



Technical Program

Monday AM, May 11

OPENING SESSION

8:30 AM – Noon • Colorado Rockies Ballroom

Session Chair: Bill Boberg,
Ur-Energy USA Inc., Littleton, CO

- 8:30 AM **Welcome:** *W. William Boberg,* Ur-Energy Inc., Littleton, CO
- 9:00 AM **Keynote Speaker: Nuclear Fuel Cycle vs. the Carbon Cycle: Uranium/Plutonium vs. Carbon:** *Rodney C. Ewing,* University of Michigan, Ann Arbor, MI
- 10:00 AM *Break*
- 10:30 AM **Federal and State Law Preemption Issues as they Impact the Uranium Mining Industry:** *Richard C. Kaufman,* McKenna, Long and Aldridge LLP
- 11:00 AM **The Global Uranium Market – Continuing to Evolve:** *Dustin J. Garrow,* Paladin Energy, Ltd.
- 11:30 AM **A New Activity at the IAEA to Support Training and Education in the Uranium Production Cycle:** *Jan Slezak,* International Atomic Energy Agency, Vienna, Austria

Monday PM, May 11

ENVIRONMENTAL, HEALTH AND SAFETY

1:30 PM – 5:00 PM • Shavano Peak

Session Chair: George Robinson,
R Squared, Inc., Centennial, CO

- 1:30 PM **Bridging the Gap: Overcoming the Lack of Information in the UIC Class III Permit Application Process:** *Kaci Walker and J. Erich Rauber,* R Squared, Inc., Centennial, CO
- 2:00 PM **Applying the Concepts of Sustainability to Uranium Mining:** *Caitlin Rood,* Tetra Tech, Inc.
- 2:30 PM **The Uranium Recovery Industry and the Current Nuclear Renaissance – A Health Physicist's Perspective:** *Steven Brown,* SENES, Denver, CO
- 3:00 PM *Break*
- 3:30 PM **Uranium Mining and Milling Regulation in Saskatchewan, Canada:** *Tim Moulding,* Saskatchewan Ministry of Environment, Saskatoon, SK, Canada
- 4:00 PM **Development of a Health, Safety Environmental, and Community (HSEC) Management System and How Its Implementation Can Benefit the Uranium Mining and Milling Industry:** *Paul Nazaryk,* BHP Inc., Farmington, NM and *Andres Meglioli,* Environmental Resources Management, Greenwood Village, CO
- 4:30 PM **House Bill 1161 and the Environmental Movement:** *John Fognani,* Fognani and Faught, Denver, CO

URANIUM GENERAL INTEREST

1:30 PM – 5:00 PM • Red Cloud Peak

Session Chair: Jim Viellenave,
Bayswater Uranium Corp.

- 1:30 PM **Some Aspects of Disequilibrium:** *Robert Maxwell,* Behre Dolbear and Co., Denver, CO
- 2:00 PM **Developing a Comprehensive Relational Database from Historical Exploration Data with Seamless Bridges to Analysis Tools:** *Phil Cavendor,* AATA International, Ft. Collins, CO; *Cary Leppert,* Leppert Associates, Golden, CO; and *Amanda Huffer and Dana Spanjer,* AATA International, Ft. Collins, CO
- 2:30 PM **Computer Aided Interpretation of Geophysical Logs: Development of a 3-D Lithologic Model for Uranium Roll-Front Deposits:** *Shawn Leppert,* Leppert Associates, Golden, CO; *Mike Hawks,* WildHorse Energy, Casper, WY; *Mike Williams,* Leppert Associates, Golden, CO; and *Robert Clark,* AATA International, Denver, CO
- 3:00 PM *Break*
- 3:30 PM **Modeling and Analysis of Realistic Uncertainty in ISL Hydrologic Systems:** *Robert Will,* Schlumberger Water Services
- 4:00 PM **AML Funded Uranium Reclamation Projects in Wyoming:** *Brenda Schladweiler,* BKS Environmental Associates, Inc., Gillette, WY
- 4:30 PM **Evaluation of Geosynthetic Clay Liners for the Pinon Ridge Uranium Mill Tailings Disposal Cell:** *Chris Athanassopoulos,* CETCO; *Kimberly Finke Morrison,* Golder Associates; and *John Allen,* TRI Environmental

Tuesday AM, May 12

URANIUM DEPOSIT GENESIS AND THE GEOLOGICAL CYCLE

8:30 AM – Noon • Shavano Peak

Session Chairs:
Karen Wenrich,

Wenrich Consulting, Golden, CO

Michel Cuney,

Nancy University, Vandoeuvre les Nancy, France

- 8:30 AM **Early Fractionation Processes of the Uranium Cycle and the Origin of Large Uranium Provinces:** *Michel Cuney,* Nancy University, Vandoeuvre les Nancy, France
- 9:00 AM **The Fraser Lakes Uranium Showings, Northern Saskatchewan: Geological, Geochemical, and Geophysical Relationships of Granitic Pegmatites/Leucogranites Hosting Low-to-Medium Grade Uranium Mineralization:** *I.R. Annesley, R.T. Kusmirski, D. Billard,* and *K. Wasyluk,* JNR Resources Inc., Saskatoon, SK, Canada
- 9:20 AM **The Labrador Central Mineral Belt: An Established Uranium District with Growing Resources and Diverse Metallogeny:** *Greg Sparkes and Andrew Kerr,* Geological Survey of Newfoundland and Labrador, St. John's, NL, Canada
- 9:40 AM **Genesis of Uranium-Rich, Base-Metal Bearing, Solution-Collapse Breccia Pipes, Northern Arizona:** *Karen J. Wenrich,* Wenrich Consulting, Golden, CO and *Spencer R. Titley,* University of Arizona, Tucson, AZ
- 10:00 AM *Break*

WHAT ABOUT U?

U2009 Technical Program

- 10:30 AM Sedimentologic and Paleoclimatic Controls on the Distribution of Uranium Deposits in the Upper Triassic Chinle Formation, Colorado Plateau, USA:** *Russell F. Dubiel*, US Geological Survey, Denver, CO
- 10:50 AM Sandstone-hosted Uranium Deposits of the Huemul District, Neuquen Basin, Argentina as a New Uranium Deposit Model for the Western United States:** *J. P. Thorson*, Parker, CO and *Guillermo P. Pensado*, Calypso Uranium Corp., Mendoza, Argentina
- 11:10 AM The Grants Uranium District: Source and Deposition:** *Virginia T. McLemore*, NM Bureau of Geology and Mineral Resources, Socorro, NM
- 11:30 AM Tectonics, Basin Development and Uranium Episodes: Similarities and Differences Among Four Canadian Proterozoic Settings:** *C.W. Jefferson*, *W. Davis*, *P. Ramaekers*, *R. Rainbird*, *S. Bosman*, *K. Chamberlain*, *T. Peterson*, and *W. Bleeker*, Natural Resources Canada
- 11:50 AM Cenozoic Uraniferous Geothermal Systems and Biogenic Uraninite from the Sierra Peña Blanca, Mexico:** *Samuel Angiboust*, Université Pierre et Marie Curie, Paris, France; *Mostafa Fayek* and *Alfredo Camacho*, University of Manitoba, Winnipeg, MB, Canada; and *George Calas*, Université Pierre et Marie Curie, Paris-France, Paris, France

URANIUM GENERAL INTEREST

8:30 AM – Noon • Red Cloud Peak

Session Chair: Greg Kruse,
Uranium One

- 8:30 AM More Than Just Compliance Using NI 43-101-Compliant Feasibility Studies as Strategic Management Tools:** *Doug H. Graves*, TREC, Casper, WY and *Matthew J. Yovich*, TREC, Bozeman, MT
- 8:55 AM Applying International Environmental Standards for Uranium Projects, such as ISO 14001 and Environmental Management Systems:** *Ronda L. Sandquist* and *Kristi J. Livedalen*, Jackson Kelly PLLC, Denver, CO
- 9:20 AM Some Other Things to Think About – Part Two:** *Rick Jacobi*, Jacobi Consulting
- 9:45 AM Colorado Water Rights for the Uranium Industry – Options, Challenges, and Solutions:** *George Robinson*, R Squared, Centennial, CO
- 10:10 AM Break**
- 10:40 AM In-Situ Uranium Mining Well Field Design Considerations:** *Ted Way*, In-Situ Inc., Ft. Collins, CO
- 11:10 AM Groundwater Restoration at Uranium In-Situ Recovery Mines, South Texas Coastal Plain:** *Susan Hall*, US Geological Survey, Denver, CO
- 11:40 AM Groundwater Restoration Practices and Requirements for Uranium In-Situ Recovery Projects in the United States:** *Wayne Heili*, Ur-Energy USA Inc., Casper, WY

Tuesday PM, May 12

URANIUM IN THE AMERICAS/GEOCHEMISTRY

1:30 PM – 5:00 PM • Shavano Peak

Session Chair: James K. Otton,
US Geological Survey, Denver, CO

- 1:30 PM Coles Hill Uranium Deposit, Pittsylvania County, Virginia:** *Joseph G. Aylor, Jr.* and *Norm Reynolds*, Virginia Uranium, Inc., Chatham, VA; *James S. Beard*, Virginia Museum of Natural History, Martinsville, VA; and *Robert J. Bodnar* and *William S. Henika*, Virginia Tech, Blacksburg, VA

- 1:55 PM Beaverlodge Uranium District, Northern Saskatchewan, Canada – A New Look at an Old Camp by Red Rock Energy Inc.:** *R. A. Olson*, *S. L. Loutitt*, *B. Wing*, *S. Botterill*, *A. Melnik*, and *J. Sciarra*, Red Rock Energy, Calgary, AB, Canada
- 2:20 PM Exploration and Discovery of Blind Breccia Pipes and the Potential Significance to the Uranium Endowment of the Arizona Strip District, Northern Arizona:** *Eugene D. Spiering*, *Patrick D. Hillard*, and *Joseph R. Inman*, Quaterra Resources Inc., Vancouver, BC, Canada
- 2:45 PM Uranium Exploration Targets in the Overlooked and Under-explored Nebraska Panhandle:** *Steven S. Sibray*, Nebraska Geological Survey, University of Nebraska
- 3:10 PM Break**
- 3:40 PM Black Shale Source for Uranium in the Paradox Basin:** *C.A. Wallace*, Wallace Consulting International, Inc., Morrison, CO and *J.P. Thorson*, Parker, CO
- 4:05 PM Mineralogy and Leaching Behaviour of Selected ISR Ores:** *G.W. Heinrich*, *R.J. De Klerk*, *L. Reimann*, and *Ed Lam*, Cameco
- 4:30 PM Role of Geochemistry in the Search for Uranium Deposits:** *Samuel B. Romberger*, Colorado School of Mines, Golden, CO

PROCESSING

1:30 PM – 5:00 PM • Red Cloud Peak

Session Chair: Ahmad Jodeh,
Ur-Energy USA Inc., Littleton, CO

- 1:30 PM Making Yellowcake “Green”: Improving Uranium to Improve Conversion:** *Jim Graham*, ConverDyn
- 1:55 PM The Development of Solvent Extraction Process Plants for High Quality Yellow Cake Production:** *Alan Miller*, Amir Yanai-Bateman Litwin, Yokneam, Israel
- 2:20 PM Practical Aspects of Application of Ion Exchange Resins for Uranium Extraction:** *Claude Gauthier*, The Purolite Co., Bala Cynwyd, PA; *M. Mikhaylenko*, Purolite International Ltd., Wales, UK; and *Steve Soldatek*, The Purolite Co., Bala Cynwyd, PA
- 2:45 PM The Application of Molecular Recognition Technology (MRT) for the Efficient Recovery and Purification of Uranium in Mine Process and Waste Streams:** *Steven R. Izatt*, *Neil E. Izatt*, *Ronald L. Bruening*, and *John B. Dale*, IBC Advanced Technologies, Inc., American Fork, UT
- 3:10 PM Break**
- 3:40 PM Resin Technology – Solutions for the 21st Century Uranium Industry:** *John Carr*, Clean TeQ Ltd. and *Mark Proudfoot*, Kemix Pty Ltd
- 4:05 PM PhosEnergy: New Age Extraction of Uranium from Phosphoric Acid:** *Bryn Jones* and *James Davidson*, Uranium Equities Ltd., Adelaide, SA, Australia
- 4:30 PM Specifics of ISR Mining of Roll Front Uranium Deposits in Russia:** *I. Solodov*, ARMZ

Wednesday AM, May 13

URANIUM DEPOSITS OUTSIDE OF THE AMERICAS/GEOCHEMISTRY

8:30 AM – Noon • Shavano Peak

Session Chair: Samuel B. Romberger, Colorado School of Mines, Golden, CO

- 8:30 AM **Towards Quantitative In-Situ Gamma Ray Measurements: The Next Step in Radiometrics:** *J. Limburg and R.L. Koomans, Medusa Explorations BV, Groningen, The Netherlands and E. van der Graaf, University of Groningen, Groningen, The Netherlands*
- 8:55 AM **Geology of the Kuriskova and Novoveska Huta Uranium Deposits in Slovakia:** *Boris Bartalsky, Peter Bojtos, Dusty Nicol, Latilav Novotny, and Ravi Sharma, Tournagin Energy Ltd*
- 9:20 AM **Uranium Resources in the Middle East:** *Abdelaty Salman, Nuclear Material Authority, Cairo, Egypt; Philip Goodell, University of Texas at El Paso, El Paso, TX; and Fares Howari, Bureau of Economic Geology, Austin, TX*
- 9:45 AM **The Occurrence of Uranium in Karoo Series of Southern Africa:** *R. J. Howell, SRK Consulting, Cardiff, Wales; P. Gleeson, SRK Consulting, Perth, WA, Australia; J. Grogan, SRK Consulting, Cardiff, Wales; C. Large and P. Large, A-Cap Resources, Francistown, Botswana and A. Tunks, A-Cap Resources, Melbourne, VIC, Australia*
- 10:10 AM *Break*
- 10:40 AM **The Significant Thorium Deposits of the United States:** *Bradley S. Van Gosen, US Geological Survey, Denver, CO*
- 11:05 AM **Current Uranium Exploration in Niger:** *Tom Bell, Sratamodel Inc., State College, PA*
- 11:30 AM **Soil Gas Hydrocarbons: A Dual Purpose Geochemical Exploration Tool Used in the Search for Various Types of Blind Uranium Targets:** *Dale A. Sutherland, Activation Laboratories Ltd., Ancaster, ON, Canada*

IN SITU RECOVERY I – GROUNDWATER

8:30 AM – Noon • Red Cloud Peak

Session Chair: Hal Demuth, Petrotek Engineering Corp., Littleton, CO

- 8:30 AM **Geochemistry of Uranium in In-Situ Leach Aquifers After Restoration:** *Janet A. Schramke, Enchemica LLC, Loveland, CO; Hal Demuth, Petrotek Engineering Corp., Littleton, CO and Mark S. Pelizza, Uranium Resources Inc., Lewisville, TX*
- 9:00 AM **Application of Geochemical Modeling to ISR Systems:** *Tom Meuzelaar, RockWare Consulting, Golden, CO*
- 9:30 AM **Investigation of Iron Monosulfide as a Scavenger of Uranium from Ground Water:** *Tanya Gallegos, US Geological Survey, Denver, CO; Samuel Webb, Stanford Synchrotron Radiation Laboratory, Menlo Park, CA; and William Betterton, US Geological Survey, Denver, CO*
- 10:00 AM *Break*
- 10:30 AM **Groundwater Modeling Application to Uranium In-situ Recovery Projects: Relationship of Sweep Efficiency to Pore Volume Removal:** *Errol Lawrence, Ken Cooper, and Hal Demuth, Petrotek Engineering Corp., Littleton, CO*
- 11:00 AM **Permitting In-situ Wastewater Disposal Wells in Wyoming:** *Pete Vogel, Wyoming Department of Environmental Quality, Cheyenne, WY*
- 11:30 AM **High Resolution Resistivity Imaging to Monitor Groundwater Flow:** *Ron Bell, hydroGEOPHYSICS Inc., Lakewood, CO*

Wednesday PM, May 13

CASE STUDIES

1:30 PM – 5:00 PM • Shavano Peak

Session Chair: George Robinson, R Squared, Inc., Centennial, CO

- 1:30 PM **Overview and Recent Exploration Success at the McArthur River Uranium Deposit, Athabasca Basin, Saskatchewan, Canada:** *Jason T. Craven and C. Trevor Perkins, Cameco Corp., Saskatchewan, SK, Canada*
- 2:00 PM **Permitting of the Whirlwind Mine:** *Frank Filas, Energy Fields Resources Corp.*
- 2:30 PM **Uranium Mineralization in Singhbhum Shear Zone, India:** *A.K. Sarangi, Uranium Corp. of India Ltd., Jaduguda, India and M. Das, Utkal University, Bhubaneswar, India*
- 3:00 PM *Break*
- 3:30 PM **Uranium Exploration and Development in the Athabasca Basin of Northern Saskatchewan, the World's Premier Uranium District:** *Gary Delaney, Colin Card, and Sean Bosman, Saskatchewan Ministry of Energy and Resources, Regina, SK, Canada*
- 4:00 PM **Uranium Mine Development Challenges Throughout the Colorado Plateau:** *Stephen Antony, Energy Fuels Resources, Lakewood, CO*
- 4:30 PM **First Uranium's Projects:** *Jim Fisher, First Uranium Corp., Toronto, ON, Canada*

IN-SITU RECOVERY II – CASE STUDIES

1:30 PM – 5:00 PM • Red Cloud Peak

Session Chair: John Cash, Ur-Energy USA Inc., Littleton, CO

- 1:30 PM **Powertech Uranium, A New In Situ Producer:** *W. Mays, Powertech, Greenwood Village, CO*
- 2:00 PM **Design and Construction of a State-of-the-Art ISR Uranium Recovery Plant – CAMECO Resources Smith Ranch SR2 Satellite:** *Bob Hembree, Cameco Resources*
- 2:30 PM **The Challenges of Developing Uranium Resources in Today's Market:** *P. Goranson, Mesteña Uranium*
- 3:00 PM *Break*
- 3:30 PM **Lost Creek Project Update:** *W. William Boberg, Ur-Energy Inc., Littleton, CO*
- 4:00 PM **Permitting the Nichols Ranch ISR Project: What It Takes to Start a New ISR Facility in Wyoming:** *M. Thomas, Uranerz Energy Corp.*
- 4:30 PM **UEC Goliad Project Update:** *H. Anthony, Uranium Energy Corp.*

Location: Columbine Ballroom

1. **Mobility of Uranium in Desert Sediments and Ground Water Under Natural and Anthropogenic Influences, Tuba City, Arizona:** *Raymond Johnson, USGS*
2. **Geological, Mineralogical and Geochemical Features of Uranium Mobilization within the Paleoproterozoic Basement of the Western Ladoga (Baltic Shield, Russia). Inferences on the Genesis of Unconformity Related Uranium Deposits:** *Vladimir Lobaev, All Russia Geological Research Institute*
3. **Corrections to the Diffuse Layer Model Database for Uranyl Adsorption on Hydrous Ferric Oxide – Ramifications to Solute Transport Modeling:** *John Mahoney, MWH Americas, Inc. and Sonya Cadle, GeoTrans, Inc., Louisville, CO*
4. **Criteria of an Estimation of Uzbekistan Uraniferous Regions:** *B. Mirkhodjaev, Hydroingeo*
5. **Geological Modeling of the Coles Hill Uranium Deposit, Pittsylvania County, Virginia:** *Clay Newton and J. Eckman, Marshall Miller and Assoc.*
6. **Natural Gamma Log Processing for Equivalent Uranium Grades:** *M. S. Smith and M. C. Newton, Marshall Miller and Assoc.*
7. **Genesis of the Schwartzwalder Ore near Golden, CO:** *Charles Spirakis, Consultant*
8. **Structured Geomembranes in Final Closure Designs:** *Clark West, Agru America*
9. **Advances in Uranium Facility Characterization Techniques and Compliance with NRC Regulatory Guide 4.14:** *Randy Whicker, Tetra Tech, Inc.*
10. **Effects of Uranium Mineralization and Historical Uranium Mining on Water Quality and Stream Sediment Chemistry: Results of a Regional Geochemical Survey West of Denver, Colorado:** *Robert Zielinski, USGS*
11. **Mineralogical Analyses of Selected Uraniferous Sheeted Leucogranites from the Goanikontes, Ida Dome and Valencia Deposits, Namibia:** *Guy Freemantle, University of the Witwatersrand, Johannesburg, South Africa*
12. **Strength in Diversity: Evaluation of Four Electrical Geophysical Tools for Exploration and Production of Uranium Roll Front Deposits:** *Sophie Hancock, Colorado School of Mines, Golden, CO*
13. **The Role of Dissolved and Particulate Organic Carbon in Acetate Biostimulated Uranium Attenuation:** *Janessa Hartmann, Emily Leshar, Linda Figueroa, and James Ranville, Colorado School of Mines, Golden, CO; Kate Campbell and James Davis, USGS, Menlo Park, CA; Kenneth Williams, Lawrence Berkeley National Lab; and Phillip Long, Pacific Northwest National Lab*
14. **Investigate Improved Methods of Uranium Leach and Recovery with Special Emphasis on Heap Leaching Techniques:** *Erik Hunter, Colorado School of Mines, Golden, CO*
15. **Measuring Uranium Binding to Nanoparticulate Ligands in Natural Waters:** *Emily K. Leshar, James F. Ranville, and Bruce D. Honeyman, Colorado School of Mines, Golden, CO*
16. **Uranium Transport at the Intermediate Scale: Macro-scale Effects Related to Micro-scale Processes:** *A. Miller, D. Rodriguez, and B. Honeyman, Colorado School of Mines, Golden, CO*
17. **Evaluation of Various Ion Exchange Resins for Determining Uranium Groundwater Flux:** *Valerie Stucker, James F. Ranville, Steven Cabaniss, and Kirk Hatfield, Colorado School of Mines, Golden, CO*