

Technical Program - 2025 Rocky Mountain Section of the American Association of Petroleum Geologists Annual Meeting in Keystone, Colorado, October 5–7, 2025		
Day 1	Monday, October 06, 2025	
Room 1	Opening Plenary	
8:00-8:10 am	Josh Sigler and Preston Kerr	General Chairs - Welcome to RMS-AAPG 2025
8:10-8:20 am	Matt Bauer	RMAG President - Welcome to Keystone
8:20-8:30 am	Clayton Schulz	RMS President - Status of the Rocky Mountain Section
8:30-9:00 am	Jon Ludwig	Novi Labs Inventory Analysis in the Rockies
9:00-9:40 am	Break	
Room 1	Geologic Aspects of Carbon Storage 1	
9:40-10:00 am	Anna Littlefield	Geochemical Monitoring for Carbon Capture and Storage Projects: Quantifying Risk through Statistical Methods
10:00-10:20 am	Remington Leger	CO2 Storage: A New Chapter for the Silurian Interlake Formation, Williston Basin, North Dakota
10:20-10:40 am	Mike Vanden Berg	Evaluating the CO2 storage potential of deep Jurassic and Permian sandstone reservoirs, eastern Uinta Basin, Utah
10:40-11:00 am	Chris Smith	Examining Seals, Compartments, and Fluid Migration in the San Juan Basin (NM) to Better Understand the Subsurface for Carbon Capture and Storage (CCS) Site Selection
11:00-11:20 am	John Templeton	Frontiers in Geologic Carbon Storage: Targeting Mississippian Carbonates of the Mission Canyon Formation in the Williston Basin
11:20-11:40 am	Karl Leonard	Stratigraphy, Sedimentology, and Paleontology of the Amsden and Broom Creek Formations (Permo-Carboniferous) in the Williston Basin: Characterization of a Conventional Carbon Storage Unit
11:40-12:00 pm	Dan Eakin	Legacy Wellbore Analysis in Petroliferous Basins: An Example from the Wyoming CarbonSAFE Project North of Gillette, WY
Room 2	Rocky Mountain Petroleum Systems: Data Integration and Modeling	
9:40-10:00 am	Rand Gardner	Modeling the Petroleum Systems of the Piceance Basin
10:00-10:20 am	Wahid Rahman	Geochemistry of Cretaceous Oils from the Powder River and Denver Basin
10:20-10:40 am	Jane Hearon	Three-Dimensional Petroleum Systems Modeling of the Greater Green River Basin, Wyoming, Colorado, and Utah
10:40-11:00 am	Steve Sonnenberg	Sequence stratigraphy of the Muddy Sandstone, Wattenberg Field, Denver Basin, Colorado
11:00-11:20 am	Jeff May	The Mowry Shale of the Powder River Basin: Interpretation and Evaluation of a Mudrock Reservoir in a Sequence Stratigraphic Framework
11:20-11:40 am	Mark Millard	Improving Well Results Through LWD Resistivity, Chemical Tracers, and 3D Seismic in the Teapot Formation, Converse County, Wyoming: A Case Study in Under Pressured Low-Permeability Sandstone Reservoirs
11:40-12:00 pm	Rex Stout	Reframing EUR Degradation as a Design Opportunity in the Powder River Basin's Niobrara
12:00-1:30 pm	Lunch	
Room 1	Geologic Aspects of Carbon Storage 2	
1:30-1:50 pm	Autumn Eakin	Beyond Injectivity: What Really Drives Pore Space Value?
1:50-2:10 pm	KC Oren	Unified Geologic Workflows for Carbon Sequestration Assurance
2:10-2:50 pm	Panel Discussion	CCUS in the Rockies (Moderator: Katerina Yared; Participants:Anna Littlefield, Caitlin Olsen, Tamara Madche, Cathy Stevens, and Jessica Gregg)
Room 2	Issues Around Orphaned & Abandoned Wells	
1:30-1:50 pm	Danielle Kingham	The Path to Understanding Corrective Action Needs for Potentially Leaking Artificial Penetrations at Deep Geologic Carbon Storage Sites
1:50-2:10 pm	Nick Gianoutsos	Identifying the Source of Methane Emissions from Leaking Orphan Wells on the Kevin-Sunburst Dome, Toole County, Montana
2:10-2:30 pm	Gregory Dean	Impacts from Orphan Well Sites: A Local Government's Perspective
2:30-2:50 pm	Rand Gardner	Analyzing Methane Emission Measurements from Orphan Wells in the Rockies
Room 3	Lower Green River, Uinta Basin: Geology and Resources 1	
1:30-1:50 pm	Ryan Gall	Utah's Paleogene depocenters: fluvial and lacustrine stratigraphic relationships between the Uinta Basin and Sevier thrust front (Flagstaff, Colton-Wasatch, and Green River Formations)
1:50-2:10 pm	Stephen P Phillips	Production allocation and well communication in the Uteland Butte Member of the Green River Formation, Uinta Basin
2:10-2:30 pm	Riley Brinkerhoff	Chronostratigraphic Surfaces in the Lacustrine Castle Peak Member of the Eocene Green River Formation, Uinta Basin, Utah
2:30-2:50 pm	Chris Perfilli	Evidence of Lake Level Fluctuations and Exposure Surfaces in the Uteland Butte Member of the Eocene Green River Formation, Uinta Basin, Utah
2:50-3:20 pm	Break	
Room 1	Geothermal and Critical Minerals Resources in the West	
3:20-3:40 pm	Rand Garner	Geothermal Potential of Orphan Wells in the Rocky Mountains
3:40-4:00 pm	Justin Birdwell	Evaluating Enhanced Geothermal Systems: Assessment Methodology, Great Basin Results, and Plans for Midcontinent Basins
4:00-4:20 pm	Rand Garner	Detecting Hidden Sedimentary Geothermal Systems in the Upper Colorado River Basin
4:20-4:40 pm	Ryan Cahalan	Examination of Geologic Thermal Energy Storage (GeoTES) and ambient direct-use geothermal resource potential for international airports in Albuquerque, NM and Phoenix, AZ, USA
4:40-5:00 pm	Roberta Russell	Direct Lithium Extraction (DLE) in the Western United States: Technical and Regulatory Challenges, and Potential Environmental Implications
Room 2	Helium Resources in the Rockies	
3:20-3:40 pm	Chris Smith	Developing a Tool for Helium Prospecting with 10 Legacy Cores: Relating Residual Helium and Other Volatiles in Decades Old Core to Helium Tests
3:40-4:00 pm	Steve Tedesco	Helium Industry in 2025
4:00-4:20 pm	Mike Poirier	Morrowan Helium in the Las Animas Arch Area of Colorado and Kansas: Production and Potential
4:20-4:40 pm	Tim Rynott	Source, Seal, Trap: Lessons from Helium Exploration in De-risking Subsurface Uncertainty
4:40-5:00 pm	No Presentation	
Room 3	Lower Green River, Uinta Basin: Geology and Resources 2	
3:20-3:40 pm	William Drake	Using Mass-Balance Organic Geochemistry to Spatially Delineate the Spectrum of Hybrid Unconventional Plays in the Lower Green River Formation, Uinta Basin
3:40-4:00 pm	Travis Plemmons	Reservoir Characterization of the Upper Douglas Creek Member in the Green River Formation, Western Uinta Basin, Utah
4:00-4:20 pm	Stamatina Hunter	Integrating rock, oil, and water geochemistry of the Uinta Basin targets for improved fluid characterization
4:20-4:40 pm	Riley Brinkerhoff	Harvesting the Garden Gulch – Exploring the Newest Play in the Uinta Basin
4:40-5:00 pm	Justin Birdwell	Variability in lacustrine source rocks within and crude oils from different intervals of the Green River and Wasatch Formations, Uinta Basin, Utah
5:30-7:00 pm	Evening Reception and Awards Ceremony	
Day 2	Tuesday, October 07, 2025	
Room 1	The Mowry Shale in Wyoming: Play Developments and Resource Recovery	
8:00-8:20 am	Tim Fischer	Opening remarks: The Full Value Chain Sweet Spot in the Mowry Shale: A Cross-Disciplinary Research Initiative at the University of Wyoming
8:20-8:40 am	Md Mahruf Hossain	A Numerical Study on the Interactions between Hydraulic Fracture and the Bentonite Layer in Mowry Shale
8:40-9:00 am	Himadri S. Das	Data-driven Sweet Spot Identification in the Mowry Formation: Integrating Machine Learning and Geostatistical Modeling
9:00-9:20 am	Brent Greenhaigh	Outcrop to subsurface characterization of the Mowry Shale along the north flank of the Uinta Mountains
9:20-9:40 am	Matthew B. Johnson	Mowry Shale Geology, Sweet Spot Delineation, and Production Evaluation in the Powder River Basin, Wyoming
Room 2	Geochemistry of Rocky Mountain Petroleum Systems	
8:00-8:20 am	Peter Blomquist	Using XRF to Determine Geologic Parameters and Drill Bit Condition in Real Time, Jonah Gas Field, Wyoming, USA
8:20-8:40 am	Michelle Johnston	Geochemical and petrographic characterization of a shallow drill core through the Pierre Shale and Niobrara Formation in the Denver-Julesburg Basin, Colorado
8:40-9:00 am	Jason Flaum	An integrated DeltaLogR study of the petroleum system of the Greenhorn Formation across the southern Denver-Julesburg basin
9:00-9:20 am	Jana Bachleda	Utilizing Geochemical Drainage Profiles to Efficiently Drain Stacked Pay in DJ and Uinta Basins
9:20-9:40 am	Mark Nell	Proximal-distal trends of TOC concentration in the Lewis Formation, Greater Green River Basin, Wyoming
Room 3	Rockies Exploration & Regional Mapping	
8:00-8:20 am	Joe Bauman	Ah Shoa! Characterization and mitigation of all that comes with the irregular oolitic grainstone facies of the Middle Bakken, Mountrail and Burke Cos, ND.
8:20-8:40 am	Umberto Barbato	Spectral Tools for Sharper, Smarter Fault Detection in Unconventional Plays
8:40-9:00 am	Tim Nesheim	Renewed Exploration in the Red River Formation (Williston Basin) using 3-D Seismic
9:00-9:20 am	Steve Tedesco	The Great Plains Field, Lincoln Co., Colorado
9:20-9:40 am	Peter Blomquist	Identifying Faults Using Drill Cuttings, Examples from Jonah Gas Field, Wyoming, USA
9:40-10:10 am	Break	
Room 1	The Mowry Shale in Wyoming: Geochemistry of Rocks and Oils	
10:10-10:30 am	Sam Hudson	Detailed Elemental Geochemistry from Outcrop, Core and Cuttings of the Mowry Shale in the Southwestern Wyoming Region, and Implications for Organofacies Distribution and Unconventional Exploration Potential
10:30-10:50 am	Alex Zumberge	Discriminating Mowry vs. Niobrara Oils Using Biomarkers and QQQ Geochemistry
10:50-11:10 am	Brad Taylor	Thermal maturity and hydrocarbon expulsion of the Mowry Shale in the Greater Green River Basin
11:10-11:30 am	Amber Rivera	Biomarker analyses of the Mowry Shale: Assessing paleoenvironmental conditions impacting organic matter in the Powder River Basin
11:30-11:50 am	Tarek Ismail	Integrated Geochemical and Mineralogical Characterization for Sweet-Spot Identification in the Mowry Shale, Powder River Basin
Room 2	Recent Developments in Williston Basin	
10:10-10:30 am	Raphael Noel-Berje	A Novel Enhanced Oil Recovery (EOR) in the Bakken Formation using Class C Fly Ash Nanoparticles (FANPs) in Supercritical CO2 Foam
10:30-10:50 am	Rachael Josephs	Preliminary Site Selection and Characterization of Salt Formations in the Williston Basin for Hydrogen Storage
10:50-11:10 am	John Hohman	Middle Bakken Stratigraphy and Sedimentology: a depositional history of low depositional accommodation combined with far-field (distal) tectonics
11:10-11:30 am	Fatemeh (Aram) Saberi	Numerical Investigation of Microfracture Development in the Upper Bakken Shale Reservoir
11:30-11:50 am	Dean Potter	Structural evolution of the Williston Basin, late Precambrian to Recent time
Room 3	The Mancos Shale in San Juan Basin and Beyond	
10:10-10:30 am	Chris Smith	Unlocking Insights into the San Juan Basin and the Four Corners Platform Petroleum System by Analyzing Volatiles Entrained in Legacy and Fresh Cuttings and Core
10:30-10:50 am	Justin Birdwell	Paleoenvironmental interpretation of Upper Cretaceous source rock deposition in western Colorado based on geochemical characterization of the USGS Candy Lane 1 drill core
10:50-11:10 am	Riley Brinkerhoff	A Tale of Two Basins: The Juana Lopez Compared Between the Uinta and San Juan Basins
11:10-11:30 am	Josh Sigler	The Shale from La Mancos: Evaluating the Regional Implications of Modern Horizontal Developments in the Mancos Shale
11:30-11:50 am	No presentation	
11:50-1:00 pm	Lunch	
Room 1	The Mowry Shale in Wyoming: Geomechanical Properties and Future Directions	
1:00-1:20 pm	Ehsan Dabbaghi	Fundamental Geomechanical Behavior of Mowry Shale Under Laboratory Conditions
1:20-1:40 pm	Md Mahmudul Hasan Mollah	Hydro-mechanical Modeling of Triaxial Testing for Mowry Shale using Continuum Damage Mechanics
1:40-2:00 pm	Mark Nell	Extending the Mowry unconventional play from the Powder River Basin to the Green River Basin, Wyoming
2:00-2:20 pm	Maryam Lakjaa	Production Forecast for Major Unconventional Reservoirs in Wyoming: A Focus on the Mowry Shale
2:20-3:00 pm	Panel Discussion	Public-Private Partnerships for Mowry Development in Wyoming (Moderator: Tim Fischer; Participants: UWY-Rep, Jane Hearon, WYGS-Rep, Mark Nell)
Room 2	Stratigraphy & Sedimentology	
1:00-1:20 pm	Casey Reid	Integrated Stratigraphic Analysis for Enhanced Environmental Remediation
1:20-1:40 pm	Rachel Aisner Williams	Constraining fracture stratigraphy in grain-rich mixed carbonate slope deposits for subsurface applications
1:40-2:00 pm	Olivia Tatum	Random or Regulated? Decoding Fluvial Patterns in the Castlegate Sandstone
2:00-2:20 pm	Jim Jacobsen	Geology & Drilling Departments Collaborate Saving \$1.0 MM Per Well
2:20-2:40 pm	Ismail H. Faruqi	Sedimentology and Stratigraphy of Cambrian-Ordovician Deadwood Formation in Central North Dakota: Implications toward Reservoir Presence and Quality
2:40-3:00 pm	Nathaniel Gilbertson	A Review of the Paleozoic Petroleum System and Reservoir Facies of the Northern DJ (Alliance) Basin, Nebraska
3:00-3:30 pm	Break	
Room 1	Future of Exploration in the Rockies	
3:30-4:00 pm	Tim Nesheim (NDGS)	Looking beyond the Bakken at emerged/emerging plays in the Williston Basin during 2010-2025
4:00-4:30 pm	Mike Vanden Berg (UGS)	Perspective from Utah (title to come)
4:30-5:00 pm	Timothy J. Considine (UWY)	Future of development in the Powder River, Wind River, and Bighorn Basins
5:00-5:10 pm	Clayton Schulz	Closing Remarks - See you in Montana in 2026!
5:10 PM	End of Technical Program & Meeting	
Exhibit Hall	All Meeting Posters	
Poster 1	Kelechi Nnaji Eze	Subsurface Contaminant Pathways and Terrain Instability in Legacy Oil and Gas Wells with Implications for Environmental Risk and Remediation
Poster 2	Zane Jobe	Ultra-high resolution core characterization leads to better constraints on vertical and lateral heterogeneity in subsurface reservoirs
Poster 3	Ismail H. Faruqi	Preliminary Geochemical Characterization of the Pronghorn Member as a Supplemental Source Rock in the Bakken Petroleum System, Williston Basin, North Dakota
Poster 4	Benard Sasu Oppong	Missing Well-Log Data Prediction Using a Hybrid U-Net and LSTM Network Model
Poster 5	Larissa Santos	Porosity evolution in Mowry Shale Under Exposure Subject to Low-Ionic Strength-Acidic Stimulation Fluid Blends
Poster 6	Julie Robinson	Quantifying Spatial Trends in Oil Sample Color using Color Distance Metrics
Poster 7	Rand Gardner	Martian Basin Modeling: Geothermal and Liquid Water Potential
Poster 8	Rand Gardner	Thermal Modeling of U.S. Sedimentary Basins
Poster 9	Justin Birdwell & Jason Flaum	Overview of USGS Research Drilling Projects from 2010 through 2024
Poster 10	Jane Hearon & Sarah Gelman	Natural Hydrogen Prospectivity Mapping (USGS)
Poster 11	Michelle Johnston & Brian Shaffer	Coal Resources in the Rockies (USGS)