanisms	Adam Baig
investigate the Influence of the rheological properties on lava flow Dynamics Through Numerical Simulation with analogue materials	Mahsa Bokharaeian	Optimization of the Operating Strategy for the ES-SAGD Process in different Oil sands Reservoir Quality	Viet Nguyen-Le
Investigating Heterogeneities in the Basal Cambrian Sandstone	James Simpson	Overview of Critical Mineral Resources and Exploration Opportunities in Pakistan	Shabeer Ahmed
Joint inversion using frequency-dependent amplitude and phase of spherical reflected wave	Binpeng Yan	Paleogeograhic reconstruction of western North America in the Jurassic: from foredeep to rift basin	Thomas Hadlari
Laboratory Methods to Determine Residual Saturations for Geological CO2 Storage in the Basal Cambrian Sandstone	Patrick Russell	Radiogenic heat production (RHP) over an area in SE Alberta calculated from radioactive elements 238U, 232Th and 40K detected by airborne gammaray spectrometry survey	Phil Harms
Laboratory Thermal Rock Properties Measurements of Hard Rock at In-Situ Condtions	Nathan Deisman	Radon in indoor air and well proximity: Could unintended radon gas migration be a vector?	Lawrence Quartey
Learning to solve elastic wave equation with the Clifford Fourier neural operator	Tianze Zhang	Regional Syntheses of the Miocene successions in Libya and the Mediterranean, with emphasis on Eocene and Cretaceous in Sirte Basin	Salah El-Ekhfifi
Mapping Lithium Brine Sweet Spots in Devonian Oil And Gas Reservoirs in Alberta	Xiaolong Peng	Reservoir Characterization and Capacity Calculation for CO2 Storage Using AI/ML Techniques in Gandhar Oil Field, Cambay Basin, India	Akash Nair
Mesozoic rift-related exhumation along the Newfoundland margin recorded by low- temperature thermochronology	Emily Johns-Buss	Reservoir characterization of the Red River Formation, Williston Basin, southeastern Saskatchewan: a revitalized resource opportunity	Ashlee Thomas
Mineral Precipitation Assessment of Potential Geothermal Fluids in Clarke Lake Field for Future Geothermal Utilization	Kamran Hassani	Revisiting the Geothermal Potential of the Dehcho Region in NWT, Canada	Emily Smejkal
Modernizing the Well Design Process for Field Development	Austin Newman	Robust Seismic data denoising via self-supervised deep learning	Ji Li
Mud barriers/baffles and lean zones identification in oil sands reservoir through joint PP-PS pre-stack seismic inversion, multi-attributes regression, and Bayesian classification	Jinling Zhang	Seismic site characterization using active and passive surface wave analysis in Addis Ababa, Ethiopia	Biruk Wolde

POSTERS

Shale Oil Development; Analysing the Impact of the Audu Dauda Shale Oil Revolution on the Global Energy Market Simultaneous prediction of velocity and angle-Ziguang Su dependent reflectivity in time domain FWI Statistic Analysis of Lithium Distribution in Reservoir Rocks across West Canadian Sedimentary Jiangyuan Yao Basin (WCSB) Structural Geological (2D/3D) and Geomechanical Modeling (Elastic Dislocation Theory); The Key **Tools for Sub-Seismic Faults and Fracture Corridor** Imran Khan Identification in Carbonate Reservoirs. A Case Study from Kohat-Potwar FB of Pakistan The Critical Role of LNG in the Global Energy Tako Koning **Transition and Energy Security** The Effectiveness Of Post Grouting For Sealing A Maliduwa gamage Hard Rock Tbm Tunnel - A Case Study From Uma Jayanath Oya Project, Sri Lanka The Impact of 3D Sampling on McMurray Andrea Crook **Formation Imaging** The influence of inherited paleotopography on the Marilyn Becerra de evolution of early to middle Albian sediment-Rosales routing systems in southeastern Alberta The role of geomechanics in Carbon storage Youcef Bouchachi project, case study of the Ahnet basin Algeria The Spectrum of Geothermal Technologies -**Emily Smejkal** Updated Thermochemical Sulfate Reduction Modeling and Its influence on H2S concentrations and Porosity of Wei Wei **Carbonate Reservoirs** Time-lapse FWI of VSP data using the FD-injection He Liu method To Extract the Geothermal Energy using Runzhi Li **Supercritical Carbon Dioxide for Saskatchewan Province's Reservoirs**

Unlocking the Potential of Hydrogen Exploration in Pakistan

Husnain Yousaf

Unveiling the Chemistry of Scale Deposits: Insights from Microscopy Analysis

Emily Vanderstaal

Jaime Cesar

What can isotope geochemistry of shale gas teach us about hydrogen systems?



Poster Presentations

In-person posters will be presented at specific times. Each poster will have a unique poster board for presenters to display their work.

For the on-demand conference, only poster presenters who elect to provide a recording of their poster presentation will be available.

MONDAY MORNING

Telus 101-102

	Seismic Processing, Imaging and Inversion - part 1	Geothermal Energy - Harnessing the Heat Below our Feet!	CCS Workflows: What has been borrowed from subsurface energy methods, and what must change from recommended standards? - part 1
	Session Chairs: Svetlana Bidikhova and Faranak Mahmoudian	Session Chairs: Robinson Olugbemiro and Catherine Hickson	Session Chairs: Ryan Lemiski and Taylor Berezowski
8:35-9:00	Application of Yu's wavelet filtering and SVI technique in first arrival picking	Geothermal Potential of Hot Plutons in Western Canada	Hydro'Carbon' systems and what it can teach us about putting the 'Carbon' back, a CCS systems case study
	Liansheng Liu	Stephen Grasby	James Johnson
9:00-9:25	Toward Realistic Modelling, Imaging and Inversion Testing	Accelerating Geothermal Development in Canada with Advanced Geothermal System (AGS) Technology	Controversies in Carbon Capture and Geological Storage
	Daniel Trad	Steven Brown	Ryan Lemiski
9:25-9:50	Effect of lossy ZFP compression on Least-squares migration convergence	Decarbonizing remote communities in Canada: A Case Study of Tu Deh-Kah geothermal project, Fort Nelson, BC	Theseus Onshore CCS Seismic MMV Strategy
	Átila Quintela	Mohammad Hossein khosravi	Lee Hunt
9:50-10:35	COFFEE BREAK WITH EXHIBITORS AND POSTER PRESENTATIONS		
10:35-11:00	Challenges of 5D interpolation on GPUs using the non-uniform Discrete Foruier Transform	Investigating ways to improve knowledge towards the implementation of geothermal systems to harness heat	24D Onshore CCS Seismic MMV Tactic
	Kai Zhuang	Christine Rivard	Lee Hunt
11:00-11:25	Hamiltonian Monte Carlo methods for uncertainty quantification in waveform inversion	Ground-source Heat Pump Systems for Sustainable Greenhouse Facilities	24D Onshore CCS Seismic MMV Experiment
	Jinji Li	Madhu Ramanathan	Lee Hunt
11:25-11:50	Linearized waveform inversion for vertical transversely isotropic elastic media	Increasing Longevity and Supply through Geothermal Wellbore Maintenance: A Lakeview, Oregon Case Study	
	Ke Chen	Rochelle Longval	
11:50-12:15	Integrated Interpretation for Upholes and Small- refraction Data Based on Tomography Inversion		
	liansheng Liu		

Telus 104-105

Glen 201-202

MONDAY MORNING

	Glen 203-204	Glen 205	Glen 206	Glen 208-209
	Atlas of the Western Canada Sedimentary Basin 2027; The Big Picture on Integrated Geoscience in the Digital World - part 1 Session Chairs: Gregory Lynch and Neil Watson	Helium - Canada geology, exploration, government and industry economics Session Chairs: Calin Dragoie and Duncan Mackenzie	Bridging the Gap - Geoscience & Engineering - part 1 Session Chairs: Evan Mutual and Olivia Henderson	Hydrogen geological storage and natural resources, an old concept to meet a modern challenge, global decarbonization - Part 1 Session Chairs: Omid Haeri Ardakani and James Brydie
8:35-9:00	History of exploration and oil & gas development in the Western Canada Sedimentary Basin	Volatiles analysis of drill cuttings to evaluate helium prospectivity in Manitoba	Linking the spatial variability of carbon isotopic composition of surface casing vent flow gases to geology and well characteristics in an interactive map of the Lindbergh heavy oil field, Alberta, Canada	Hydrogen UnderGround (HUG)
	Simon Mauger	Michelle Nicolas	Gabriela Gonzalez Arismendi	Timo Hietava
9:00-9:25	The Devonian of WCSB: overview of GSC contributions over the last 10 years	Stratigraphy, sedimentology, and ichnology of the middle Cambrian to Lower Ordovician deposits in subsurface Western Canada	It's time to innovate on the WRM workflow	Temperature and Pressure Control for Compressed Underground Hydrogen Storage
	Pavel Kabanov	Andrei Ichaso Demianiuk	Erich Funk	Antoine Bachand
9:25-9:50	Atlas 2027: Upper Triassic Charlie Lake Maps		Optimization of SAGD Well Elevation Utilizing Characteristics of Vertical Permeability Distribution in Multi-realized 3-D Reservoir Models	Isotope fingerprinting of produced hydrogen and its potential regulatory applications
	Jonathan White		Namhwa Kim	John Gibson
9:50-10:35	COFFEE BREAK WITH EXHIBITORS AND POS' PRESENTATIONS	TER		
10:35-11:00	Strategy for Assembling the Stratigraphic Jigsaw Puzzle of the Lower Cretaceous Mannville/Blairmore Groups and Equivalents	Working with Canadian Governments to Enable the Western Canadian Helium Sector	Experimental Evaluation of Water/CO2-flooding to Enhance Oil Recovery from Low- Permeability Unconventional Reservoirs	Developing Risk-Based Assurance Monitoring Strategies for Underground Hydrogen Storage
	Michael Ranger	Richard Dunn	Chengyao Song	James Brydie
11:00-11:25	Coast Belt Arc Tempo Drives Rocky Mountain Foreland Basin	Whiskey-Tango-Finance! A Geoscientist's View of the Helium Market	A Clearwater Multilateral Well Case Study: Reviewing Diminishing Normalized Productivity Relative to Aggregate Lateral Lengths	Lotsberg Halite Formation: lithological and geochemical constraints for a prime H2 cavern target in Alberta, Canada
	Gregory Lynch	David Johnson	Rhonda Gravel	Pavel Kabanov
11:25-11:50			Bakken OHML Case Study - a low	Assessing the Potential of Hydrogen
			permeability success story	Storage in Salt Caverns -A Lotsberg Case Study

MONDAY AFTERNOON

MOND	MONDAY AFTERNOON				
	Telus 101-102	Telus 104-105	Glen 201-202	Glen 203-204	
	Seismic Processing, Imaging and Inversion - part 2 Session Chairs: Svetlana Bidikhova and Faranak Mahmoudian	Geomodelling Session Chairs: Jeffery Larsen and Tim McCullagh	CCS Workflows: What has been borrowed from subsurface energy methods, and what must change from recommended standards? - part 2 Session Chairs: Ryan Lemiski and Taylor Berezowski	Atlas of the Western Canada Sedimentary Basin 2027; The Big Picture on Integrated Geoscience in the Digital World - part 2 Session Chairs: Gregory Lynch and Neil Watson	
1:25-1:50	Targeted nullspace shuttles of time-lapse full waveform inversion with application to CO2 plume monitoring Kimberly Pike	Building a Model of the Devonian Shale Basin, central NWT Jonathan Rocheleau	A review of CCUS caprock across Saskatchewan	Geologic Map, Well and Seismic database Developments for Structural Assessment of the Cordilleran Foreland Belt Mark Cooper	
1:50-2:15	Seismic data shaping with transformer encoder neural networks applied to CO2 injection monitoring data	Geomodelling Weather Patterns of Canada in 2050: Predictions and Implications	Exploring Carbon Storage Frontiers: Insights from Legacy Exploration Data on the Scotian Shelf	Understanding fluid migration in the Western Canada Sedimentary Basin: theory, observation, modelling & applications	
	Jorge Monsegny	Muhammad Karim Khan	Natasha MacAdam	Andy Mort	
2:15-2:40	Computer Vision Approach for Automated Fracture Hit Detection in Low-frequency Distributed Acoustic Sensing	Quantifying local uncertainty using map-based monte-carlo workflow in Petrel	Wave-Dominated Tidal Flat Deposits and Structurally Controlled Deposition within the Basal Cambrian Sandstone (BCS)	Storage Under Pressure: How Geological Atlases Contribute to and Facilitate Emissions Management	
	Camilo De La Hoz Lozano	Aurelien PIERRE	Dave Herbers	Kirk Osadetz	
2:40-3:05	2D-DCT sparsity based interpolation for seismic data				
	Zahra Sadeghi				

MONDAY AFTERNOON (Continued)

3:30-4:30

OPENING KEYNOTE

	Glen 205	Glen 206	Glen 208-209
	Helium - US geology and exploration Session Chairs: Calin Dragoie and Duncan Mackenzie	Bridging the Gap - Geoscience & Engineering - part 2 Session Chairs: Evan Mutual and Olivia Henderson	Hydrogen geological storage and natural resources, an old concept to meet a modern challenge, global decarbonization - Part 2 Session Chairs: Omid Haeri Ardakani and James Brydie
1:25-1:50	Applications In Utilizing Soil Gas Geochemistry To Calibrate Helium Exploration Models On The Four Corners Platform, Usa	Chart Toppers 2: Electric Boogaloo	Mapping geologic hydrogen resource prospectivity
	Daniel Halford	Simon Wong	Geoffrey Ellis
1:50-2:15	Helium - Relationships to other reservoir gases	Bias And Uncertainty Making Good Decisions	Natural gases in the Finnish bedrock - current status and
	and some implications for exploration: The New Mexico example	Under Subsubsurface Uncertainty	future prospects
	Ronald Broadhead	Jim Gouveia	Markku Hagström
2:15-2:40	Advanced Novel Analyses of Helium in Legacy Cores from Nine Wells having Known Helium Contents: An Attempt to Develop a Helium Exploration and Production Tool.	Is Industry Logging Enough Wells?	Saskatchewan's Hydrogen Potential
	Christopher Smith	Fred Hyland	Melinda Yurkowski
2:40-3:05		A Comprehensive Comparison Study between Energy Storage Systems along the Oldman River Basin	What can isotope geochemistry of shale gas teach us about hydrogen systems?
		Mojtaba Rahmani	Jaime Cesar

TUESDAY MORNING

Telus 101-102

Serafim Grubas

Telus 104-105

	Subsurface Data Science: A Modern Frontier of Exploration	Celebrating 50 Years of Geothermal Excellence by Canadians - part 1	Active and Passive Seismic for Monitoring of CO2 injection: Best Practices and Recent Advances	Speaker Series: Technical Talks by CEGA and CSEG 2023 Award Recipients
	Session Chairs: Bobby Gunning and James Johnson	Session Chairs: Catherine Hickson and Emily Smejkal	Session Chairs: Rob Kendall and Ben Witten	Session Chairs: Alison Essery and Kennedy Nwafor
8:35-9:00	How does data science impact publication?	The Spectrum of Geothermal Technologies - Updated	3D time-lapse RTM of DAS-VSP field data	Geological Characterization of Montney reservoir Quality West Central Alberta
	James Johnson	Emily Smejkal	Xiaohui Cai	Daniela Becerra
9:00-9:25	Improving geoscience data access with automated workflows	Canadian Policy Opportunities for the Geothermal Energy Industry - 2024	Using continuous fiber optic for Carbon storage monitoring - DSS and DAS applications from the CMC-CaMI Newell County Facility	Hydrocarbon change and petroleum system evolution of the Montney Formation: A multidisciplinary case study of the Blueberry sub-play in Northeast British Columbia, Canada
	Paritosh Bhatnagar	Alison Thompson	Marie Macquet	Elizabeth Watt Dallin Laycock
9:25-9:50	Towards Optimized Completion: A Data-Driven Proxy for WCSB Wells	Eavor's Pathway to Growth, from local field scale demonstration to international deployment	Improved microseismic event detection with CATS: A case study of the QUEST CO2 storage facility, Alberta.	Opportunities Overseas for Geoscientists: Lessons Learned and Future Outlook
	Tamer Moussa	Jeanine Vany	Wardah Fadil	Tako Koning
9:50-10:35	COFFEE BREAK WITH EXHIBITORS PRESENTATIONS	AND POSTER		
10:35-11:00	Robust Seismic data denoising via self-supervised deep learning	Unlocking Saskatchewan's Low Enthalpy Geothermal Resources	Sparse CO2 seismic monitoring at the CaMI field research station	A comparison of incised valley systems in underfilled low to intermediate accommodation foreland basin settings: an example from the Basal Quartz and McMurray Formations, Lower Cretaceous Mannville Group, WCSB
	Ji Li	Brian Brunskill	Brendan Kolkman-Quinn	Brian Zaitlin
11:00-11:25	Unsupervised clustering of mining-induced microseismicity Himanshu Barthwal	The history of geothermal research in Canada Alan Jessop	Microseismic monitoring of CO2 injection at CaMI - Newell County: comparison and integration of technologies Joanna Cooper	Mission Canyon and Charles Formations stratigraphy in southern Saskatchewan: A New Perspective Dean Potter
11:25-11:50				

Glen 201-202

Glen 203-204

Don Lawton

TUESDAY MORNING (continued)

TOLSD	AT MORINING (CO	ittiiiaeaj		
	Glen 205	Glen 206	Glen 208-209	Hall E
	Petrophysics - part 1	Critical Minerals: Exploration, Mineralogy and Environmental Challenges	Revival of the carbonates – some basics, advances and applications to the Energy Industry - part 1	Induced Seismicity: Monitoring, Risk Management, and Mitigation Strategies - part 1
	Session Chairs: Nasir Rahim and Kelly Skuce	Session Chairs: Mashrur Zaman and Yongyi Li	Session Chairs: David Hills and Eva Drivet	Session Chairs: Sepi Karimi and Rick Nakamoto Canadian Natural
8:35-9:00	Prediction of Petrophysical Properties from Well Log Data using the Adaptive Neuro-Fuzzy Inference System (ANFIS)	Alberta's Mineral Mapping Program: Public Geoscience to Support Alberta's Mineral Strategy	A new look at Devonian carbonates of western Canada by the Alberta Geological Survey	Two decades of research on injection- induced seismicity: What have we learned?
	Peng Luo	Levi Knapp	Alex MacNeil	David Eaton
9:00-9:25	Evaluation of Chemical EOR Performance: The Critical Role of Rock Properties and Fluid-Rock Interactions	Overview of Critical Mineral Resources and Exploration Opportunities in Pakistan	A Petrophysical Assessment of the Ireton Caprock Sealing Capacity by Integrating Lithofacies and Mercury Injection Capillary Pressure Analyses	Discrepancy in the Magnitude Values of Earthquakes in the Western Canada Sedimentary Basin
	Adnan Younis	Shabeer Ahmed	Huiju Geng	Honn Kao
9:25-9:50	Fundamentals of Porosity System Analysis in Tight Rocks	Fluid inclusions provide insights into the genesis of the Kwyjibo Iron-Oxide- Apatite (IOA) REE deposit, Québec, Canada	Predicting reservoir properties: why carbonate diagenesis is the key to understanding pore systems and fluid flow	Earthquake iso-nuisance and iso-damage maps for the risk management of induced seismicity: Initial concepts
	Graham Spray	Gary Fung	Cathy Hollis	Mauricio Reyes Canales
9:50-10:35				
10:35-11:00	Archie's Rocks in Virtual Laboratory	Critical Minerals - Rare Earth Elements, Lithium and Copper - Ore Deposit Types and Global Distribution	The middle Wymark Member of the Duperow Formation in SW Manitoba: sedimentology and paragenesis of an under-explored reservoir unit	Earthquake iso-nuisance and iso-damage maps for the risk management of induced seismicity: preliminary application in Alberta
	Leon Fedenczuk	Randolph Rice	Lauren Eggie	Elwyn Galloway
11:00-11:25	Magnetic measurements for assessing mineral contents in areas of potential geothermal prospects in Northern Alberta	Lithotype analysis of hyperspectral imagery collected from drill core for the purpose of rapidly identifying critical mineral deposits in Alberta	Stratigraphic Architecture of the Jasper Basin, North-Central Alberta Front Ranges	Enhancing Risk Mitigation Strategies: Beyond the Seismic Catalog
	Elena Temnikova	Michelle Tappert	John Weissenberger	Mark Novakovic
11:25-11:50	Comparison Of Density Based Toc And Passey Method	Application of Natural Language Processing in Detecting New Critical Mineral Deposits: BC Carbonatite Case Study	Revised Frasnian and youngest Givetian Stratigraphic Framework, Alberta Outcrops and Subsurface	Passive seismic monitoring empowered by AI
	Umer Abdur Rehman	Afshin Amini	Murray Gilhooly	Sepi Karimi
11:50-12:15			Sequence Stratigraphic Architecture Of The Frasnian Cline Channel, Central Alberta Front Ranges	Injection-Induced Seismicity Forecast using Analytical and Machine-Learning-Based Approaches in Northeast British Columbia, Canada
			Pak Wong	Ali Mahani
12:15-12:40			Carbonate Reservoir Mapping, Correlation, and Modeling - Insight from Modern Analogs Paul (Mitch) Harris	
			Taar (wittern) Harris	

TUESDAY AFTERNOON

	Telus 101-102	Telus 104-105	Glen 201-202	Glen 203-204
	Advances in AVO inversion and reservoir characterization	Celebrating 50 Years of Geothermal Excellence by Canadians - part 2	CCUS - Shaping Tomorrow's Sustainability	Mountains to Margins - New Ideas in Global Exploration and Development
	Session Chairs: Raul Cova and Sean Contenti	Session Chairs: Catherine Hickson and Emily Smejkal	Session Chairs: Francis Morin and Greg Maidment	Session Chairs: Kent Wilkinson and Catherine Huff
		Geothermal - Saskatchewan Focus Session Chairs: Emily Smejkal and Brian Brunskill		
1:25-1:50	The Impact of Seismic Geometry on Facies-Based Inversion	Canadian expertise and financing in global geothermal exploration and development	Judy Creek Swan Hills Stratigraphy, Facies, and Reservoir Quality Reevaluation for CCUS Geomodelling	The Critical Role of LNG in the Global Energy Transition and Energy Security
	Anasatsya Teitel	Catherine Hickson	Michelle Lund Joel Collins	Tako Koning
1:50-2:15	Mud barriers/baffles and lean zones identification in oil sands reservoir through joint PP-PS pre- stack seismic inversion, multi- attributes regression, and Bayesian classification	Blue Mountain "Faulkner 1" 49.5 MW Geothermal Power Plant, Nevada - A Canadian Story	Is Carbon Capture and Storage Ruined by Old Wellbores Leakage	An Overview of Petroleum Potential of Pakistan Offshore
	Jinling Zhang	Brian Fairbank	Richard Baker Brian Pratt	Adeel Nazeer
2:15-2:40	Direct Modelling of Reservoir Properties from Seismic using PDF Transforms	Exploration and definition of the 320 MW (inferred) resource; Mariposa Geothermal System, Chile	Carbon Capture and Storage: An Applicants Guide to British Columbia's Regulatory Framework for Storing or Disposing of Carbon Dioxide	Salt Tectonics and Its Influence on the Structural Evolution of Potwar Plateau Fold-Thrust Belts, Pakistan
	John Pendrel	Catherine Hickson	Tony Grimison	Rana Faisal Shahzad
2:40-3:20	COFFEE BREAK WITH EXHIBITORS AN PRESENTATIONS	ID POSTER		
3:20-3:45	Facies Driven Seismic Inversion for Improved Reservoir Characteristics and Geomechanics modeling: A Montney case study	To Extract the Geothermal Energy using Supercritical Carbon Dioxide for Saskatchewan Province's Reservoirs	Carbfix - turning CO2 to stone	Sand Body and Fault Characteristics in the Context of Oil and Gas Accumulation: A Case Study of the Baoyunting Area
	Alvin chen	Runzhi Li	Katrin Steinthorsdottir	Sujie Yan
3:45-4:10	Anisotropic priors for probabilistic AVA inversion	Exploitation of Geothermal Reservoir in Regina Area by Designing and Optimizing Multiple-well Arrangements	Business Model and Feasibility of Carbon Capture and Storage in Depleted Fields and Large Subsurface Geological Sites in Pakistan	Exploring in Angola, West Africa for Oil and Gas in Lower Cretaceous Carbonates in the Offshore and Onshore Lower Congo and Kwanza Basins
	Scott Leaney	Yue Zhuo	Waqas Habib	Tako Koning
4:10-4:35	"Exploring the Conventional and Unconventional Hydrocarbon Potential of Complex and Heterogeneous Reservoir Units in the Lower Goru Formation: An Integrated Approach for Reservoir Characterization"	Comparative Geothermal Study between the Mannville Shallower Aquifer and the Deep Winnipeg/Deadwood Formation	Enhancing Carbon Sequestration with Geothermal Energy and Critical Element Recovery: A Circular Economy Approach in Alberta	Exploring the depths of South America
	MUHAMMAD ASIF KHAN	Marziyeh Kamali	Nilesh P Joisar	Sorrel Holmes
4:35-5:00	Assessing the applicability of Gassmann's fluid substitution equation for CO2 storage in underground reservoir rocks	Energy Analysis of Geothermal Heat Pump for Indoor Aquatic Facilities		
	Jorge Nustes Andrade	Rama Murugan		

TUESDAY AFTERNOON (continued)

Petrophysics - part 2	
1.25-1.50 The role of wetability on seismic wave attenuation Seak to the Future: Lithium Analyses of Devonian Brines Devonian Brines The Many Fac() is of the Cooking Lake Formation and Their Implications for CCS Wubing Deng Natasha Morris Salt of the Earth: The Lithium Potential of Tormation evaluation of Visean organic rich formation evaluation of Visean organic rich formation with limited logging dataset in Inpipo-Donets Basin, Ukraine Sviatoslav luras Salt of the Earth: The Lithium Potential of Ne BC Submissispipian arbonate ramp, Tenn-Ky, USA. On the stability of stress into Lover Mississippian arbonate ramp, Tenn-Ky, USA. On the stability of stress into Lover Mississippian arbonate ramp, Tenn-Ky, USA. On the stability of stress into Lover Mississippian arbonate ramp, Tenn-Ky, USA. On the stability of stress into Lover Mississippian in Alboration of Characterization with RTAPK Mapping Lithium Recovery Potential of Devonian Aquifers in the Western Characterization with RTAPK Mapping Lithium Recovery Potential of Devonian Aquifers in the Western Characterization with RTAPK Mapping Lithium Recovery Potential of Devonian Aquifers in the Western Characterization with RTAPK Mapping Lithium Recovery Potential of Devonian Aquifers in the Western Characterization with RTAPK Mapping Lithium Recovery Potential of Devonian Aquifers in the Western Characterization with RTAPK Mapping Lithium Recovery Potential of Devonian Aquifers in the Western Characterization with RTAPK Mapping Lithium Recovery Potential of Devonian Aquifers in the Western Characterization Mohammadebrahim Shabani Amin Ghanizadeh Diano Ortega Ariza Ismael Vera Rodriguez Ismael Vera Rodriguez	
Wave attenuation Devonlan Brines Lake Formation and Their Implications for CCS	to
1:50-2:15 Unconventional reservoir formation evaluation of Visean organic rich formation with Imited logging dataset in Dnipro-Donets Basin, Ukraine Sviatoslav luras Skaush Rakhit C. Robertson Handford Adam Baig	smicity using
formation evaluation of Visean organic rich formation with limited logging dataset in Dnipro-Donets Basin, Ukraine Sviatoslav luras Enhancing Reservoir Characterization with RTAPK Methods Mapping Lithium Recovery Potential of Devonian Aquifers in the Western Canadian Sedimentary Basin (Alberta) Mohammadebrahim Shabani Amin Ghanizadeh Diana Ortega-Ariza Density, Porosity, and Permeability Measurements in Granite for Nuclear Waste Site Characterization in Granite for Nuclear Waste Site Characterization Nathan Deisman Dispersed Clay Identification and Modeling in Sandstones Modeling in Sandstones Alexander Haluszka of NE BC Stabilization of In-exchange materials for Ilthium recovery from brines supercritical-flow bedforms in a Lower Mississippian carbonate ramp, remeability enhancement in a naturally fractured carbonate reservoir. The Buda Formation of Panelist: Jess Kozman Panelist: Jess Kozman Panelist: Jess Kozman	eh
Enhancing Reservoir Characterization with RTAPK Methods Mapping Lithium Recovery Potential of Devonian Aquifers in the Western Canadian Sedimentary Basin (Alberta) Methods Mohammadebrahim Shabani Amin Ghanizadeh Diana Ortega-Ariza COFFEE BREAK WITH EXHIBITORS AND POSTER PRESENTATIONS 3-20-3-45 Density, Porosity, and Permeability Measurements in Granite for Nuclear Waste Site Characterization Nathan Deisman Brendan Bishop Brendan Bishop Dispersed Clay Identification and Modeling in Sandstones Model Dispersed Clay Identification and Modeling in Sandstones Jeremy Gallop Alexander Haluszka Alexander Haluszka Alexander Haluszka Mand Aginer Schale Schale Schale Paleogeographic distribution of Lower Mississippian shallow-water, low-latitude heterozoan-biosiliceous and photocoan across continental U.S. and SW Canada: regional and local controls on deposition Diana Ortega-Ariza Ismael Vera Rodriguez Mud Volcanism and the Origin of Green Shales in the Devonian Swan Hills Formation, Alberta, Canada Mills Formation, Alberta, Canada Morgan Howrish The 2024 Feature Panel will by pragmatic application of artif intelligence, emphasizing its judgmenting efficiency and permeability enhancement in a naturally-fractured carbonate reservoir: The Buda Formation of Alexander Haluszka Alexander Haluszka Alexander Haluszka Alexander Haluszka Alexander Haluszka Burrow-associated porosity and permeability enhancement in a naturally-fractured carbonate reservoir: The Buda Formation of	ersions from
Characterization with RTAPK Methods Characterization with RTAPK Methods Canadian Sedimentary Basin (Alberta)	
2:40-3:20 COFFEE BREAK WITH EXHIBITORS AND POSTER PRESENTATIONS 3:20-3:45 Density, Porosity, and Permeability Measurements in Granite for Nuclear Waste Site Characterization Nathan Deisman Nathan Deisman Brendan Bishop Brendan Bishop Lithium Resource Estimates for Petro and Geothermal Brine Projects: What Porosity Value to Use? Jeremy Gallop Alexander Haluszka Stabilization of ion-exchange materials for lithium recovery from brines Lin-Situ Water-Rock Interactions as the Source of Brine-Hosted Lithium: Implications and Hills Formation, Alberta, Canada Mod Volcanism and the Origin of Green Shales in the Devonian Swan Hills Formation, Alberta, Canada Modernal Brine Projects: What Programatic application of artification and lagons: Application to mixed carbonate-silliciclastic successions in the Chary Group (Ordovician), eastern North America A:10-4:35 Stabilization of ion-exchange materials for lithium recovery from brines Stabilization of ion-exchange materials reservoir: The Buda Formation of Panelist: Jess Kozman	•
PRESENTATIONS 3:20-3:45 Density, Porosity, and Permeability Measurements in Granite for Nuclear Waste Site Characterization Nathan Deisman Brendan Bishop Dispersed Clay Identification and Modeling in Sandstones Dispersed Clay Identification and Porosity Value to Use? Jeremy Gallop Alexander Haluszka Alexander Haluszka Burrow-associated porosity and permeability enhancement in anaturally-fractured carbonate reservoir: The Buda Formation of Green Shales in the Devonian Swan Hills Formation, Alberta, Canada Mud Volcanism and the Origin of Green Shales in the Devonian Swan Hills Formation, Alberta, Canada Mud Volcanism and the Origin of Green Shales in the Devonian Swan Hills Formation, Alberta, Canada Morgan Howrish Transgressing barrier islands and lagoons: Application to mixed carbonate-siliciclastic successions in the Chazy Group (Ordovician), eastern North America Alexander Haluszka Alexander Haluszka Stabilization of ion-exchange materials for lithium recovery from brines Burrow-associated porosity and permeability enhancement in anaturally-fractured carbonate reservoir: The Buda Formation of Panelist: Jess Kozman	
Permeability Measurements in Granite for Nuclear Waste Site Characterization Nathan Deisman Brendan Bishop Brendan Bishop Brendan Bishop Dispersed Clay Identification and Modeling in Sandstones Jeremy Gallop Alexander Haluszka Source of Brine-Hosted Lithium: Implications for Developing a Deposit Model Morgan Howrish The 2024 Feature Panel will le pragmatic application of artifintelligence, emphasizing its pragmatic application of artifintelligence, emphasizing its pragmatic application of artification to mixed carbonate-siliciclastic successions in the Chazy Group (Ordovician), eastern North America Alexander Haluszka Stabilization of ion-exchange materials for lithium recovery from brines Stabilization of ion-exchange materials for lithium recovery from brines Stabilization of ion-exchange materials for lithium recovery from brines Successions in the Devonian Swan Hills Formation, Alberta, Canada The 2024 Feature Panel will le pragmatic application of artifinitelligence, emphasizing its pace across existing and emerging projects. Featuring: Moderator: Marissa Reckman Panelist: Sonya Savage Panelist: Sonya Savage Panelist: Nicole Janssen Panelist: Jess Kozman	
Nathan Deisman Brendan Bishop Morgan Howrish Dispersed Clay Identification and Modeling in Sandstones Lithium Resource Estimates for Petro and Geothermal Brine Projects: What Porosity Value to Use? Jeremy Gallop Alexander Haluszka Stabilization of ion-exchange materials for lithium recovery from brines A:10-4:35 Nathan Deisman Morgan Howrish Pragmatic application of artifinitelligence, emphasizing its paugementing efficiency and peacross existing and emerging projects. Transgressing barrier islands and lagoons: Application to mixed carbonate-siliciclastic successions in the Chazy Group (Ordovician), eastern North America Robert Dalrymple Moderator: Marissa Reckman Panelist: Sonya Savage Panelist: Sonya Savage Panelist: Nicole Janssen Panelist: Jess Kozman	atories
Modeling in Sandstones Stabilization of ion-exchange materials for lithium recovery from brines Stabilization of ion-exchange materials for lithium recovery from brines Stabilization of ion-exchange materials naturally-fractured carbonate reservoir: The Buda Formation of	ficial pivotal role in
4:10-4:35 Stabilization of ion-exchange materials for lithium recovery from brines Stabilization of ion-exchange materials for lithium recovery from brines Burrow-associated porosity and permeability enhancement in a naturally-fractured carbonate reservoir: The Buda Formation of Panelist: Sonya Savage Panelist: Nicole Janssen Panelist: Jess Kozman	g energy
4:10-4:35 Stabilization of ion-exchange materials for lithium recovery from brines for lithium recovery from brines permeability enhancement in a naturally-fractured carbonate reservoir: The Buda Formation of Panelist: Jess Kozman	nn, P.Chem.
Daniel Alessi Fernando Valencia	
4:35-5:00 REEFS BY THE ROADSIDE - Presented on the 40th anniversary of the opening of the 1984 AER (ERCB) Core Research Centre building and the first CSPG core conference there, called Carbonates in Subsurface and Outcrop Leslie Eliuk	

WEDNESDAY MORNING

VVLDINL	DAY MURNING			
	Telus 101-102	Telus 104-105	Glen 201-202	Glen 203-204
	Back to basics Geophysics Session Chairs: Kelsey Mah and Mostafa Naghizadeh	Geothermal research and projects in Alberta Session Chairs: Louis Chabot and Catherine Hickson	Integrated AI and modeling workflows to improve speed and accuracy in CCUS projects planning Session Chairs: Bernard Laugier and Carmen Dumitrescu	Sedimentology, Stratigraphy and Paleontology Session Chairs: Sean Fletcher and Erin Pemberton
8:35-9:00	How can we use VSP?	Building the Geothermal Atlas of Alberta to Explore Geothermal Resource Potential	A numerical simulation study of rock matrix dissolution in different tight carbonate gas reservoirs during CO2 injection and sequestration process	Effect of salt tectonics on Triassic sedimentology and reservoir quality
	Michelle Montano Spagnolo	Arif Rabbani	Jiangyuan Yao	Lorenzo Di Lauro
9:00-9:25	Full waveform inversion with priori information in modelling space	Geothermal potential of southeastern Alberta, Canada using potential field geophysical data	Assessment of Pressure Interference from Carbon Capture Hubs: Approaches, Problem Scale, and Sensitive Parameters - method	Cambrian tectonostratigraphy: Implications for stratigraphic correlations in the WCSB and beyond
	Da Li	Phil Harms	Nelson Molina Giraldo	Lauren Madronich
9:25-9:50	Integrated geophysical investigation to explore magnesite and chromite at Nosratabad, South-East of Iran	Geothermal Potential of the Eastern Edge of the Western Canada Sedimentary Basin	Assessment of Pressure Interference in Alberta's Proposed Carbon Storage Hubs - results	Applying reservoir characterization and core analysis to expand the Upper Shaunavon Member play west of the main oil field trend in southwestern Saskatchewan
	Seyedeh Sahar Raeiszadeh	Makram Hedhli	Rob Pockar	Peter Hill
9:50-10:35	COFFEE BREAK WITH EXHIBITORS AND P PRESENTATIONS	OSTER		
10:35-11:00	Bridging of Reflectivity of Traces in Spatially Skipped Seismic Data Using Omega Matching Pursuit Fourier Interpolation (MPFI): A Case Study from Lower Indus Basin, Pakistan	Introducing An Advanced Method To Model A Single Well Closed Loop Geothermal System	The benefits from CCS and EOR projects in Alberta's carbon regulatory framework	Assessing Potential Geophysical and Environmental Impacts from Frequent Rocket Launch Missions at Kennedy Space Center
	Usama Mehmood	Shahab Ghasemi	Cynthia Hagstrom	Han Byul Woo
11:00-11:25	Time Slices Assisting in De-Risking the Traps by Reducing Uncertainties Associated with Faults Generated by Transnational Tectonics, Lower Indus Trough, Pakistan	Passive seismic monitoring of a closed-loop geothermal system in west-central Alberta	Reservoir Characterization and Capacity Calculation for CO2 Storage Using AI/ML Techniques in Gandhar Oil Field, Cambay Basin, India	Mapping Mackenzie Delta from the surface of Richardson Mountains & Caribou Hills, NWT
	Rana Faisal Shahzad	Kienan Marion	Akash Nair	Yaqub Adepoju
11:25-11:50	Geomechanics is Geophysics	Geothermal Exploration in Mature Reservoirs: Data bias and co- produced gas	Shale-CO2 reactivity: Implications for caprock integrity of carbon storage reservoirs	Comparison of daily, monthly (lunar), yearly, decadal, quarter-century, half- century, and centurial shoreline change rates at the Kennedy Space Center, Cape Canaveral, Florida
	David Gray	Evan Renaud	Mastaneh Liseroudi	Richard Mackenzie III

WEDNESDAY MORNING (continued)

Glen 206

Glen 205

Hydrogeology

	nydrogeology	Seismic Acquisition	Verification (MMV) of Injected CO2 in WCSB CCS Projects: Technologies, Case Studies, Challenges, and Lookbacks	Monthey and Duvernay
	Session Chairs: Deepreet Mand and Muhammad Sanaullah	Session Chairs: Michael Hons and Trevor Coulman		Session Chairs: Sochi Iwuoha and Matthew White
8:35-9:00	Under Pressure Identification and Characterization: An Upper Cretaceous Belly River Group CO2 Storage Complex Example	Land Acquisition Update: Nodal Seismic Acquisition	Evaluating Pressure Impacts from Sequential Development in the Shared Pore Space of Alberta's Basal Cambrian Sandstone	Composition and temperature of fluid inclusions in calcite veins in mudrocks of the Upper Devonian Duvernay Formation, Western Canada Sedimentary Basin, Alberta, Canada, and implication for hydrocarbon charge
	Kirk Osadetz	Rob Kendall	Mitchell Gillrie	Elena Konstantinovskaya
9:00-9:25	Water Resources Sustainability through Evaluation of Hydrogeological Conditions Using Dar-Zarrouk Parameters in Uchana Block of District Jind, Haryana, India	Testing multi-component fibre-optic sensors	The Quest for MMV Optimization: Effective, Adaptive CO2 Storage Risk Management	Produced water salinity mapping of the Greater Kaybob Duvernay
	Bhagwan Chaudhary	Kevin Hall	Jonathan Winsor	Bradley Culver
9:25-9:50	A preliminary assessment of reinjection of direct lithium extraction effluent-based miscible fluids in unconfined salar aquifers	The Cost of Doing Business in Seismic Acquisition	Aquistore Third Well Project: Examining a CO2-saturated aquifer in SE Saskatchewan, and How a New Observation Well Can Inform Projects about MMV and Public Engagement	Unlocking the Potential of Gas Isotope Geochemistry: Exploring its Applications to the Unconventional Duvernay Fm. of the Western Canada Sedimentary Basin
	Stefan Walter	Warren Cookson	Norm Sacuta and Zeinab Movahedzadeh	Gabriela Gonzalez Arismendi
9:50-10:35	COFFEE BREAK WITH EXHIBITORS AN PRESENTATIONS	ID POSTER		
9:50-10:35 10:35-11:00		Reducing the Impact of Seismic: Our primary subsurface tool	Multi-Technology Imaging for Efficient & Effective MMV Plans	Impact of Thermal Maturity of Shale on Well Production Performance - A Physical Simulation of Primary Production Stage in the Duvernay
	PRESENTATIONS Poroelastic Modeling of Soap Hole	Reducing the Impact of Seismic: Our		on Well Production Performance - A Physical Simulation of Primary
	PRESENTATIONS Poroelastic Modeling of Soap Hole Formation	Reducing the Impact of Seismic: Our primary subsurface tool	Effective MMV Plans	on Well Production Performance - A Physical Simulation of Primary Production Stage in the Duvernay
10:35-11:00	PRESENTATIONS Poroelastic Modeling of Soap Hole Formation Sarah Reid Using Transient Electromagnetics to Delineate a Deep Saltwater	Reducing the Impact of Seismic: Our primary subsurface tool Michael Hons On the advantages of slant seismic	Effective MMV Plans Andrea Crook Integrating radon monitoring activities into the ongoing quarterly monitoring	on Well Production Performance - A Physical Simulation of Primary Production Stage in the Duvernay Amin Alinejad Unraveling the Generation Gap: Identifying, Predicting and Setting Expectations for Parent-Child Depletion with Examples from the
10:35-11:00	PRESENTATIONS Poroelastic Modeling of Soap Hole Formation Sarah Reid Using Transient Electromagnetics to Delineate a Deep Saltwater Aquifer in Ethiopia	Reducing the Impact of Seismic: Our primary subsurface tool Michael Hons On the advantages of slant seismic acquisition geometries	Effective MMV Plans Andrea Crook Integrating radon monitoring activities into the ongoing quarterly monitoring program at the Newell County Facility	on Well Production Performance - A Physical Simulation of Primary Production Stage in the Duvernay Amin Alinejad Unraveling the Generation Gap: Identifying, Predicting and Setting Expectations for Parent-Child Depletion with Examples from the Montney near Groundbirch, BC
10:35-11:00 11:00-11:25	PRESENTATIONS Poroelastic Modeling of Soap Hole Formation Sarah Reid Using Transient Electromagnetics to Delineate a Deep Saltwater Aquifer in Ethiopia Matthew Naiden Unveiling Fluid Dynamics: Petrophysical Insights and Fluid Replacement Models in the	Reducing the Impact of Seismic: Our primary subsurface tool Michael Hons On the advantages of slant seismic acquisition geometries	Effective MMV Plans Andrea Crook Integrating radon monitoring activities into the ongoing quarterly monitoring program at the Newell County Facility Tiago Antonio Morais End-to-End Workflow for Managing Large	on Well Production Performance - A Physical Simulation of Primary Production Stage in the Duvernay Amin Alinejad Unraveling the Generation Gap: Identifying, Predicting and Setting Expectations for Parent-Child Depletion with Examples from the Montney near Groundbirch, BC Erik Munson Examining the bias - variance tradeoff for seismic inversions characterizing
10:35-11:00 11:00-11:25	PRESENTATIONS Poroelastic Modeling of Soap Hole Formation Sarah Reid Using Transient Electromagnetics to Delineate a Deep Saltwater Aquifer in Ethiopia Matthew Naiden Unveiling Fluid Dynamics: Petrophysical Insights and Fluid Replacement Models in the Middle Indus Basin	Reducing the Impact of Seismic: Our primary subsurface tool Michael Hons On the advantages of slant seismic acquisition geometries	Effective MMV Plans Andrea Crook Integrating radon monitoring activities into the ongoing quarterly monitoring program at the Newell County Facility Tiago Antonio Morais End-to-End Workflow for Managing Large Volume Data from CCUS	on Well Production Performance - A Physical Simulation of Primary Production Stage in the Duvernay Amin Alinejad Unraveling the Generation Gap: Identifying, Predicting and Setting Expectations for Parent-Child Depletion with Examples from the Montney near Groundbirch, BC Erik Munson Examining the bias - variance tradeoff for seismic inversions characterizing the Montney formation

Glen 208-209

Hall E

WEDNESDAY AFTERNOON

Telus 101-102

	Near-Surface Geophysical Methods	Geomechanics and Rock Properties in Geothermal and Carbon Storage Projects	Al for Geoscience Integration
	Session Chairs:	Session Chairs:	Session Chairs:
	Svetlana Bidikhova and Dmitri Skorinski	Amy Fox and Anna Rogers	David Gray and Jon Downton
1:25-1:50	Unbound: Unmanned Aerial Vehicles and Geophysics	Induced Seismicity Assessment in the Context of Geothermal Energy Development: A Case Study of Alberta, Canada	A machine learning alternative to sparseness
	Ross Penner	Ali Yaghoubi	Paloma Lira Fontes
1:50-2:15	Chasing Chloride Soil Contamination in the Field Using Electrical Resistivity Imaging	Assessing Geomechanical Risks in CCUS Projects: Utilizing Surface Deformation to Monitor Underground Pressure Changes	Exploring Geothermal Energy with Large Language Models
	Ashlee Fudge	Yan Jiang	Kamran Haddadian
2:15-2:40	Direct measurement of frequency-dependent phase velocities from snowflake data	3D Stress and Pore Pressure Modelling for Closed-Loop Geothermal Development in the North German Basin	Machine Learning Lineament Case Study: The Afar Triangle
	Chioma Chineke	Anna Rogers	Dan Kalmanovitch
2:40-3:20	COFFEE BREAK WITH EXHIBITORS AND POSTER PRESENTATIONS		
3:20-3:45	Very Rapid 2-D Geoelectrical Mapping from Surface Using a Novel Towed Time Domain EM Method	Elastic and Thermal Cross-Property Relationships in Porous Media: An Inverse Modelling Approach	Building a year-long seismic catalog using machine learning in British Columbia
	Paul Bauman	Ali Madani	jesus rojas parra
3:45-4:10	Application of active and passive seismic imaging for mineral exploration: A case study from Larder Lake gold belt, Ontario	Laboratory Thermal Rock Properties Measurements of Hard Rock at In-Situ Condtions	Black Box no more: How to use modern neural network QC tools to make better predictions

Nathan Deisman

Youcef Bouchachi

The role of geomechanics in Carbon storage project,

case study of the Ahnet basin Algeria

Telus 104-105

Glen 201-204

David Gray

Well Performance

Ilia Chaikine

Enhancing Sweet Spot Analysis with Machine

Learning and the Ability to Predict Unconventional

Mostafa Naghizadeh

4:10-4:35 Characterization of Water-Bottom and Bedrock GPR and CHIRPceiver Sub-bottom Profiling

Justin Jarratt

4:35-5:00 Shallow SH-Wave Seismic for Hazard Detection and Improved Statics Analysis: Results from Saskatchewan Landstreamer Test

David Case Caulfield

WEDNESDAY AFTERNOON (continued)

Claudia Gomez-Villeneuve

WEDI	NESDAY AFTERNOON (co	ontinued)	
	Glen 205	Glen 206	Glen 208-209
	Workplace Culture, Diversity, Inclusion	Back to the Foundation of Alberta's In-Situ Oil Sand: Regional study of the McMurray Formation in the Athabasca Area	Atlantic Canada - Exploration and Development
		Session Chairs: Wen Lin and Emily Duncan	Session Chairs: Jennifer Young and Bill Goodway
1:25-1:50	Cultivating Inclusivity: Transforming Workplace Culture	Microbial alterations of sediments and their stratigraphic uses: examples from the Athabasca oilsands of NE Alberta, Canada	Direct Probabilistic Inversion: Adding back Geology into Geophysics through Probabilistic Inversion extended to accommodate Anisotropy in Quantitative Interpretation
	Wael Badawy	RPW (Stan) Stancliffe Lisa Gieg	Bill Goodway
1:50-2:15	Addressing Systemic Barriers to Women Advancing in the Post-Pandemic Workplace	The Impact of 3D Sampling on McMurray Formation Imaging	Well-hidden but well alive, a comprehensive review of offshore satellite oil seep repeats inside Orphan Basin.
	Aliesha Hart Stone	Andrea Crook	Clément Blaizot
2:15-2:40	STEM Moms Project	Establishing a core-based stratigraphic framework for the Mannville and Colorado groups in the Athabasca Region, NE Alberta, Canada	Exploring the Tithonian Fluvial Play in the Central Ridge, Offshore Newfoundland and Labrador: The Harp L-42 Case Study
	Julie Hawco	Scott Botterill	James Walker
2:40-3:20	COFFEE BREAK WITH EXHIBITORS AND POSTER PRESENTATIONS		
3:20-3:45	Gender Inclusion: Effective Strategies for Systemic Change in SETT Workplaces	Forecasting the shape and length of IHS mudstone beds in the middle McMurray Formation, Fort Hills mine, AB, Canada	Exploring New and Established Plays in the Central Ridge, Offshore Newfoundland and Labrador: The Hampden K-41 Case Study
	Alicia Bjarnason PGeol., FGC, MA, CCIP	Dan Bzdziuch	Tim Hayward
3:45-4:10	Indigenous Women Leading the Transition: A Story from Tu Deh-Kah Geothermal	Optimization of the Operating Strategy for the ES- SAGD Process in different Oil sands Reservoir Quality	2024 Lease Round and Prospectivity of a Cretaceous play in the West Orphan Basin
	Taylor Behn-Tsakoza	Viet Nguyen-Le	Andrew Hartwig
4:10-4:35	WES hosts Essay Contest to encourage female Professional Licensing as a P.Eng. or P.Geo.		The role of sea-level fluctuations in early diagenetic carbonate cementation and impacts on shallow-marine clastic reservoir quality: A perspective from the Hibernia field, offshore Newfoundland.

Mateo Acuna