#### Sunday, October 19

Session No. 16

T143. Geoscience for the Public Good: Toward a Sustainable Future

Sunday, 19 October 2014: 8:00 AM-12:00 PM Vancouver Convention Centre-West 212

Paper No. 16-5

Presentation Time: 9:10 AM

SECURE ENERGY AND THE ROLE OF SUSTAINABILITY

TINKER, Scott W., Geosciences, Bureau of Economic Geology, P.O. Box X, University Station, Austin, TX 78713, scott.tinker@beg.utexas.edu

Session No. 48--Booth# 267

T213. Echinoderm Paleobiology: Phylogenetics, Morphology, and Evolutionary Paleoecology (Posters)

Sunday, 19 October 2014: 9:00 AM-5:00 PM

Vancouver Convention Centre-West Exhibition Hall C

Paper No. 48-6

Authors will be present from: 9:00 to 11:00 AM, and 3:00 to 5:00 PM

GIANT, SPIRALED, SPINE-BEARING EDRIOASTEROID FROM THE UPPER ORDOVICIAN BROMIDE FORMATION OF OKLAHOMA

SPRINKLE, James, Department of Geological Sciences, Jackson School of Geosciences, University of Texas, 1 University Station C1100, Austin, TX 78712-0254, echino@jsg.utexas.edu and GUENSBURG, Thomas E., Sciences Division, Rock Valley College, 3301 North Mulford Road, Rockford, IL 61114

Session No. 41--Booth# 175

T187. Recent Advances in the Exploration, Characterization, and Development of Geothermal Resources in the Pacific Northwest (Posters)

Sunday, 19 October 2014: 9:00 AM-5:00 PM

Vancouver Convention Centre-West Exhibition Hall C

Paper No. 41-9

Authors will be present from: 9:00 to 11:00 AM, and 3:00 to 5:00 PM

NEW INSIGHTS INTO THE POST-MIOCENE THERMAL EVOLUTION OF THE NORTH CASCADES BASED ON APATITE FISSION TRACK ANALYSIS OF CUTTINGS FROM GEOTHERMAL EXPLORATION WELL GAR-1 CALLAHAN, Owen A., Bureau of Economic Geology, 10100 Burnet Rd, Bld 130, E0630, Austin, TX 78758, ocallahan@utexas.edu

Session No. 83

T217. Mechanisms, Rates, and Timescales of Texture Formation in Metamorphic Rocks II

Sunday, 19 October 2014: 1:00 PM-5:00 PM Vancouver Convention Centre-West 122

Paper No. 83-1

Presentation Time: 1:00 PM

BA AS A PROXY FOR MONAZITE DISSOLUTION/RE-PRECIPITATION IN METAMORPHIC ROCKS CATLOS, E.J.1, MILLER, Nathan R.1, ATAKTURK, Katelyn2, ÇEMEN, Ibrahim3, DINIZ, Emre4, and GABER, Isis W.5, (1) Geological Sciences, University of Texas at Austin, Jackson School of Geosciences, Austin, TX 78712, ejcatlos@gmail.com, (2) Jackson School of Geosciences, The University of Texas at Austin, Jackson School of Geosciences, 2225 Speedway, Stop C1160, Austin, TX 78712, (3) Department of Geological Sciences, The University of Alabama, Tuscaloosa, AL 35487, (4) Boone Pickens School of

Geology, Oklahoma State University, Noble Research Center, Oklahoma State University, Stillwater, OK 74078, (5) Geology, University of Texas at Austin, 2225 Speedway, Stop C1160, Austin, TX 78712

Session No. 49--Booth# 280

T217. Mechanisms, Rates, and Timescales of Texture Formation in Metamorphic Rocks (Posters)

Sunday, 19 October 2014: 9:00 AM-5:00 PM

Vancouver Convention Centre-West Exhibition Hall C

Paper No. 49-10

Authors will be present from: 3:00 to 5:00 PM

DECIPHERING P-T-T CONDITIONS OF METAMORPHIC ROCKS FROM THE SOUTHERN MENDERES MASSIF OF SW TURKEY

ATAKTURK, Katelyn, Jackson School of Geosciences, The University of Texas at Austin, Jackson School of Geosciences, 2225 Speedway, Stop C1160, Austin, TX 78712, CATLOS, E.J., Geological Sciences, University of Texas at Austin, Jackson School of Geosciences, Austin, TX 78712, ejcatlos@gmail.com, ÇEMEN, Ibrahim, Department of Geological Sciences, The University of Alabama, Tuscaloosa, AL 35487, and DINIZ, Emre, Boone Pickens School of Geology, Oklahoma State University, Noble Research Center, Oklahoma State University, Stillwater, OK 74078

Session No. 19

T163. Satellite Remote Sensing Applications in Hydrology and Geology

Sunday, 19 October 2014: 8:00 AM-12:00 PM

Vancouver Convention Centre-West 110

Paper No. 19-9

Presentation Time: 10:15 AM

LINKING SOIL WATER STORAGE TO LONG-TERM OUTLOOKS OF WATER SUPPLY ANOMALIES IN TEXAS CALDWELL, Todd G., Jackson School of Geosciences, University of Texas at Austin, Bureau of Economic Geology, University Station, Box X, Austin, TX 78758, todd.caldwell@beg.utexas.edu, SCANLON, Bridget R., Jackson School of Geosciences, Univ. of Texas, Austin, Austin, TX 78713, YOUNG, Michael, Bureau of Economic Geology, University of Texas at Austin, University Station, Box X, Austin, TX 78712, and YANG, Zong-Liang, Department of Geological Sciences, University of Texas at Austin, 1 University Station C1100, Austin, TX 78712

Session No. 43--Booth# 219

T192. High-Resolution Geochemical Proxies of Global Change: Progress, Problems, and Utility (Posters)

Sunday, 19 October 2014: 9:00 AM-5:00 PM

Vancouver Convention Centre-West Exhibition Hall C

Paper No. 43-20

Authors will be present from: 3:00 to 5:00 PM

DEFINITION AND INTERPRETATION OF EAGLE FORD (LATE CRETACEOUS, SOUTH TEXAS, USA) CHEMICAL FACIES BASED ON HIERARCHICAL CLUSTER ANALYSIS OF CORE-BASED CHEMOSTRATIGRAPHIC RESULTS ROWE, Harry, Bureau of Economic Geology, The University of Texas at Austin, The Jackson School of Geoscience, University Station, Box X, Austin, TX 78713-8924, harry.rowe@beg.utexas.edu, RUPPEL, Stephen C., Bureau of Economic Geology, University of Texas at Austin, The Jackson School of Geoscience, University Station, Box X, Austin, TX 78713-8924, and PHILLIPS, Nestor D. II, EOG Resources, Inc., 19100 Ridgewood Pkwy #2, San Antonio, TX 78259

Session No. 19

T163. Satellite Remote Sensing Applications in Hydrology and Geology

Sunday, 19 October 2014: 8:00 AM-12:00 PM Vancouver Convention Centre-West 110

Paper No. 19-4

Presentation Time: 8:45 AM

GLOBAL ANALYSIS OF THE ROLE OF THE GRACE SATELLITES IN WATER RESOURCE ASSESSMENTS LONG, Di, Bureau of Economic Geology, Jackson School of Geosciences, University of Texas at Austin, 10100 Burnet Rd, Austin, TX 78758, di.long@beg.utexas.edu, SCANLON, Bridget R., Bureau of Economic Geology, Jackson School of Geosciences, University of Texas at Austin, 10100 Burnet Road, Austin, TX 78758, and LONGUEVERGNE, Laurent, Geosciences Rennes, CNRS - Université Rennes 1, Campus de Beaulieu, Rennes, 35042, France

Session No. 83

T217. Mechanisms, Rates, and Timescales of Texture Formation in Metamorphic Rocks II

Sunday, 19 October 2014: 1:00 PM-5:00 PM Vancouver Convention Centre-West 122

Paper No. 83-1

Presentation Time: 1:00 PM

BA AS A PROXY FOR MONAZITE DISSOLUTION/RE-PRECIPITATION IN METAMORPHIC ROCKS CATLOS, E.J.1, MILLER, Nathan R.1, ATAKTURK, Katelyn2, ÇEMEN, Ibrahim3, DINIZ, Emre4, and GABER, Isis W.5, (1) Geological Sciences, University of Texas at Austin, Jackson School of Geosciences, Austin, TX 78712, ejcatlos@gmail.com, (2) Jackson School of Geosciences, The University of Texas at Austin, Jackson School of Geosciences, 2225 Speedway, Stop C1160, Austin, TX 78712, (3) Department of Geological Sciences, The University of Alabama, Tuscaloosa, AL 35487, (4) Boone Pickens School of Geology, Oklahoma State University, Noble Research Center, Oklahoma State University, Stillwater, OK 74078, (5) Geology, University of Texas at Austin, 2225 Speedway, Stop C1160, Austin, TX 78712

## Monday, October 20

Session No. 125--Booth# 149

T160. Environmental Effects of Oil and Gas Development on Water Quality: Toward Sustainability and Stewardship (Posters)

Monday, 20 October 2014: 9:00 AM-6:30 PM

Vancouver Convention Centre-West Exhibition Hall C

Paper No. 125-9

Authors will be present from: 9:00 to 11:00 AM, and 5:00 to 6:30 PM

SUPERCRITICAL CO₂-BRINE-ROCK INTERACTIONS AT A PROPOSED CARBON SEQUESTRATION/ ENHANCED OIL RECOVERY SITE, VEDDER FORMATION, RIO BRAVO OIL FIELD, SOUTHERN SAN JOAQUIN VALLEY, CALIFORNIA

RIVAS, Cristina1, KAESS, Alyssa B.2, MICKLER, Patrick3, LOEWY, Staci L.4, HORTON, Robert A.1, and BARON, Dirk5, (1) Department of Geological Sciences, California State University, Bakersfield, 62SCI, 9001 Stockdale Highway, Bakersfield, CA 93311, cristi61882@sbcglobal.net, (2) Department of Geology, California State University, Bakersfield, 9001 Stockdale Highway, Bakersfield, CA 93311, (3) Bureau of Economic Geology, 10100 Burnett Road, Austin, TX 78758, (4) Jackson School of Geosciences, The University of Texas at Austin, 2275 Speedway Stop C9000, Austin, TX 78712, (5) Department of Geological Sciences, California State University, 62SCI, 9001 Stockdale Highway, Bakersfield, CA 93311

Session No. 129--Booth# 196

T188. Organic-Rich Mud Rocks: Geochemistry, Physical Properties, and Paleo-Environments (Posters)

Monday, 20 October 2014: 9:00 AM-6:30 PM

Vancouver Convention Centre-West Exhibition Hall C

Paper No. 129-4

Authors will be present from: 2:00 to 4:00 PM, and 5:00 to 6:30 PM

IODP DIGITAL REFERENCE FOR SMEAR SLIDE ANALYSIS OF MARINE MUD PART 2: METHODOLGY AND ATLAS OF BIOGENIC COMPONENTS

MARSAGLIA, Kathleen<sup>1</sup>, TENTORI, Daniel<sup>1</sup>, MILLIKEN, Kitty<sup>2</sup>, LECKIE, R. Mark<sup>3</sup>, and DORAN, Linda<sup>1</sup>, (1) Dept of Geological Sciences, California State University, 18111 Nordhoff St, Northridge, CA 91330-8266, kathie.marsaglia@csun.edu, (2) Bureau of Economic Geology, The University of Texas at Austin, Austin, TX 78713-9824, (3) University of Massachusetts Amherst, Department of Geosciences UMass, 611 N. Pleasant St, Amherst, MA 01003

Session No. 130--Booth# 205

T196. Climate Change in the Geological Record: What Can We Learn from Data and Models? (Posters) Paper No. 130-3

Authors will be present from: 2:00 to 4:00 PM, and 5:00 to 6:30 PM

THE ROLE OF CONTINENTAL MAGMATIC ARCS ON PHANEROZOIC pCO<sub>2</sub> AND ICEHOUSE-GREENHOUSE TRANSITIONS

MCKENZIE, N. Ryan <sup>1</sup>, HORTON, Brian K.<sup>2</sup>, HUGHES, Nigel C.<sup>3</sup>, MYROW, Paul M.<sup>4</sup>, and STOCKLI, Daniel F.<sup>2</sup>, (1) Geological Sciences, University of Texas at Austin, Austin, TX 78752, rmckenzie@jsg.utexas.edu, (2) Department of Geological Sciences, University of Texas at Austin, Austin, TX 78712, (3) Department of Earth Sciences, University of California, Riverside, 1242 Geology Building, Riverside, CA 92521, (4) Department of Geology, Colorado College, Colorado Springs, CO 80903

Session No. 148

T24. Forearc Basin Tectonics and Sedimentation Monday, 20 October 2014: 1:00 PM-5:00 PM Vancouver Convention Centre-West 116/117

Paper No. 148-12

Presentation Time: 4:05 PM

INITIATION AND EARLY EVOLUTION OF A FOREARC BASIN IN SW JAPAN BASED ON 3D SEISMIC DATA ANALYSIS

RAMIREZ, Sebastian G., GULICK, Sean S.P., and HAYMAN, Nicholas W., Institute for Geophysics - Jackson School of Geosciences, University of Texas at Austin, 10100 Burnet Rd., Bldg. 196, R2200, Austin, TX 78758-4445, <a href="mailto:sgramirez@utexas.edu">sgramirez@utexas.edu</a>

Session No. 160

T149. Great Ideas, Locations, and Outcrops in Geology

Monday, 20 October 2014: 1:00 PM-5:00 PM Vancouver Convention Centre-West 221/222

Paper No. 160-9

Presentation Time: 3:15 PM

ABBE PARAMELLE, 19TH CENTURY KARST HYDROGEOLOGIST

BOBECK, Patricia, Jackson School of Geosciences, University of Texas at Austin, P.O. Box 161391, Austin, TX 78716, <a href="mailto:pbobeck@utexas.edu">pbobeck@utexas.edu</a>

Session No. 163

T177. Antarctic Fjords, Interaction of Biotic, Oceanographic, and Cryospheric Systems under Changing Climate

Monday, 20 October 2014: 1:00 PM-5:00 PM Vancouver Convention Centre-West 212

Paper No. 163-1

Presentation Time: 1:00 PM

SPATIAL AND TEMPORAL VARIABILITY OF SEDIMENT FLUX TO BAYS AND FJORDS ALONG A BROAD LATITUDINAL TRANSECT FROM CENTRAL PATAGONIA TO THE ANTARCTIC PENINSULA ANDERSON, John B., Earth Science Department, Rice University, 6100 Main Street, Houston, TX 77005, johna@rice.edu, MINZONI, Rebecca L., Earth Science, Rice University, 6100 Main Street, Houston, TX 77005, YUAN, Victoria, Earth Science Department, Rice University, 6100 Main Street, Rice University, Houston, TX 77005, FERNÁNDEZ, Rodrigo A., Jackson School of Geosciences, U.T.I.G. - University of Texas Institute for Geophysics, J.J. Pickle Research Campus, Bldg. 196, 10100 Burnet Road (R2200), Austin, TX 78758-4445, and WELLNER, Julia S., Department of Earth and Atmospheric Sciences, University of Houston, 312 Science and Research Building 1, Houston, TX 77204-5007

Session No. 140--Booth# 343

T238. Sedimentary Geology: The Now and the Next Generations of Scientists (Posters)

Monday, 20 October 2014: 9:00 AM-6:30 PM

Vancouver Convention Centre-West Exhibition Hall C

Paper No. 140-5

Authors will be present from: 9:00 to 11:00 AM, and 5:00 to 6:30 PM

EFFECTS OF SURGING DURING DEPOSITION OF A SUBAQUEOUS TRANSITIONAL FLOW

USTIPAK, Kelsi R., MINTON, Brandon, MOHRIG, David, BUTTLES, James, and PERILLO, Mauricio M., Jackson School of Geosciences, The University of Texas at Austin, 2275 Speedway, Stop C9000, Austin, TX 78712-1692, ustipak@utexas.edu

Session No. 126--Booth# 159

T177. Antarctic Fjords, Interaction of Biotic, Oceanographic, and Cryospheric Systems under Changing Climate (Posters)

Monday, 20 October 2014: 9:00 AM-6:30 PM

Vancouver Convention Centre-West Exhibition Hall C

HOLOCENE ACCUMULATION RATES IN ANTARCTIC PENINSULA FJORDS: FROM MILLENNIAL TO RECENT TIMESCALES

MUNOZ, Yuribia P.1, WELLNER, Julia S.1, ANDERSON, John B.2, MINZONI, Rebecca2, and FERNÁNDEZ, Rodrigo A.3, (1) Department of Earth and Atmospheric Sciences, University of Houston, 312 Science and Research Building 1, Houston, TX 77204-5007, ypmunoz@uh.edu, (2) Earth Science Department, Rice University, 6100 Main Street, Houston, TX 77005, (3) Jackson School of Geosciences, U.T.I.G. - University of Texas Institute for Geophysics, J.J. Pickle Research Campus, Bldg. 196, 10100 Burnet Road (R2200), Austin, TX 78758-4445

Session No. 102

T169. It's a Cold, Cold World: Permafrost and Glacial Hydrogeology

Monday, 20 October 2014: 8:00 AM-12:00 PM Vancouver Convention Centre-West 110

Paper No. 43-19

Authors will be present from: 3:00 to 5:00 PM

A HIGH-RESOLUTION CHEMOSTRATIGRAPHIC RECORD OF CENOMANIAN-TURONIAN STRATA, SOUTH TEXAS, USA

NIETO, Michael A., Bureau of Economic Geology, University of Texas at Austin, 10100 Burnet Road, University Station, Box X, Austin, TX 78713, michael.nieto89@gmail.com, ROWE, Harry, Bureau of Economic Geology, The University of Texas at Austin, The Jackson School of Geoscience, University Station, Box X, Austin, TX 78713-8924, PHILLIPS, Nestor D. II, EOG Resources, Inc., 19100 Ridgewood Pkwy #2, San Antonio, TX 78259, and RUPPEL, Stephen C., Bureau of Economic Geology, University of Texas at Austin, The Jackson School of Geoscience, University Station, Box X, Austin, TX 78713-8924

Session No. 102

T169. It's a Cold, Cold World: Permafrost and Glacial Hydrogeology

Presentation Time: 8:00 AM

Monday, 20 October 2014: 8:00 AM-12:00 PM Vancouver Convention Centre-West 110

Paper No. 102-1

HIGH-RESOLUTION CARBON INVENTORY AND DYNAMICS IN PERMAFROST SOILS: NORTH SLOPE, ALASKA YOUNG, Michael, Bureau of Economic Geology, University of Texas at Austin, University Station, Box X, Austin, TX 78712, michael.young@beg.utexas.edu, ABOLT, Charles J., Department of Geological Sciences, Jackson School of Geosciences, The University of Texas at Austin, Austin, TX 78712, CALDWELL, Todd G., Jackson School of Geosciences, University of Texas at Austin, Bureau of Economic Geology, University Station, Box X, Austin, TX 78758, and LARSON, Toti, Department of Geological Sciences, University of Texas at Austin, 10100 Burnet Road, Austin, TX 78713

Session No. 126--Booth# 160

T177. Antarctic Fjords, Interaction of Biotic, Oceanographic, and Cryospheric Systems under Changing Climate (Posters)

Monday, 20 October 2014: 9:00 AM-6:30 PM

Vancouver Convention Centre-West Exhibition Hall C

Paper No. 126-5

Authors will be present from: 9:00 to 11:00 AM, and 5:00 to 6:30 PM

THE SEISMIC RECORD OF POST-LGM GLACIAL RETREAT FROM PATAGONIAN AND ANTARCTIC PENINSULA FJORDS

FERNÁNDEZ, Rodrigo A., Jackson School of Geosciences, U.T.I.G. - University of Texas Institute for Geophysics, J.J. Pickle Research Campus, Bldg. 196, 10100 Burnet Road (R2200), Austin, TX 78758-4445, r.f@ig.utexas.edu, ANDERSON, J.B., Earth Science, Rice University, 6100 Main St MS 126, Houston, TX 77005, WELLNER, Julia Smith, Department of Geosciences, University of Houston, 312 Science & Research Building 1, Houston, TX 77204-5007, and MINZONI, Rebecca, Earth Science Department, Rice University, 6100 Main Street, Houston, TX 77005

Session No. 146

T6. Birth and Death of Supercontinents Monday, 20 October 2014: 1:00 PM-5:00 PM Vancouver Convention Centre-West 118

Paper No. 146-9

Presentation Time: 3:25 PM

EMERGING DATA ON RODINIA RIFTING FROM MARATHON OROGENIC BELT, SOUTHERN LAURENTIA DICKERSON, Patricia Wood, American Geological Institute and Jackson School of Geosciences, University of Texas at Austin, Austin, TX 78712, patdickerson@earthlink.net, STOCKLI, Daniel F., Department of

Geological Sciences, University of Texas at Austin, Austin, TX 78712, HANSON, Richard, Department of Geology, Texas Christian University, TCU Box 298830, Fort Worth, TX 76129, and ROBERTS, Jonathon M., XTO Energy, 810 Houston St, Ft. Worth, TX 76102

Session No. 108

T205. Major Evolutionary Events of the Early Mesozoic— Paleontology and Paleoecology from the Middle Triassic to the Late Jurassic

Monday, 20 October 2014: 8:00 AM-12:00 PM Vancouver Convention Centre-West 220

Paper No. 108-12

Presentation Time: 11:15 AM

A NEW JURASSIC LAGERSTATTE FROM ALBERTA, CANADA, PRESERVED DURING THE TOARCIAN OCEAN ANOXIC EVENT

MARTINDALE, Rowan C.1, THEM, Theodore R. II2, GILL, Benjamin C.2, and KNOLL, Andrew H.3, (1) Jackson School of Geosciences, University of Texas at Austin, 1 University Station C1100, Austin, TX 78712, martindale@jsg.utexas.edu, (2) Department of Geosciences, Virginia Polytechnic Institute & State University, Blacksburg, VA 24061, (3) Organismic and Evolutionary Biology, Harvard University, 26 Oxford Street, Cambridge, MA 02138

Session No. 113--Booth# DP9

T57. Digital Geology Sandpit II (Digital Posters) Monday, 20 October 2014: 9:00 AM-6:30 PM

Vancouver Convention Centre-West Exhibition Hall C

Paper No. 113-9

Authors will be present from: 9:00 to 11:00 AM, and 5:00 to 6:30 PM

AQUIFERIUM: A TOUCH-ENABLED LEARNING PLATFORM FOR THE FUTURE OF WATER RESOURCE EDUCATION

DOTY, Brent Richard, Public Outreach, Edwards Aquifer Authority, 900 East Quincy, San Antonio, TX 78254, PIERCE, Suzanne A., Environmental Science Institute, Jackson School of Geosciences, The University of Texas at Austin, Austin, TX 78712, sawpierce@gmail.com, GENTLE, John, Center for Agile Technology, The University of Texas at Austin, Austin, TX 78712, and SMITH, Elizabeth, Public Outreach, Edwards Aquifer Authority, 11907 Pure Silver, San Antonio, TX 78215

Session No. 122--Booth# 109

T136. Geophysical Solutions to Geological Problems: Current Research Results and the Annual George P. Woollard Award Presentation (Posters)

Monday, 20 October 2014: 9:00 AM-6:30 PM

Vancouver Convention Centre-West Exhibition Hall C

Paper No. 122-23

Authors will be present from: 9:00 to 11:00 AM, and 5:00 to 6:30 PM

USING GAMMA-RAY SPECTROMETRY TO NON-DESTRUCTIVELY DETERMINE THE AGE OF RADIOACTIVE C. MEGALODON TEETH AND OTHER URANIUM-BEARING CENOZOIC VERTEBRATE FOSSILS

IRWIN, George, Physics, Lamar University, Beaumont, TX 77710, GARTNER, Christine, Earth & Space Sciences, Lamar University, Beaumont, TX 77710, WESTGATE, James W., Earth & Space Sciences, Lamar University, & Vertebrate Paleontology Lab, Jackson School of Geosciences, University of Texas, Beaumont, TX 77710, james.westgate@lamar.edu, and CAMPBELL, Megan, Physics, Lamar University, Beaumont, TX 77710

Session No. 143--Booth# 424

T19. The Geodynamics of Flat-Slab Subduction and Its Influence on Upper Plate Deformation,

Magmatism, and Basin Evolution (Posters)

Monday, 20 October 2014: 9:00 AM-6:30 PM

Vancouver Convention Centre-West Exhibition Hall C

Paper No. 143-11

Authors will be present from: 9:00 to 11:00 AM, and 5:00 to 6:30 PM

RAPID THRUST PROPAGATION AND EXHUMATION OF FORELAND BASIN FILL IN THE PRECORDILLERA THRUST BELT, FLAT-SLAB SEGMENT OF THE SOUTHERN CENTRAL ANDES, ARGENTINA

HORTON, Brian K.1, LEVINA, Mariya2, FUENTES, Facundo3, and STOCKLI, Daniel F.2, (1) Department of Geological Sciences and Institute for Geophysics, Jackson School of Geosciences, University of Texas at Austin, TX 78712, horton@jsg.utexas.edu, (2) Department of Geological Sciences, University of Texas at Austin, Austin, TX 78712, (3) Pluspetrol, Lima 339 P-8, Buenos Aires, C1073AAG, Argentina

Session No. 163

T177. Antarctic Fjords, Interaction of Biotic, Oceanographic, and Cryospheric Systems under Changing Climate

Monday, 20 October 2014: 1:00 PM-5:00 PM Vancouver Convention Centre-West 212

Paper No. 163-4

Presentation Time: 1:50 PM

THE ANTARCTIC PENINSULA FJORD SEDIMENT RECORD: A REGIONAL EVALUATION OF GLACIAL RESPONSE TO HOLOCENE CLIMATE EVENTS

MINZONI, Rebecca L., Earth Science, Rice University, 6100 Main Street, Houston, TX 77005, rlt1@rice.edu, ANDERSON, John B., Earth Science Department, Rice University, 6100 Main Street, Houston, TX 77005, WELLNER, Julia S., Department of Geosciences, University of Houston, 312 Science & Research Building 1, Houston, TX 77204-5007, and FERNÁNDEZ, Rodrigo A., Jackson School of Geosciences, U.T.I.G. - University of Texas Institute for Geophysics, J.J. Pickle Research Campus, Bldg. 196, 10100 Burnet Road (R2200), Austin, TX 78758-4445

Session No. 171

T242. Mud Deposition

Monday, 20 October 2014: 1:00 PM-5:00 PM Vancouver Convention Centre-West 207

Paper No. 171-5

Presentation Time: 4:05 PM

INITIATION AND EARLY EVOLUTION OF A FOREARC BASIN IN SW JAPAN BASED ON 3D SEISMIC DATA ANALYSIS

DASHTGARD, Shahin E.1, SNEDDEN, John2, and MACEACHERN, James A.1, (1) Department of Earth Sciences, Simon Fraser University, 8888 University Drive, Burnaby, BC V5A 1S6, Canada, sdashtgard@gmail.com, (2) Institute for Geophysics, Univ of Texas at Austin, JJ Pickle Research Campus, Bldg 196 (ROC), 10100 Burnet Rd (R2200), Austin, TX 78758-4445

#### Tuesday, October 21

Session No. 202

T225. MicroMars to MegaMars: Integration of Surface and Orbital Investigations Tuesday, 21 October 2014: 8:00 AM-12:00 PM

Vancouver Convention Centre-West 301

Paper No. 202-13

Presentation Time: 11:15 AM

TEMPORAL AND SPATIAL DIFFERENCES IN WIND INDICATORS IN GALE CRATER

DAY, Mackenzie D.1, KOCUREK, Gary2, BRIDGES, Nathan T.3, EWING, Ryan4, ANDERSON, William5, NEWMAN, Claire E.6, MARTÍN-TORRES, F. Javier7, ZORZANO, María-Paz8, ULLÁN, Aurora8, and SCIENCE TEAM, MSL9, (1) Jackson School of Geosciences, University of Texas at Austin, Austin, TX 78751, mdday@utexas.edu, (2) Jackson School of Geosciences, The University of Texas at Austin, 1 University Station C9000, Austin, TX 78712, (3) Applied Physics Laboratory, Johns Hopkins University, Laurel, MD 20723, (4) Department of Geology and Geophysics, Texas A&M University, MS 3115, College Station, TX 77843, (5) School of Engineering and Computer Science, Baylor University, Waco, TX 76798, (6) Ashima Research, 600 S. Lake Avenue, Suite 104, Pasadena, CA 91106, (7) Instituto Andaluz de Ciencias de la Tierra, Granada, Spain, (8) Centro de Astrobiología, Madrid, Spain, (9) Jet Propulsion Laboratory, California Institute of Technology, 4800 Oak Grove Drive, Pasadena, CA 91011

Session No. 196

T182. Evaluating Coastal Models and Transgressive Coastal Systems

Tuesday, 21 October 2014: 8:00 AM-12:00 PM

Vancouver Convention Centre-West 212

Paper No. 196-9

Presentation Time: 10:30 AM

HISTORICAL TO RECENT TEXAS GULF SHORELINE MOVEMENT AND ITS POSTGLACIAL CONTEXT PAINE, Jeffrey G.1, CAUDLE, Tiffany2, and ANDREWS, John1, (1) Bureau of Economic Geology, Jackson School of Geosciences, The Univ of Texas at Austin, PO Box X, University Station, Austin, TX 78713-8924, jeff.paine@beg.utexas.edu, (2) Bureau of Economic Geology, Jackson School of Geosciences, The University of Texas at Austin, University Station, Box X, Austin, TX 78713-8924

Session No. 197

T190. Applications of Structural Geology and Geomechanics in the Petroleum Industry

Tuesday, 21 October 2014: 8:00 AM-12:00 PM Vancouver Convention Centre-West 207

Paper No. 197-4

Presentation Time: 8:45 AM

INFLUENCE OF DIAGENESIS ON REGIONAL AND FOLD-RELATED FRACTURE SIZE DISTRIBUTION COPLEY, Lauren1, LAUBACH, Stephen2, and MARRETT, Randall1, (1) Jackson School of Geosciences, The University of Texas at Austin, Austin, TX 78712, lcopley@utexas.edu, (2) Bureau of Economic Geology, The University of Texas at Austin, Austin, TX 78758

Session No. 197

T190. Applications of Structural Geology and Geomechanics in the Petroleum Industry

Tuesday, 21 October 2014: 8:00 AM-12:00 PM

Vancouver Convention Centre-West 207

Paper No. 197-3

Presentation Time: 8:30 AM

PROPAGATION RATE AND TIMING OF NATURAL FRACTURES IN DEEP RESERVOIRS

FALL, András1, EICHHUBL, Peter2, and LAUBACH, Stephen E.1, (1) Bureau of Economic Geology, Jackson School of Geosciences, The University of Texas at Austin, University Station, P.O. Box X, Austin, TX

78713-8924, andras.fall@beg.utexas.edu, (2) Bureau of Economic Geology, The University of Texas at Austin, 10100 Burnet Road, Austin, TX 78758

Session No. 193

T157. Joint Sustainability of Water Resources and Petroleum Energy Production

Tuesday, 21 October 2014: 8:00 AM-12:00 PM Vancouver Convention Centre-West 114/115

Paper No. 193-9

Presentation Time: 10:45 AM

HOW DOES WATER USE FOR HYDRAULIC FRACTURING OF UNCONVENTIONAL SHALE OIL COMPARE

WITH SHALE GAS AND WITH CONVENTIONAL OIL PRODUCTION?

SCANLON, Bridget R., REEDY, Bob, and NICOT, Jean-Philippe, Bureau of Economic Geology, Jackson School of Geosciences, University of Texas at Austin, 10100 Burnet Road, Austin, TX 78758,

bridget.scanlon@beg.utexas.edu

Session No. 182

T41. Advances in Tsunami and Storm Research Tuesday, 21 October 2014: 8:00 AM-12:00 PM Vancouver Convention Centre-West 211

Paper No. 182-5

Presentation Time: 9:05 AM

COUPLED HYDROGRAPHIC AND TROPICAL CYCLONE VARIABILITY IN THE SOUTH PACIFIC OVER THE LATE HOLOCENE

TOOMEY, Michael R., Jackson School of Geosciences, University of Texas at Austin, 1 University Station C1160, Austin, TX 78712, mrt02008@mit.edu, DONNELLY, Jeffrey P., Geology & Geophysics Department, Woods Hole Oceanographic Institution, MS #22, 266 Woods Hole Rd, Woods Hole, MA 02543, and TIERNEY, Jessica, Geology & Geophysics Department, Woods Hole Oceanographic Institution, MS #8, 266 Woods Hole Rd, Woods Hole, MA 02543

Session No. 184

T82. Enhancing the Toolkit for Karst Investigations Tuesday, 21 October 2014: 8:00 AM-12:00 PM Vancouver Convention Centre-West 208/209

Paper No. 184-2

Presentation Time: 8:15 AM

SURFACE WATER RECHARGE IN KARST: EDWARDS AQUIFER - NUECES RIVER SYSTEM KROMANN, Jenna S., Geological Sciences, The University of Texas, Jackson School of Geosciences, Austin, TX 78712-1722, jennakromann@utexas.edu, SHARP, John M. Jr., Geological Sciences, The University of Texas, Jackson School of Geosciences, 1 University Station - C1100, Austin, TX 78712-0254, and GARY, Marcus O., Geological Sciences and Edwards Aquifer Authority, The University of Texas, Jackson School of Geosciences, 1 University Station - C1100, Austin, TX 78712-0254

Session No. 184

T82. Enhancing the Toolkit for Karst Investigations Tuesday, 21 October 2014: 8:00 AM-12:00 PM Vancouver Convention Centre-West 208/209

Paper No. 184-2

Presentation Time: 8:15 AM

SURFACE WATER RECHARGE IN KARST: EDWARDS AQUIFER - NUECES RIVER SYSTEM KROMANN, Jenna S., Geological Sciences, The University of Texas, Jackson School of Geosciences, Austin, TX 78712-1722, jennakromann@utexas.edu, SHARP, John M. Jr., Geological Sciences, The University of Texas, Jackson School of Geosciences, 1 University Station - C1100, Austin, TX 78712-0254, and GARY, Marcus O., Geological Sciences and Edwards Aquifer Authority, The University of Texas, Jackson School of Geosciences, 1 University Station - C1100, Austin, TX 78712-0254

Session No. 176 Stratigraphy

Tuesday, 21 October 2014: 8:00 AM-12:00 PM Vancouver Convention Centre-West 221/222

Paper No. 176-11

Presentation Time: 10:45 AM

USING GSSP GUIDELINES FOR THE CENOMANIAN-TURONIAN (CE-T); TURONIAN-CONIACIAN (T-CO); AND CONIACIAN-SANTONIAN (CO-S) STAGE BOUNDARIES, BOQUILLAS FORMATION, BIG BEND NATIONAL PARK (BBNP), TX

COOPER, Roger W., Department of Earth and Space Science, Lamar University, 17890 Nonie Lane, Lumberton, TX 77657-6847, rogerwcooper@yahoo.com and COOPER, Dee Ann, Non-vertebrate Paleontology Lab., Jackson School of Geosciences, The University of Texas at Austin, 17890 Nonie Lane, Lumberton, TX 77657

Session No. 208--Booth# 77

T125. Sigma Gamma Epsilon Undergraduate Research (Posters)

Tuesday, 21 October 2014: 9:00 AM-6:30 PM

Vancouver Convention Centre-West Exhibition Hall C

Paper No. 208-33

Authors will be present from: 9:00 to 11:00 AM, and 5:00 to 6:30 PM

SYNEXTENSIONAL SEDIMENTATION IN THE HANGING WALL OF THE BUCKSKIN DETACHMENT FAULT, WEST-CENTRAL ARIZONA: EVIDENCE FOR ACCELERATED EXTENSION RATES IN THE MIDDLE MIOCENE? HATFIELD, Marques E.1, SINGLETON, John2, BIRD, Emily2, and PRIOR, Michael G.3, (1) George Mason University, 10483 Malone Court, Fairfax, VA 22032, marques.hatfield@gmail.com, (2) Atmospheric, Oceanic, and Earth Sciences, George Mason University, 4400 University Drive, Mail Stop 5F2, Fairfax, VA 22030, (3) Jackson School of Geosciences, University of Texas at Austin, Jackson School of Geosciences1 University Station C9000, Austin, TX 78712-0254

Session No. 228--Booth# 346

T2. Emplacement of Upper Crustal Magmatic Intrusions: Field Studies of Laccoliths, Sills, and Subvolcanic Plugs (Posters)

Tuesday, 21 October 2014: 9:00 AM-6:30 PM

Vancouver Convention Centre-West Exhibition Hall C

Paper No. 228-6

Authors will be present from: 9:00 to 11:00 AM, and 5:00 to 6:30 PM

MAGMATIC EVOLUTION AND HYDROTHERMAL ALTERATION OF THE REE-ENRICHED ROUND TOP RHYOLITE LACCOLITH, TRANS-PECOS REGION, TEXAS

ELLIOTT, Brent, The Bureau of Economic Geology, The University of Texas at Austin, University Station Box X, Austin, TX 78713, KYLE, J. Richard, Department of Geological Sciences, Jackson School of Geosciences, University of Texas at Austin, Austin, TX 78712, rkyle@jsg.utexas.edu, and O'NEILL, L.

Christine, The Jackson School of Geoscience, The University of Texas at Austin, 105 W 38th 1/2 Street, Apt 203, Austin, TX 78751

Session No. 208--Booth# 70

T125. Sigma Gamma Epsilon Undergraduate Research (Posters)

Tuesday, 21 October 2014: 9:00 AM-6:30 PM

Paper No. 208-26

Authors will be present from: 9:00 to 11:00 AM, and 5:00 to 6:30 PM

UNDERSTANDING THE ROLE OF STRIKE-SLIP FAULTING AS OCEANS CLOSE, NORTH CENTRAL TURKEY PETTIT, Bridget S., Geological Sciences, The University of Texas at Austin, 7 Las Flores, Aliso Viejo, CA 92656, bridgetpettit@utexas.edu, CATLOS, Elizabeth J., Geological Sciences, University of Texas at Austin, Jackson School of Geosciences, Austin, TX 78712, and ELLIOTT, Brent, The Bureau of Economic Geology, The University of Texas at Austin, University Station Box X, Austin, TX 78713

Session No. 338

T156. Agricultural Impacts on Water Quality: Are We Making Progress?

Wednesday, 22 October 2014: 1:00 PM-5:00 PM Vancouver Convention Centre-West 114/115

Paper No. 338-2

Presentation Time: 1:30 PM

COMPARISON OF VARYING AGRICULTURAL INTENSIFICATION ON WATER RESOURCES: COMPARISON OF THE NORTH CHINA PLAIN AND US HIGH PLAINS

PEI, Hongwei, Key Laboratory of Agricultural Water Resources, Center for Agriculture Resources Research, Institute of Genetics and Development Biology, the China Academy of Sciences, Shijiazhuang, 050021, China, phw1987@126.com, SCANLON, Bridget R., Bureau of Economic Geology, Jackson School of Geosciences, University of Texas at Austin, 10100 Burnet Road, Austin, TX 78758, and SHEN, Yanjun, Key Laboratory of Agricultural Water Resources, Center for Agriculture Resources Research, Institute of Genetics and Development Biology, the China Academy of Sciences, Shijuazhuang, 050021, China

Session No. 217--Booth# 209

T190. Applications of Structural Geology and Geomechanics in the Petroleum Industry (Posters)

Tuesday, 21 October 2014: 9:00 AM-6:30 PM

Vancouver Convention Centre-West Exhibition Hall C

Paper No. 217-8

Authors will be present from: 2:00 to 4:00 PM, and 5:00 to 6:30 PM

FAULT OBSERVATIONS IN LOWER MIOCENE TO RECENT SEDIMENTS USING HIGH-RESOLUTION SHALLOW P-CABLE AND CONVENTIONAL OFFSHORE 3-D SEISMIC DATA IN THE SAN LUIS PASS, TEXAS OSMOND, Johnathon L., Jackson School of Geosciences, The University of Texas at Austin, Austin, TX 78712, johnathon.osmond@utexas.edu and MECKEL, Timothy A., Bureau of Economic Geology, Jackson School of Geosciences, The University of Texas at Austin, University Station, PO Box X, Austin, TX 78713

Session No. 245

T71. Climate Literacy: Formal and Informal Education and Outreach Efforts to Increase Awareness and Enable Responsible Decisions

Tuesday, 21 October 2014: 1:00 PM-5:00 PM Vancouver Convention Centre-West 217/218

Paper No. 245-7

Presentation Time: 2:40 PM

# EARTHLABS CLIMATE DETECTIVES: CURRICULUM BASED ON IODP EXPEDITION 341 ON THE JOIDES RESOLUTION

ELLINS, Katherine K., Institute for Geophysics, Jackson School of Geosciences, The University of Texas at Austin, 10100 Burnet Rd., Bldg. 196, Austin, TX 78758, kellins@ig.utexas.edu, LOCKWOOD, Jeff, Center for Science Teaching and Learning, TERC, 2067 Massachusetts Avenue, Cambridge, MA 02140, MOTE, Alison, Austin Independent School District, The Ann Richards School for Young Women Leaders, 2206 Prather Lane, Austin, TX 78704, HADDAD, Nick, TERC, 2067 Massachusetts Ave, Cambridge, MA 02140, LEDLEY, Tamara Shapiro, Center for STEM Teaching and Learning, TERC, 2067 Massachusetts Ave, Cambridge, MA 02140, LYNDS, Susan, Cooperative Institute for Research in Environmental Sciences, University of Colorado at Boulder, CO, Boulder, CO 80309-0449, MCNEAL, Karen S., Marine, Earth and Atmospheric Sciences, North Carolina State University, Raleigh, NC 27695, LIBARKIN, Julie, Department of Geological Sciences, Michigan State University, East Lansing, MI 48824, GOLD, Anne, Cooperative Institute of Research in Environmental Sciences (CIRES), University of Colorado, Boulder, CO 80303, and IODP EXPEDITION 341 SCIENCE TEAM, The, 1000 Discovery Drive, Texas A&M University, College Station, TX 77845

Session No. 247

Honoring the Diverse Career of Eric S. Cheney: From Ore Deposits and Sequence Stratigraphy to Pacific

Northwest Geology and Citizen Responsibility Tuesday, 21 October 2014: 1:00 PM-5:00 PM Vancouver Convention Centre-West: 302/303

Paper No. 247-11

Presentation Time: 4:00 PM-4:15 PM

THE CHIWAUKUM STRUCTURAL LOW AND THE TECTONIC HISTORY OF THE CENTRAL CASCADE RANGE HAYMAN, Nicholas W., Institute for Geophysics, University of Texas, 10100 Burnet Rd, Bldg 196, Austin, TX 78758, hayman@ig.utexas.edu

Session No. 249

T107. Undergraduate Research Talks: The Next Step in Student Research Projects

Tuesday, 21 October 2014: 1:00 PM-5:00 PM

Paper No. 249-13

Presentation Time: 4:15 PM

Vancouver Convention Centre-West 202/203

DATING THE MENGHAI BATHOLITH, SOUTHERN CHINA

REYES, Enrique Jr1, CATLOS, E.J.2, BROOKFIELD, Michael3, SHIN, Timothy A.2, and STOCKLI, Daniel F.4, (1) Geological Sciences, University of Texas at Austin, Jackson School of Geosciences, Austin, TX 78705, enrique.reyes@utexas.edu, (2) Geological Sciences, University of Texas at Austin, Jackson School of Geosciences, Austin, TX 78712, (3) Environmental, Earth, and Ocean Sciences, University of Massachusetts Boston, 100 Morrissey Boulevard, Boston, MA 02125, (4) Department of Geological Sciences, University of Texas at Austin, Austin, TX 78712

Session No. 246

T88. North American Coal and Source Rock Geology Tuesday, 21 October 2014: 1:00 PM-5:00 PM Vancouver Convention Centre-West 212

Paper No. 246-12

Presentation Time: 4:05 PM

U-PB GEOCHRONOLOGY AND CHRONOSTRATIGRAPHY OF BENTONITE BEDS WITHIN THE EAGLE FORD SHALE

PIERCE, John1, RUPPEL, Stephen C.1, STOCKLI, Daniel F.2, and ROWE, Harry3, (1) Bureau of Economic Geology, University of Texas at Austin, The Jackson School of Geoscience, University Station, Box X, Austin, TX 78713-8924, jdpierce89@gmail.com, (2) Department of Geological Sciences, University of Texas at Austin, Austin, TX 78712, (3) Bureau of Economic Geology, The University of Texas at Austin, The Jackson School of Geoscience, University Station, Box X, Austin, TX 78713-8924

Session No. 246

T88. North American Coal and Source Rock Geology Tuesday, 21 October 2014: 1:00 PM-5:00 PM

Vancouver Convention Centre-West 212

Paper No. 246-11

Presentation Time: 3:50 PM

THE IMPACT OF RAPID HEATING BY INTRUSION ON THE GEOCHEMISTRY AND PETROGRAPHY OF COALS AND ORGANIC-RICH SHALES IN THE ILLINOIS BASIN

RAHMAN, Mohammad W., Department of Geology, Southern Illinois University Carbondale, 1259 Lincoln Dr, Carbondlae, IL 62901, mwrahman@siu.edu, RIMMER, Susan, Department of Geology, Southern Illinois University, Mailcode 4324, Carbondale, IL 62901, and ROWE, Harry, Bureau of Economic Geology, The University of Texas at Austin, The Jackson School of Geoscience, University Station, Box X, Austin, TX 78713-8924

### Wednesday, October 22

Session No. 285

T171. Leading Edge of Produced Water Research: Impacts, Fingerprinting, and Science of Brines Associated with Hydrocarbon Production

Wednesday, 22 October 2014: 8:00 AM-12:00 PM

Vancouver Convention Centre-West 109

Paper No. 285-3

Presentation Time: 8:35 AM

PRELIMINARY RESULTS OF DISSOLVED METHANE SAMPLING IN THE FOOTPRINT OF TEXAS SHALE PLAYS NICOT, Jean-Philippe1, MICKLER, Patrick1, HILDENBRAND, Zacariah L.2, LARSON, Toti3, DARVARI, Roxana1, UHLMAN, Kristine1, SMYTH, Rebecca C.1, and SCANLON, Bridget R.1, (1) Bureau of Economic Geology, Jackson School of Geosciences, The University of Texas at Austin, Austin, TX 78758, jp.nicot@beg.utexas.edu, (2) Inform environmental LLC, Dallas, TX 75227, (3) Department of Geological Sciences, Jackson School of Geosciences, The University of Texas at Austin, Austin, TX 78713

Session No. 287

T193. Speleothem Records of Climate Change in North America

Wednesday, 22 October 2014: 8:00 AM-12:00 PM Vancouver Convention Centre-West 215/216

Paper No. 287-15

Presentation Time: 11:30 AM

EARLIER ONSET OF "4.2 KA EVENT" IN THE EASTERN U.S. IS POSSIBLE AT 4.5 KA: MIDDLE HOLOCENE MEGA-DROUGHTS IDENTIFIED USING STABLE ISOTOPES AND MICROMORPHOLOGY OF SPELEOTHEMS AND  $\delta$ 13C OF FLOODPLAIN SOM

LI, Zheng-Hua, Earth and Environmental Sciences Division, Los Alamos National Laboratory, P.O. Box 1663, MS J535, Los Alamos, NM 87545, DRIESE, Steven G., Terrestrial Paleoclimatology Research Group, Department of Geology, Baylor University, One Bear Place #97354, Waco, TX 76798-7354, Steven\_Driese@baylor.edu, STINCHCOMB, Gary E., Watershed Studies Institute, Dept. of Geosciences, Murray State University, 334 Blackburn Hall, Murray, KY 42071, KOCIS, James J., Department of Geosciences, University of Massachusetts, Morrill Sciences Center, Amherst, MA 01003, HORN, Sally P., Department of Geography, University of Tennessee, Knoxville, TN 37996-0925, BUCKLES, Jessica, Earth and Environmental Sciences, University of Texas at Arlington, 412 S. Cooper St. Apt 17, Arlington, TX 76013, ROWE, Harry, Bureau of Economic Geology, The University of Texas at Austin, The Jackson School of Geoscience, University Station, Box X, Austin, TX 78713-8924, and CHENG, Hai, Department of Earth Sciences, University of Minnesota, 310 Pillsbury Dr. SE, Minneapolis, MN 55455

Session No. 311--Booth# 212

Recent Advances in Marine and Coastal Geoscience (Posters)

Wednesday, 22 October 2014: 9:00 AM-6:30 PM Vancouver Convention Centre-West Exhibition Hall C

Paper No. 311-19

Authors will be present from: 9:00 to 11:00 AM, and 5:00 to 6:30 PM

RECONSTRUCTING HIGH-LATITUDE STORM EVENTS FROM A FJORD IN NEWFOUNDLAND MCDERMOTT, Kyle J.1, HAWKES, Andrea D.1, DONNELLY, Jeffrey P.2, SULLIVAN, Richard M.2, MAIO, Christopher V.2, TOOMEY, Michael R.3, and MADSEN, Stephanie M.2, (1) Geography and Geology, University of North Carolina Wilmington, 5600 Marvin K. Moss Lane, Wilmington, NC 28409, kjm9198@uncw.edu, (2) Geology & Geophysics Department, Woods Hole Oceanographic Institution, MS #22, 266 Woods Hole Rd, Woods Hole, MA 02543, (3) Jackson School of Geosciences, University of Texas at Austin, 1 University Station C1160, Austin, TX 78712

Session No. 287

T193. Speleothem Records of Climate Change in North America

Wednesday, 22 October 2014: 8:00 AM-12:00 PM Vancouver Convention Centre-West 215/216

Paper No. 287-6

Presentation Time: 9:15 AM

CONSTRAINING THE ONSET OF A RAPID DEGLACIAL CLIMATE CHANGE EVENT IN THE SW US THROUGH HIGH RESOLUTION SPELEOTHEM IMAGING AND ISOTOPIC ANALYSES

MILLER, Nathan1, BANNER, Jay1, FENG, Weimin2, GONZALES, Angelique3, KOZDON, Reinhard4, and VALLEY, John4, (1) Jackson School of Geosciences, University of Texas at Austin, Austin, TX 78712, nrmiller@jsg.utexas.edu, (2) Department of Physics, Astronomy and Geosciences, Valdosta State University, Valdosta, GA 31698, (3) Department of Geology, Cornell College, Mount Vernon, IA 52314, (4) Department of Geoscience, University of Wisconsin, Madison, WI 53706

Session No. 287

T193. Speleothem Records of Climate Change in North America Wednesday, 22 October 2014: 8:00 AM-12:00 PM

Vancouver Convention Centre-West 215/216

Paper No. 287-14

Presentation Time: 11:15 AM

LATE PLEISTOCENE TO EARLY HOLOCENE CLIMATE VARIABILITY FROM A HIGH-RESOLUTION

SPELEOTHEM RECORD IN THE SOUTHEASTERN APPALACHIAN REGION

GAO, Yongli1, ROWE, Harry2, BUCKLES, Jessica1, CHENG, Hai3, and EDWARDS, R. Lawrence3, (1) Geological Sciences, University of Texas at San Antonio, San Antonio, TX 78249, yongli.gao@utsa.edu, (2) Bureau of Economic Geology, The University of Texas at Austin, The Jackson School of Geoscience, University Station, Box X, Austin, TX 78713-8924, (3) Department of Earth Sciences, University of Minnesota, 310 Pillsbury Dr. SE, Minneapolis, MN 55455

Session No. 320--Booth# 312 Sediments, Clastic (Posters)

Wednesday, 22 October 2014: 9:00 AM-6:30 PM Vancouver Convention Centre-West Exhibition Hall C

Paper No. 320-18

Authors will be present from: 2:00 to 4:00 PM, and 5:00 to 6:30 PM

DETRITAL-ZIRCON U-PB GEOCHRONOLOGIC CONSTRAINTS ON PROVENANCE OF ADRIATIC TURBIDITES (ALPS-APENNINES SYSTEM)

DAFOV, Laura N., Jackson School of Geosciences, University of Texas at Austin, 1 University Station Stop C1160, Austin, TX 78712, lauradafov@gmail.com, ANFINSON, Owen A., Jackson School of Geoscience, University of Texas at Austin, 1 University Station Stop C1160, Austin, TX 78712, MALUSÁ, Marco G., Department of Earth and Environmental Sciences, University of Milano-Bicocca, Piazza della Scienza, 1, Milano, 20126, Italy, and STOCKLI, Daniel F., Department of Geological Sciences, University of Texas at Austin, Austin, TX 78712

Session No. 345

T240. Bedforms: Genesis and Development Processes, Morphology, Stratigraphy, and Insights into Planetary Environment

Wednesday, 22 October 2014: 1:00 PM-5:00 PM

Paper No. 345-11

Presentation Time: 3:50 PM

A NUMERICAL STUDY OF TURBULENT FLOW OVER AEOLIAN DUNE FIELDS AT THE WHITE SANDS NATIONAL MONUMENT

ANDERSON, William, Mechanical Engineering Department, Univ. of Texas at Dallas, Dallas, TX 75080, William.Anderson@utdallas.edu, CHAMECKI, Marcelo, Department of Meteorology, Pennsylvania State University, KOCUREK, Gary, Geological Sciences, Jackson School of Geosciences, The University of Texas at Austin, 1 University Station C9000, Austin, TX 78712, and MOHRIG, David, Jackson School of Geosciences, The University of Texas at Austin, 2275 Speedway, Stop C9000, Austin, TX 78712-1692

Session No. 302--Booth# 97

T45. Tracking Sediment Movement across Earth's Surface (Posters)

Wednesday, 22 October 2014: 9:00 AM-6:30 PM Vancouver Convention Centre-West Exhibition Hall C

Paper No. 302-6

Authors will be present from: 9:00 to 11:00 AM, and 5:00 to 6:30 PM

A CONTINENTAL PROVENANCE SHIFT OF LOWER MIOCENE FORMATION IN THE GULF OF MEXICO BASIN: INSIGHT FROM DETRITAL ZIRCON GEO- AND THERMOCHRONOMETRY

XU, Jie, Institute for Geophysics, Jackson School of Geosciences, University of Texas at Austin, 10100 Burnet Road (R2200), J. J Pickle Research Campus Bldg. 196 (ROC), Austin, TX 78758, jiexu@utexas.edu, SNEDDEN, John, Institute for Geophysics, Univ of Texas at Austin, JJ Pickle Research Campus, Bldg. 196 (ROC), 10100 Burnet Rd (R2200), Austin, TX 78758-4445, STOCKLI, Daniel F., Department of Geological Sciences, University of Texas at Austin, Austin, TX 78712, and FULTHORPE, Craig S., Institute for

Geophysics, John A. and Katherine G. Jackson School of Geosciences, The University of Texas at Austin, 10100 Burnet Road, Austin, TX 78758

Session No. 335

T126. Stable and Clumped Isotope Record of Topography, Climate, and Environments: Challenges and Recent Advances

Wednesday, 22 October 2014: 1:00 PM-5:00 PM

Vancouver Convention Centre-West 204

Paper No. 335-12

Presentation Time: 4:15 PM

CONSTRAINTS ON GEODYNAMIC MODELS OF SURFACE UPLIFT FROM HYDROGEN ISOTOPES OF VOLCANIC GLASS IN SOUTHERN PERU

SAYLOR, Joel E., Department of Earth and Atmospheric Sciences, University of Houston, 312 Science & Research Building 1, Rm. 312, Building 1, Rm. 312, Houston, TX 77204, jesaylor@uh.edu, SUNDELL, Kurt E., Department of Earth and Atmospheric Sciences, University of Houston, 312 Science & Research Building 1, Rm. 312, Houston, TX 77204, and HORTON, Brian K., Department of Geological Sciences, University of Texas at Austin, Austin, TX 78712

Session No. 342

T200. Advancing the Digitization of Paleontology and Geoscience Collections: Projects, Programs, and Practices II

Wednesday, 22 October 2014: 1:00 PM-5:00 PM

Paper No. 342-4

Presentation Time: 1:45 PM

Vancouver Convention Centre-West 223/224

THE ROLE OF WHOLE DRAWER IMAGING IN INVERTEBRATE PALEONTOLOGY COLLECTIONS MOLINEUX, Ann1, STILSON, Kelsey2, and GEIGERMAN, Faye M.1, (1) Non-vertebrate Paleontology Laboratory, Jackson School of Geosciences, University of Texas at Austin, J.J. Pickle Research Campus, 10100 Burnet Road, Austin, TX 78758, annm@austin.utexas.edu, (2) Jackson School of Geosciences, University of Texas at Austin, Austin, TX 78705

Session No. 342

T200. Advancing the Digitization of Paleontology and Geoscience Collections: Projects, Programs, and Practices II

Wednesday, 22 October 2014: 1:00 PM-5:00 PM

Vancouver Convention Centre-West 223/224Paper No. 342-3

Presentation Time: 1:30 PM

AN ASSESSMENT OF NATURAL HISTORY COLLECTIONS DATABASE PRACTICES

BRENSKELLE, Laura, Jackson School of Geosciences, The University of Texas at Austin, Austin, TX 78759, <a href="mailto:lbrensk@utexas.edu">lbrensk@utexas.edu</a>

Session No. 342

T200. Advancing the Digitization of Paleontology and Geoscience Collections: Projects, Programs, and Practices II

Wednesday, 22 October 2014: 1:00 PM-5:00 PM Vancouver Convention Centre-West 223/224

Paper No. 342-4

Presentation Time: 1:45 PM

THE ROLE OF WHOLE DRAWER IMAGING IN INVERTEBRATE PALEONTOLOGY COLLECTIONS MOLINEUX, Ann1, STILSON, Kelsey2, and GEIGERMAN, Faye M.1, (1) Non-vertebrate Paleontology Laboratory, Jackson School of Geosciences, University of Texas at Austin, J.J. Pickle Research Campus, 10100 Burnet Road, Austin, TX 78758, annm@austin.utexas.edu, (2) Jackson School of Geosciences, University of Texas at Austin, Austin, TX 78705

Session No. 333

T78. Engaging the Next Generation of Geoscientists: Effective Educational Strategies That Broaden Participation and Prepare Diverse Learners for Advanced Study and Careers in the Earth Sciences Wednesday, 22 October 2014: 1:00 PM-5:00 PM

Paper No. 333-11

Presentation Time: 4:10 PM

CHANGING THE CONVERSATION IN THE GEOSCIENCES: ENGAGING FRIENDS AND ALUMNI TO INSPIRE AND ENCOURAGE THE NEXT GENERATION OF GEOSCIENTISTS, AKA BE A GEO

MOORE, Samuel, Outreach and Diversity, Jackson School of Geosciences, The University of Texas at Austin, 10100 Burnet Road, Bldg. 196 (ROC), Austin, TX 78758, slmoore@jsg.utexas.edu and TUCEK, Kristen, Alumni Relations, Jackson School of Geosciences, The University of Texas at Austin, 2305 Speedway, Stop C1160, Austin, TX 78712-1692

Session No. 287

T193. Speleothem Records of Climate Change in North America

Wednesday, 22 October 2014: 8:00 AM-12:00 PM Vancouver Convention Centre-West 215/216

Paper No. 287-12

Presentation Time: 10:45 AM

HETEROGENEITY IN TRACE ELEMENT INCORPORATION AND THE DEVELOPMENT OF  $\mu\text{-}XRF$  SPECTROMETRY CALIBRATION FOR LOW-SR SPELEOTHEMS

BUCKLES, Jessica1, ROWE, Harry2, and GAO, Yongli1, (1) Geological Sciences, University of Texas at San Antonio, San Antonio, TX 78249, jessica.buckles@utsa.edu, (2) Bureau of Economic Geology, The University of Texas at Austin, The Jackson School of Geoscience, University Station, Box X, Austin, TX 78713-8924

Session No. 345

T240. Bedforms: Genesis and Development Processes, Morphology, Stratigraphy, and Insights into

Planetary Environment

Wednesday, 22 October 2014: 1:00 PM-5:00 PM Vancouver Convention Centre-West 205/206

Paper No. 345-2

Presentation Time: 1:20 PM

TEMPORAL AND SPATIAL VARIATIONS IN BEDFORM ACTIVITY AND GEOMETRY WITH VARYING STREAM DISCHARGE IN THE BACKWATER ZONE OF THE TRINITY RIVER, TEXAS

MASON, Jasmine, Department of Geological Sciences, Jackson school of Geosciences, 2275 Speedway, E.P.S. Building 3.112, Austin, TX 78712, jasminemason@utexas.edu and MOHRIG, David, Jackson School of Geosciences, The University of Texas at Austin, 2275 Speedway, Stop C9000, Austin, TX 78712-1692

Session No. 345

T240. Bedforms: Genesis and Development Processes, Morphology, Stratigraphy, and Insights into Planetary Environment

Wednesday, 22 October 2014: 1:00 PM-5:00 PM Vancouver Convention Centre-West 205/206

Paper No. 345-8

Presentation Time: 2:50 PM

QUANTIFYING PROCESS REGIME IN ANCIENT MIXED-ENERGY SYSTEMS

ROSSI, Valentina Marzia, Jackson School of Geosciences, The University of Texas at Austin, Austin, TX 78712, valentina.marzia.rossi@utexas.edu, PERILLO, Mauricio M., Jackson School of Geosciences, The University of Texas at Austin, 2275 Speedway, Stop C9000, Austin, TX 78712-1692, and STEEL, Ron, Geological Sciences, University of Texas at Austin, Austin, TX 78702

Session No. 333

T78. Engaging the Next Generation of Geoscientists: Effective Educational Strategies That Broaden Participation and Prepare Diverse Learners for Advanced Study and Careers in the Earth Sciences

Wednesday, 22 October 2014: 1:00 PM-5:00 PM

Vancouver Convention Centre-West 217/218Paper No. 333-4

Presentation Time: 2:00 PM

GEOFORCE TEXAS IN THE 10TH YEAR: GROWTH AND MATURATION OF A DIVERSITY-FOCUSED OUTREACH PROGRAM

SNOW, Eleanour, Jackson School of Geosciences, University of Texas, Austin, 10100 Burnet Rd, BLDG 196, R2200, Austin, TX 78758-4445, <a href="mailto:esnow@jsg.utexas.edu">esnow@jsg.utexas.edu</a>

Session No. 339

T160. Environmental Effects of Oil and Gas Development on Water Quality: Toward Sustainability and Stewardship

Wednesday, 22 October 2014: 1:00 PM-5:00 PM

Vancouver Convention Centre-West 109

Paper No. 339-4

Presentation Time: 2:05 PM

LANDSCAPE AND HYDROLOGIC FLOW IMPACTS FROM ABOVE-GROUND ACTIVITIES IN THE EAGLE FORD SHALE PLAY, LA SALLE COUNTY, TEXAS

PIERRE, Jon Paul, Energy and Earth Resources Graduate Program, Jackson School of Geosciences, The University of Texas at Austin, Austin, TX 78712 and YOUNG, Michael, Bureau of Economic Geology, University of Texas at Austin, University Station, Box X, Austin, TX 78712,

michael.young@beg.utexas.edu

Session No. 285

T171. Leading Edge of Produced Water Research: Impacts, Fingerprinting, and Science of Brines

Associated with Hydrocarbon Production

Wednesday, 22 October 2014: 8:00 AM-12:00 PM

Vancouver Convention Centre-West 109

Paper No. 285-10

Presentation Time: 10:35 AM

USING ELECTRIC LOGS TO ESTIMATE SALINITY AND MAP RESOURCES OF FRESH AND BRACKISH GROUNDWATER

HAMLIN, H. Scott and DE LA ROCHA, Luciana, Bureau of Economic Geology, Jackson School of Geosciences, University of Texas, Austin, TX 78713, <a href="mailto:scott.hamlin@beg.utexas.edu">scott.hamlin@beg.utexas.edu</a>

Session No. 271

T4. Circum-Arctic Lithosphere-Basin Evolution I Wednesday, 22 October 2014: 8:00 AM-12:00 PM

Vancouver Convention Centre-West 121

Paper No. 271-8

Presentation Time: 10:15 AM

GEOCHRONOLOGIC AND PETROCHRONOLOGIC CONSTRAINTS ON THE PERMIAN-TRIASSIC NORTHERN SOURCE REGION OF THE SVERDRUP BASIN, CANADIAN ARCTIC ISLANDS

ANFINSON, Owen A., Jackson School of Geoscience, University of Texas at Austin, 1 University Station Stop C1160, Austin, TX 78712, anfinson@jsg.utexas.edu, EMBRY, Ashton F., Natural Resources Canada, Geological Survey of Canada, 3303 33 St NW, Calgary, AB T2L 2A7, Canada, and STOCKLI, Daniel F., Department of Geological Sciences, University of Texas at Austin, Austin, TX 78712

Session No. 336

T134. Geomicrobiology: Microbe-Mineral Interactions Wednesday, 22 October 2014: 1:00 PM-5:00 PM Vancouver Convention Centre-West 304/305

Paper No. 336-12

Presentation Time: 4:15 PM

THE MICROBE-MINERAL ASSOCIATION: A FUNDAMENTAL CONTROL ON BIOMASS, COMMUNITY

MEMBERSHIP, METABOLISM, AND GEOCHEMISTRY IN KARST SYSTEMS

JONES, Aaron Alexander, Jackson School of Geosciences, The University of Texas at Austin, 2305 Speedway, Stop C1160, Austin, TX 78712-1692, aaajones@utexas.edu and BENNETT, Philip C., Department of Geological Sciences, The University of Texas at Austin, Austin, TX 78712

Session No. 346

T244. New Advances and Applications in Sequence Stratigraphy

Wednesday, 22 October 2014: 1:00 PM-5:00 PM

Vancouver Convention Centre-West 207

Paper No. 346-3

Presentation Time: 1:30 PM

INTERPRETING SEQUENCE SCALE ACCOMMODATION TRENDS FROM FACIES STACKING PATTERNS IN CARBONATE AND MIXED CARBONATE-CLASTIC SHELF SETTINGS: PRACTICAL CHALLENGES RUPPEL, Stephen C., Bureau of Economic Geology, University of Texas at Austin, The Jackson School of Geoscience, University Station, Box X, Austin, TX 78713-8924, <a href="mailto:Stephen-Ruppel@beg.utexas.edu">Stephen-Ruppel@beg.utexas.edu</a>