Kansas Geological Survey
Publications, Accomplishments, and Service

2024

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Butler, J. J., Jr., and Johnson, C. K., 2024, Groundwater depletion: A global challenge for intergenerational equity, Interpretation, v. 78, no. 1. doi: 10.1177/00209643231201998 (invited)

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Joeckel, R. M., Ludvigson, G. A., McLean, N. M., and Möller, A., 2024, Minimum duration of Valanginian "Weissert Event" — the first major perturbation of the Cretaceous global carbon cycle — constrained by new high-precision U-Pb dates from terrestrial sediments in Utah, USA: International Sedimentary Geosciences Congress Abstract Book, SEPM Miscellaneous Publication 24, p. 39. https://10.2110/sepmmisc.24.039

Layzell, A. L., and Mandel, R. D., 2024, Landscape and paleoenvironmental change in stream valleys of the central Great Plains during marine isotope stage 3: Biennial Meeting of the American Quaternary Association (AMQUA), August.

Liu, G., Wilson, B., Bohling, G., Whittemore, D., and Butler, J., 2024, Where is it coming from? A modeling assessment of the larger-than-expected inflow to the depleting High Plains aquifer in Kansas: Sustain Istanbul 2024 Book of Abstracts, p. 29.

Liu, G., Wilson, B., Bohling, G., Whittemore, D., and Butler, J. J., Jr., 2024, Modeling assessment of larger-than-expected inflow to the depleting High Plains aquifer in Kansas: Abstract H53V-03 presented at 2024 Fall Meeting, American Geophysical Union.

Longyang, Q., and Zeng, R., 2024, Assessing the effectiveness of reservoir operation and identifying reallocation opportunities under climate change: American Geophysical Union Fall Meeting 2024, session GC51J, abstract GC51J-0089, December.

Lowe, T., Mohammadi, S., and Oborny, S., 2024, Evaluating critical mineral content of Pennsylvanian aged black shales in eastern Kansas: GSA Connects Meeting in Anaheim, California, October 22–26.

Ludvigson, G., Palafox, E., Montañez, I., Möller, A., McLean, N., Suarez, M., and Joeckel, M., 2024, The utility of cathodoluminescence imaging for LA-ICP-MS uranium-lead dating of calcite cements in pedogenic-palustrine carbonates: International Sedimentary Geosciences Congress Abstract Book, SEPM Miscellaneous Publication 24, p. 110. https://10.2110/sepmmisc.24.110

Mandel, R. D., 2024, Geoarchaeology and paleoenvironmental context of Magic Mountain (5JF223): A stratified site on the front range of the southern Rocky Mountains, North-Central Colorado: Society for American Archaeology, New Orleans, April.

Mandel, R. D., and Layzell, A. L., 2024, In the footprints of Dan Muhs: Reconstructing Late Quaternary landscape evolution in stream valleys of the Nebraska sand hills: Geological Society of America, Anaheim, California, September.

Mandel, R. D., and Layzell, A. L., 2024, Late Quaternary landscape evolution in stream valleys of the Nebraska Sand Hills: Biennial Meeting of the American Quaternary Association (AMQUA), August.

Menezes, M. N., Dal' Bó, P. F. F., Smith, J. J., Mattos, N., Ribeiro, C., Arena, M., and Borghi, L., 2024, Depositional, diagenetic, and tectonic setting of Aptian pre-salt carbonate reservoir in the Santos Basin, Brazil: Fourth EAGE Conference on Pre Salt Reservoir, September 17–19, Rio de Janeiro, Brazil.

Möller, A., McLean N., Suarez, M., Ludvigson, G., and Joeckel, M., 2024, A new bracketing approach to determine depositional ages and paleoclimate markers by combined U-Pb geochronology from cryptotephra and diagenetic carbonate concretions: International Sedimentary Geosciences Congress Abstract Book, SEPM Miscellaneous Publication 24, p. 14. https://10.2110/sepmmisc.24.014

Potter, N., Schneider, B., and Jones, O., 2024, Unveiling Kansas Geological Survey's hidden histories: From natural resources to overlooked figures: Geological Society of America Abstracts with Programs.

Reed, O., Andrzejewski, K., Möller, A., Joeckel, R., Ludvigson, G., Layzell, A., and Kalbas, J., 2024, Assessing depositional age of Dakota Fm paleosols in SE Nebraska through detrital zircon U-Pb dating: submitted for presentation at the joint 58th Annual North-Central and South-Central meeting of the Geological Society of America.

Schneider, B., Norman, L. E. Y., and Mandel, R. D., 2024, FAST: a new approach to training future geoarchaeologists: Geological Society of America, Anaheim, California, September.

Seals, L. J., and Mandel, R. D., 2024, Geoarchaeology of the Big Blue River Valley, NE Kansas: Implications for paleoindian and earlier archaeology: Society for American Archaeology, New Orleans, April.

Presentations

Afzal, N., Swenson, L., Zipper, S., Zwickle, A., and Wardropper, C. B., 2024, Using values-informed mental models to understand agricultural producer, water manager, and scientist use and perception of hydrologic models: Governor's Conference on the Future of Water in Kansas. Runner up, graduate student poster award.

Al Fatta, A., Smith, R., Vajedian, S., Schreuder, W., and Butler, J. J., 2024, Untangling groundwater depletion: Integrating in-situ and satellite data for sustainable groundwater management in the San Luis Valley, Colorado: American Geophysical Union Fall Conference, December 9.

Andrzejewski, K., Bhattacharjee, S., Peterson, A., and Bream, B. R., 2024, The Precambrian basement rocks of Kansas: Geological Society of America Annual Meeting (Poster).

Andrzejewski, K. A., Layzell, A. L., and Mandel, R. D., 2024, Evaluating paleoenvironment and paleoclimate in the central Great Plains, North America during Marine Isotope Stage 3 (ca. 59–27 ka): Geological Society of America Annual Meeting, Anaheim, CA, September 22–25.

Bhattacharjee, S., Andrzejewski, K., Peterson, A., and Bream, B. R., 2024, The Precambrian basement rocks of Kansas: USGS NGMD Digital Mapping Techniques- DMT'24 Annual Meeting (Poster).

Bhattacharjee, S., and Bream, B. R., 2024, 3D faulted framework modeling and property modeling of the subsurface of Kansas for U.S. Department of Energy visit, November 7 (Poster)

Bhattacharjee, S., and Bream, B. R., 2024, An integrated screening approach to support carbon sequestration efforts in Kansas: 3D faulted framework model of the Arbuckle Group & Precambrian basement: Geological Society of America Annual Meeting.

Bhattacharjee, S., Peterson, A., and Andrzejewski, K., 2024, An integrated approach to subsurface mapping at the Kansas Geological Survey: The Precambrian basement: USGS NGMD Digital Mapping Techniques- DMT'24 Annual Meeting.

Bohling, G. C., Liu, G., Smith, J. J., Ortega-Ariza, D., Layzell, A. L., and Butler, J. J., Jr., 2024, Bayesian integration of airborne electromagnetic and sediment log data in the High Plains aquifer of Kansas: American Geophysical Union Fall Conference, December 12.

Bohling, G. C., Liu, G., Smith, J. J., Ortega-Ariza, D., Layzell, A. L., and Butler, J. J., Jr., 2024, Integration of airborne electromagnetic and sediment log data for characterization of the High Plains aquifer in portions of Groundwater Management District 4: 2024 Governor's Conference on the Future of Water in Kansas, Manhattan, Kansas, November 14.

Bosompemaa, P., Brookfield, A. E., Zipper, S., and Hill, M. C., 2024, Using national hydrologic models to obtain regional streamflow estimates in heavily-stressed basins, as needed to evaluate climate-change induced disturbances: American Geophysical Union Fall Meeting.

Brookfield, A. E., Bosompemaa, P., Hill, M. C., Tian, B., Wei, Q., Wilson, H., and Zipper, S., 2024, Supporting sustainable water management decisions with science: Toward Sustainable Groundwater in Agriculture Conference.

Burgin, A. J., Aho, K., Allen, D., Atkinson, C., Benstead, J., Godsey, S., Hale, R. L., Jackson, C., Jones, N. J., Kuehn, K., Lemke, D., Lohse, K. A., Seybold, E. C., Shogren, A. J., Speir, S., You, Y., Zeglin, L., Zipper, S., Busch, M. H., Cook, S. C., Kraft, M., Ibal, J., Plont, S., Ramos, R., Belskis, A. M., Bilbrey, E., Brown, C., Babbit, A., Crowther, E., Bond, C. T., Czech, H., Hanschu, J., Flynn, S., Tchamba, A. L. K., Knight, P., Lanfear, R., Nave, B., Leavell, J., Newcomb, S., Peterson, D., Sclafani, M., Richards, B. L., Smith, C., Sniadach, A., Sommerville, A., Thomas, S. G., Utzman, C., Wakefield, R., Wheeler, C., Wilhelm, J., Wolford, M., and Zarek, K., 2024, Fostering big data integration using team science: The aquatic intermittency effects of microbiomes in streams (AIMS) project: WaterSciCon.

Butler, J., 2024, AEM surveys in the Kansas High Plains aquifer: GMD1 board meeting, July 17.

Butler, J. J., Jr., 2024, Charting pathways to a more sustainable future in the Ogallala aquifer of western Kansas: Geological Society of Minnesota, February 12, invited.

Butler, J. J., Jr., 2024, Index well program: Late spring 2024 update, presentation to the Kansas Water Office and other state and regional agencies, June 18.

Butler, J. J., Jr., 2024, Supporting groundwater conservation efforts to chart more sustainable paths for aquifers supporting irrigated agriculture, invited panelist presentation; Aligning Global Research Priorities in Sustainable Water Management, Foundation for Food and Agriculture Research Workshop, March 25.

Butler, J., Bohling, G., Abraham, J., Asch, T., Knobbe, S., Ishman, S., and Liu, G., 2024, Lifting the fog of aquifer heterogeneity: An airborne electromagnetic survey of the High Plains aquifer in northwest Kansas: 2024 Governor's Conference on the Future of Water in Kansas, Manhattan, Kansas, November 14.

Butler, J. J., Jr., Bohling, G., Abraham, J., Asch, T., Knobbe, S., Ishman, S., and Liu, G., 2024, Divining an aquifer's future through the fog of heterogeneity: Integration of pumping, geologic, and airborne electromagnetic data: Sustain Istanbul 2024, October 9.

Butler, J. J., Jr., Whittemore, D. O., and Wilson, B. B., 2024, Some thoughts on USRSB water resources goals: Water Goals Discussion, U.S. Roundtable for Sustainable Beef, January 18, invited.

Butler, J., and Wilson, B., 2024, Kansas Geological Survey activities in support of groundwater conservation efforts in Wichita County: Wichita County Public Meeting, August 28.

Butler, J. J., Jr., and others, 2024, Aquifer testing for improved hydrogeologic site characterization: Midwest Geosciences Group, September 17–19, Fort Collins, Colorado – short course.

Chatterjee, S., Seybold, E. C., and Zipper, S., 2024, Assessing future nitrate yield in the eastern Kansas River basin: Implications of climate variability: Governor's Conference on the Future of Water in Kansas.

Chatterjee, S., Seybold, E. C., and Zipper, S., 2024, Exploring temporal dynamics of nitrate export in the eastern Kansas River basin: WaterSciCon.

Godoy, V. A., Gomez-Hernandez, J. J., and Butler, J., 2024, Defining pumping strategies in a data-scarce scenario: The Eastern Mancha aquifer in Spain: Sustain Istanbul 2024, October 9.

Gosse, J. C., Lukens, W. E., Layzell, A. L., and Smith, J. J., 2024, Landscape evolution at the Plio-Pleistocene transition, Meade Basin, Kansas: Canadian Quaternary Association and Canadian Geomorphology Research Group Biennial Meeting, Regina, Canada, August 18–21.

Hatley, C., Seybold, E., and Zipper, S., 2024, Future groundwater availability in the Kansas River alluvial aquifer: Governor's Conference on the Future of Water in Kansas.

Hatley, C., Seybold, E. C., Zipper, S., Kincaid, D. W., Underwood, K., Rizzo, D. M., Perdrial, J. N., Li, L., and Burgin, A. J., 2024, Event-scale concentration-discharge relationships in a strongly reservoir-impacted regional river basin: WaterSciCon.

Hill, M. C., Nichols, C., Brookfield, A., Zipper, S., Bosompemaa, P., Wu, H., Liu, X., Barron, R. W., Nyarko, N., Pfromm, P., Peltier, E., Amanor-Boadu, V., Bloodgood, J., Modarresi, A., and Symons, J., 2024, FEWtures: NSF project exploring agricultural decarbonization approaches, economic feasibility, and interdisciplinary modeling for stakeholder communication: American Geophysical Union Fall Meeting.

Holcomb, J. A., and Mandel, R. D., 2024, Soil micromorphology in first American research: Society for American Archaeology, New Orleans, Louisana, April 17–21.

Howlader, A., Zipper, S., and Seybold, E., 2024, Decreasing streamflow trends in the Kansas River Watershed: Governor's Conference on the Future of Water in Kansas.

Ifft, J., and Zipper, S., 2024, Kansas water management challenges and the US federal crop insurance program: Kansas 2024 Risk and Profit Conference.

Kastens, J., Stotler, R., Baker, D., Layzell, A. L., and Huggins, D., 2024, Crop yield tendencies of farmed playas: Governors Water Conference on the Future of Water in Kansas, Manhattan, Kansas, November 13–14.

Layzell, A. L., Mandel, R. D., 2024, Landscape and paleoenvironmental change in stream valleys of the Central Great Plains during Marine Isotope Stage 3: American Quaternary Association Biennial Meeting, Salt Lake City, August 8–11.

Lin, C-Y., Orduna Alegria, M. E., Zipper, S., and Marston, L. T., 2024, CHAMP: A modeling playform for sustainable groundwater management through human-environmental interactions: EWRI Congress 2024.

Liu, G., Seybold, E., Zipper, S., Whittemore, D., Wilson, B., and Butler, J., 2024, Modeling aquifer contamination by sulfate and uranium in the Upper Arkansas River corridor: Kansas Hydrology Seminar.

Liu, G., Seybold, E., Zipper, S., Whittemore, D., Wilson, B., Yuan, X., and Butler, J., 2024, Modeling aquifer contamination by sulfate and uranium in the Upper Arkansas river corridor: 31st Annual Kansas Hydrology Seminar, November 22.

Liu, G., Wilson, B., Bohling, G., Whittemore, D., and Butler, J. J., Jr., 2024, Modeling assessment of larger-than-expected inflow to the depleting High Plains aquifer in Kansas: American Geophysical Union Fall Conference, December 13.

Liu, G., Wilson, B., Bohling, G., Whittemore, D., and Butler, J. J., Jr., 2024, Modeling assessment of larger-than-expected inflow to the depleting High Plains aquifer in Kansas: 2024 Governor's Conference on the Future of Water in Kansas, Manhattan, Kansas, November 14.

Liu, G., Wilson, B., Bohling, G., Whittemore, D., and Butler, J., 2024, Where is it coming from? A modeling assessment of the larger-than-expected inflow to the depleting High Plains aquifer in Kansas: Sustain Istanbul 2024, October 9.

Longyang, Q., and Zeng, R., 2024, Assessing the effectiveness of reservoir operation and identifying reallocation opportunities under climate change: Fall Meeting of the American Geophysical Union, Washington, D.C., December.

Lowe, T., Mohammadi, S., and Oborny, S., 2024, Evaluating critical mineral content of Pennsylvanian aged black shales in eastern Kansas, USGS Workshop, Reston, Virginia, October 21–24.

Ludvigson, G. A., 2024, A Geologic Puzzle: How do we tell time in Mesozoic nonmarine deposits? Banquet presentation to the 2024 Mid-Continent AAPG Fall Field Conference, Robbins Center, Fort Hays State University, Hays, Kansas, October 19.

Makhasana, P., Roundy, J. K., and Zipper, S., 2024, Understanding the connection between groundwater stable states and land-atmosphere interactions: American Geophysical Union Fall Meeting.

Mandel, R. D., and Layzell, A. L., 2024, In the footsteps of Dan Muhs: Reconstructing Late Quaternary landscape evolution in river valleys of the Nebraska Sand Hills: Geological Society of America Annual Meeting, Anaheim, California, September 22–25.

Mandel, R. D., and Layzell, A. L., 2024, Late Quaternary landscape evolution in river valleys of the Nebraska Sand Hills: American Quaternary Association Biennial Meeting, Salt Lake City, August 8–11.

Marston, L. T., Lin, C-Y., Orduna Alegria, M. E., Dhakal, S., and Zipper, S., 2024, PyCHAMP: A crop-hydrological-agent modeling platform for groundwater management: iEMSs Biennial Conference.

Mohammadi, S., Lowe, T., Oborny, S., and Bream, B., 2024, Collaborative initiative for critical mineral exploration in Pennsylvanian black shales of the US Midcontinent: USGS Workshop, Reston, Virginia, October 21–24).

Nguyen, M., Orduna Alegria, M. E., Zipper, S., Ndlovu, W., Lin, C-Y., and Marston, L., 2024, Enhancing agro-hydrological simulations: Coupling PyCHAMP and AquaCrop-OS for enhanced yield and water use simulations: American Geophysical Union Fall Meeting.

Onyekwelu, I., Sharda, V., Zipper, S., and Welch, S. M., 2024, Evidence for improving irrigated maize yield potential based on double haploid traits and agronomic management under climate change: A fine-scale spatial assessment using crop simulation model: American Geophysical Union Fall Meeting.

Orduna Alegria, M. E., Zipper, S., Butler, J. J., Golden, B., Wilson, B. B., Griggs, B. W., Lin, C-Y., Yu, D. J., Whittemore, D. O., Bohling, G. C., Shin, H. C., Deines, J. M., Allen, J. J., Marson, L. T., Sanderson, M. R., Hendricks, N. P., Yu, Q., Lauer, S., and Smith, S. M., 2024, From local success to global solutions: Tenets for effective groundwater governance: European Geophysical Union General Assembly.

Ortega-Ariza, D., and Potter, N., 2024, KGS core repository workshop: Kansas Department of Health and Environment Geology & Well Technology 29th Annual Seminar/Tech Fair.

Potter, N., and Jones, O., 2024, Guardians of geological data: Strategies for rock core and cutting preservation: NGGDPP Workshop, Bloomington, Indiana.

Rahman, M., Ndlovu, W., and Zipper, S., 2024, Irrigation water use and crop yield prediction using the AquaCrop-OSPy model and OpenET data: American Geophysical Union Fall Meeting.

Rashid, B., Tchamdja, A., Saha, A., and Muenich, R. L., 2024, Quantifying the animal count using the structural attributes of the animal feeding operations (AFOs): American Geophysical Union (AGU), Washington DC, December.

Reed, O., Andrzejewski, K. A., Möller, A., Joeckel, R. M., Ludvigson, G. A., Layzell, A. L., and Kalbas, J., 2024, Assessing deposition age of Dakota Fm. paleosols in SE Nebraska through detrital zircon U-Pb dating: Joint 58th Annual Geological Society of America North-Central and South-Central Section Meeting, Springfield, Missouri, April 21–23.

Reinecke, R., Zipper, S., Zamrsky, D., Ruzzante, S., and Befus, K., 2024, GroMoPo: A groundwater model portal to enable findable, accessible, interoperable, and reusable (FAIR) groundwater modeling: IAH2024 World Groundwater Congress.

Seybold, E. C., Burgin, A. J., Ramos, R., Swenson, L., Zipper, S., Wilhelm, J., Flynn, S., Atkinson, C., Wolford, M., Zarek, K., and Jones, C. N., 2024, Network fragmentation drives changes in dissolved streamwater chemistry in a non-perennial stream network: WaterSciCon.

Swenson, L., Zipper, S., Husic, A., and Pandit, A., 2024, Evaluating deep learning model performance for simulating streamflow depletion caused by groundwater pumping: American Geophysical Union Fall Meeting.

Swenson, L., Zipper, S., Husic, A., and Pandit, A., 2024, Evaluating deep learning model performance for simulating streamflow depletion caused by groundwater pumping: Governor's Conference on the Future of Water in Kansas. Winner best graduate student poster award.

Swenson, L., Zipper, S., Husic, A., and Pandit, A., 2024, Evaluating deep learning model performance for simulating streamflow depletion caused by groundwater pumping: HydroML 2024 Symposium.

Talukdar, G., Preota, S., Hatley, C., Custard, A., Seybold, E., and Zipper, S., 2024, Increasing compound wet extremes in the US Great Plains over last 100 years: Governor's Conference on the Future of Water in Kansas.

Talukdar, G., Preota, S. A., Hatley, C., Custard, A., Seybold, E. C., and Zipper, S., 2024, Increasing compound wet extremes in the US Great Plains over last 100 years: American Geophysical Union Fall Meeting.

Talukdar, G., Zipper, S., Custard, A., Hatley, C., and Seybold, E. C., 2024, Unraveling changing precipitation patterns over US Great Plains: WaterSciCon.

Whittemore, D. O., 2024, Bromide variation and source in the Kansas River: Kansas Water Office, Kansas Regional Advisory Committee, Lawrence, Kansas.

Whittemore, D. O., 2024, Bromide variation and source in the Kansas River: Kansas Water Office, Smoky Hill-Saline Regional Advisory Committee, Abilene, Kansas.

Whittemore, D. O., 2024, Salinity and uranium in the High Plains aquifer in the Arkansas River corridor of Kansas: ARKWIN Summit, Deerfield, Kansas:

Whittemore, D. O., 2024, Uranium contamination in the High Plains aquifer in the Upper Arkansas River Corridor: Kansas Rural Water Association Annual Conference, Wichita, Kansas.

Whittemore, D. O., Butler, J., and Wilson, B., 2024, Has water conservation in the Sheridan-6 LEMA propagated outside of the area? 2024 Governor's Conference on the Future of Water in Kansas, Manhattan, Kansas, November 14.

Whittemore, D. O., Butler, J., and Wilson, B., 2024, Uncertainties in estimating irrigation water savings from precipitation and water use relationships for the High Plains aquifer: 31st Annual Kansas Hydrology Seminar, November 22.

Whittemore, D. O., Seybold, E. C., and Butler, J. J., Jr., 2024, A closed basin in the High Plains aquifer created by groundwater exploitation leading to contamination by saline river water high in uranium: American Geophysical Union meeting iPoster.

Yuan, X., Liu, G., Seybold, E. C., Zipper, S., Whittemore, D., and Wilson, B., 2024, Model assessment of groundwater contamination by sulfate and uranium in the Upper Arkansas River corridor: Kansas Natural Resources Conference.

Zipper, S., 2024, Linking agricultural water management to the soil-plant-atmosphere continuum through a social-environmental systems approach: Soil Science Society of America Bouyoucos Summer Meeting. (invited symposium speaker)

Zipper, S., 2024, Linking crop insurance and water management through satellite-derived OpenET data: USDA RMA Ogallala Aquifer Meeting. (invited speaker)

Zipper, S., Befus, K. M., Reinecke, R., Zamrsky, D., Gleeson, T., Ruzzante, S., Jordan, K., Compare, K., Kretschmer, D., Cuthbert, M., Castronova, T., Wagener, T., Bierkens, M. F. P., and Pasner, Y., 2024, GroMoPo: A groundwater model portal to enable findable, accessible, interoperable, and reusable (FAIR) groundwater modeling: WaterSciCon.

Zipper, S., Butler, J. J., Foster, T., Kastens, J., Marston, L. T., Ndlovu, W., Rahman, M., and Wilson, B., 2024, Managing temporal trade-offs through irrigation and yield forecasting to advance groundwater conservation: NASA Water Resources Program Annual Meeting.

Zipper, S., Kastens, J., Foster, T., Wilson, B. B., Melton, F., Grinstead, A., Deines, J. M., Butler, J. J., and Marston, L. T., 2024, Estimating irrigation water use using remotely sensed evapotranspiration data: Accuracy and uncertainties: WaterSciCon.

Zipper, S., Szydlowski, H., Butler, J., Kalbas, J., Knobbe, S., Wilson, B., Kendall, A., Anctil, A., Stid, J., Bingaman, J., and Ifft, J., 2024, On-farm solar arrays to enhance recharge, produce energy, and diversify farm income: Governor's Conference on the Future of Water in Kansas.

Awards & Honors

Tollefson, J. M. — James H. Shea Award, National Association of Geoscience Teachers

Internal Service

Bhattacharjee, S. — KGS Library Research Assistant Search 2024
Bhattacharjee, S. — KGS Culture Committee 2024
Bhattacharjee, S. — KGS Parker Hall Floor Marshal
Butler, J.J., Jr., — Member, Geohydrology Search Committee for hydrogeochemist/water quality modeler.
Layzell, A. L. — Member, Stratigraphic Nomenclature Committee
Layzell, A. L. — Editor, Midcontinent Geoscience
Layzell, A. L. — Member, search committee for the hiring of an Assistant Scientist
Mohammadi, S. — KGS Outreach, Osage Nation, Kansas Gem and Mineral Show, 2024
Mohammadi, S. — KGS Outreach, Earth Day, 2024
Smith, J. J. — KGS STATEMAP Coordinator
Smith, J. J. — Chair, Stratigraphic Nomenclature Committee
Smith, J. J. — Member, KGS Promotion and Review Committee
Smith, J. J. — Associate Editor, Midcontinent Geoscience
Smith, J. J. — Member, Assistant Scientist in Stratigraphy Search Committee
Tollefson, J. M. — Technical Editor, Midcontinent Geoscience
Tollefson, J. M. — Member (ex-officio), KGS Stratigraphic Nomenclature Committee
Whittemore, D. O. — Short presentation on research at KGS Hour of Power session
Zipper, S. — Chair, six search committees: KGS Associate Researcher, 2024–2025; KGS Postdoctoral Researcher, 2024; KGS Solar Recharge Project Coordinator, 2024; KGS Hydrologic Data Analyst, 2024; KGS Geohydrology Internship Program, 2024; KGS Hydrologic Data Scientist, 2023–2024

External Service

Bhattacharjee, S. — Reviewer, SEG|AAPG IMAGE 2024 Abstracts
Bhattacharjee, S. —Reviewer, Journal of Marine and Petroleum Geology
Bhattacharjee, S. — SLB Petrel for Geoscience Workshop (April-May 2024) for University of Kansas, Department of Geology grad students
Butler, J. J., Jr. — National Science Foundation panelist – DISES Proposal Panel, February 28–March 1
Butler, J. J., Jr. — Sustain Istanbul 2024: Towards Sustainable Groundwater Use Under a Changing Climate, Istanbul, Turkey, October 9–11 – served as session moderator and member of the organizing committee
Butler, J. J., Jr. — 31st Annual Kansas Hydrology Seminar, Lawrence, Kansas, November 22 – moderator for all sessions and member of organizing committee
Butler, J. J., Jr. — Member, Kansas Water Resources Institute Administrative Council
Butler, J. J., Jr. — Promotion Evaluator, Department of Fluids and Environment, University of Manchester (UK)
Butler, J. J., Jr. — Dissertation Evaluator, Department of Natural and Agricultural Sciences, University of the Free State (SA)
Butler, J. J., Jr. — Member, Darcy Lecture Task Force, National Ground Water Association
Butler, J. J., Jr. — Reviewer for Agricultural Water Management, Cycle 23 Collaborative Research Grants: US-Egypt S&T Joint Fund, Geophysical Research Letters, Groundwater, Groundwater for Sustainable Development, One Earth, Proceedings of the National Academy of Sciences of the United States, and Science of the Total Environment
Holcomb, J. A. — Expert Member, International Scientific Committee on Aerospace Heritage. International Council on Monuments and Sites (ICOMOS)
Holcomb, J. A. — Instructor, GEOL591/GEOG531/ANTH300, Soils and Geomorphology
Holcomb, J. A. — Guest Lecturer, CLSX105, Becoming Human: the Paleolithic Era. Introduction to Ancient Near Eastern and Greek History
Holcomb, J. A. — Member, Student Awards Nominations Committee, Society for American Archaeology, Geoarchaeology Division

Holcomb, J. A. — Guest Editor, Special Issue, Geoarchaeology at the micro-scale: Recent advances in microscopic analytical techniques. International Journal of Geoarchaeology
Holcomb, J.A. — Reviewer, one manuscript submitted to Nature
Holcomb, J.A. — Reviewer, one manuscript submitted to PaleoAmerica
Holcomb, J.A. — Reviewer, one manuscript submitted to Science Advances
Layzell, A. L. — Member, National Geologic Map Database Project Technical Advisory Working Group.
Layzell, A. L. — Guest Lecturer, Geoarchaeology (ANTH 517), University of Kansas, Department of Anthropology, April 2024.
Layzell, A. L. — Member, Kansas Watershed Restoration and Protection Strategy (WRAPS) Work Group.
Layzell, A. L. — Reviewer for manuscripts submitted to Earth Surface Processes and Landforms and Journal of Hydrology
Layzell, A. L. — Liaison, Geological Society of America, Quaternary Geology and Geomorphology Division, North-Central Section.
Ludvigson, G. A. — Committee, master's student, GThe University of Kansas
Longyang, Q. — Reviewer for Journal of Hydrology, Journal of Hydrology X, Hydrology and Earth System Sciences, Environmental Research Letters, Environmental Research Water, Environmental Science and Pollution Research, Science of the Total Environment, and Environmental Modelling and Software
Mohammadi, S. — Co-Chair, Andrew M. Hollenbach (Ph.D. student); Chair, Theodor Lowe (Master's student); Chair, Precious Oso (Master's student);
Potter, N. — GSIS Best Ref/Resource Award committee
Potter, N. — GSA Artifacts Working Group
Smith, J. J. — Co-chair, Xialin (Kevin) Han, Ph.D. committee, University of Kansas
Smith, J. J. — Member, Matthew Allen, Ph.D. committee, University of Kansas
Smith, J. J. — Member, Nick Ferry, Ph.D. committee, University of Kansas
Smith, J. J. — Member, Commissioner at Large, North American Commission on Stratigraphic Nomenclature (NACSN)
Smith, J. J. — Member, Taphonomy and Stratigraphic Paleobiology Research Group, Brazilian Council for Research (CNPq)
Smith, J. J. — Handling editor, Palaeontologica Electronica
Whittemore, D. O. — Service at the Kansas Geological Survey exhibit at the Kansas Rural Water Association Annual Conference in Wichita
Whittemore, D. O. — Geochemical identification of salinity source contaminating well water in Pawnee County, Kansas, requested by the Kansas Corporation Commission
Whittemore, D. O. — Reviewed manuscripts for journals: Water Resources Research, Groundwater, and Journal of the American Water Resources Association
Zipper, S. — Deputy Chair: Ecohydrology Technical Committee, American Geophysical Union
Zipper, S. — Member: Kohout Early Career Award Committee, Geological Society of America

Grants

Bohling, Wilson, and Butler, Addressing Groundwater Goals of the Missouri Regional Planning Area – Phase II, $93,200, Kansas Water Office, 2018-2026.
Butler and Bohling, High Plains aquifer index well program, $305,000, Kansas Water Office, 2019–2024.
Butler and Bohling, High Plains aquifer index well program, $318,500, Kansas Water Office, 2024–2029.
Butler, Bohling, Liu, Ishman, Smith, Ortega-Ariza, and Layzell, Airborne electromagnetic survey of Northwest Kansas Groundwater Management District No. 4, $700,000, Kansas Water Office, 2024-2025.
Butler, Bohling, Liu, and Longyang, Clarifying the drivers of water-level changes in the High Plains Aquifer in western Kansas, Dougherty Water for Food Global Institute, $30,000, 2024-2025.
Butler, Bohling, Liu, and Wilson, Kansas River alluvial aquifer observation well network maintenance and modeling, $240,000, Kansas Water Office, 2022-2026.
Layzell, A. L., Husic, A., Roundy, J., A statewide inventory of the dominant reservoir sedimentation sources to inform targeted watershed conservation and upstream mitigation practices (Phase I), Kansas Water Office, $107,623, 2024–2025.

Liu and Butler, Innovative Use of the Hydraulic Profiling Tool (HPT), High-Resolution K (HRK), and Nuclear Magnetic Resonance (NMR) Logging for Geohydrologic Assessments of Soils and Unconsolidated Formations, United States Bureau of Reclamation, $90,000, 2024-2026.

Potter, Kansas Geological Survey collections assessment for preservation, Foundation for Advancement in Conservation, $7,200, 2024_2025

Potter, Inventorying Kansas wireline logs and geochemical analysis related to critical minerals, U.S. Geological Survey (USGS) NGGDPP, $176,996, 2024–2026.

Smith, J. J.**,** Andrzejewski, K., Bode-Omoleye, I., Bream B., Dunham, J.W., Kalbas, J., Layzell, A., Mandel, R. D., Moeller, A., Mohammadi, S., Oborny, S., Ortega-Ariza, D., 2024, Geologic mapping in Kansas for FY24, U.S. Geological Survey STATEMAP Program, $567,462, 2024–2025.

Tassier-Surine, S., Layzell, A. L., Hanson, P., Steele, A., Joint Iowa-Kansas-Missouri-Nebraska Working Group for the unification of pre-Illinoian till stratigraphy, U.S. Geological Survey CESU program, $439,810, 2024–2026.

Wilson, Butler, and Reboulet, Maintain existing and expand Kansas-based data services to the National Groundwater Monitoring Network, United States Geological Survey, $90,374, 2023-2025.

Wilson, Liu, Bohling, and Butler, Update of the GMD3 groundwater model, $160,000, Kansas Water Office and Southwest Kansas Groundwater Management District #3, 2021-2024.

Zipper, Butler, and others, Managing temporal trade-offs through irrigation and yield forecasting to advance groundwater conservation, NASA, $100,000, 2022-2025.

Zipper and Butler (KU participants), DISES: Toward resilient and adaptive community-driven management of groundwater dependent agricultural systems, National Science Foundation, $590,042, 2022-2026.

Zipper, Anctil, Butler, Ifft, Kalbas, Kendall, and Wilson, Integrating on- farm solar arrays to enhance recharge, produce energy, and diversify farm income, Foundation for Food and Agriculture Research, $882,000, 2024-2028.

Computer Software

White, M. — STOMPX-H2: Subsurface Transport Over Multiple Phases Extensible – Hydrogen

2023

Refereed Publications

Abbott, B. W., Underwood, K. L., Seybold, E. C., Kincaid, D. W., Hamshaw, S. D., Lee, R. M., Rizzo, D. M., Brown, B., Toolin, R., Chorover, J., Li, L., Lewis, G., Sayedi, S. S., St Clair, S., Buck, R. L., Aanderud, Z., Brahney, J. L., Nixon, R. S., Wang, W., Flox, C., and Perdrial, J. N., in review, Resistance, recovery, and resilience: Rethinking the three Rs of survival in the Anthropocene: Earth's Futures. Pre-print available at https://www.authorea.com/doi/pdf/10.22541/essoar.167390526.69780816

Aho, K., Derryberry, D., Godsey, S., Ramos, R., Warix, S., and Zipper, S., 2023, Communication distance and Bayesian inference in non-perennial streams: Water Resources Research, v. 59, no. 11, e2023WR034514. DOI: 10.1029/2023WR034513

Aho, K., Kriloff, C., Godsey, S. E., Ramos, R., Wheeler, C., You, Y., Warix, S., Derryberry, D., Zipper, S., Hale, R. L., Bond, C. T., and Kuehn, K. A., 2023, Non-perennial stream networks as directed acyclic graphs: The R-package streamDAG: Environmental Modeling and Software, v. 167, 105775. DOI: 10.1016/j.envsoft.2023.105775

Aktharuzzaman, M., Anwar, S., Borisov, D., Rao, J., and He, J., 2023, 2D numerical ultrasound computed tomography for elastic material properties in metals; *in* ASME International Mechanical Engineering Congress and Exposition: American Society of Mechanical Engineers, v. 86625, p. V001T01A012. https://doi.org/10.1115/IMECE2022-90232

Andrzejewski, K., Ludvigson, G., Suarez, M., McCarthy, P., and Flaig, P., 2023, Exploring the deuterium excess of Cretaceous Arctic paleoprecipitation using stable isotope composition of clay minerals from the Prince Creek Formation (Maastrichtian) in northern Alaska: Geosciences, v. 13, no. 9, 273. https://doi.org/10.3390/geosciences13090273

Andrzejewski, K., Möller, A., and Noto, C., 2023, Insight on the interactions among climatic, biotic, and atmospheric processes during the Mid-Cretaceous using terrestrial deposits in Texas and Oklahoma: Windows Into Sauropsid and Synapsid Evolution: Essays in honor of Professor Louis L. Jacobs, p. 222–232.

Borisov, D., Miller, R. D, and Sloan, S. D., 2023, Waveform inversion of shallow seismic data with randomly selected sources: Journal of Environmental and Engineering Geophysics, v. 28, p. 1–11. doi:https://doi.org/10.32389/JEEG22-038

Bourgeon, L., and Mandel, R. D., 2023, Avian taphonomy of Bluefish Caves, Yukon Territory, Canada: Arctic, v. 76, p. 426–444.

Brookfield, A. E., Zipper, S., Kendall, A. D., Ajami, H., and Deines, J. M., 2023, Estimating groundwater pumping for irrigation — A method comparison: Groundwater. DOI: 10.1111/gwat.13336

Brookfield, A. E., Layzell, A. L., Zhou, T., and Tian, B., 2023, Monitoring changes in groundwater resources due to increased surface water delivery efficiencies in the Lower Republican River Basin: Midcontinent Geoscience, v. 4, p. 42–50.

Buchanan, R. C., Hoffman, R., and Cochran, M., 2023, Induced seismicity in Kansas: Events and Responses; *in* R. C. Buchanan, M. H. Young, and K. E. Murray, eds., Recent Seismicity in the Southern Midcontinent, US: Special Paper 559, Geological Society of America, 71 p.

Buchanan, R. C., Young, M. H., and Murray, K. E., eds., 2023, Recent Seismicity in the Southern Midcontinent, USA: Special Paper 559, Geological Society of America, 71 p.

Butler, J. J., Jr., Bohling, G. C., Perkins, S. P., Whittemore, D. O., Liu, G., and Wilson, B. B., 2023, Net inflow: An important target on the path to aquifer sustainability: Groundwater, v. 61, no. 1. doi: 10.1111/gwat.13233

Butler, J. J., Jr., and Johnson, C. K., in press, Groundwater depletion: A global challenge for intergenerational equity: Interpretation. (Invited)

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Holcomb, J. A., 2023, Portable X-Ray fluorescence spectrometry in geoarchaeology; *in* A. S. Gilbert, ed., Encyclopedia of Geoarchaeology: Springer.
Holcomb, J. A., 2023, Quelling the quiet crisis in American archaeology: Incorporating archaeological science in field school settings: SAA Archaeological Record, v. 7. p. 46–50.
Holcomb, J. A., Mandel, R. D., and Wegmann, K., 2023, The case for a lunar Anthropocene: Nature Geoscience. https://doi.org/10.1038/s41561-023-01347-4
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Holcomb, J. A., Srivastava, A., Kinnaird, T. C., and Blong, J., Revisiting Kelly Forks (10CW34): Current and future research at a western stemmed tradition occupation in the Nez-Perce Clearwater National Forest, Idaho, USA: PaleoAmerica, v. 9, no. 1, p. 76–80.
Hollenbach, A., Mohammadi, S., Goldstein, R. H., and Möller, A., in review, A new approach for recognizing the record of hydrothermal fluid flow: Implications for the petroleum System, AAPG Bulletin.
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Huggins, X., Gleeson, T., Serrano, D., Zipper, S., Jehn, F., Rohde, M. M., Abell, R., Vigerstoll, K., and Hartmann, A., 2023, Overlooked risks and opportunities in groundwatersheds of the world's protected areas: Nature Sustainability, v. 6, p. 855–864. DOI: 10.1038/s41893-023-01086-9
Joeckel, R. M., Suarez, C. A., McLean, N. M., Möller, A**.,** Ludvigson, G. A., Suarez, M. B., Kirkland, J. I., Andrew, J., Kiessling, S., and Hatzell, G. A., 2023, Berriasian—Valanginian geochronology and carbon-isotope stratigraphy of the Yellow Cat Member, Cedar Mountain Formation, eastern Utah, USA: Geosciences, v. 13, no. 2, 32, 18 p. https://doi.org/10.3390/geosciences13020032
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Khameiss, B., Ishman, S., Ortega-Ariza, D., Torres-Zamora, A., and Franseen, E. K., 2023, The importance of foraminifera in providing paleoecologic and biostratigraphic information for a Miocene tropical carbonate system: Cicuco Field, NW Colombia; *in* Michael Montenari, ed., Stratigraphy of Geo- and Biodynamic Processes, Stratigraphy & Timescales, Vol. 8: Elsevier, Inc., p. 237–259.
Kincaid, D. W., Underwood, K., Hamshaw, S., Li, L., Seybold, E. C., Stewart, B., Rizzo, D., Ul Haq, I., and Perdrial, J., in review, Solute export patterns and links to catchment attributes across the contiguous United States: Water Resources Research.
Lapides, D. A., Zipper, S., and Hammond, J. C., 2023, Identifying hydrologic signatures associated with streamflow depletion caused by groundwater pumping: Hydrological Processes, v. 37, no. 4, e14877. DOI: 10.1002/hyp.14877
Layzell, A. L., Ludvigson, G. A., Smith, J. J., and Mandel, R. D., 2023, Using the factors of soil formation to assess stable carbon isotope disequilibrium in Late Pleistocene (MIS 3) buried soils of the Great Plains: Palaeogeography, Palaeoclimatology, Palaeoecology, v. 620, 111574. https://doi.org/10.1016/j.palaeo.2023.111574
Liu, G., Devlin, J. F., Dietrich, P., and Butler, J. J., Jr., 2023, High-resolution characterization of the shallow unconsolidated subsurface using direct push, nuclear magnetic resonance, and groundwater tracing technologies; *in* J. Garcia-Rincon, E. Gatsios, R. Lenhard, E. Atekwana, and R. Naidu, eds., Advances in the Characterisation and Remediation of Sites Contaminated with Petroleum Hydrocarbons (Environmental Contamination Remediation and Management): Springer, p. 173–215. (Invited) https://doi.org/10.1007/978-3-031-34447-3_7
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Mandel, R. D., Seals, L. J., and Layzell, A. L., 2023, Holocene and Late Pleistocene bioclimatic change inferred from $d^{13}C$ of organic carbon in buried alluvial soils in the tallgrass prairie, northeastern Kansas: Catena, v. 236, 107733. https://www.sciencedirect.com/science/article/pii/S034181622300824X
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Menezes, M. N., Dal' Bó, P. F. F., Smith, J. J., Borghi, L., Arena, M., Favoreto, J., and de Araújo-Júnior, H. I., 2023, Pedogenic processes and climatic conditions from Cretaceous (Albian) tropical paleosols of the Itapecuru Formation, Parnaíba Basin, northeast Brazil: Palaeogeography, Palaeoclimatology, Palaeoecology. https://doi.org/10.1016/j.palaeo. 2023.111881
Oborny, S. C., Hasiuk, F., Layzell, A. L., and Smith, J. J., in review, Outcrop-to-subsurface stratigraphic correlations of the Upper Desmoinesian and Lower Missourian stages (Pennsylvanian) in eastern Kansas: Regional assessment of group boundaries from type, principal, and neostratoype sections: Kansas Geological Survey Bulletin.
Ortega-Ariza, D., Franseen, E. K., Boudagher-Fadel, M. K., Khameiss, B., and Ishman, S., 2023, Identifying and characterizing Miocene tropical transitional carbonate systems (TTCS) in the Caribbean: The significance of coral and large benthic foraminifera classification; *in* Michael Montenari, ed., Stratigraphy of Geo- and Biodynamic Processes, Stratigraphy & Timescales, Vol. 8: Elsevier, Inc., p. 189–230,
Ortega-Ariza, D., Franseen, E. K., Boudagher-Fadel, M. K., Khameiss, B., and Ishman, S., 2023, Understanding tropical transitional carbonate systems (TTCS): The importance of macro to micro scale observations and data; *in* Ted E. Playton and Paul (Mitch) Harris, ed., SEPM Short Course Notes No. 57: Advances in the Understanding and Interpretation of Carbonates, p. 51–54.
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Platt, B. F., and Smith, J. J., 2023, Late Miocene paleoecology and paleoclimate in the central High Plains of North America reconstructed from paleopedological, ichnological, and stable isotope analyses of the Ogallala Formation in western Kansas, USA: Evolving Earth. https://doi.org/10.1016/j.eve.2023.100019
Price, A., Zimmer, M., Bergstrom, A., Burgin, A., Seybold, E. C., Krabbenhoft, C., Zipper, S., Busch, M. H., Dodds, W., Datry, T., Walters, A., Rogosch, J., Stubbington, R., Walker, R., Stegen, J., Kaiser, K., Messager, M., Olden, J. D., Godsey, S., Shanafield, M., Lytle, D. A., Allen, G. H., Mims, M. C., Tonkin, J. D., Bogan, M., Burrows, R., Hammond, J., Boersma, K. S., DelVecchia, A. G., Allen, D. C., Yu, S., and Ward, A., in review, Biogeochemical and ecological responses to the wetting of non-perennial streams: Nature Water.
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Sarna-Wojcicki, A. M., Knott, J. R., Westgate, J. A., Budahn, J. R., Barron, J., Bray, C.J ., Ludvigson, G. A., Meyer, C. E., Miller, D. M., Otto, R. E., Pearce, J. G., Smith, C. C., Walkup, L. C., Wan, E., and Yount, J., 2023, Ibex Hollow Tuff from ca. 12 Ma supereruption, southern Idaho, identified across North America, eastern Pacific Ocean, and Gulf of Mexico: Geosphere. https://doi.org/10.1130/GES022593.1
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Books and Edited Volumes

Ivanov, J., 2023, Surface wave methods; *in* A.B. Medhus and L. Klinkby, eds., Engineering Geophysics (1st ed.): CRC Press, p. 324, https://doi.org/10.1201/9781003184676-11.

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Nonrefereed Publications

Andrzejewski, K. A., 2023, Preliminary surficial geology of the Bayneville quadrangle, Sedgwick County, Kansas: Kansas Geological Survey, Open-File Report 2023-2, scale 1:24,000.

Andrzejewski, K. A., 2023, Preliminary surficial geology of the Belle Plaine quadrangle, Sedgwick County, Kansas: Kansas Geological Survey, Open-File Report 2023-23, scale 1:24,000.

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Buchanan, R., Peterie, S., and Miller, R., 2023, Consortium to Study Trends in Seismicity, 2022 Annual Report: Kansas Geological Survey, Open-File Report 2023-51, 64 p.
Buchanan, R. C., Wilson, B. B., and Butler, J. J., Jr., 2023, The High Plains aquifer: Kansas Geological Survey Public Information Circular 18, 6 p.
Butler, J. J., Jr., Whittemore, D. O., Reboulet, E., Knobbe, S., Wilson, B. B., and Bohling, G. C., High Plains aquifer index well program: 2022 annual report: Kansas Geological Survey Open-File Report 2023-55, 122 p.
Knippel, E. P., Ivanov, J., Peterie, S. L., Miller, R. D., Bennett, B. C., Wedel, B., Umbrell, C., Jones, O., and Hoch, A., 2023, Passive characterization of high priority salt jugs in Hutchinson, Kansas: November 2021: Kansas Geological Survey, Open-File Report 2023-20, 43 p. Report to Burns & McDonnell Engineering Company.
Layzell, A. L., 2023, Preliminary surficial geology of the Doster quadrangle, Sumner County Kansas: Kansas Geological Survey, Open-File Report 2023-5, scale 1:24,000.
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Layzell, A. L., 2023, Preliminary surficial geology of the South Haven NE quadrangle, Sumner County Kansas: Kansas Geological Survey, Open-File Report 2023-30, scale 1:24,000.
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Presentations

Borisov, D., 2023, Building an initial model for near-surface surface waves based full-waveform inversion with deep learning: Seventh International Conference on Engineering Geophysics (ICEG), UAE University, Al Ain, UAE, October 16–19. (Invited)

Borisov, D., 2023, Deep void detection with seismic imaging: Presentation of research updates for Department of Defense, April 18. (Virtual)

Borisov, D., 2023, Detection of near-surface hazards within onshore salt layer using waveform inversion: SEG Workshop, Full Waveform Inversion: Land and Shallow Water Challenges, Abu Dhabi, UAE, October 10–12. (Invited)

Borisov, D., 2023, FWI for anomaly detection: Presentation of research updates for Department of Defense, January 12. (Virtual)

Borisov, D., 203, Void detection — case studies: Presentation of research updates for Department of Defense, November 6. (Virtual)

Bosompemaa, P., Brookfield, A. E., Zipper, S., and Hill, M. C., 2023, Using a national hydrologic model to obtain regional water supply estimates: The case of the heavily-stress central Arkansas River basin (CARB). Geological Society of America Annual Meeting.

Butler, J. J., Jr., 2023, Groundwater dependent agricultural systems: What do we need to assess an aquifer's future? Sustainable Human-Water Systems Course – Lecture 4, November 20. Web presentation as part of a CUAHSI Virtual University course.

Butler, J. J., Jr., 2023, Slug test strategies for challenging conditions, Midwest Geosciences Group, March 23, Internet webinar.

Butler, J. J., Jr., and others, 2023, Aquifer testing for improved hydrogeologic site characterization, Midwest Geosciences Group, September 19–21, Fort Collins, Colorado. Short course.

Butler, J. J., Jr., Bohling, G. C., Whittemore, D. O., Liu, G., and Wilson, B. B., 2023, Extending aquifer lifespans with pumping reductions: Experiences from the High Plains aquifer, European Geophysical Union General Assembly 2023, Vienna, Austria, April 28. Invited.

Butler, J. J., Jr., and Whittemore, D. O., 2023, Index well program: Summer 2023 update, web presentation to the Kansas Water Office and other state and regional agencies, August 1.

Butler, J. J., Jr., Whittemore, D. O., and Wilson, B. B., 2023, Conditions and trends of the Kansas High Plains aquifer, Kansas Rural Water Association Conference, Wichita, Kansas, March 29. Invited.

Butler, J. J., Jr., Whittemore, D. O., Wilson, B. B., and Bohling, G. C., 2023, Are we making a difference? Data-driven approaches for assessing the effectiveness of groundwater conservation activities in the High Plains aquifer, oral presentation at the 2023 Fall Conference of the American Geophysical Union, San Francisco, Californa, December 11.

Butler, J. J., Jr., Wilson, B. B., and Whittemore, D. O., 2023, Extending the lifespan of the High Plains aquifer in Kansas, presentation to the Kansas House Committee on Water, Topeka, Kansas, January 19. Invited.

Chatterjee, S., Seybold, E. C., and Zipper, S., 2023, Exploring temporal trends of nitrate expert in the Eastern Kansas River basin. Kansas Governor's Conference on the Future of Water.

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Hill, M. C., Barron, R. W., Pfromm, P., Amanor-Boadu, V., Wu, H., Edmonds, L., Brookfield, A., Zipper, S., Bosompemaa, P., Modarresi, A., Bloodgood, J., and Symons, J., 2023, Low carbon opportunities for arid agricultural areas impacted by climate change: The FEWtures experience in the central Arkansas River basin (CARB) with global interaction evaluation using GCAM. American Geophysical Union Fall Meeting.

Holcomb, J. A., Mandel, R. D., and Wegman, K. W., 2023, The case for the lunar anthropocene: Current approaches to space heritage preservation. International Union for Quaternary Research (INQUA). Rome, Italy. Invited paper.

Holcomb, J. A., and Shillito, L-M., 2023, Geoarchaeology of the Younger Dryas in the Northern Great Basin, USA: The view from the Paisley and Connley caves. International Union for Quaternary Research (INQUA). Rome, Italy. Invited poster.

Holcomb, J. A., Thompson, J., and Blong, J., 2023, Revisiting Kelly Forks (10CW34): Current and future research at a western stemmed tradition occupation in the Nez-Perce Clearwater National Forest, Idaho. 88th Annual Meeting of the Society for American Archaeology, Portland, Oregon. Invited poster.

Hollenbach, A., Goldstein, R., Mohammadi, S., and Möller, A., 2023, Combining microthermometry and U-Pb dating to distinguish hydrothermal conditions from ambient burial temperature, European Current Research on Fluid and Melt Inclusions (ECROFI), Reykjavik, Iceland, July 2–6.

Hollenbach, A., Goldstein, R. H., Mohammadi, S., and Möller, A., 2023, Impact of hydrothermal fluid flow on the Anadarko Basin petroleum system as revealed by the Pan Am Barnes D-2 Core, AAPG Mid-continent Sectional, Oklahoma City, Oklahoma, October 6–10.

Hollenbach, A., Mohammadi, S., Goldstein, R. H., Möller, A., and Burberry, C. M., 2023, U-Pb dates on carbonate cements reveal tectonic and non-tectonic drivers for carbonate diagenesis, IMAGE- SEPM Carbonate session, Houston, Texas, August 28 to September 1).

Ivanov, J., 2023, Landstreamer FWI developments: Presentation of research updates for Department of Defense, February 24. (Virtual)

Ivanov, J., 2023, Moffat tunnel MASW, BASW, Attenuation, and CSWI from second trip data: Presentation of research updates for Department of Defense, November 2. (Virtual)

Ivanov, J., 2023, Moffat tunnel surface wave analysis parameters evaluation from first trip data: Presentation of research updates for Department of Defense, September 5. (Virtual)

Ivanov, J., 2023, Reference-model FWI developments: Presentation of research updates for Department of Defense, April 18. (Virtual)

Ivanov, J., 2023, Reference-model FWI with raw global cost function developments: Presentation of research updates for Department of Defense, June 22. (Virtual)

Ivanov, J., Peterie, S. L., Miller, R. D., Borisov, D., and Sloan, S., 2023, Detecting a near-surface elongated void using the converted-wave surface wave imaging (CSWI) method in Yuma, Arizona [poster]: Third International Meeting for Applied Geoscience & Energy, Society of Exploration Geophysicists/American Association of Petroleum Geologists, Houston, Texas, August 28–September 1.

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Layzell, A. L., and Mandel, R. D., 2023, A pervasive period of pedogenesis in stream valleys of the Central Great Plains during MIS 3: Soils as memory of contemporary and paleoenvironments: XIV International symposium and field workshop on paleopedology, Las Cruces, New Mexico, October 7–15.

Lin, C-Y., Orduna Alegria, M. E., Zipper, S., and Marston, L. T., 2023, Exploring the interplay of heterogeneity in coevolved human-water systems for effective community-driven groundwater management. American Geophysical Union Fall Meeting.

Liu, G., Wilson, B., Bohling, G., Whittemore, D., and Butler, J. J., Jr., 2023, Recent improvements in groundwater modeling for southwest Kansas Groundwater Management District no. 3: The annual Governor's Conference on the Future of Water in Kansas, Manhattan, Kansas, November 15–16.

Liu, G., Wilson, B. B., and Butler, J. J., Jr., 2023, Recent improvements in groundwater modeling for Southwest Kansas GMD 3, 2023 Governor's Conference on the Future of Water in Kansas, Manhattan, Kansas, November 16.

Mandel, R. D., 2023, Bluefish Caves revisited: A geoarchaeological and paleoenvironmental assessment of a potential pre-Clovis site in the Yukon Territory of northwestern Canada. Invited Lecture Series, Archaeological Society of Alberta-Calgary Centre, March 15.

Mandel, R. D., 2023, Geology and past environments of the Flint Hills: A walk through the past 280 million years. Symphony in the Flint Hills Heritage Program, Wabaunsee County, Kansas, June 10.

Miller, R. D., 2023, Additional seismic update and annual meeting preparations: Consortium to Study Trends in Seismicity quarterly meeting, April 28. (Virtual)

Miller, R. D., 2023, Arbuckle working group update: Consortium to Study Trends in Seismicity quarterly meeting, February 8. (Virtual)

Miller, R. D., 2023, Engineering geophysics: Positioned for evolution or revolution: Opening address, International Conference on Engineering Geophysics, October 16, Al Ain, UAE.

Miller, R. D., 2023, Historic seismicity and emerging background trends: Consortium to Study Trends in Seismicity annual meeting, August 9, McPherson, Kansas.

Miller, R. D., 2023, Knackstedt Void, McPherson County: Geology & Well Technology Annual Seminar, Kansas Department of Health and Environment, October 24–25, Wichita, Kansas.

Miller, R. D., 2023, Recent seismic activity in central Kansas: Consortium to Study Trends in Seismicity quarterly meeting, November 28. (Virtual)

Mohammadi, S., Hollenbach, A., Goldstein, R. H., Möller, A., and Burberry, C. M., 2023, What controls hydrothermal fluid flow in south-central Kansas, north-central Oklahoma, and Tri-State Mineral District: KIOGA, Wichita, Kansas, August 20–22.

Mohammadi, S., Lowe, T., Oborny, S., Bode-Omoleye, I., Hasiuk, F., Smith, J. J., and Ishman, S., 2023, Critical minerals in Pennsylvanian black shales of the midcontinent, Kansas: Critical Materials Economic Development Summit, Kansas City, December 14.

Mohammadi, S., Lowe, T., Oborny, S., Bode-Omoleye, I., Hasiuk, F., Smith, J. J., and Ishman, S., 2023, Critical minerals in Pennsylvanian black shales of the midcontinent, Kansas: Earth MRI Workshop, Reston, Virginia, October 24–26.

Newell, K. D., 2023, Update on Class I & Class II Arbuckle disposal volumes and static fluid levels: Consortium to Study Trends in Seismicity annual meeting, McPherson, Kansas, August 9.

Newell, K. D., 2023, Update on disposal volumes and Class I behavior in the Arbuckle Formation: Consortium to Study Trends in Seismicity quarterly meeting, February 8. (Virtual)

Newell, K. D., 2023, Update on disposal volumes and Class I behavior: Presentation to the Arbuckle Working Group, Topeka, Kansas, January 17.

Ndlovu, W., Zipper, S., and Foster, T., 2023, Global sensitivity analysis of the AquaCrop-OSPy model for corn yield and irrigation under different water treatments (Sheridan, KS): Community Surface Dynamics Modeling Conference.

Ndlovu, W., Zipper, S., and Foster, T., 2023, Sensitivity analysis and performance evaluation of the AquaCrop-OS Model for corn yield and irrigation in northwestern Kansas: ASA, CSSA, SSSA International Annual Meeting.

Oborny, S. C., 2023, $C_MC_SC_FC_B$—critical minerals in coaly strata of the Cherokee-Forest City Basin. Critical Minerals Crossroads Summit, University of Missouri Kansas City, December 2023. Invited KGS Representative; poster.

Oborny, S. C., 2023, Evaluating the stratigraphic and structural framework of the Cherokee-Forest City Basin and nomenclatural reconciliation within the Pennsylvanian: Kansas Geological Society Tech Talk. (Invited Lecturer)

Onyekwelu, I., Sharda, V., Zipper, S. C., Welch, S. M., and Lin, X., 2023, Towards managing and preserving irrigation resources under novel climate risks in the eastern Kansas River basin of the U.S. Great Plains. American Society of Agricultural and Biological Engineers (ASABE) Annual International Meeting.

Orduna Alegria, M. E., Lin, C-Y., Zipper, S., and Marston, L. T., 2023, Effective groundwater governance for agriculture: Advancing understanding of social and environmental processes for effective groundwater management. American Geophysical Union Fall Meeting.

Orduna Alegria, M. E., Zipper, S., and Butler, J. J., Jr., 2023, Managing groundwater depletion: Insights from the irrigator-driven Sheridan-6 Local Enhanced Management Area in Kansas. American Geophysical Union Fall Meeting.

Orduna Alegria, M. E., Zipper, S. C., and Butler, J. J., Jr., 2023, Policy, hydrological, and economic factors and outcomes underlying the SD-6 LEMA's first decade, 2023 Governor's Conference on the Future of Water in Kansas, Manhattan, Kansas, November 16.

Ortega-Ariza, D., 2023, Miocene shallow-water tropical transitional carbonate systems (TTCS) in the Caribbean affected by adverse photic zone conditions: Characteristics and how they formed: 36th IAS International Meeting of Sedimentology, Dubrovnik-Croatia, June 12–16.

Ortega-Ariza, D., 2023, Mississippian is an old play, so why do we need to continue to study?": Kioga Midyear Meeting & Expo, McPherson, Kansas, April 19–21. (Poster and core display)

Ortega-Ariza, D., 2023, Osage Nation immersion school — Daphoska Ahnkodapi Elementary: Core display, identification of rocks, minerals, and fossils, and 'pet' rock, Pawhuska, Oklahoma, May 17.

Ortega-Ariza, D., 2023. The Mississippian is an old play, so why do we still study it?": Kioga Annual Convention & Expo, Wichita, Kansas, August 20-22. (Poster and core display)

Ortega-Ariza, D., 2023, Understanding tropical transitional carbonate systems (TTCS): The importance of macro to micro scale observations and data: Advances in the Understanding and Interpretation of Carbonates Conference — the Society for Sedimentary Geology (SEPM), Houston, Texas, August 26–27. (Invited poster)

Ortega-Ariza, D., 2023, Upwelling as a control on regional distribution of heterozoan and photozoan carbonate facies in a low-latitude setting, Lower Mississippian, continental U.S.: 17th Bathurst Meeting – International Meeting of Carbonate Sedimentologists, Naples, Italy, September 5–7.

Peterie, S. L., 2023, Emerging trends in Kansas earthquakes: Geology & Well Technology Annual Seminar, Kansas Department of Health and Environment, Wichita, Kansas, October 24–25.

Peterie, S. L., 2023, KGS Arbuckle measurements: Class I & II wells: Presentation to the Arbuckle Working Group, Topeka, Kansas, January 17.

Peterie, S. L., 2023, Regional trends and local seismicity near CSTS member wells for the period January–March 2023: Consortium to Study Trends in Seismicity quarterly meeting, April 28. (Virtual)

Peterie, S. L., 2023, Regional trends and local seismicity near CSTS member wells for the period July–September 2023: Consortium to Study Trends in Seismicity quarterly meeting, November 28. (Virtual)

Peterie, S. L., 2023, Regional trends and local seismicity near CSTS member wells for the period October–December 2022: Consortium to Study Trends in Seismicity quarterly meeting, February 8. (Virtual)

Peterie, S. L., 2023, Regional trends and local seismicity near CSTS member wells, seismic update for the period April–June 2023: Consortium to Study Trends in Seismicity annual meeting, McPherson, Kansas, August 9.

Rahman, M., and Zipper, S., 2023, Irrigation water use and crop yield prediction using AquaCrop-OSPy model and OpenET data. 2023 Governor's Conference on the Future of Water in Kansas.

Schneider, B., 2023, Building inclusive workplace climates: Lessons learned from the ADVANCEGeo Partnership: Illinois State University Broadening Participation in STEM Seminar Series (virtual session).

Schneider, B., Burgin, A., Olcott, A., and Seybold, E., 2023, Building emerging STEM scholars of tomorrow: 2023 NSF EPSCOR PI Meeting, Washington, DC.

Smith, J. J., 2023, Stratigraphy framework and depositional histories of Neogene deposits of the Great Plains, North America: North American Rodents-Landscapes, Evolution and Ecology Workshop of Volcanism and Rodents Evolution, April 18, 2023.

Swenson, L., Zipper, S., Husic, A., and Pandit, A., 2023, Predicting streamflow in intensively-managed agricultural basins across High Plains aquifer. American Geophysical Union Fall Meeting.

Whittemore, D. O., Butler, J. J., Jr., and Wilson, B. B., 2023, Status of the High Plains aquifer in Kansas, 2023 Governor's Conference on the Future of Water in Kansas, Manhattan, Kansas, November 16.

Whittemore, D. O., Butler, J. J., Jr., Wilson, B. B., and Bohling, G. C., A simple method for assessing the effectiveness of groundwater conservation efforts in the High Plains aquifer, 30th Annual Kansas Hydrology Seminar, Lawrence, Kansas, November 17.

Whittemore, D. O., Seybold, E. C., and Butler, J. J., Jr., 2023, Assessment of uranium contamination in the High Plains aquifer in the upper Arkansas River corridor: Upper Arkansas River Basin Watershed Group, Garden City, Kansas. (Virtual)

Whittemore, D. O., Seybold, E. C., and Butler, J. J., Jr., 2023, Salinity and uranium contamination in the High Plains aquifer in the upper Arkansas River corridor: Kansas Environmental Conference, Manhattan, Kansas.

Whittemore, D. O., Seybold, E. C., and Butler, J. J., Jr., 2023, Upper Arkansas River corridor study — Groundwater contamination and well construction: 27th Annual Geology and Well Technology Seminar, Wichita, Kansas.

Zamrsky, D., Zipper, S., Reinecke, R., Befus, K., Kretschmer, D., Ruzzante, S., Compare, K., Jordan, K., Bierkens, M., and Gleeson, T., 2023, Groundwater Model Portal (GroMoPo) – collecting and sharing groundwater model information in a standardized open-access database. European Geophysical Union Annual Meeting.

Zhang, Y., Borisov, D., Miller, R. D., and Sloan, S., 2023, Near-surface velocity estimation for a complex land environment with a shallow slat layer: IMAGE23.

Zhang, Y., Borisov, D., Miller, R. D., and Sloan, S., 2023, Using convolutional neural network to detect voids in velocity model: AGU23.

Zhang, Y., and Gao, S. S., 2023, Using convolutional neural network to determine time window for analyzing local shear-wave splitting measurements: AGU23.

Zipper, S., 2023, Agrohydrology in the Anthropocene: Irrigation impacts on the stream, aquifer, and atmosphere. University of Arkansas, Department of Geosciences. Seminar.

Zipper, S., 2023, Agrohydrology in the Anthropocene: Irrigation impacts on the stream, aquifer, and atmosphere. University of Kansas, Department of Geology. Seminar.

Zipper, S., 2023, Exploring linkages between hydrology and biogeochemistry across perennial to non-perennial flow regimes in the Great Plains – and beyond. (Joint seminar with Erin Seybold). USGS Kansas Water Science Center. Seminar.

Zipper, S., 2023, No flow? No problem! Long-term change and regime shifts in non-perennial streams. Universidade Federal de Mato Grosso do Sul (Brazil), Programa de Pós-Graduação em Tecnologias Ambientais. Seminar.

Zipper, S., 2023, Successful U.S. Interagency Government Partnerships. NASA Water Resources Program Meeting. Panel.

Zipper, S., Befus, K. M., Reinecke, R., Zamrsky, D., Gleeson, T., Ruzzante, S., Jordan, K., Compare, K., Kretschmer, D., Cuthbert, M., Castronova, T., Wagener, T., and Bierkens, M. F. P., 2023, GroMoPo: A groundwater model portal to enable findable, accessible, interoperable, and reusable (FAIR) groundwater modeling. American Geophysical Union Fall Meeting.

Zipper, S., Butler, J. J., Foster, T., Kastens, J., Marston, L. T., Ndlovu, W., Rahman, M., and Wilson, B., 2023, Managing temporal trade-offs through irrigation and yield forecasting to advance groundwater conservation. NASA Water Resources Program Annual Meeting.

Zipper, S. C., Wilson, B. B., Foster, T., Kastens, J., Grinstead, A., Deines, J. M., and Butler, J. J., Jr., 2023, Evaluating irrigator-driven groundwater conservation practices using remotely sensed evapotranspiration data, 2023 Governor's Conference on the Future of Water in Kansas, Manhattan, Kansas, November 16.

Zipper, S., Wilson, B. B., Foster, T., Kastens, J., Grinstead, A., Deines, J. M., Butler, J. J., Jr., and Marston, L., 2023, Evaluating irrigator-driven groundwater conservation practices using remotely sensed evapotranspiration data. American Geophysical Union Fall Meeting. Invited speaker.

Zipper, S. C., Wilson, B. B., Melton, F., Foster, T., Kastens, J., Grinstead, A., Deines, J. M., Butler, J. J., Jr., and Marston, L., 2023, Evaluating remotely sensed estimates of irrigation at the field, well, and district scale, 30th Annual Kansas Hydrology Seminar, November 17.

Awards & Honors

Franseen, E. K. — SEPM Honorary Membership Award for "Excellence in Professional Achievements and Extraordinary Service to the Society"

Jordan, K. — George Donatello Lifetime Achievement Award, Kansas Association of Mappers

Mandel, R. D. — Selected by the National Academy of Sciences to serve as the delegate to represent the U.S. at the XXI International Union for Quaternary Research (INQUA) Congress in Rome, Italy, July 13–20, 2023

Ortega-Ariza, D. — Merriam Research Award – Kansas Geological Survey for attending and presenting at international conferences of sedimentology in Dubrovnik, Croatia, and Naples, Italy

Ortega-Ariza, D. —Faculty Success Program - The National Center for Faculty Development & Diversity
Schneider, B. — Geoscience Information Society Best Guidebook Award
Schneider, B. — KU Research Staff Achievement Award, $5,000 Award

Internal Service

Andrzejewski, K. A. — KGS Outstanding Staff Recognition Award Committee
Borisov, D. — 2023 Student Committee Award – chair
Borisov, D. — 2023 Postdoc within Exploration Program - search committee lead
Franseen, E. K. — Member, Promotion and Review Committee
Franseen, E. K. — Member, Editorial Advisory Board, Midcontinent Geoscience
Layzell, A. L.–Member, Stratigraphic Nomenclature Committee
Layzell, A. L.–Editor, Midcontinent Geoscience
Liu, G. — KU Office of Research Internal Review panel
Liu, G. — KGS search committees (3 positions)
Liu, G. — KGS rock and mineral shows (3 booth volunteers)
Liu, G. — Instructor, field classes for two courses by KU Department of Geology and Depart of Civil Engineering
Mandel, R. D. — Member, KGS Promotion and Review Committee
Mandel, R. D. — Member, Stratigraphic Nomenclature Committee
Mohammadi, S. — 2023 KGS committee search for the lab technician
Mohammadi, S. — 2023 KGS Diversity, Equity, Inclusion, and Belonging (DEIB) Committee
Oborny, S. — Attended the invitational Critical Minerals Crossroads Summit in Kansas City, Missouri, on behalf of the KGS and presented a poster
Oborny, S. —Developed booth materials (created a poster) for the Osage Indian Nation's Oil and Gas Summit, Pawhuska, Oklahoma
Oborny, S. — Developed presentation materials for the Osage Nation's Minerals Council
Oborny, S. — Generated poster and helped operate informational booth for Kansas Geological Survey at the Kansas Independent Oil and Gas Association Midyear Meeting, McPherson, Kansas
Ortega-Ariza, D. — Member, Diversity, Equity, Inclusion and Belonging (DEIB) Committee
Ortega-Ariza, D. — Postdoc Search Committee - Machine Learning
Ortega-Ariza, D. — Guest Editor, Midcontinent Geoscience
Ortega-Ariza, D. — KGS booth at Kioga Midyear Meeting & Expo, McPherson, Kansas
Ortega-Ariza, D. — KGS booth at Kioga Annual Convention & Expo, Wichita, Kansas
Ortega-Ariza, D. — KGS Earth Day public event
Ortega-Ariza, D. — KGS booth volunteer, Kansas City Gem and Mineral show
Ortega-Ariza, D. — Assistance translating and reviewing KGS publications in Spanish
Ortega-Ariza, D. — KGS tour facilities visit for three elementary and middle school students
Ortega-Ariza, D. — KGS tour organizer for KU Department of Geology prospective graduate students
Ortega-Ariza, D. — Identification of rocks and fossils for Kansans
Potter, N. — DEIB Committee Member
Potter, N. — Earth Day Committee Member and participant
Potter, N. — KDHE Geology and Well Technology Seminar and Tech Fair booth
Potter, N. — Booth for Earth Day, KDHE Geology and Well Technology Seminar and Tech Fair
Potter, N. — KGS Field Conference (volunteer?)
Potter, N. — BESST Mentor
Potter, N. — Senior Cartographic Services Specialist search committee
Schneider, B. — Co-chair of the KGS DEIB Committee
Schneider, B. — Member, DEIB in KU Research Working Group
Schneider, B. — Member, Safe and Inclusive Field Work Task Force in the Office of Research
Schneider, B. — Member, KU DEIB Campus Council
Schneider, B. — Member, Office of Research Committee on Promotion
Schneider, B. — Member, Vice Provost for Faculty Affairs Search Committee
Schneider, B. — Instructor: one section of LDST 301 (fal)l and GEOL 856 (spring). Developed and taught a new field camp, ANTH 418/889: Summer Archeological Field Work, for the KU Anthropology Department
Smith, J. J. — KGS STATEMAP Coordinator
Smith, J. J. — Chair, Stratigraphic Nomenclature Committee

Smith, J. J. — Member, KGS Promotion and Review Committee
Smith, J. J. — Member, Cartographic Service Specialist Search Committee
Smith, J. J. — Associate Editor, Midcontinent Geoscience
Tollefson, J. M. — Technical Editor, Midcontinent Geoscience
Tollefson, J. M. — Member (ex-officio), KGS Stratigraphic Nomenclature Committee

External Service

Andrzejewski, K. A. — Member, M.S. committee, KU Department of Geology; member, Ph.D. committee, KU Department of Geology
Borisov, D. — Journal reviews: Geophysical Journal International - two papers, Near Surface Geophysics, Journal of Geophysical Research: Solid Earth
Butler, J. J., Jr. — Moderator, Groundwater Monitoring, Planning, and Reporting session, 2023 Governor's Conference on the Future of Water in Kansas, Manhattan, Kansas, November 16
Butler, J. J., Jr. — Moderator, all sessions, and member of organizing committee, 30th Annual Kansas Hydrology Seminar, Lawrence, Kansas, November 17
Butler, J. J., Jr. — Member, Kansas Water Resources Institute Administrative Council
Butler, J. J., Jr. — Promotion Evaluator, Department of Geosciences, University of Colorado Boulder
Butler, J. J., Jr. — Member, Darcy Lecture Task Force, National Ground Water Association
Butler, J. J., Jr. — Reviewer for Advances in Water Resources, American Geophysical Union Chapman Conference Program, Cambridge University Press, Groundwater, Journal of Hydraulic Engineering, Nature Water, Nature Scientific Reports, Science of the Total Environment, and Water Resources Research
Franseen, E. K. — Panel Member, KU Office of Research Internal Awards Review Panel
Franseen, E. K. — Member, Awards Nominations Committee, Department of Geology
Franseen, E. K. — Advisor for 3 Ph.D. students, Department of Geology
Franseen, E. K. — Co-Advisor for 1 master's student, Department of Geology
Franseen, E. K. — Committee Member for 1 master's student, Department of Geology
Franseen, E. K. — Member, Board of Visitors (Alumni Board), Department of Geology, University of Wisconsin-Madison.
Franseen, E. K. — Member, SEPM Student Research Grant Evaluation Committee
Franseen, E. K. — Reviewer, American Chemical Society-Petroleum Research Fund Grant Proposals
Holcomb, J. A. — Guest Editor, Geoarchaeology, Special Issue: Geoarchaeology at the Micro-Scale: Recent Advances in Microanalytical Techniques
Layzell, A. L. — Member, National Geologic Map Database Project Technical Advisory Working Group
Layzell, A. L. — Guest Lecturer, Paleosols (graduate GEOL 728), University of Kansas, Department of Geology, April 2023
Layzell, A. L. — Member, Kansas Watershed Restoration and Protection Strategy (WRAPS) Work Group
Layzell, A. L. — Reviewer for Geological Society of America, Quaternary Geology and Geomorphology Division, Graduate Student Research Proposal Awards (up to 9 awards given)
Layzell, A. L. — Field trip presenter, North American Rodents: Landscapes, Ecology, and Evolution (NARLEE), May 2023
Liu, G. — Associate Editor, Water Resources Research
Liu, G. — Associate Editor, Groundwater Monitoring & Remediation
Liu, G. — Guest editor for a special Issue with Focus on Complex Sites for the journal of Groundwater Monitoring & Remediation
Liu, G. — Editor, Advances in Hydrogeological Characterization, to be published through Springer in 2025
Liu, G. — Organizing Committee Member, Novel Methods for Subsurface Characterization and Monitoring: From Theory to Practice (NovCare) biennial conference series, 2015, 2017, and 2023.
Liu, G. — Kansas Department of Health and Environment drinking water protection
Liu, G. — Rattlesnake Creek Watershed Plan/Environmental Assessment
Liu, G. — Student poster judge at 2023 Governor's water and future conference
Louis, D. — Geologist member of the Kansas State Board of Technical Professions (KSBTP); re-appointed to four-year term by Governor Laura Kelly
Louis, D. — Kansas State Board of Technical Professions representative at Association of State Boards of Geology (ASBOG) national meetings, April and October
Louis, D. — Secretary of the Board, Kansas Geological Society

Louis, D. — Volunteer, state Science Olympiad (created testing materials, ran Roads Scholar event)
Louis, D. — Represented KGS at Kansas Ground Water Association conference, Kansas Rural Water Association Annual Conference, and KIOGA mid-year and annual conventions
Louis, D. — Kansas geology presentation, Wichita Rotary Club
Louis, D. — Represented KGS, Wichita State University's Geology Club Career Day
Louis, D. — Designated KGS representative for the KCC's oil and gas advisory committee quarterly meetings
Louis, D. — KGS representative, Oil and Gas Pool Nomenclature Committee
Mandel, R. D. — External promotion and tenure evaluator, Department of Anthropology, Texas A&M University
Mandel, R. D. — Associate Editor, Geoarchaeology: An International Journal, John Wiley & Sons, Inc.
Mandel, R. D. — Associate Editor, Encyclopedia of Geoarchaeology, Springer Press
Mandel, R. D. — Chair, Fund Raising Committee for Student Research, Geological Society of America, Soils & Soil Processes Division
Mandel, R. D. — Chair, Promotion Committee for Dr. Kelly Graf (Associate to Full Professor), KU Department of Anthropology
Mandel, R. D. — Chair, Personnel Committee, KU Department of Anthropology
Mandel, R. D. — Member, KU Search Committee for Museum Curator/Professor, Joint Appointment with the Biodiversity Institute and Department of Anthropology
Mandel, R. D. — Reviewer, one manuscripts submitted to Science
Mandel, R. D. — Reviewer, one manuscript submitted to Quaternary Science Reviews
Mandel, R. D. — Reviewer,one manuscript submitted to Geological Society of America Bulletin
Mohammadi, S. — Reviewer, National Science Foundation
Mohammadi, S. — Chair, Theodor Lowe (Master's student)
Mohammadi, S. — USGS Earth MRI workshop
Mohammadi, S. — Missouri University, 3rd Annual Workshop, Resilient Supply of Critical Minerals
Mohammadi, S. — A Deeper Dive into the Department of Energy: Lewis-Burke Associates
Mohammadi, S. — KU, CAREER Writers' Workshop — Incorporating Proposal Feedback
Mohammadi, S. — Petrel Fundamental by Schlumberger
Oborny, S. —Assisted researchers at Wright State University, Ohio, in identifying field localities in Kansas
Oborny, S. —Assisted researchers at University of Iowa in identification of drill cores for research in Kansas
Ortega-Ariza, D. — NSF panelist, review, discuss and recommend grant proposals for funding
Ortega-Ariza, D. — Reviewer, Scientific Reports
Ortega-Ariza, D. — Reviewer, Geological Journal
Ortega-Ariza, D. — Reviewer, SEPM graduate student research grant proposals
Ortega-Ariza, D. — External member, Ph.D. Committee, University of Alabama
Ortega-Ariza, D. — Advisor, master's student, KU Department of Geology
Ortega-Ariza, D. — Co-advisor, master's student, KU Department of Geology
Ortega-Ariza, D. —Member, master's student committee, KU Department of Geology
Ortega-Ariza, D. — Advisor, undergraduate student, KU Department of Geology
Ortega-Ariza, D. — Advisor, undergraduate student, KU BESST Program
Ortega-Ariza, D. — KGS representative for the KU Department of Geology Graduate Admission Committee
Ortega-Ariza, D. — Judge, student posters, GHawk Symposium, KU Department of Geology
Schneider, B. — President, AWG Foundation Board of Directors
Schneider, B. — Reviewed one paper for Archaeological Prospection
Schneider, B. — Associate Editor, Journal of Environmental and Engineering Geophysics (JEEG)
Smith, J. J. — Co-chair, Xialin (Kevin) Han, Ph.D. committee, University of Kansas
Smith, J. J. — Member, Matthew Allen, Ph.D. committee, University of Kansas
Smith, J. J. — Member, Nick Ferry, Ph.D. committee, University of Kansas
Smith, J. J. — Member, Commissioner at Large, North American Commission on Stratigraphic Nomenclature (NACSN)
Smith, J. J. — Member, Taphonomy and Stratigraphic Paleobiology Research Group, Brazilian Council for Research (CNPq)
Smith, J. J. — Session Co-Convener: Innovative Ichnology: Recent Advances in the Study of Modern and Ancient Behavior, Geological Society of America Annual Meeting.
Smith, J. J. — Handling editor, Palaeontologica Electronica
Stevens, J. — Volunteer, state Science Olympiad (created testing materials, ran Roads Scholar event)
Stevens., J. — Represented KGS, Wichita State University's Geology Club Career Day

Stewart, D. — KGS booth, KDHE Geology & Well Technology 28th Annual Seminar & Tech Fair, Wichita, Kansas, October 24–25
Stewart, D. — Volunteer, Kansas City Gem and Mineral Show, March 11
Stewart, D. — Volunteer, Earth Day event, April 22
Tollefson, J. M. — Tonganoxie (Kansas) High School Career Day — Science Communication
Zhang, Y. — Reviewer, Geophysical Research Letter, Journal of Geophysical Research: Solid Earth, and Interpretation

Grants

Bohling, G. C., Wilson, B. B., and Butler, J. J., Jr.: Addressing groundwater goals of the Missouri Regional Planning Area – Phase II, Kansas Water Office, $93,200, 2018–2024.
Burgin, A., Allen, D. C., Atkinson, C. L., Godsey, S. E., Kuehn, K. A., Jackson, C. R., Zeglin, L. H.: RII Track II-FEC: Aquatic Intermittency effects on Microbiomes in Streams (AIMS), NSF EPSCoR Research Infrastructure Improvement Program: Track-2 Focused EPSCoR Collaborations, $6,597,214. (Zipper, co-I).
Butler, J. J., Jr., and Bohling, G. C.: High Plains aquifer index well program, Kansas Water Office, $305,000, 2019–2024.
Butler, J. J., Jr., Bohling, G. C., Liu, G., and Wilson, B. B.: Kansas River alluvial aquifer observation well network maintenance and modeling, Kansas Water Office, $240,000, 2022–2025.
Butler, J. J., Jr., and Liu, G. C.: INFEWS/T1: Developing pathways toward sustainable irrigation across the United States using process-based systems models (SIRUS), U.S. Dept. of Agriculture, $148,704, 2018–2023.
Cramer, B. (PI), Oborny, S. (KU Subaward PI), Meyer J., Suarez M.: Critical Resource Availability for the Future of the Renewable Energy Industry: Critical Minerals and Ground Water Resources in Iowa and Kansas, National Science Foundation EPSCoR Research Infrastructure Improvement Program: Track-2 (RII Track-2 FEC; NSF 21-518), $3,982,500 (KU subaward: $1,670,320).
Franseen, E. K. (PI): Kansas Interdisciplinary Carbonates Consortium (KICC), $90,000.
Husic, A., and Zipper, S.: Forecasting streamflow and groundwater depletion with deep learning models to sustain Kansan water resources, Kansas Water Resources Institute/USGS, $50,000 (+$50,000 matching funds).
Layzell, A. L.: Assessing the downstream effects of Water Injection Dredging on stream bedload. US Army Corps of Engineers via Kansas State University, $19,431, 2023-2024.
Layzell, A. L., Husic, A., and Harris, T.: Assessment of sediment sources in the John Redmond reservoir watershed, Kansas Water Office, $15,000, 2023–2024.
Layzell, A. L., Husic, A., and Mandel, R. D.: Streambank evaluation of the Cottonwood and Neosho rivers above John Redmond Reservoir, Kansas Water Office, $100,000, 2023–2024.
Liu, G. (PI): Innovative use of the hydraulic profiling tool (HPT), high-resolution K (HRK), and nuclear magnetic resonance (NMR) logging for geohydrologic assessments of soils and unconsolidated formations, U.S. Bureau of Reclamation, $30,000, 2023–2025.
Liu, G. (PI), Dynamic NMR logging technologies for high resolution measurement of hydrogeologic properties and soil response, U.S. Department of Energy, $5,175 (subcontract with Vista Clara), 2023.
Liu, G., Seybold, E. C., and Zipper, S.: Developing a groundwater quality model to investigate irrigation and climate impacts on Uranium and sulfate contamination in the Upper Arkansas River corridor, Kansas Water Office, $35,000.
Marston, L., Zipper, S., Butler, J., Sanderson, M., and Yu, D.: DISES: Toward resilient and adaptive community-driven management of groundwater dependent agricultural systems, National Science Foundation, $590,042, 2022–2026.
Miller, R. D. (PI), Ivanov, J. (Co-PI), and Peterie, S. L. (Co-PI): U.S. Army Corps of Engineers, Enhanced implementation of K-Scope and ASII tunnel detection analysis approach using FWI, modal segmentation methods, and integrated multi-modal techniques, 2023, $71,300.
Miller, R. D. (PI), Ivanov, J. (Co-PI), and Peterie, S. L. (Co-PI): U.S. Army Corps of Engineers, Enhanced implementation of K-Scope and ASII tunnel detection analysis approach using FWI, modal segmentation methods, and integrated multi-modal techniques, 2023, $100,000.
Miller, R. D. (PI), Ivanov, J. (Co-PI), Peterie, S. L. (Co-PI), and Borisov, D. (Co-PI): Burns & McDonnell Engineering Company, Ground truth testing and correlation of seismic interpretation and borehole sampling at Mosaic's legacy well field in Hutchinson, Kansas, 2023, $37,006.

Miller, R. D. (PI), Ivanov, J. (Co-PI), Peterie, S. L. (Co-PI), and Borisov, D. (Co-PI): Burns & McDonnell Engineering Company, Ground truth testing and correlation of seismic interpretation and borehole sampling at Mosaic's legacy well field in Hutchinson, Kansas, Phase 2, 2023, $40,920.

Miller, R. D. (PI), Peterie, S. L. (Co-PI), Ivanov, J. (Co-PI), and Borisov, D. (Co-PI): ExxonMobil, High resolution seismic investigations of rock characteristics associated with subsidence, 2023, $254,003.

Miller, R. D. (PI), Ivanov, J. (Co-PI), Peterie, S. L. (Co-PI), U.S. Army Corps of Engineers, Enhanced Implementation of K-Scope & ASII Tunnel Detection Analysis Approach Using FWI, Modal Segmentation Methods, and Integrated Multi-Modal Techniques

Period of funding 5/6/2019–12/19/2024, Total funded to date $3,243,052

Miller, R. D. (PI), Peterie, S. L. (Co-PI), Borisov, D. (Co-PI), Ivanov, J. (Co-PI), Kansas Corporation Commission, Time-Lapse, High-Resolution Imaging of a void in the Hutchinson Salt beneath #1 Knackstedt disposal well, McPherson County, Kansas

Period of funding 8/26/2019–8/25/2024, Amount funded $14,803

Miller, R.D. (PI), Mandel, R. (Co-PI), Peterie, S. L. (Co-PI), Kansas Water Office, Preproposal for Study of Regional Arbuckle Properties in South Central Kansas Now and Planning for the Future

Period of funding 1/1/2021–8/31/2023, Amount funded $61,700

Miller, R.D. (PI), Peterie, S.L. (Co-PI), Norcal Geophysical Consultants, High Resolution Seismic Reflection to Map Bedrock, Faulting, and Lithologic Contacts in the Upper 1km in White Pine County, Nevada

Period of funding 8/1/2021–9/30/2023, Amount funded $132,427

Miller, R.D. (PI), Ivanov, J. (Co-PI), Peterie, S.L. (Co-PI), Borisov, D. (Co-PI), Burns & McDonnell Engineering, Ground Truth Testing and Correlation of Seismic Interpretation and Borehole Sampling at Mosaic's Legacy Well Field in Hutchinson, Kansas

Period of funding 1/1/2023–05/29/2024, Total funded to date $77,926

Miller, R.D. (PI), Peterie, S.L. (Co-PI), Ivanov, J. (Co-PI), Borisov, D. (Co-PI), Exxon Mobil, High Resolution Seismic Investigations of Rock Characteristics Associated with Subsidence

Period of funding 9/1/2023–8/31/2025, Amount funded $254,003

Miller, R.D. (PI), Ivanov, J. (Co-PI), Burns & McDonnell Engineering, Extended Term Passive Seismic Characterization of High Priority Salt Jugs in Hutchinson, Kansas

Period of funding 11/13/2017–11/30/2023, Total funded to date $424,154

Mohammadi, S. (PI), Hasiuk, F., Oborny, S., Bode-Omoleye, I., Smith, J.J., Ishman, S., Bancroft, A., Eble, C., Ganz, K., Mastalerz, M., McDonald, J., McLaughlin, P.: Critical minerals in Pennsylvanian black shales of the Midcontinent, USGS Earth MRI Cooperative Agreement for Geochemical Reconnaissance, $325,000, 2023-2026.

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Ruiz Diaz, D., Aguilar, J., Archontoulis, S., Dhillon, J., Holman, J., Kuman, V., Margenot, A., Obour, A., Olson, B., Ortez, O., Reiman, M., Rice, C., Rosa, A., Zeglin, L., and Zipper, S.: Increasing water productivity, soil carbon and sustainability of integrated multi-crop systems using field scale research, Foundation for Food and Agriculture Research, $7.7 million (+ $8.7 million matching funds).

Seybold, E. (PI): Kansas Water Office: Groundwater quality patterns, trends, and drivers in Groundwater Management District 2, Kansas, $45,000. Funded in 2023; 1.5-year project.

Smith, J. J. (PI), Layzell, A., Oborny, S., Andrzejewski, K., Dunham, J. W., Ortega-Ariza, D., Bode-Omoleye, I., Mohammadi, S., and Franseen, E.: Geologic mapping in Kansas for FY23, U.S. Geological Survey STATEMAP Program, $605,816, 2023.

Wardropper, C., Zipper, S., and Zwickle, A.: Sustaining ecosystem services in agricultural landscapes through a better understanding of decision-support systems, USDA NIFA Agriculture and Food Research Initiative, $299,509.

Wilson, B. B., Butler, J. J., Jr., and Reboulet, E.: Maintain existing and expand Kansas-based data services to the National Groundwater Monitoring Network, U. S. Geological Survey, $90,374, 2023–2024.

Wilson, B. B., Liu, G., Bohling, G. C., and Butler, J. J., Jr.: Update of the GMD3 groundwater model, Kansas Water Office and Southwest Kansas Groundwater Management District #3, $160,000, 2021–2023.

Zipper, S. (PI): Developing a unified modeling approach to assess streamflow depletion impacts due to groundwater pumping, The Nature Conservancy-California, $82,500.

Zipper, S., Butler, J. J., Jr., Foster, T., Kastens, J., Marston, L., and Wilson, B. B.: Managing temporal trade-offs through irrigation and yield forecasting to advance groundwater conservation, NASA, $100,000.

Zipper, S., Nelson, K. S., Seybold, E., and Sharda, V.: Irrigation at the new 100th Meridian: Adaptation to manage climate risks and preserve water resources in the Eastern Kansas River Basin, USDA NIFA Agriculture and Food Research Initiative, $750,000.

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Butler, J. J., Jr., 2022, Charting pathways toward sustainability of aquifer supporting irrigated agriculture: Universitat Politècnica de València, Valencia, Spain, invited presentation, April 1.

Butler, J. J., Jr., 2022, How do they interact? A multi-year investigation of stream-aquifer interactions in the Kansas River Valley: Universitat Politècnica de València, Valencia, Spain, invited presentation, May 26.

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Holcomb, J. A., 2022, Ice Age seafarers? Geoarchaeology and the search for the Aegean Paleolithic: Annual Rumpakis Lecture, Willamette University, sponsored by the Archaeological Institute of America, April 21. https://www.youtube.com/watch?v=ziDYyj9LnVg

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Ivanov, J., 2022, FWI developments (Fewer Records Per-iteration Processing; Global cost function estimation and display for Multi-scale FWI processing assessment; Vp, Density, Vp/Vs ratio, and Shear modulus model updates and display for FWI processing controls): Presentation of research updates for Department of Defense, October 26. (Virtual)

Ivanov, J., 2022, Full waveform inversion (FWI) with real, synthetic, and difference seismic data display for convergence evaluation developments: Presentation of research updates for Department of Defense, May 26. (Virtual)

Kastens, J., Baker, D., Huggins, D., Stotler, R., Peterson, D., and Layzell, A. L., 2022, An incomplete overview of recent playa research in Kansas: Platte River Basin Conference and 3rd Playa Research Symposium, Kearney, Nebraska, October 24–26.

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Latas, C., Schneider, B., and Pearson, D., 2022, Oak Hill Community Harvest Presentation: Presented at the Watkins Historical Society, Lawrence, Kansas.

Layzell, A. L., and Kastens, J., 2022, Evaluating playas in western Kansas: Recharge to the High Plains aquifer and economics of cropping: Governor's Conference on the Future of Water in Kansas, Manhattan, Kansas, November 16–17.

Layzell, A. L., and Mandel, R. D., 2022, Mid to Late Holocene bioclimatic change and fluvial geomorphic response in western Nebraska: Biennial Meeting of the American Quaternary Association, Madison, Wisconsin, June 8–10.

Liu, G., Butler, J. J., Jr., Wilson, B. B., Bohling, G. C., and Whittemore, D. O., 2022, Groundwater recharge enhancement in depleting aquifers: Delay of drainage by low-permeability sediments: Book of Abstracts for Sustain Valencia 2022: Achieving Sustainable Groundwater Management — Promising Directions and Unresolved Challenges, p. 67–68, Universitat Politècnica de València, València, Spain, October 8.

Mandel, R. D., 2022, Bluefish Caves revisited: Ongoing and future archaeological and paleoecological research in the Northern Yukon of Canada: Beringia Centre Science Talks, Whitehorse, Yukon Territory, Canada, May 12.

Mandel, R. D., 2022, Searching for evidence of the first people in the Americas: A geoarchaeological & paleontological perspective: Kansas City Paleontological Society, Park University, Parkville, Missouri, February 20.

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Oborny, S. C., 2022, Interstate stratigraphic research in the Midcontinent: Wichita State University Lecture Series, March 2022 (Invited Lecturer).
Oborny, S. C., 2022, Pennsylvanian stratigraphic nomenclatural reconciliation in the midcontinent: Kansas Geological Survey On the Rocks Series.
Perdrial, J., Ruckhaus, M., Seybold, E. C., Underwood, K., Kincaid, D. W., Shanley, J., Stewart, B., and Li, L., 2022, Drivers and pathways of carbon and nitrogen in soil and streams: Insights from the Sleepers River Research Watershed in Vermont: AGU Fall Meeting, poster presentation, Chicago, Illinois.
Peterson, D., et al., 2022, Investigating physical drivers of stream intermittency in Alabama: Alabama Water Resource Conference, 2022.
Porter, M. E., et al., 2022, Using national datasets to detect streamflow depletion in the middle Arkansas River watershed, Kansas: Geological Society of America Annual Meeting.
Potter, N., 2022, Outside the Box: Purchasing Local, NGGDPP Lightning Talks, Butte, Montana, September 30.
Price, A., et al., 2022, Quantifying patterns and variability in wetting of non-perennial rivers and streams: American Geophysical Union Fall Meeting.
Romero, J., Tatariw, C., Haynes, A., Grande, E., Montalvo, M., Wilshire, M., Carlson, H. K., Braswell, A., Seybold, E. C., Visser, A., Arora, B., Dwivedi, D., and Zimmer, M. A., 2022, Investigating hydrobiogeochemical drivers of salt marsh nitrogen cycling: AGU Fall Meeting, poster presentation, Chicago, Illinois.
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Schneider, B., et al., 2022, Using GIS to inform fieldwork safety planning: Kansas Association of Mappers Meeting.
Seybold, E. C., 2022, How low can you go? Understanding the hydrologic and ecological function of non-perennial stream ecosystems: invited seminar, Department of Geology Colloquium, University of Vermont, Burlington.
Seybold, E. C., Atkinson, C. L., Benstead, J., Brown, C. L., Flynn, S. M., Hale, R. L., Jones, C. N., Speir, S., Swenson, L., Wheeler, C., Wilhelm, J., Wolford, M. A., Zipper, S. C., and Burgin, A., 2022, Changes in groundwater contributions influence streamwater chemistry during dry-down of a prairie stream: Joint Aquatic Sciences Meeting, oral presentation, Grand Rapids, Michigan.
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Smith, R., Li, J., Grote, K., and Butler, J. J., Jr., 2022, Evaluating confined aquifer storage loss using geodesy, in-situ data and models, Abstract H25T-1355 presented at 2022 Fall Meeting: American Geophysical Union, December 13.
Speir, S., Atkinson, C. L., Wolford, M. A., Allen, D., Benstead, J., Hale, R. L., Jones, C. N., Peterson, D., Seybold, E. C., Shogren, A. J., Thomas, S. G., and Burgin, A., 2022, Flow and behold: Non-perennial flow regimes impact sediment export across the continental USA: Joint Aquatic Science Meeting, oral presentation, Grand Rapids, Michigan.

Stewart, B., Shanley, J., Matt, S., Perdrial, J. N., Ruckhaus, M., Seybold, E. C., Kincaid, D. W., and Li, L., 2022, Stream DOC and DIC response to climate and acidification disturbances at Sleepers River: AGU Fall Meeting, oral presentation, Chicago, Illinois.

Swenson, L., et al., 2022, Changes in baseflow sources during the dry-down of a non-perennial headwater stream: AGU/CUAHSI Frontiers in Hydrology Meeting.

Swenson, L., et al., 2022, Changes in baseflow sources during the dry-down of a non-perennial headwater stream: Kansas Governor's Conference on the Future of Water.

Swenson, L., Burgin, A. J., Hatley, C., Jones, C. N., Kirk, M., Peterson, D., and Seybold, E. C., 2022, Changes in baseflow sources during the dry-down of a non-perennial headwater stream: AGU Frontiers in Hydrology Meeting, poster presentation, San Juan, Puerto Rico.

Wei, Q., Brookfield, A. E., Layzell, A. L., and Seybold, E., 2022, Quantifying the effects of water management decisions on streambank stability: Governor's Conference on the Future of Water in Kansas, Manhattan, Kansas, November 16–17.

Wheeler, C., et al., 2022, Examining the role of dynamic watershed storage as a driver of steam intermittency (Konza Prairie Biological Station, Kansas, USA): AGU/CUAHSI Frontiers in Hydrology Meeting.

Wheeler, C., et al., 2022, STICr: An open-source package and workflow for processing and analyzing stream intermittency data: Kansas Governor's Conference on the Future of Water.

Wilhelm, J. F., Burgin, A., Seybold, E. C., Wheeler, C., Zipper, S. C., and Zarek, K., 2022, How does dry-down on an intermittent prairie stream network affect greenhouse gas concentrations? Joint Aquatic Sciences Meeting, oral presentation, Grand Rapids, Michigan.

Zarek, K., et al., 2022, Watershed network dry down effects on dissolved gas concentrations (N2, Ar, O2) in a prairie stream: Alabama Water Resource Conference.

Zarek, K., Wheeler, C., Wilhelm, J. F., Seybold, E. C., Zipper, S. C., and Burgin, A., 2022, Watershed network dry down effects on dissolved gas concentrations (N2, Ar, O2) in a prairie stream: Joint Aquatic Sciences Meeting, poster presentation, Grand Rapids, Michigan.

Zeglin, L., Kerner, T., Aho, K., Brisendine, J., Bond, C., Burgin, A. J., Hansen, P., Jackson, C., Kuehn, K., Lee, S., Nave, B., Ramos, R., Semenova, T., Seybold, E. C., Sikes, B. A., Swenson, L., Tchamba, A. L. K., Thomas, S. G., Wheeler, C., Wohler, A., You, Y., and Zipper, S. C., 2022, Assessing terrestrial-aquatic microbiome connectivity in non-perennial streams: AGU Fall Meeting, invited poster presentation, Chicago, Illinois.

Zimmer, M. A., Grande, E., Montalvo, M., Seybold, E. C., Tatariw, C., Visser, A., Braswell, A., Arora, B., Hynes, A., Romero, J., Birgand, F., and Haskins, J., 2022, Identification of hot moments of nutrient processing in coastal systems using high frequency sensors: AGU Fall Meeting, invited oral presentation, Chicago, Illinois.

Zipper, S., 2022, Do we know how to estimate streamflow depletion caused by groundwater pumping? Envisioning a community benchmarking resource: AGU/CUAHSI Frontiers in Hydrology Meeting.

Zipper, S., 2022, Where did my water go? Irrigation and water conservation impacts on the stream, aquifer, and atmosphere; Montana State University, Department of Land Resources and Environmental Sciences.

Zipper, S., et al., 2022, Evaluating groundwater conservation using emerging remotely sensed products: Kansas Governor's Conference on the Future of Water.

Zipper, S., et al., 2022, Groundwater-driven alternative stable states in a large non-perennial river: Geological Society of America Annual Meeting.

Zipper, S., et al., 2022, Hunting for hints of streamflow depletion in hydrographs: American Geophysical Union Fall Meeting.

Zipper, S., et al., 2022, Managing temporal trade-offs through irrigation and yield forecasting to advance groundwater conservation: NASA Western Water Applications Office/Earth Science Applications Meeting.

Zipper, S. C., Popescu, I., Compare, K., Seybold, E. C., and Zhang, C., 2022, Alternative stable states and stabilizing feedbacks in a large non-perennial river: AGU Frontiers in Hydrology Meeting, oral presentation, San Juan, Puerto Rico.

Awards & Honors

Butler, J. J., Jr. — Excellence Award in Interdisciplinary Scholarship, Michigan State University Chapter, Honor Society of Phi Kappa Phi (2022 – award given to MSU-KGS research group).

Layzell, A. L., Newell, K. D., Oborny, S. C., Mandel, R. D., and Dunham, J. W. — ICA and IMIA Recognition of Excellence in Cartography award from the 2022 Esri User Conference Map Gallery **for** Surficial geology of

Miami County, Kansas, Map M-126, https://www.kgs.ku.edu/General/Geology/County/klm/M-126_Miami_2022.pdf

Miller, R. — Technical Committee Contribution Award, SEG Middle East.

Ortega-Ariza, D. — Faculty Success Program — the National Center for Faculty Development & Diversity. Selected KU participant, total tuition: $4,250 (KU Center for Faculty Development & Mentoring, $2,500, KGS matching funds: $1,750)

Schneider, B. — Association for Women Geoscientists Enhance Award

Zipper, S. — Kohout Early Career Award, Geological Society of America Hydrogeology Division.

Zipper, S. — Excellence Award in Interdisciplinary Scholarship (award to collaborative team), Michigan State University Chapter of the Honor Society of Phi Kappa Phi.

Internal Service

Andrzejewski, K. A. — Search Committee, GIS Specialist

Layzell, A. L. — Member, Stratigraphic Nomenclature Committee

Layzell, A. L. — Editor, Midcontinent Geoscience

Mandel, R. D. — Director and State Geologist

Mandel, R. D. — Associate Editor, Midcontinent Geoscience

Mandel, R. D. — Member, Stratigraphic Nomenclature Committee

Miller, R. D. — KGS, Promotion and Review Committee

Mohammadi, S. — Search committee, KGS Research Project Manager

Mohammadi, S. — Member, KGS Diversity, Equity, Inclusion, and Belonging (DEIB) Committee, 2021 to present

Oborny, S. C. — Helped operate KGS information booth at the Eastern Kansas Oil and Gas Association Annual Meeting, Prairie Band Casino, Kansas

Oborny, S. C. — Helped operate KGS information booth at the Kansas Independent Oil and Gas Association Annual Meeting, Wichita, Kansas

Ortega-Ariza, D. — Member, Stratigraphic Nomenclature Committee

Ortega-Ariza, D. — Member, CUSP and CUSP Data Analytics Group

Ortega-Ariza, D. — Member, Diversity, Equity, Inclusion and Belonging (DEIB) Committee

Ortega-Ariza, D. — Member, Postdoc Search Committee — Machine Learning

Potter, N. — KDHE Geology and Well Technology Seminar and Tech Fair booth

Potter, N. — KC Gem and Mineral Show booth

Potter, N. — Member, DEIB Committee

Potter, N. — Data Entry Assistant search committee (2)

Schneider, B. — Co-chair, KGS DEIB Committee

Schneider, B. — Chair, Search Committee for Science Communication Specialist

Schneider, B. — Member, DEIB in KU Research Working Group

Schneider, B. — Member, Safe and Inclusive Field Work Task Force in the Office of Research

Schneider, B. — Member, KU CLAS DEI Cabinet

Schneider, B. — Instructor, one section of LDST 301

Schneider, B. — Developed and taught new course, GEOL 856: Geophysical Methods for Environmental Applications, for the KU Geology Professional Science Masters program

Seybold, E. C. — Co-director, KGS Geohydrology Internship Program

Smith, J. J. — KGS STATEMAP Coordinator

Smith, J. J. — Chair, Stratigraphic Nomenclature Committee

Smith, J. J. — Member, KGS Promotion and Review Committee

Smith, J. J. — Member, Cartographic Service Specialist Search Committee

Smith, J. J. — Associate Editor, Midcontinent Geoscience

Stewart, D. — KGS booth, KDHE Geology & Well Technology 27th Annual Fall Seminar/Tech Fair, Wichita, Kansas, October 25–26

Tollefson, J. M. — Technical Editor, Midcontinent Geoscience

Tollefson, J. M. — Member (ex-officio), KGS Stratigraphic Nomenclature Committee

Zipper, S. — Co-Chair, KGS Diversity, Equity, Inclusion, and Belonging (DEIB) committee

Zipper, S. — Member, KBS/KGS Research Project Coordinator search committee, KGS Laboratory Director search committee, and KGS Field Research Technician search committee

Zipper, S. — Co-chair, KGS Geohydrology Internship Program search committee

Zipper, S. — Chair, KGS Postdoctoral Research search committee

External Service

Butler, J. J., Jr. — Lead editor, special section of the journal Water Resources Research on the 2019 Chapman Conference (American Geophysical Union), for which he served as co-chair

Butler, J. J., Jr. — Conference co-chair, Sustain Valencia 2022: Achieving Sustainable Groundwater Management: Promising Directions and Unresolved Challenges, Universitat Politècnica de València, Valencia, Spain, October 6–8, 2022

Butler, J. J., Jr. — Member, Kansas Water Resources Institute Administrative Council

Butler, J. J., Jr. — Member, Kansas Water Bank Review Group

Butler, J. J., Jr. — Promotion Evaluator, Department of Geoscience, University of Wisconsin-Madison

Butler, J. J., Jr. — Member, Darcy Lecture Task Force, National Ground Water Association

Butler, J. J., Jr. — Reviewer for Advances in Water Resources, Earth's Future, Environmental Research Letters, Geophysical Research Letters, Groundwater, Hydrologic Processes, Kansas Water Office, Nature Sustainability, Science, The Groundwater Project, The Journal of the American Water Resources Association, Tsinghua University, and Water Resources Research

Holcomb, J. A. — Session co-convener, Geoarchaeology at the Micro-Scale: Recent Advances in Microanalytical Techniques, Geological Society of America, Denver, Colorado.

Layzell, A. L. — Member, National Geologic Map Database Project Technical Advisory Working Group

Layzell, A. L. — Guest lecturer, Geoarchaeology (ANTH 517), University of Kansas, Department of Anthropology, February 2022

Layzell, A. L. — Member, Kansas Watershed Restoration and Protection Strategy (WRAPS) Work Group

Layzell, A. L. — Reviewer for Geological Society of America Mackin, Howard, and Morisawa student awards (Quaternary Geology and Geomorphology Division)

Layzell, A. L. — Field trip leader, NSF Research Experiences for Teachers: Exploring Career Opportunities through Water-Themed Engineering Research, July 2022

Ludigson, G. A. — Guest editor, special Issue of Geosciences on terrestrial paleoclimatology and paleohydrology of the Cretaceous greenhouse world

Ludigson, G. A. —Associate editor, Journal of Sedimentary Research (SEPM)

Mandel, R. D. — Member, KU Search Committee for Museum Curator/Professor, Joint Appointment with the Biodiversity Institute and Department of Anthropology

Mandel, R. D. — Associate Editor, Geoarchaeology: An International Journal, John Wiley & Sons, Inc.

Mandel, R. D. — Associate Editor, Encyclopedia of Geoarchaeology, Springer Press

Mandel, R. D. — Chair, Fund Raising Committee for Student Research, Geological Society of America, Soils & Soil Processes Division

Mandel, R. D. — Member, Personnel Committee, KU Department of Anthropology

Mandel, R. D. — Reviewer, one manuscript submitted to Science

Mandel, R. D. — Reviewer, one manuscript submitted to Quaternary Science Reviews

Miller, R. D. — SEG, Strategic Options Presidential Task Force

Miller, R. D. — SEG, Justice, Equity, Diversity, and Inclusion Committee

Miller, R. D. — SEG, Nominations Committee

Miller, R. D. — SEG, Honors and Awards Committee

Mohammadi, S. — Peer reviewer, Marine and Petroleum Geology

Mohammadi, S. — Peer reviewer, The Depositional Record Journal

Mohammadi, S. — Reviewer, AWG Scholarship program

Mohammadi, S. — Review committee for a KU institution

Mohammadi, S. — Reviewer for an Elsevier's book proposal

Ortega-Ariza, D. — NSF panelist – review, discuss and recommend grant proposals for funding

Ortega-Ariza, D. — Reviewer, submitted abstracts — Carbonates session, 2022 IMAGE annual meeting

Ortega-Ariza, D. — Co-advisor, master's student, KU Department of Geology

Ortega-Ariza, D. — External committee member, PhD student, University of Alabama

Ortega-Ariza, D. — External committee member, master's student, University of Texas A&M–Kingsville

Ortega-Ariza, D. — Steering committee, KU Faculty Women & Allies Leadership Network

Ortega-Ariza, D. — Facilitator, one-hour breakout room discussion, KU Townhall meeting for NSF ADVANCE, Systemic factors, equity and inclusion, policy and practice, culture at KU

Ortega-Ariza, D. — Co-facilitator, Jayhawks Give a Flock, KU Sexual Assault Prevention & Education Center
Ortega-Ariza, D. — Judge, student posters, GHawk Symposium, KU Department of Geology
Ortega-Ariza, D. — Guest editor, Midcontinent Geoscience
Schneider, B. — Vice-chair, SEG Near Surface Technical Committee
Schneider, B. — Town Hall Moderator and Convener, Leadership Courage to Transform Workplace Climate, American Geophysical Union Fall Meeting
Schneider, B. — Associate Editor, Journal of Environmental and Engineering Geophysics
Seybold, E. C. — Member, AGU Water Quality Technical Committee
Seybold, E. C. — Topic editor, Women in Science special issue for Frontiers in Water
Seybold, E. C. — Ad hoc peer-reviewer for 11 manuscripts in Biogeochemistry, Hydrological Processes, JGR-Biogeosciences, HESS, PLOS Water, JAWRA, Ecosystems
Seybold, E. C. — Panelist, NSF Hydrologic Sciences Program
Seybold, E. C. — Ad-hoc Reviewer for 3 NSF proposals (DEB Ecosystem Sciences Cluster, Hydrologic Sciences, GLD)
Seybold, E. C. — AGU Fall Meeting session convener: Global Impact of Non-perennial Waterways: Integrating Hydrological, Geochemical, Microbiological, and Social Perspectives; Frontiers in Water-Quality Science: Origins, Patterns, and Detection of Spatial and Temporal Dynamics
Smith, J. J. — Co-chair, Xialin (Kevin) Han, Ph.D. committee, University of Kansas
Smith, J. J. — Member, Matthew Allen, Ph.D. committee, University of Kansas
Smith, J. J. — Member, Nick Ferry, Ph.D. committee, University of Kansas
Smith, J. J. — Member, GSA Representative, North American Commission on Stratigraphic Nomenclature (NACSN)
Smith, J. J. — Member, Commissioner at Large, North American Commission on Stratigraphic Nomenclature (NACSN)
Smith, J. J. — Member, Taphonomy and Stratigraphic Paleobiology Research Group, Brazilian Council for Research (CNPq)
Smith, J. J. — Handling editor, Palaeontologica Electronica
Zipper, S. — Member, Ecohydrology Technical Committee, American Geophysical Union
Zipper, S. — Panelist, KU Research Rising review panel, 2022
Zipper, S. — Ad hoc reviewer, Legislative-Citizen Commission on Minnesota Resources (1 proposal reviewed), Babbitt Center Dissertation Fellowship Program (1 proposal reviewed), NSF HEGS program (1 proposal reviewed), and NSF EAR-PF program (1 proposal reviewed)
Zipper, S. — Peer reviewer, eight manuscripts for Water Resources Research, Journal of Hydrology, Environmental Research Letters, Hydrological Processes, and Agricultural Water Management

Grants

Bohling, G. C., Wilson, B. B., and Butler, J. J., Jr.: Addressing Groundwater Goals of the Missouri Regional Planning Area — Phase II, $93,200, Kansas Water Office, 2018–2024.

Brookfield, A. E.: Visualizing the Invisible: Causes, Consequences, Changes, and Management of Streamflow Depletion across the U.S., USGS Powell Center Working Group. PIs: A. E. Brookfield (lead), L. M. Hays, M. C. Hill, and S. C. Zipper. Total Award: $163,530. 2019–2023.

Butler, J. J., Jr., and Bohling, G. C.: High Plains aquifer index well program, $305,000, Kansas Water Office, 2019–2024.

Butler, Bohling, Liu, and Wilson: Kansas River alluvial aquifer observation well network maintenance and modeling, $240,000, Kansas Water Office, 2022–2025.

Butler, J. J., Jr., and Liu, G.: INFEWS/T1: Developing pathways toward sustainable irrigation across the United States using process-based systems models (SIRUS), U.S. Department of Agriculture, $148,704, 2018–2023.

Butler, J. J., Jr., and Seybold, E. C.: Assessment of groundwater mineralization in the upper Arkansas River corridor, $77,000, Kansas Water Office, 2019–2022.

Hasiuk, F. (PI), Co-PIs: Scott, I., Bode-Omoleye, I., Ortega-Ariza, D., Mohammadi, S., Ridley, C., Raney, J., and Eleson, J.: Potential Field Deployment Project: CCUS Hub Concept for ONEOK: Natural Gas Liquids Fractionation and Gas Processing Plants in Kansas and Oklahoma, Infrastructure Development for Handling of New Gaseous Products, submitted to CUSP, $1,098,072 (DOE Award No.: DE-FE0031837).

Husic, A.: Forecasting streamflow and groundwater depletion with deep learning models to sustain Kansan water resources, Kansas Water Resources Institute/USGS 104b. PIs: Admin Husic (lead), Sam Zipper. Total Project Amount: $50,000 (+$50,000 matching funds). 2022–2024.

Layzell, A. L., Mandel, R. D.: Streambank Evaluation of the Cottonwood and Neosho Rivers above John Redmond Reservoir, Kansas Water Office, $100,000, 2002.

Mandel, R. D.: A statewide geographic information system (GIS) as a predictive tool for locating deeply buried archaeological deposits in Nebraska (Phase III), the Sandhills Region, $88,500, History Nebraska/Nebraska Department of Transportation, September 1, 2022–May 31, 2024.

Miller, R. D. (PI): Norcal Geophysical Consultants, High-resolution seismic reflection to map bedrock, faulting, and lithologic contacts in the upper 1 km in White Pine County, Nevada, 2022, $132,427.

Mohammadi, S. (PI), Co-PIs: Hasiuk, F., Oborny, S., Bode-Omoleyhe, I., Smith, J. J., Ishman, S., Mastalerz, M., McLaughlin, P., Clark, R., Bancroft, A., Seeger, C., Ganz, K., Devera, J., Elrick, S., Andrews, W., McDonald, J., McCafferty, A., and Emsbo, P.: Critical minerals in Pennsylvanian black shales of the Midcontinent: USGS Earth MRI Cooperative Agreement for Geochemical Reconnaissance, federal total for participating states: $975,000, Kansas total: $325,000, 2022–2025.

Seybold, E. NSF EPSCoR: Emerging STEM Scholar: Building STEM workforce capacity in undergraduates and mentors. Co-PI. Total award amount $999,835. Funded in 2022; 5 year project.

Smith, J. J. (PI), Co-PIs: Hasiuk, F., Layzell, A., Oborny, S., Andrzejewski, K., Dunham, J.W., Ortega-Ariza, D., Bode-Omoleye, I., Mohammadi, S., Franseen, E., Mandel, R.D., and Ishman, S.: Geologic Mapping in Kansas for FY22. U.S. Geological Survey STATEMAP Program. Requested agency total: $599,195.

Potter, N. (PI), Co-PIs: Stewart, D., Oborny, S., Louis, D, and Hasiuk, F.: Preserving Kansas Geologic Data, Documents, Samples, and Aerial Photographs; and Surveying Drill Hole/Core Holdings Related to Critical Mineral Resources, FY 2022. U.S. Geological Survey, National Geological and Geophysical Data Preservation Program (NGGDPP). Total Combined Federal and State: $378, 706. 2022

Seybold, E. C.: NSF EPSCoR: Emerging STEM Scholar: Building STEM workforce capacity in undergraduates and mentors. Co-PI with Blair Schneider (KGS). Total award amount $999,835. Funded in 2022; 5-year project.

Seybold, E. C.: Spatial variability and subsurface controls of groundwater recharge and nutrient mobilization in dry streams, Kansas Water Resources Institute/USGS 104b. PIs: E. C. Seybold (lead), S. C. Zipper, and C. Zhang. Total Award: $40,000. 2020–2022.

Smith, J. J. (PI), Co-PIs: Hasiuk, F., Layzell, A., Oborny, S., Andrzejewski, K., Dunham, J. W., Ortega-Ariza, D., Bode-Omoleye, I., Mohammadi, S., Franseen, E., Mandel, R. D., and Ishman, S.: 2022, Geologic Mapping in Kansas for FY22: U.S. Geological Survey STATEMAP Program. Federal total: $599,195.

Smith, J.J. (PI), Co-PIs: Layzell, A., Ortega-Ariza, D., Oborny, S., Andrzejewski, K., Hasiuk, F., Franseen, E., Dunham, J.W., Bode-Omoleye, I., and Mohammadi, S.: Geologic Mapping in Kansas for FY23. U.S. Geological Survey STATEMAP Program. Requested agency total: $800,000; State match: $800,000. 2022.

Wardropper, C. (PI), S. Zipper, A. Zwickle (Co-PIs) USDA NIFA Agriculture and Food Research Initiative, Sustainable Agroecosystems program area: Sustaining ecosystem services in agricultural landscapes through a better understanding of decision-support systems. Total amount $299,509 | KGS Award Amount: $132,417. 9/1/2022-8/31/2024

Wilson, Butler, and Reboulet: Co-Principal Investigator, Maintain existing and expand Kansas-based data services to the National Groundwater Monitoring Network, United States Geological Survey, $132,239, 2021–2022.

Wilson, Liu, Bohling, and Butler: Update of the GMD3 groundwater model, $160,000, Kansas Water Office and Southwest Kansas Groundwater Management District #3, 2021–2023.

Zipper, S.: Managing Temporal Trade-Offs through Irrigation and Yield Forecasting to Advance Groundwater Conservation; NASA A.34 Earth Science Applications: Water Resources. PIs: S. Zipper (lead), J. J. Butler, T. Foster, J. Kastens, L. Marston, and B. Wilson. Total Award: $100,000. 2022–2025.

Zipper, S.: Irrigation at the new 100th Meridian: Adaptation to manage climate risks and preserve water resources in the Eastern Kansas River Basin, USDA NIFA Agriculture and Food Research Initiative, Water Quantity and Quality program area. PIs: S. C. Zipper (lead), K. S. Nelson, E. Seybold, and V. Sharda. Total Award: $750,000 ($503,988 to KU). 2022–2026.

Zipper, S.: Sustaining ecosystem services in agricultural landscapes through a better understanding of decision-support systems, USDA NIFA Agriculture and Food Research Initiative, Sustainable Agroecosystems program area. PIs: C. Wardropper (lead), S. C. Zipper (KU lead), A. Zwickle. Total Award: $299,509 ($132,417 to KU). 2022–2024.

Zipper, S.: DISES: Toward resilient and adaptive community-driven management of groundwater dependent agricultural systems, NSF Dynamics of Integrated Social and Environmental Systems. PIs: L. Marston (lead), S. Zipper (KU lead), J. Butler, M. Sanderson, and D. Yu. Total Award: $1,599,999 ($590,042 to KU). 2022–2026.

Zipper, S.: Advancing a Community Groundwater Model Portal (GroMoPo), CUAHSI Hydroinformatics Innovation Fellowship. PI: S. C. Zipper (lead), K. Befus, J. Castilla-Rho, T. Gleeson, R. Reinecke, and D. Zamrsky. Total Project Amount: $4976. 2022.

Zipper, S. (Co-I, lead of hydrology team): RII Track II-FEC: Aquatic Intermittency effects on Microbiomes in Streams (AIMS), NSF EPSCoR Research Infrastructure Improvement Program: Track-2 Focused EPSCoR Collaborations. PIs: A. Burgin (lead, KU lead), D. C. Allen, C. L. Atkinson, S. E. Godsey, K. A. Kuehn, C. R. Jackson, and L. H. Zeglin. Total Award: $5,998,875. 2020–2024.

2021

Refereed Publications

Atwah, I., Mohammadi, S., Moldowan, J. M., and Dahl, J., 2021, Episodic hydrocarbon charge in tight Mississippian reservoirs of Central Oklahoma, USA: Insights from oil inclusion geochemistry: Marine and Petroleum Geology, v. 123, p. 16. https://doi.org/10.1016/j.marpetgeo.2020.104742

Barineau, C., and Ortega-Ariza, D., 2021, An Upper Cretaceous paleodrainage system on the coastal plain unconformity of Alabama-Georgia; *in* J. Florsheim, C. Koeberl, M. P. McKay, and N. Riggs, eds., GSA Section Meeting Guides: Geological Society of America Field Guide 61, p. 1–26. https://doi.org/10.1130/2021.0061(03)

Biebesheimer, E. J., Cramer, B. D., Calner, M., Barnett, B. A., Oborny, S. C., and Bancroft, A. M., 2021, Asynchronous $\delta^{13}C_{carb}$ and $\delta^{13}C_{org}$ records during the onset of the Mulde (Silurian) positive carbon isotope excursion from the Altajme core, Gotland, Sweden: Chemical Geology, v. 576, p. 120,256. https://doi.org/10.1016/j.chemgeo.2021.120256

Bohling, G. C., Butler, J. J., Jr., Whittemore, D. O., and Wilson, B. B., 2021, Evaluation of data needs for assessments of aquifers supporting irrigated agriculture: Water Resources Research, v. 57, no. 4. doi: 10.1029/2020WR028320

Borisov, D., Miller, R. D., Ivanov, J., Peterie, S. L., and Sloan, S. D., 2021, Delineating mines using full-waveform inversion in Galena, Kansas [Exp. Abs.]: First International Meeting for Applied Geoscience & Energy, Society of Exploration Geophysicists/AAPG, Denver, Colorado, p. 1,871–1,875.

Borisov, D., Miller, R. D., Ivanov, J., Peterie, S. L., and Sloan, S. D., 2021, Waveform inversion of shallow seismic data with randomly selected sources [Exp. Abs.]: International Conference on Engineering Geophysics, Al Ain, UAE, October 25–28.

Buchanan, R., 2021, There may be no better place to do hydrogeological field work during a pandemic than western Kansas: Groundwater Monitoring and Remediation, v. 41, n. 3, p. 86–87.

Butler, J. J., Jr., Gomez-Hernandez, J. J., Perrone, D., and Hyndman, D., 2021, Introduction to special section: The quest for sustainability of heavily stressed aquifers at regional to global scales: Water Resources Research, v. 57, no. 8. doi: 10.1029/2021WR030446

Butler, J. J., Jr., Knobbe, S., Reboulet, E. C., Whittemore, D. O., Wilson, B. B., and Bohling, G. C., 2021, Water well hydrographs: An underutilized resource for characterizing subsurface conditions: Groundwater, v. 59, no. 6, p. 808–818. doi: 10.1111/gwat.13119

Deines, J. M., Kendall, A. D., Butler, J. J., Jr., Basso, B., and Hyndman, D. W., 2021, Combining remote sensing and crop models to assess the sustainability of stakeholder-driven groundwater management in the US High Plains Aquifer: Water Resources Research, v. 57, no. 3. doi: 10.1029/2020WR027756

Dillis, C., Butsic, V., Carah, J., Zipper, S. C., and Grantham, T., 2021, Cannabis farms in California rely on wells outside of regulated groundwater basins: Environmental Research Communications. DOI: 10.1088/2515-7620/ac1124

Gleeson, T., Wagener, T., Döll, P., Zipper, S. C., West, C., Wada, Y., Taylor, R., Scanlon, B., Rosolem, R., Rahman, S., Oshinlaja, N., Maxwell, R., Lo, M-H., Kim, H., Hill, M., Hartmann, A., Fogg, G., Famiglietti, J. S., Ducharne, A., de Graaf, I., Cuthbert, M., Condon, L., Bresciani, E., and Bierkens, M. F. P., 2021, GMD perspective: The quest to improve the evaluation of groundwater representation in continental to global scale models: Geoscientific Model Development. DOI: 10.5194/gmd-14-7545-2021

Graham, E. B., Averill, C., Bond-Lamberty, B., Knelman, J E., Krause, S., Peralta, A L., Shade, A., Smith, A P., Cheng, S J., Fanin, N., Freund, C., Garcia, P. E., Gibbons, S. M., Van Goethem, M. W., Guebila, M. B., Kempinnen, J., Nowicki, R. J., Pausas, J. G., Reed, S. P., Rocca, J., Sengupta, A., Sihi, D., Simonin, M., Slowinski, M., Spawn, S. A., Sutherland, A., Tonkin, J. D., Wisnoski, N. I., and Zipper, S. C., 2021, Toward a generalizable framework of disturbance ecology through crowdsourced science: Frontiers in Ecology and Evolution. DOI: 10.3389/fevo.2021.588940

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Butler, J. J., Jr., 2021, Separating the signal from the noise in aquifer test data: Midwest Geosciences Group, internet webinar, October 26.

Butler, J. J., Jr., 2021, The ABCs of slug testing: Midwest Geosciences Group, internet webinar, September 30.

Butler, J. J., Jr., and Whittemore, D. O., 2021, Gave a web presentation on the Index Well Program: Kansas Water Office and other state and regional agencies, web presentation, June 1.

Butler, J. J., Jr., Whittemore, D. O., and Wilson, B. B., 2021, An overview of the hydrogeology of Kansas: National Groundwater Association Hydrogeology of States Webinar Series, invited presentation, May 19.

Butler, J. J., Jr., and Wilson, B. B., 2021, Water levels and county-based water use vs water level relationships: Annual Meeting of Western Kansas Groundwater Management District #1, Scott City, August 11.

Glose, T., et al., 2021, Time lags between pumping reductions and recharge response under groundwater conservation: Geological Society of America – South Central Section Meeting.

Glose, T., et al., 2021, Quantification of time-varying aquifer responses to adoption of low-pressure irrigation technology: American Geophysical Union Fall Meeting.

Glose, T., et al., 2021, Weather whiplash in Kansas: Past and future: Kansas Governor's Conference on the Future of Water.

Glose, T., et al., 2021, Weather whiplash across Kansas: Quantification of changes in spatial and temporal trends: American Geophysical Union Fall Meeting.

Grande, E., Arora, B., Visser, A., Montalvo, M., Braswell, A. E., Seybold, E. C., Tatariw, C., Beheshti, K., and Zimmer, M. A., 2021, Tidal forcing influences on biochemical processes in a salt marsh: AGU Fall Meeting, oral presentation, New Orleans.

Gutierrez-Cala, L., et al., 2021, Looking for the present in the past: Paleoenvironmental analyses and social-ecological memory to explore changes in the mangroves of the Cienaga Grande de Santa Marta – Colombia: European Geophysical Union General Assembly.

Holcomb, J. A., 2021, Disentangling site formation processes using soil micromorphology and geochemistry (pXRF) at Stelida, Naxos, Greece: Newcastle University, February 22.

Hollenbach, A., Mohammadi, S., Goldstein, R. H., and Möller, A., 2021, Early timing of hydrothermal overprint: STACK Play, Oklahoma: AAPG ACE.

Hollenbach, A., Mohammadi, S., Goldstein, R. H., and Möller, A., 2021, Hydrothermal fluid flow and burial history in the STACK Play of north central Oklahoma: KGS Midcontinent Carbonate Research virtual symposium, September 14–15.

Hollenbach, A., Mohammadi, S., Goldstein, R. H., Möller, A., and Gregg, J. M., 2021, Multiple episodes of hydrothermal fluid flow in the midcontinent revealed by U/Pb dating, petrography, and fluid inclusions: KGS Midcontinent Carbonate Research virtual symposium, September 14–15.

Hollenbach, A., Mohammadi, S., Goldstein, R. H., Möller, A., and Gregg, J. M., 2021, Tracking the hydrothermal overprint in the Midcontinent: Kansas Interdisciplinary Carbonates Consortium.

Holubnyak, E., Hasiuk, F., Meng, J., Notle, A., Tsoflias, G., Hollenbach, J., Ansari, E., Bode-Omoleye, I., Ahlert, A., Kingsley, L., Ajobiewe, N., Mohammadi, S., Wreath, D., Smith, M., Smith, C. and Raines, J., 2021, CCUS stacked storage characterization of Hartland-Patterson Site in south-west Kansas: AAPG ACE.

Kar, K., et al., 2021, Identifying nonlinear change in non-perennial streamflow: American Geophysical Union Fall Meeting.

Kendall, A., et al., 2021, Simulating the hydrologic effects of aquifer-wide adoption of efficient irrigation technologies: American Geophysical Union Fall Meeting.

Kincaid, D., Hamshaw, S., Underwood, K., Seybold, E. C., Adair, C., Perdrial, J., Rizzo, D., Wemple, B., and Schroth, A., 2021, Self-organizing maps reveal the influence of event regimes on dissolved N and P export dynamics from an agricultural and forested watershed: Society of Freshwater Sciences Annual Meeting, virtual conference, oral presentation.

Loheide, S. P., et al., 2021, Groundwater-crop interactions: How shallow groundwater affects yield and how groundwater management can close the yield gap: American Geophysical Union Fall Meeting.

Ludvigson, G. A., 2021, Some new findings of the paleoclimatology of the Cretaceous greenhouse world: Department of Geology Colloquium, University of Kansas, Lawrence, Kansas, December 2.

Mandel, R. D., 2021, In the footprints of Kirk Bryan and Claude C. Albritton, Jr.: A reinvestigation of late-Quaternary landscape evolution and geoarchaeology in the Big Bend region of Southwest Texas: Texas Bureau of Economic Geology, University of Texas at Austin, April 30.

Mandel, R. D., 2021, Searching for evidence of the first people in the Americas: A geoarchaeological & paleoecological perspective: Keynote Address, 27th Annual Conference of the Center for Big Bend Studies, Sul Ross State University, Alpine, Texas, November 6.

Miller, R. D., 2021, Arbuckle Study Group, Update on Arbuckle Study and 2021 Seismicity, October 20.

Miller, R. D., 2021, Consortium to Study Trends in Seismicity, 2021 Annual Meeting, Regulatory, Legislative, and Industry Aspects of Seismicity, August 5 (virtual).

Miller, R. D., 2021, Current Trends in Kansas Seismicity, Kansas House Energy, Utilities, and Telecomm Committee.
Miller, R. D., 2021, DGG/SEG Scientific Drilling Workshop (virtual), March.
Miller, R. D., 2021, ICEG, Al Ain, UAE, Conference Opening Address (virtual), October 25.
Miller, R. D., 2021, invited presentation, ICEG, Al Ain, UAE, Keynote Address (virtual), October 25.
Miller, R. D., 2021, invited presentation, KDHE, Geology Seminar, September 14.
Miller, R. D., 2021, Salina area earthquake update: Geological Survey Advisory Council, Lawrence, Kansas, December 9.
Miller, R. D., 2021, SEG Workshop, Application of Proximal and Remote Sensing Tech for Soil Investigations (virtual), August.
Miller, R. D., 2021, SEG Workshop, Re-defining Direct Hydrocarbon Indicators, Keynote (virtual), June.
Miller, R. D., 2021, SEG-NSG, Convocation and Society Host, Summit on Drone Geophysics (virtual), Denver, Colorado, November 2.
Miller, R. D., 2021, Seismicity and Arbuckle Study, KWO, House Appropriations Committee.
Miller, R. D., Ivanov, J., Peterie, S. L., and Borisov, D., 2021, Blurring the lines between near surface and conventional seismic imaging [Exp. Abs.]: International Conference on Engineering Geophysics, Al Ain, UAE, Oct. 25–28 (hybrid).
Mohammadi, S., and Gregg, J. M., 2021, Diagenetic impact of basinal and hydrothermal fluids in the Mississippian rocks of the southern midcontinent of USA: Carbonate Forum 2021, online presentation.
Mohammadi, S., Hollenbach, A., Goldstein, R. H., and Möller, A., 2021, Timing of hydrothermal fluid flow events in Kansas and tri-state mineral district: KGS Midcontinent Carbonate Research virtual symposium, September 14–15.
Montalvo, M., Grande, E., Zimmer, M. A., Braswell, A. E., Haskins, J. C., Endris, C., Gerbl, F., Tatariw, C., Arora, B., Visser, A., Seybold, E. C., Caldwell, W., and Grunewald, E. D., 2021, Seasonal changes in subsurface hydrology influence nutrient cycling in a salt marsh: AGU Fall Meeting, poster presentation, New Orleans.
Nerhus, K., et al., 2021, Analyzing recharge through playas with various land uses to the central High Plains aquifer in Western Kansas: Geological Society of America Annual Meeting.
Oborny, S., and Layzell, A. L., 2021, Pennsylvanian stratigraphic nomenclature reconciliation in the midcontinent: Digital Mapping Techniques-Lite, virtual conference, December 6–7.
Ortega-Ariza, D., invited speaker, GeoScience World, GSW In Our Customers Shoes Session.
Perdrial, J. N., Kincaid, D., Wheaton, D., Walls, L., Ul Haq, I., Rizzo, D., Hamshaw, D., Lee, B., Seybold, E. C., Lewis, G., Toolin, R., and Chorover, J., 2021, Why Critical Zone (CZ) science needs team science: insights from the Big Data CZ Network cluster: AGU Fall Meeting, poster presentation, New Orleans.
Perdrial, J. N., Kincaid, D. W., Wheaton, D., Walls, L., Ul Haq, I., Rizzo, D., Hamshaw, S. D., Lee, B. S., Seybold, E. C., Lewis, G., Toolin, R. E., Chorover, J., 2021, Why Critical Zone (CZ) science needs team science: insights from the big data CZ network cluster: AGU Fall Meeting, oral presentation, New Orleans.
Price, A., et al., 2021, The drying regimes of non-perennial rivers: European Geophysical Union General Assembly.
Price, A., et al., 2021, The drying regimes of non-perennial rivers and streams: American Geophysical Union Fall Meeting.
Price, A., et al., 2021, The drying regimes of non-perennial rivers and streams: California section of the Society for Freshwater Sciences.
Reeves, H., et al., 2021, Estimating impacts of groundwater withdrawals on streamflow: International Association of Great Lakes Research meeting.
Ruckhaus, M., Seybold, E. C., Petrine, M., Shanley, J., Stewart, B., Li, L., Underwood, K., Lini, A., and Perdrial, J. N., 2021, Carbon and nitrogen dynamics in Sleepers River Research Watershed: A combined lab and field study: AGU Fall Meeting, poster presentation, New Orleans.
Schneider, B., et al., 2021, Looking forward: URGE action items underway from the KansasGeo pod: Geological Society of America Annual Meeting.
Seybold, E. C., et al., 2021, Effects of rain on snow events on runoff generation and nutrient export from forested and agricultural catchments in northern Vermont: Society of Freshwater Sciences Annual Meeting, virtual conference, oral presentation.
Seybold, E. C., Wolford, M., Brown, C. L., Burgin, A., Flynn, S., Godsey, S., Hale, R., Jones, C. N., Peterson, D., Smith, C., Speir, S., Wheeler, C., Wilhelm, J., and Zipper, S., 2021, The effects of flow intermittency and groundwater-surface water exchange on stream biogeochemistry in a non-perennial prairie stream: AGU Fall Meeting, invited oral presentation, New Orleans.

Shanley, J., Sebestyen, S., Chalmers, A., Matt, S., Chandler, D., Bailey, S., Campbell, J., Ryan, K., Perdrial, J., Ruckhaus, M., Seybold, E. C., Li, L., Stewart, B., Liu, F., and Porter, V., 2021, Long-term research and monitoring at Sleepers River Research Watershed, Vermont USA: AGU Fall Meeting, oral presentation, New Orleans.

Stewart, B., Shanley, B., Matt, S., Perdrial, J., Ruckhaus, M., Seybold, E. C., and Li, L., 2021, Stream chemistry response to external perturbations at Sleeper's River: AGU Fall Meeting, oral presentation, New Orleans.

Stewart, D., 2021, National Geological and Geophysical Data Preservation Program Grant Preservation Practices, training presentation and discussion of well log digitization process to USGS personnel and summer interns, July.

Tatariw, C., Seybold, E. C., Montalvo, M., Zimmer, M. A., Kleinhuizen, A., Visser, A., Braswell, A. E., Grande, E., and Arora, B., 2021, Seasonal precipitation is a hydrologic driver of salt marsh nitrogen removal: AGU Fall Meeting, poster presentation, New Orleans.

Wheeler, C., et al., 2021, Stream network spatiotemporal connectivity at Konza Prairie, KS: Kansas Governor's Conference on the Future of Water.

Zipper, S. C., et al., 2021, Groundwater-driven flow regimes and alternate stable states in the Middle Arkansas River, Kansas: Kansas Governor's Conference on the Future of Water.

Zipper, S. C., et al., 2021, Groundwater-driven intermittency regimes in the Arkansas River, Kansas: Geological Society of America – South Central Section Meeting.

Zipper, S. C., et al., 2021, Quantifying streamflow depletion for science-based water management: Challenges and emerging approaches: American Geophysical Union Fall Meeting.

Zipper, S. C., Compare, K., Popescu, I., Seybold, E. C., and Zhang, C., 2021, Flow regimes and alternate stable states in a non-perennial river: AGU Fall Meeting, poster presentation, New Orleans.

Awards & Honors

Butler, J. J., Jr. — Sabbatical Leave Award, University of Kansas

Hartke, E. R., Cramer, B. D., Calner, M., Melchin, M. J., Barnett, B. A., Oborny, S. C., and Bancroft, A. M., — nominated as one of the year's top contributions to Global and Planetary Change for Decoupling $\delta^{13}C_{carb}$ and $\delta^{13}C_{org}$ at the onset of the Ireviken Excursion: $\Delta^{13}C$ and f_{org} during a Silurian oceanic anoxic event: Journal of Global and Planetary Change, v. 196, p. 103–373 (https://doi.org/10.1016/j.gloplacha.2020.103373)

Miller, R. — Past President, SEG, 2020-2021

Internal Service

Layzell, A. L. — Member, Stratigraphic Nomenclature Committee

Layzell, A. L. — Editor, Midcontinent Geoscience

Mandel, R. D. — Director and State Geologist

Mandel, R. D. — Associate Editor, Midcontinent Geoscience

Mandel, R. D. — Member, Stratigraphic Nomenclature Committee

Miller, R. D. — Chair, KGS Promotion and Review Committee

Mohammadi, S. — KGS committee search, Research Electrical Engineer position

Mohammadi, S. — Member, KGS Diversity, Equity, Inclusion, and Belonging (DEIB) Committee

Mohammadi, S. — Editor and convener, KGS virtual Carbonate Symposium

Mohammadi, S. — Associate editor, Midcontinent Geosciences (one volume)

Mohammadi, S. — Peer Reviewer, Midcontinent Geosciences

Ortega-Ariza, D. — Member, Stratigraphic Nomenclature Committee

Ortega-Ariza, D. — Assistant Research Professor in Stratigraphy Search Committee

Ortega-Ariza, D. — Member, Diversity, Equity, Inclusion and Belonging (DEIB) Committee

Ortega-Ariza, D. — Guest editor, Midcontinent Geoscience

Ortega-Ariza, D. — Co-convener, KGS Midcontinent Carbonates Research Virtual Symposium, and co-editor of the resulting publication (KGS Technical Series 24)

Ortega-Ariza, D. — Member, KU Faculty Women and Allies Leadership Network" (FWALN) Committee

Potter, N. — Member, DEIB Committee

Potter, N. — KC Gem and Mineral Show booth

Potter, N. — Core Library Assistant Researcher search committee

Tollefson, J. M. — Technical editor, Midcontinent Geoscience
Tollefson, J. M. — Member (ex-officio), KGS Stratigraphic Nomenclature Committee
Zipper, S. — Co-chair, Diversity, Equity, Inclusion, and Belonging committee
Zipper, S. — KGS Field Research Technician search committee
Zipper, S. — AIMS Data Manager search committee

External Service

Butler, J. J., Jr. — Lead editor, special section of the journal Water Resources Research on the 2019 Chapman Conference (American Geophysical Union)
Butler, J. J., Jr. — Co-chair, 2019 Chapman Conference (American Geophysical Union)
Butler, J. J., Jr. — Lead convener, Prospects for Sustainability of Heavily Stressed Aquifers: Impediments and Opportunities, fall meeting of the American Geophysical Union, New Orleans, December 2021
Butler, J. J., Jr. — Convener, Addressing Complex Problems in Hydrogeology with Big Data and Machine Learning, annual meeting of the Geological Society of America, hybrid session, October 2021
Butler, J. J., Jr. — Member, Kansas Water Resources Institute Administrative Council
Butler, J. J., Jr. — Member, Kansas Water Bank Review Group
Butler, J. J., Jr. — Promotion Evaluator, Department of Geoscience, University of Wisconsin-Madison
Butler, J. J., Jr. — Member, Darcy Lecture Task Force, National Ground Water Association
Butler, J. J., Jr. — Reviewer for Advances in Water Resources, Earth's Future, Environmental Research Letters, Geophysical Research Letters, Groundwater, Hydrologic Processes, Kansas Water Office, Nature Sustainability, Science, The Groundwater Project, The Journal of the American Water Resources Association, Tsinghua University, and Water Resources Research
Holcomb, J. A., — Panelist, Teaching and Training in Geoarchaeology: Pedagogical Methods and Curricular Pathways, 2021, Society for American Archaeology, San Francisco, California
Holcomb, J. A. — Five ad-hoc journal reviews: International Journal of Geoarchaeology, Journal of Field Archaeology, PLOS One, PaleoAmerica, Science Advances
Ludvigson, G. A. — Guest editor, special Issue of Geosciences on terrestrial paleoclimatology and paleohydrology of the Cretaceous greenhouse world
Ludvigson, G. A. —Associate editor, Journal of Sedimentary Research (SEPM)
Mandel, R. D. — Associate Editor, Geoarchaeology: An International Journal, John Wiley & Sons, Inc.
Mandel, R. D. — Organizer and trip leader, "Magic Mountain: A Stratified Site on the Front Range of the Southern Rocky Mountains, North-Central Colorado." 78th Annual Plains Anthropological Conference, Boulder, Colorado, November 10, 2021
Mandel, R. D. — Organized and co-chaired a session, "Reconstruction of Quaternary Paleoenvironments at Regional and Global Scales: A Tribute to Eric C. Grimm (1951–2020)." Annual Meeting of the Geological Society of America, Portland, Oregon, October 2021
Mandel, R. D. — Member, Personnel Committee, KU Department of Anthropology
Mandel, R. D. — Member, Graduate Committee, KU Department of Anthropology
Mandel, R. D. — Reviewer, one manuscript submitted to Science
Mandel, R. D. — Reviewer, one manuscript submitted to American Journal of Science
Mandel, R. D. — Reviewer, one manuscript submitted to Quaternary Science Reviews
Mandel, R. D. — Reviewer, one manuscript submitted to Journal of Archaeological Science
Mandel, R. D. — Reviewer, one manuscript submitted to Mediterranean Geoscience Reviews
Miller, R. D. — SEG, Strategic Options Presidential Task Force
Miller, R. D. — SEG, Justice, Equity, Diversity, and Inclusion Committee
Miller, R. D. — ICEG, co-chair, Scientific and Technical Program Committee, Al Ain, UAE, October 25–28
Miller, R. D. — SEG, Nominations Committee
Miller, R. D. — SEG, Honors and Awards Committee
Miller, R. D. — ICEG, Innovations in Geophysics Award, Selection Committee
Miller, R. D. — Geophysical Technology, Inc. (GTI) Advisory Board
Mohammadi, S. — Peer reviewer, American Association of Petroleum Geologists conference abstracts
Oborny, S. C. — Assisted British Broadcasting Company's (BBC) Studio Science Unit in finding outcroppings of cyclothems in Kansas for a History of Life on Earth TV production
Oborny, S. C. — Assisted general public with geological questions in Miami County, Kansas
Oborny, S. C. — Assisted Hamm Industries in the identification of strata in southeastern Kansas quarries

Ortega-Ariza, D. — NSF URGE (Unlearning Racism in Geoscience) — Kansas Geology Pod, Kansas Geological Survey Member
Ortega-Ariza, D. — NSF panelist — review, discuss and recommend grant proposals for funding
Ortega-Ariza, D. — reviewer, SEPM Special Publications
Ortega-Ariza, D. — reviewer, SEPM Journal of Sedimentary Research
Ortega-Ariza, D. — reviewer, submitted abstracts — Carbonates session, 2021 International Meeting for Applied Geoscience & Energy (IMAGE) annual meeting
Ortega-Ariza, D. — Invited session chair, Modern Technologies Applied to Carbonate Systems: Geologic & Multi-Disciplinary Methods 1, 2021 IMAGE annual meeting
Ortega-Ariza, D. — Co-advisor, master's student, KU Department of Geology
Ortega-Ariza, D. — Ph.D. External Committee member, University of Alabama
Ortega-Ariza, D. — M.S. External Committee member, Columbus State University
Ortega-Ariza, D. — Mentor, Roy J. Shlemon Mentor Program in Applied Geoscience, GSA Southeastern Virtual Section Meeting
Ortega-Ariza, D. — Judge, student posters and presentations, Northcentral-Southcentral GSA Meeting
Seybold, E. C. — Panelist, NSF DEB Ecosystem Sciences Cluster
Seybold, E. C. — AGU Fall Meeting session convener: Frontiers in Water-Quality Science: Origins, Patterns, and High-Frequency Detection of Spatial and Temporal Variation
Zipper, S. — Member, American Geophysical Union Ecohydrology Technical Committee (in charge of social media and website)
Zipper, S. — USGS Ogallala Data Directory advisory group
Zipper, S. — Session convener: Non-perennial Streams: An Interface Between Hydrology, Ecology, Biogeochemistry, and Society. American Geophysical Union Fall Meeting
Zipper, S. — 10 peer reviews for journals: Ecohydrology, Hydrological Processes, Journal of Hydrology, Journal of Hydrology: Regional Studies, Water Resources Research, Weather and Climate Extremes
Zipper, S. — NSF GRFP panelist (17 proposals reviewed) and EAR Hydrological Sciences ad hoc reviewer (1 proposal reviewed)
Zipper, S. — Miami County (Bucyrus) – Wastewater treatment plant improvements
Zipper, S. — City of Hanston – Wastewater treatment plant improvements
Zipper, S. — City of Marysville – Wastewater treatment facility improvements
Zipper, S. — City of Leavenworth – WaterWorks
Zipper, S. — City of Vermillion – Water supply system
Zipper, S. — City of Alden – Wastewater treatment facility improvements
Zipper, S. — McPherson County – Water distribution system improvements
Zipper, S. — Johnson County/Nelson Complex – Wastewater treatment facility improvements
Zipper, S. — City of Great Bend – Water meter replacement
Zipper, S. — Jefferson County – Rural water district improvement project

Grants

Bohling, G. C., Wilson, B. B., and Butler, J. J., Jr.: Addressing Groundwater Goals of the Missouri Regional Planning Area – Phase II, $93,200, Kansas Water Office, 2018–2024.
Brookfield, A. E.: Visualizing the Invisible: Causes, Consequences, Changes, and Management of Streamflow Depletion across the U.S., USGS Powell Center Working Group. PIs: A. E. Brookfield (lead), L. M. Hays, M. C. Hill, and S. C. Zipper. Total Award: $163,530. 2019–2023.
Butler, J. J., Jr., and Bohling, G. C.: High Plains aquifer index well program, $305,000, Kansas Water Office, 2019–2024.
Butler, J. J., Jr., Bohling, G. C., and Wilson, B. B.: Development of the Kansas River alluvial aquifer observation well network and pre-modeling assessment, Kansas Water Office, $250,000, 2017–2021.
Butler, J. J., Jr., and Liu, G.: INFEWS/T1: Developing pathways toward sustainable irrigation across the United States using process-based systems models (SIRUS), U.S. Dept. of Agriculture, $148,704, 2018–2023.
Butler, J. J., Jr., and Seybold, E. C.: Assessment of groundwater mineralization in the upper Arkansas River corridor, $77,000, Kansas Water Office, 2019–2022.
Hasiuk, F., and Oborny, S. (Joint PIs), Co-PIs: Bode-Omoleye, I., Holubnyak, E., Raney, J., Clark, R., Cramer, B., Hayman, N., Cardott, B., Seyedolali, A., Suriamin, F., Ganz, K., Seeger, C., Steele, A., Joeckel, M., and Lynn, W., 2021. $C_MC_SC_FC_B$—Critical Minerals in Coaly Strata of the Cherokee-Forest City Basin. U.S.

Department of Energy (DOE) Carbon Ore, Rare Earth and Critical Minerals (CORE-CM) Initiative for U.S. Basins (9/15/21-9/14/23). Total Federal: $1,585,000.

Layzell, A. L., and Mandel, R. D.: Streambank evaluation of the Cottonwood and Neosho rivers above John Redmond Reservoir, Kansas Water Office, $100,000, 2021.

Layzell, A. L., Oborny, S. C., Hasiuk, F., and Smith, J. J.: Pennsylvanian stratigraphic nomenclature reconciliation in the midcontinent, US Geological Survey, $101,782, 2021.

Mandel, R. D.: A GIS-based predictive model for surface and buried archaeological sites in Kansas, $43,000, Kansas State Historical Society, 2021.

Miller, R. D. (PI): Burns & McDonnell Engineering Company, Supplement to Continuation of passive seismic monitoring of high priority salt jugs near the Irsik & Doll Elevator, BNSF Railroad, V&S Railroad right-of-way, and parallel to William Street in Hutchinson, Kansas, 2021, $5,000.

Miller, R. D. (PI): U.S. Army Corps of Engineers, Enhanced implementation of K-Scope and ASII tunnel detection analysis approach using FWI, modal segmentation methods, and integrated multi-modal techniques, 2021, $601,000.

Miller, R. D. (PI): U.S. Army Corps of Engineers, Enhanced implementation of K-Scope and ASII tunnel detection analysis approach using FWI, modal segmentation methods, and integrated multi-modal techniques, 2021, $96,575.

Miller, R. D. (PI): Kansas Water Office, Preproposal for study of regional Arbuckle properties in South Central Kansas; Now and planning for the future, 2021, $61,700.

Ortega-Ariza, D. (PI) and Franseen (co-PI). Controls on Deposition and Reservoir Character of Atypical Shallow-water Tropical Carbonate Systems: Miocene, Cicuco Field, NW Colombia, Kansas University Center for Research – Kansas Interdisciplinary Carbonates Consortium (KICC), $38,969.84.

Potter, N. (PI), Co-PIs: Oborny, S., Stewart, D., and Louis, D.: Preserving Kansas Geologic Data, Documents, Samples, and Aerial Photographs; and Surveying Drill Hole/Core Holdings Related to Critical Mineral Resources, FY 2022. U.S. Geological Survey, National Geological and Geophysical Data Preservation Program (NGGDPP). Total Federal: $160,374. 2021.

Seybold, E. Kansas Water Office: Groundwater Nitrate Dynamics at the Flickner Innovation Farm. PI. Total award amount $15,000. Funded in 2021; 1.5-year project.

Seybold, E. C.: USDA NIFA: Irrigation at the new 100th Meridian: Adaptation to manage climate risks and preserve water resources in the Eastern Kansas River Basin. Co-PI with Sam Zipper (KGS). Total award amount $750,000. Funded in 2021; 4-year project.

Seybold, E. C.: Spatial variability and subsurface controls of groundwater recharge and nutrient mobilization in dry streams, Kansas Water Resources Institute/USGS 104b. PIs: E. C. Seybold (lead), S. C. Zipper, and C. Zhang. Total Award: $40,000. 2020–2022.

Smith, J. J. (PI), Co-PIs: Layzell, A., Hasiuk, F., Ludvigson, G.A., Mandel, R.D., Ishman, S., Oborny, S., Dunham, J.W., Franseen, E., Ortega-Ariza, D., Bode-Omoleye, I., and Mohammadi, S. Geologic Mapping in Kansas for FY21. U.S. Geological Survey STATEMAP Program. Requested agency total: $517,951.

Smith, J.J. (PI), Co-PIs: Layzell, A., Hasiuk, F., Andrzjewski, K., Oborny, S., Mandel, R.D., Ishman, S., Dunham, J.W., Franseen, E., Ortega-Ariza, D., Bode-Omoleye, I., and Mohammadi, S., 2021. Geologic Mapping in Kansas for FY22. U.S. Geological Survey STATEMAP Program. Total Federal: $599,195 / Total State: $599.195.

Stewart, D., (PI), Dealy, M., Hasiuk, F., Louis, D., Potter, N., and Oborny, S., Preserving Kansas geologic data, documents, samples, and aerial photographs; and surveying drill hole/core holdings relating to critical mineral resources, National Geological and Geophysical Data Preservation Program Grant to Data Resources Library, Wichita Well Sample Library, KGS Library and Archive, and Energy Section, Kansas Geological Survey, and administered through U. S. Geological Survey, FY 2021-2022, $109,585. (Stewart PI)

Stewart, D. (PI), Co-PIs: Oborny, S., Potter, N., Hasiuk, F., and Louis, D, Preserving Kansas geologic data, documents, samples, and aerial photographs; and surveying drill hole/core holdings relating to critical mineral resource, FY 2021. U.S. Geological Survey, National Geological and Geophysical Data Preservation Program (NGGDPP). Total combined federal and state: $219,176

Stotler, R.: Evaluating playas in Western Kansas: Recharge to the High Plains Aquifer and economics of cropping, EPA Wetland Program Development Grant (through Kansas Water Office). PIs: R. Stotler (lead), A. E. Brookfield, J. Kastens, and S. C. Zipper. Total Award: $277,615. 2019–2021.

Wilson, B. B., Butler, J. J., Jr., and Reboulet, E.: Maintain existing and expand Kansas-based data services to the National Groundwater Monitoring Network, , $132,239, United States Geological Survey, 2021–2022.

Wilson, B. B., Butler, J. J., Jr., Reboulet, E., and Knobbe, S.: Maintain existing and expand Kansas-based data services to the National Groundwater Monitoring Network, $48,740, United States Geological Survey, 2018–2021.

Wilson, B. B., Liu, G., Bohling, G. C., and Butler, J. J., Jr.: Update of the GMD3 groundwater model, $160,000, Kansas Water Office and Southwest Kansas Groundwater Management District #3, 2021–2023.

Wilson, B. B., Liu, G., Butler, J. J., Jr., and Bohling, G. C.: Development of GMD4 groundwater model, $140,000, Kansas Water Office and Northwest Kansas Groundwater Management District #4, 2018–2021.

Zipper, S. (Co-I, lead of hydrology team): RII Track II-FEC: Aquatic Intermittency effects on Microbiomes in Streams (AIMS), NSF EPSCoR Research Infrastructure Improvement Program: Track-2 Focused EPSCoR Collaborations. PIs: A. Burgin (lead, KU lead), D. C. Allen, C. L. Atkinson, S. E. Godsey, K. A. Kuehn, C. R. Jackson, and L. H. Zeglin. Total Award: $5,998,875. 2020–2024.

2020

Refereed Publications

Berhe, A., Hastings, M., Schneider, B., and Marin-Spiotta, E., 2020, Changing academic cultures to respond to sexual harassment through bystander intervention and workplace climate training: ACS Symposium Series, v. 1,354, p. 109–125.

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Mandel, R. D., 2020, Searching for evidence of the first people in the Americas: A geoarchaeological and paleoecological perspective: Department of Geography & Atmospheric Science Lecture Series, University of Kansas, January 24.

Mandel, R. D., 2020, Searching for evidence of the first people in the Americas: A geoarchaeological and paleoecological perspective: Fort Hays State University's Kansas Wetlands Educational Center Lecture Series, Cheyenne Bottoms, March 1.

McCarthy, A., and co-authors, including S. C. Zipper, 2020, Past and future drivers of surface water-groundwater interactions in the Kansas River alluvial aquifer: American Geophysical Union Fall Meeting, 2020.

Meng, J., Holubnyak, Y., Hollenbach, J., and Hasiuk, F., 2020, An integrated seal analysis for CO_2 sequestration in southwestern Kansas: 2020 AAPG Virtual Annual Meeting (oral presenter).

Miller, R. D., 2020, ExxonMobil, High frequency seismic recording and data enhancement, invited presentation, Houston, Texas.

Miller, R. D., 2020, SEG, Annual Meeting, Presidential Address, October.

Miller, R. D., 2020, SEG, Annual Meeting, Address to Council, October 11.

Miller, R. D., 2020, SEG, State of SEG to Foundation Trustees meeting, July 23.

Miller, R. D., 2020, SEG, Broadband, Wide Azimuth, Deepwater Seismic Imaging Workshop, July, Opening Address, Beijing, China (hybrid).

Miller, R. D., 2020, SEG, US-China Gas Industry Cooperation Workshop, June, Applied Geophysics an integral partner, Beijing, China (hybrid)

Miller, R. D., 2020, IPTC, Dhahran, Saudi Arabia, A view from SEG, January.

Miller, R. D., 2020, Current Trends in Kansas Seismicity, Kansas House Energy, Utilities, and Telecomm Committee.

Miller, R. D., 2020, SEG podcast, September 11.

Miller, R. D., 2020, Consortium to Study Trends in Seismicity, 2020 Annual Meeting, Studying Seismicity in Kansas Monitoring and Consortium Update: Seismicity across the State and impacts on CSTS core mission, August 12 (virtual).

Miller, R. D., 2020, SEG China Workshop on Broadband, Wide Azimuth, Deepwater Seismic Imaging, Opening Address, Beijing, China (hybrid) July 13.

Miller, R. D., 2020, US-China Gas Industry Cooperation Workshop, Applied Geophysics an integral partner, Beijing, China (hybrid), June 9.

Miller, R. D., 2020, American Society of Civil Engineers (ASCE), ASCE Geo-Congress, Minneapolis, Minnesota, February 27.

Miller, R. D., 2020, International Petroleum Technology Conference (IPTC), Ask the Expert Series, Dhahran, Saudi Arabia, January 14.

Morton Rupert, S. L., 2020, Seismic surface-wave methods applied to near-surface problems: University of Dhaka, American Association of Petroleum Geologists (AAPG) lecture series (invited–virtual), May 6.

Morton Rupert, S. L., 2020, Time-lapse monitoring of subsidence features within the Lower Permian shales in Kansas: University of Wyoming, Department of Geology and Geophysics Near-Surface Geophysics Seminar (invited–virtual), September 23.

Ortega-Ariza, D., 2020, Geoscientists Career Path Panel for graduate and undergraduate students: AWG Osage Chapter mentorship program, Department of Geology, University of Kansas, October.

Ortega-Ariza, D., 2020, GSA GeoCareers Event: Spotlight on Careers in Government Day: GSA Annual Meeting, panelist at Student Career Panel, October.

Ortega-Ariza, D., 2020, What controls the development of atypical carbonate tropical systems: Examples from Caribbean Miocene reservoir analogs: Department of Geology, Colloquium, University of Kansas, October.

Ortega-Ariza, D., and Franseen, E. K., 2020, What controls the development of atypical carbonate tropical systems: Examples from Caribbean Miocene reservoir analogs: Kansas Interdisciplinary Carbonate Consortium Annual Review Meeting, EXTENDED ABSTRACT, May.

Schneider, B., 2020, Panel on diversity and inclusion in the Quaternary sciences: 2020 American Quaternary Association Meeting.

Schneider, B., 2020, Panel speaker on creating and sustaining just, equitable, diverse, and inclusive spaces as an early career researcher: American Geophysical Union Fall Meeting.

Schneider, B., 2020, Panel speaker on effective anti-harassment training techniques: Preventing harassment in STEM: Building a community of practice toward meaningful change.

Schneider, B., 2020, Uncovering the truth: Utilizing geophysics in forensic and archaeological investigations: University of Kansas Department of Geology Colloquium presentation.

Schneider, B., 2020, Utilizing geophysics to solve archaeological and forensic problems: University of North Dakota Applied Geoscience Conference.

Smith, C., Smith, M., Holubnyak, E., Hasiuk, F., Mohammadi, S., and Raines, J., 2020, Volatiles analysis of geological materials for carbon capture utilizations and sequestration site screening; Advanced geochemical analysis on cuttings and core in Kansas and Oklahoma: Society of Petroleum Engineers, Virtual Symposium: CCUS and Contaminants Managements, December 7–9, virtual.

Wang-Erlandsson, L., and co-authors, including S. C. Zipper, 2020, Towards a quantification of the water planetary boundary: European Geophysical Union.

Whittemore, D. O., Seybold, E. C., and Butler, J. J., Jr., 2020, Assessment of groundwater mineralization in the upper Arkansas River corridor: Kansas Water Office, web presentation, June 23.

Wilson, B. B., 2020, Testimony, Wichita County LEMA hearing.

Zipper, S. C., 2020, Climate change and groundwater resources in Kansas: Kansas Department of Agriculture, Division of Water Resources.

Zipper, S. C., 2020, No flow? No problem! Drivers of flow and long-term change in non-perennial streams: Kansas State University, Ecology and Evolutionary Biology Seminar.

Zipper, S. C., 2020, No flow? No problem! Drivers of flow and long-term change in non-perennial streams: University of Tulsa, Department of Geosciences.

Zipper, S. C., 2020, No flow? No problem! Drivers of flow and long-term change in non-perennial streams: Wichita State University, Department of Geology.

Zipper, S. C., and co-authors, 2020, Trends and drivers of changing stream intermittency across the United States: American Geophysical Union Fall Meeting.

Awards & Honors

Butler, J. J., Jr.—M. King Hubbert Award, National Ground Water Association (2020).

Morton, S. L.—Top 25 Best Paper presented at the 2020 SEG Annual Meeting, Society of Exploration Geophysicists (SEG), 2020.

Morton, S. L.—First Place, National GeoVideo Student Competition, GeoCongress, 2020.

Internal Service

Bohling, G. C.—Associate Editor, Midcontinent Geoscience
Franseen, E. K.—Associate Editor, Midcontinent Geoscience
Franseen, E. K.—Member, Stratigraphic Nomenclature Committee
Hasiuk, F.—Associate Editor, Midcontinent Geoscience
Layzell, A. L.—Member, Stratigraphic Nomenclature Committee
Layzell, A. L.—Editor, Midcontinent Geoscience
Ludvigson, G. A.—Member, Stratigraphic Nomenclature Committee
Mandel, R. D. — Director and State Geologist
Mandel, R. D. — Associate Editor, Midcontinent Geoscience
Mandel, R. D. — Member, Stratigraphic Nomenclature Committee
Meng J.—Organizer, KGS Geomechanical Application in Carbon Capture Technology Workshop, August 25–26, 2020
Miller, R.—Associate Editor, Midcontinent Geoscience
Miller, R. D. — KGS Promotion and Review Committee
Miller, R. D. — KGS Arbuckle Working Group
Ortega-Ariza, D.—Volunteer, KGS booth, Kaw Valley Eagles Day, Lawrence, Kansas, January
Ortega-Ariza, D.— Interviewer, KGS Outreach Undergraduate Student Assistant job applicants, November
Potter, N. — Volunteer, Kaw Valley Eagles Day
Schneider, B.—Organizer, KGS Virtual Field Conference
Schneider, B.—Member, Interagency Research Coordination Committee, Kansas Water Office
Schneider, B.—KGS Coordinator, One Day. One KU fundraising campaign
Schneider, B.—Member, KU Geology Department Geophysics Faculty Search Committee
Schneider, B.—Coordinator, Logan Elementary STEM Fair
Schneider, B.—Volunteer, Read Aloud Day at Pinckney Elementary School
Schneider, B.—KGS Rocks and Rolls and On the Rocks Colloquium Series Coordinator
Schneider, B.—Coordinator, KGS Newsletter
Smith, J. J.—KGS STATEMAP Coordinator
Smith, J. J.—Chair, KGS Associate Director for Research Search Committee
Smith, J. J.— KGS Promotion and Review Committee
Smith, J. J.—Member, Assistant Scientist in Stratigraphic Research Search Committee
Smith, J. J.—Member, Field Research Technician Search Committee
Smith, J. J.—Associate Editor, Midcontinent Geoscience
Tollefson, J. M.—Technical Editor, Midcontinent Geoscience
Tollefson, J. M.—Member (ex-officio), KGS Stratigraphic Nomenclature Committee
Tollefson, J. M.—Editor, KGS Newsletter
Zipper, S. C.—Co-director, Geohydrology Internship Program
Zipper, S. C.—Search Committee, KGS Associate Director of Research, AIMS Project Manager
Zipper, S. C.—Kansas state agency reviews (9x)
Zipper, S. C.—Moore 4th Floor Beautification Project

External Service

Butler, J. J., Jr.—Member, Kansas Water Resources Institute Administrative Council
Butler, J. J., Jr.—Member, Kansas Water Bank Review Group
Butler, J. J., Jr.—Moderator, Annual Meeting of the Geological Society of America, virtual session, October 2020
Butler, J. J., Jr.—Panel Member, United States-Egypt Science and Technology Joint Fund—Cycle 20 Earth and Climate Modeling Review Panel
Butler, J. J., Jr.—Reviewer for Ecohydrology, Environmental Research Letters, Groundwater, Mathematical Geosciences, Michigan State University, National Science Foundation, Nature Sustainability, Tsinghua University, Washburn School of Law, and Water Resources Research
Dunham, J. W.—Represented KGS at the annual USGS-Association of American State Geologists (AASG) Digital Mapping Techniques (DMT) Virtual DMT, afternoons June 8–10; "DMT Lite," afternoon December 8
Dunham, J. W.—Member, USGS-AASG National Geologic Map Database (NGMDB) Working Group
Dunham, J. W.—Member, USGS-AASG National Cooperative Geologic Mapping Program (NCGMP) Geologic Map Schema (GeMS) Working Group

Dunham, J. W.—Contributor, U.S. Geological Survey National Cooperative Geologic Mapping Program, 2020, GeMS (Geologic Map Schema)—A Standard Format for the Digital Publication of Geologic Maps: U.S. Department of the Interior-U.S. Geological Survey, Techniques and Methods 11-B10
Layzell, A. L.—Member, National Geologic Map Database Project Technical Advisory Working Group
Layzell, A. L.—Guest Lecturer, Geoarchaeology (ANTH 517), University of Kansas, Department of Anthropology, February 2020
Layzell, A. L.—Member, Kansas Watershed Restoration and Protection Strategy (WRAPS) Work Group
Layzell, A. L.—Reviewer for Geological Society of America Mackin, Howard, and Morisawa student awards (Quaternary Geology and Geomorphology Division)
Ludvigson, G. A.—Associate Editor, Journal of Sedimentary Research
Ludvigson, G. A.—Peer reviewer at the request of journals
Mandel, R. D. — Chair, National Academy of Sciences U.S. National Committee, International Union for Quaternary Research (INQUA)
Mandel, R. D. — Associate Editor, *Geoarchaeology: An International Journal*
Mandel, R. D. — Chair, Awards Committee, Geological Society of America's Archaeological Geology Division
Mandel, R. D. — Member, Graduate Committee, KU Department of Anthropology
Mandel, R. D. — Reviewer, one manuscript submitted to Quaternary Science Reviews
Mandel, R. D. — Reviewer, one manuscript submitted to Geological Society of America Bulletin
Meng J.—Social Media Lead and CCUS Co-lead, Underground Storage and Utilization Technical Community of the American Rock Mechanics Association
Miller, R. D. — SEG, Nominations Committee
Miller, R. D. — SEG, Honors and Awards Committee
Miller, R. D. — SEG, Compensation Committee
Miller, R. D. — Geophysical Technology, Inc. (GTI) Advisory Board
Miller, R. D. — KU RGS Research Achievement Award Selection Committee
Mohammadi, S.—Peer Reviewer, Society for Sedimentary Geology Books
Ortega-Ariza, D.— Ph.D. committee, William Clark, University of Alabama, Department of Geology
Schneider, B.—Chair, SEG Women's Network Committee
Schneider, B.—Workshop Presenter, Geological Society of America RISE Program
Schneider, B.—Workshop Presenter, Geological Society of America Council
Schneider, B.—Workshop Presenter, K-State Master Naturalists Training Program
Schneider, B.—Panelist and coordinator, SEG Women's Network Committee Panel on Career Paths in Geophysics
Schneider, B.—Moderator, Governor's Water Conference Session on Research Topics
Smith, J. J.—Co-chair, Adam Jackson, Ph.D. Committee, University of Kansas
Smith, J. J.—Co-chair, Maurícius Nascimento Menezes, Ph.D. Committee, Ph.D., Universidade Federal de Rio de Janeiro
Smith, J. J.—Co-chair, Kevin Hanson, Ph.D. Committee, University of Kansas
Smith, J. J.—Member, Nick Ferry, Ph.D. Committee, University of Kansas
Zipper, S. C.—Review panelist, NSF Hydrologic Sciences program
Zipper, S. C.—3 ad hoc funding agency reviews: NSF CAREER, EU Biodiversa, European Research Council
Zipper, S. C.—Member, American Geophysical Union Ecohydrology Technical Committee (in charge of social media and website)
Zipper, S. C.—Session Co-Convener, Agrohydrology in a Changing World: From Global Processes to Local Outcomes. American Geophysical Union Fall Meeting
Zipper, S. C.—12 ad hoc journal reviews: Journal of Hydrology, Utilities Policy, Hydrogeology Journal, Water Resources Research, Agricultural Water Management, Hydrological Processes, Ground Water, Ecohydrology
Zipper, S. C.—Curator, CRAN Hydrology Task View (https://cran.r-project.org/web/views/Hydrology.html)

Grants

Bohling, G. C., Wilson, B. B., and Butler, J. J., Jr.: Addressing Groundwater Goals of the Missouri Regional Planning Area—Phase II, $93,200, Kansas Water Office, 2018–2024.
Butler, J. J., Jr., and Bohling, G. C.: High Plains aquifer index well program, $305,000, Kansas Water Office, 2019–2024.

Butler, J. J., Jr., Bohling, G. C., and Wilson, B. B.: Development of the Kansas River alluvial aquifer observation well network and pre-modeling assessment, Kansas Water Office, $250,000, 2017–2021.

Butler, J. J., Jr., and Liu, G.: Dynamic NMR logging technologies for high-resolution measurement of hydrogeologic properties and soil response, Vista Clara subcontract for DoE SBIR, $145,371, 2018–2020.

Butler, J. J., Jr., and Liu, G.: INFEWS/T1: Developing pathways toward sustainable irrigation across the United States using process-based systems models (SIRUS), U.S. Dept. of Agriculture, $148,704, 2018–2022.

Butler, J. J., Jr., and Seybold, E. C.: Assessment of groundwater mineralization in the upper Arkansas River corridor, $77,000, Kansas Water Office, 2019–2021.

Layzell, A. L., and Mandel, R. D.: Streambank evaluation of the Cottonwood and Neosho Rivers above John Redmond Reservoir, $100,000, Kansas Water Office, 2020.

Layzell, T., and Stotler, R. (PIs) and Zipper, S. C., Kastens, J., and Brookfield, A. E. (Co-PIs): Evaluating playas in western Kansas: Recharge to the High Plains aquifer and economics of cropping, $277,615 (+$95,298 matching funds), EPA Region 7 Wetland Program Development Fund, June 1, 2020–September 30, 2021.

Liu, G., and Butler, J. J., Jr.: Contaminant barriers or pathways? Hydraulic and chemical methods to improve characterization of shallow aquitards, $29,786, Kansas Water Resources Research Institute, 2017–2019.

Liu, G., Butler, J. J., Jr., and Bohling, G. C.: Estimating mobile-immobile mass transfer parameters using direct push tools, $229,964, DoD Strategic Environmental Research and Development Program, 2015–2020.

Mandel, R. D.: A statewide geographic information system (GIS) as a predictive tool for locating deeply buried archaeological deposits in Nebraska (PHASE II), $75,000, History Nebraska/Nebraska Department of Transportation, December 1, 2019-December 31, 2020

Mandel, R. D.: Geoarchaeological investigations at Peach Tree Crossing, Bear Creek, and Hairpin erosion control sites, Fort Sill, Oklahoma, $40,775, U.S. Army Corp of Engineers, 2020.

Miller, R. D.: Burns & McDonnell Engineering Company, Passive seismic monitoring of high priority salt jugs near the Irsik & Doll Elevator, BNSF Railroad, V&S Railroad right-of-way, and parallel to William Street in Hutchinson, Kansas, 2020, $32,083. (PI)

Miller, R. D.: Burns & McDonnell Engineering Company, Continuation of passive seismic monitoring of high priority salt jugs near the Irsik & Doll Elevator, BNSF Railroad, V&S Railroad right-of-way, and parallel to William Street in Hutchinson, Kansas, 2020, $212,355. (PI)

Miller, R. D.: U.S. Army Corps of Engineers, Enhanced implementation of K-Scope and ASII tunnel detection analysis approach using FWI, modal segmentation methods, and integrated multi-modal techniques, 2020, $171,300. (PI)

Miller, R. D.: Oregon State University, Sampling rock and water to improve correlations between above ground and below ground processes in the Konza Prairie near Manhattan, KS, 2020, $18,262. (PI)

Mohammadi, S. (PI): Structural control of hydrothermal fluid migration, Northern Oklahoma and Kansas: Impact on reservoir properties, $19,476, KICC-KS Interdisciplinary Carbonate Consortium, 2019–2021.

Mohammadi, S. (Co-PI): Carbon Utilization and Storage Partnership (CUSP) for the Western USA, $6.24M total — KGS portion $310,000, Department of Energy, 2019–2024.

Ortega-Ariza, D. (Co-PI): Carbon Utilization and Storage Partnership (CUSP) of the Western USA, $5.5M total — KGS portion: $178,396, U.S. Department of Energy, 2019–2021.

Ortega-Ariza, D. (PI) and Franseen, E. K.: Controls on Deposition and Reservoir Character of Atypical Shallow-water Tropical Carbonate Systems: Miocene, Cicuco Field, NW Colombia, $39,805, Kansas University Center for Research – Kansas Interdisciplinary Carbonates Consortium (KICC), 2020–2022.

Seybold, E.: NSF Critical Zone Observatories Program: Collaborative Research - Using Big Data approaches to assess ecohydrological resilience across scales. PI. KGS Award $94,675; part of larger $5M network grant. Funded in 2020; 5-year project.

Seybold, E., and Zipper, S.: NSF EPSCoR: Aquatic Intermittency effects on Microbiomes in Streams (AIMS). Co-PIs. Total award amount $6M to KU. Funded in 2020; 4-year project.

Seybold, E.: Kansas Water Resource Institute: Simulating the effects of reservoir management strategies on in-stream sediment load, streambank stability, and water quality. Co-PI. Total amount $30,000. 2020 – 2022.

Seybold, E. (PI) and Zipper, S. C., and Zhang, C. (Co-PIs): Spatial variability and subsurface controls of groundwater recharge and nutrient mobilization in dry streams, $40,000 (+$80,004 matching funds), Kansas Water Resources Institute, March 1, 2020–February 28, 2022.

Smith, J. J. (PI), and Layzell, A., Ludvigson, G. A., Mandel, J. R., Newell, K. D., Hasiuk, F., Oborny, S., and Dunham, J. W. (Co-PIs): Geologic Mapping in Kansas for FY20, $427,965, U.S. Geological Survey STATEMAP Program, 2020.

Stewart, D. (PI), Co-PIs: Potter, N., and Dealy, M.T.: Preserving Kansas geologic data, documents, samples, and aerial photographs; and surveying drill hole/core holdings relating to critical mineral resource FY2020. U.S. Geological Survey, National Geological and Geophysical Data Preservation Program (NGGDPP). Total Combined Federal and State: $117, 671.

Wilson, B. B., Liu, G., Butler, J. J., Jr., and Bohling, G. C.: Development of GMD4 groundwater model, $140,000, Kansas Water Office and Northwest Kansas Groundwater Management District #4, 2018–2021.

Zipper, S. C.: Aquatic Intermittency effects on Microbiomes in Streams (AIMS)—A. Burgin (PI), $5,998,875, NSF EPSCoR Research Infrastructure Improvement Program: Track-2 Focused EPSCoR Collaborations, September 1, 2020–August 31, 2024.

2019

Refereed Publications

Brookfield, A. E., and Layzell, A. L., 2019, Simulating the effects of reservoir management strategies on fluvial erosion: Water Resources Management, v. 33, no. 15, p. 4,983–4,995.

Chen, M., Shafer-Peltier, K., Veisi, M., Randtke, S., and Peltier, E., 2019, Complexation and precipitation of scale-forming cations in oilfield produced water with polyelectrolytes: Separation and Purification Technology, v. 222, p. 1–10, ISSN 1383-5866. https://doi.org/10.1016/j.seppur.2019.04.014

Core, E. E., and Franseen, E. K., 2019, The role of variable paleotopography and upwelling on deposition of late Oligocene and Miocene heterozoan-large benthic foraminifera-coral sequences, Jamaica: American Association of Petroleum Geologists Search and Discovery Article #61603, 4 p.

Deines, J. M., Kendall, A. D., Butler, J. J., Jr., and Hyndman, D. W., 2019, Quantifying irrigation adaptation strategies in response to stakeholder-driven groundwater management in the US High Plains aquifer: Environmental Research Letters, v. 14, 044014. doi:10.1088/1748-9326/aafe39

Flotron, A., Franseen, E. K., and Goldstein, R. H., 2019, Sedimentologic and stratigraphic controls on reservoir sweet spots in Wolfcamp "A," Howard County, Midland Basin: Unconventional Resources Technology Conference (URTeC) Conference Proceedings, Paper 455, 20 p.

Franseen, E. K., and Goldstein, R. H., 2019, Carbonate play models from Miocene outcrops, Western Mediterranean: Part I — Setting and stratigraphy: American Association of Petroleum Geologists Search and Discovery Article 51630**,** 18 p.

Goldstein, R. H., and Franseen, E. K., 2019, Carbonate play models from Miocene outcrops, Western Mediterranean: Part 2 — Stratigraphic and diagenetic plays: American Association of Petroleum Geologists Search and Discovery Article 51631**,** 22 p.

Jaiswal, P., Gregg, J. M., Smith, S., Holman, R., Mohammadi, S., and Grammer, G. M., 2019, Fault/fracture "hydrothermal" carbonate reservoirs: A potential Mississippian Play on the Southern Midcontinent; *in* G. M. Grammer, J. M. Gregg, J. O. Puckette, P. Jaiswal, M. Pranter, S. J. Mazzullo, and R. H. Goldstein (eds.), Mississippian Reservoirs of the Mid-Continent, U.S.A.: American Association of Petroleum Geologists Memoir 122. doi: 10.1306/13632161M1163366

Joeckel, R. M., Ludvigson, G. A., Möller, A., Hotton, C. L., Suarez, M. B., Suarez, C. A., Sames, B., Kirkland, J. I., and Hendrix, B., 2019, Chronostratigraphy and terrestrial paleoclimatology of Berriasian-Hauterivian strata of the Cedar Mountain Formation, Utah, USA: *in* M. Wagreich, M. B. Hart, B. Sames, and I. O. Yilmaz (eds.), Cretaceous Climate Events and Short-Term Sea-Level Changes: Geological Society London, Special Publications 498. https://doi.org/10.1144/SP498-2018-133

Layzell, A. L., and Mandel, R. D., 2019, Using soil survey data as a predictive tool for locating deeply buried archaeological deposits in stream valleys of the Midwest, USA: Geoarchaeology, v. 34, no. 1, p. 80–99.

Liu, G., and Butler, J. J., Jr., 2019, Hydraulic conductivity characterization methods: EnviroWiki. https://www.enviro.wiki/index.php?title=Characterization_ Methods_%E2%80%93_Hydraulic_Conductivity.

Lukens, W. E., Fox, D. L., Snell, K. E., Wiest, L. A., Layzell, A. L., Uno, K. T., Martin, R. A., Fox-Dobbs, K., and Pelaez-Campomanes, P., 2019, Pliocene paleoenvironments in the Meade Basin, southwest Kansas: Journal of Sedimentary Research, v. 89, no. 5, p. 416–439.

Mohammadi, S., Ewald, T. A., Gregg, J. M., and Shelton, K. L., 2019, Diagenesis of Mississippian carbonate rocks in north-central Oklahoma, USA; *in* G. M. Grammer, J. M. Gregg, J. O. Puckette, P. Jaiswal, M. Pranter, S. J. Mazzullo, and R. H. Goldstein (eds.), Mississippian Reservoirs of the Mid-Continent, U.S.A.: American Association of Petroleum Geologists Memoir 122. doi: 10.1306/13632153M1163791

Mohammadi, S., Gregg, J. M., Shelton, K. L., Appold, M. S., and Puckette, J. O., 2019, Influence of late diagenetic fluids on Mississippian carbonate rocks on the Cherokee–Ozark Platform, NE Oklahoma, NW Arkansas, SW Missouri, and SE Kansas; *in* G. M. Grammer, J. M. Gregg, J. O. Puckette, P. Jaiswal, M. Pranter, S. J. Mazzullo, and R. H. Goldstein (eds.), Mississippian Reservoirs of the Mid-Continent, U.S.A.: American Association of Petroleum Geologists Memoir 122. doi: 10.1306/13632154M1163791

Newell, K. D., Peterie, S., Killion, M., DeArmond, B., Ridley, C., Mandel, R., and Buchanan, R., 2019, Will the Arbuckle Group Remain a Viable Disposal Zone in Kansas? *Kansas Geological Society Bulletin*, v. 94, n. 3, May-June, p. 14-20.

Nocco, M., Zipper, S. C., Booth, E. G., Cummings, C., Loheide, S. P., and Kucharik, C. J., 2019, Combining evapotranspiration and soil apparent electrical conductivity mapping to identify potential precision irrigation benefits: Remote Sensing. doi: 10.3390/rs11212460

Seybold, E. C., Gold, A., Inamdar, S., Bowden, W. B., Vaughan, M., Pradhanang, S., Addy, K., Shanley, J., Vermilyea, A., Levia, D., Adair, C., Wemple, B., and Schroth, A., 2019, Influence of land use and hydrologic variability on seasonal dissolved organic carbon and nitrate export: Insights from a multi-year regional analysis for the northeastern USA: Biogeochemistry. https://doi.org/10.1007/s10533-019-00609-x

Smith, J. A., Borisov, D., Cudney, H. H., Miller, R. D., Modrak, R., Moran, M. L., Peterie, S. L., Sloan, S. D., Tromp, J., and Wang, Y., 2019, Tunnel detection at Yuma Proving Ground, Arizona, USA – Part 2: 3D full-waveform inversion experiments: Geophysics, v. 84, n. 1, p. B107–B120.

Van Dijk, J., Fernandez, A., Storck, J. C., White, T., Lever, M., Müller, I. A., Bishop, S., Seifert, R. F., Driese, S. G., Krylov, A., Ludvigson, G. A., Turchyn, A., Lin, C. Y., Wittkop, C., and Bernasconi, S. M., 2019, Experimental calibration of clumped isotopes in siderite between 8.5 and 62 °C and its application as paleo-thermometer in paleosols: Geochimica et Cosmochimica Acta v. 254, p 1–20. https://doi.org/10.1016j.gca.2019.03.018

Veisi, M., Whittemore, D., Alimoradi, S. and Peltier, E., 2019, Prediction of barium and strontium concentrations in produced water using major ion concentrations; *in* Abstracts of Papers of the American Chemical Society, v. 257: Washington, DC, American Chemical Society.

Wang, W., Miller, R. D., Peterie, S. L., Sloan, S. D., Moran, M. L., Cudney, H. H., Smith, J. A., Borisov, D., Modrak, R., and Tromp, J., 2019, Tunnel detection at Yuma Proving Ground, Arizona, USA – Part 1: 2D full-waveform inversion experiment: Geophysics, v. 84, n. 1, p. B95–B105.

Zipper, S. C., Carah, J. K., Dillis, C., Gleeson, T., Kerr, B., Rohde, M. M., Howard, J. K., and Zimmerman, J. K. H., 2019, Cannabis and residential groundwater pumping impacts on streamflow and ecosystems in Northern California: Environmental Research Communications. doi: 10.1088/2515-7620/ab534d

Books

Buchanan, R. C., Griggs, B. W., and Svaty, J. L., 2019, Petroglyphs of the Kansas Smoky Hills: Lawrence, Kansas, University Press of Kansas, 209 p.

Butler, J. J., Jr., 2019, The Design, Performance, and Analysis of Slug Tests (2nd edition), CRC Press, Boca Raton, 266 p.

Nonrefereed Publications

Bohling, G. C., Whittemore, D. O., Brookfield, A. E., Reboulet, E. C., Wilson, B. B., and Butler, J. J., Jr., 2019, Addressing groundwater goals of the Missouri Regional Planning Area, Phase II: First year progress report: Kansas Geological Survey Open-File Report 2019-3, 48 p.

Butler, J. J., Jr., Whittemore, D. O., Reboulet, E., Knobbe, S., Wilson, B. B., and Bohling, G. C., 2019, High Plains aquifer index well program: 2018 annual report: Kansas Geological Survey Open-File Report 2019-19, 62 p.

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Butler, J. J., Jr., 2019, The High Plains aquifer in Kansas: Current status and future prospects: presentation to graduate student class in the Department of Geology, Wichita State University, September 20.

Butler, J. J., Jr., 2019, The High Plains aquifer in Kansas: Current status and future prospects: Science on Screen film series, Salina Arts Center Cinema, Salina, Kansas, April 1. https://www.youtube.com/watch?v=jVvFxiw0rfE

Butler, J. J., Jr., 2019, The High Plains aquifer in Kansas: What's happening with your neighbor to the south? 2019 Kremer Memorial Lecture, University of Nebraska–Lincoln, February 27. https://www.youtube.com/watch?v=LAn-F3TJK5A&t=490s

Butler, J. J., Jr., 2019, Hydrology and water quality of the Arkansas River basin in Southwest Kansas: Upper Arkansas Regional Advisory Committee, Garden City, April 12.

Butler, J. J., Jr., 2019, Kansas River alluvial aquifer index well network: field trip presentation for the Geological Society of America Joint South-Central, North-Central, and Rocky Mountain Sections Meeting, Manhattan, Kansas, March 27.

Butler, J. J., Jr., 2019, A roadblock on the pathway to aquifer sustainability: Underestimating the impact of pumping reductions: Geology Department Seminar, Kansas State University, September 12.

Butler, J. J., Jr., 2019, A roadblock on the pathway to aquifer sustainability: Underestimating the impact of pumping reductions: Helmholtz Center for Environmental Research — UFZ, Leipzig, Germany, October 30.

Butler, J. J., Jr., and Whittemore, D. O., 2019, Index Well Program: Kansas Water Office, Topeka, May 22.

Core, E. E., and Franseen, E. K., 2019, The role of variable paleotopography and upwelling on deposition of late Oligocene and Miocene heterozoan-large benthic foraminifera-coral sequences, Jamaica: Kansas Interdisciplinary Carbonate Consortium Annual Review Meeting. EXTENDED ABSTRACT

Dunham, J. W., 2019, Examples of new and legacy NCGMP09/GeMS-compliant geodatabases from Kansas: Digital Mapping Techniques (DMT) AASG-USGS Annual Workshop, Montana Technological University, Butte, Montana, May 21.

Dunham, J. W., 2019, Oil and gas fields of Kansas: Map Gallery (poster) presentation, Esri International User Conference, San Diego, California, July 8.

Dunham, J. W., 2019, Preliminary surficial geology of the Bluff City West Quadrangle, Harper County, Kansas: Map Gallery (poster) presentation, Esri International User Conference, San Diego, California, July 8.

Ebert, L., et al., including Zipper, S. C., 2019, Using remotely piloted aircrafts to evaluate potato water stress in Central Wisconsin: American Geophysical Union Fall Meeting.

Flotron, A. N., Franseen, E. K., and Goldstein, R. H., 2019, Sedimentologic and stratigraphic controls on reservoir sweet spots in the Wolfcamp "A," Howard County, Midland Basin: Kansas Interdisciplinary Carbonate Consortium Annual Review Meeting. EXTENDED ABSTRACT

Franseen, E. K., 2019, Invited short course, Carbonate sequence stratigraphy and applications to reservoir characterization: Repsol Oil Co., Madrid, Spain, June 27, 2019.

Franseen, E. K., 2019, Teaching: Advanced Topics in Geology, Special Studies in Geology, Master's Thesis, Topics in Regional Field Geology

Gleeson, T., et al., including Zipper, S. C., 2019, Water cycle modifications and Earth System resilience: Roadmap to a new water planetary boundary: American Geophysical Union Fall Meeting.

Glose, T., Zipper, S. C., et al., 2019, Simplifying streambed heterogeneity representation for the investigation of streamflow depletion: American Geophysical Union, Chapman Conference on Aquifer Sustainability.

Hosseini, A., Dunham, J. W., and Smith, E., 2019, Role of LiDAR-derived stream network datasets: 2019 Kansas Association of Mappers (KAM) Conference, Lawrence, Kansas, October 17.

Huggins, X., et al., including Zipper, S. C., 2019, The human dimensions of changing global freshwater availability: American Geophysical Union Fall Meeting.

Killion, M., Stewart, D., and Potter, N., 2019, Interactive mappers on the Kansas Geological Survey website: An overview of data, tools, and core repository: Rocks and Rolls, Kansas Geological Survey, University of Kansas, Lawrence, Kansas, November 12.

Layzell, A. L., 2019, The use of unmanned aircraft systems to assess streambank erosion and related engineering solutions: Governor's Conference on the Future of Water in Kansas, Wichita, Kansas, November 9–10.

Layzell, A. L., and Mandel, R. D., 2019, Holocene landscape evolution in the Republican River Valley, South-Central Nebraska: Joint Section Meeting of the Geological Society of America, North-Central, South-Central, and Rocky Mountain Sections, Manhattan, Kansas, March.

Layzell, A. L., and Mandel, R. D., 2019, The application of Holocene alluvial stratigraphy to address streambank erosion and reservoir sedimentation in the Midwestern U.S.A: 20th Congress of the International Union for Quaternary Research (INQUA), O-3217, Dublin, Ireland, July 25–31.

Layzell, A. L., and Mandel, R. D., 2019, Holocene river terraces and alluvial fans in the Republican River valley: Implications for geoarchaeology in the central Great Plains, USA: 20th Congress of the International Union for Quaternary Research (INQUA), P-2901, Dublin, Ireland, July 25–31.

Layzell, A. L., Newell, K. D., Mandel, R. D., and Dunham, J. W., 2019, Preliminary surficial geologic map of Miami County, Kansas: Geological Society of America 2019 Joint 53rd South-Central/53rd North-Central/71st Rocky Mountain Section Meeting, Manhattan, Kansas, March 26.

Li, Q., et al., including Zipper, S. C., 2019, Quantifying the environmental flow response time to groundwater pumping using analytical depletion functions: American Geophysical Union Fall Meeting.

Ludvigson, G. A., 2019, Guest lecture on the sphaerosiderite paleoclimate proxy: GEOL 729, Department of Geology, University of Kansas, Lawrence, Kansas, March 7.

Ludvigson, G. A., 2019, Invited panelist for discussion of global warming — historical and modern: 2019 AAPG Mid-Continent Section Meeting, Doubletree Hilton Hotel, Wichita Kansas, October 6.

Mandel, R. D., 2019, The peopling of the Great Plains near the end of the Pleistocene: A geoarchaeological and paleoecological perspective: Department of Ecology and Evolutionary Biology Lecture Series, University of Kansas, Lawrence, September 10.

Meng, J., 2019, Safe carbon storage: From onshore to offshore: Wichita State University (invited seminar talk).

Meng, J., Holubnyak, Y., Hollenbach, J., and Hasiuk, F., 2019, An integrated seal analysis for CO_2 sequestration in the Patterson Field at Southwest Kansas: American Geophysical Union 2019 Annual Conference, San Francisco, California (poster presentation).

Meng, J., Holubnyak, Y., Hollenbach, J., and Hasiuk, F., 2019, Evaluating seal integrity for CO_2 storage complex at Patterson Oil Field, Southwest Kansas: 2019 AAPG Mid-continent Section Meeting, Wichita, Kansas (oral presentation).

Meng, J., Pashin, J. C., Nygaard, R., and Chandra, A., 2019, Fault and seal analysis in the DeSoto Canyon Salt Basin: Implications for offshore CO_2 storage: 2019 AAPG Annual Meeting, San Antonio, Texas (poster presenter).

Meng, J., Pashin, J., Nygaard, R., and Chandra, A., 2019, Geomechanical characteristics of the prospective CO_2 sinks and seals, eastern Gulf of Mexico: 2019 HGS Applied Geoscience Conference, Houston, Texas (poster presentation).

Miller, R. D., 2019, ICEG, Al Ain, UAE, Technical Keynote, invited presentation, October.

Miller, R. D., 2019, SEG, Annual Meeting, Foundation Luncheon, Program Success and Impacts, September, San Antonio.

Miller, R. D., 2019, American Geophysical Union, Fall Meeting, San Francisco, California, December 11-12.

Miller, R. D., 2019, Kansas Public Radio, Interview with Stephen Koranda, November 22.

Miller, R. D., 2019, Governor's Conference on the Future of Water in Kansas, Topeka, Kansas, November 7.

Miller, R. D., 2019, Earthquake Talk, Hutchinson Public Library, Hutchinson, Kansas, September 26.

Miller, R. D., 2019, Kansas Water Authority Meeting, Arbuckle Presentation, Goodland, Kansas, September 3.

Miller, R. D., 2019, Consortium to Study Trends in Seismicity, 2019 Annual Meeting, Consortium Status and Consortium Future Activities, Hutchinson, Kansas, July 23.

Miller, R. D., 2019, Seismic Network and Seismic Activity Update, Geological Survey Advisory Board (GSAC), July 20.

Miller, R. D., 2019, Kansas Field Conference, June 12.

Miller, R. D., 2019, Kansas Department of Health and Environment, Meadowlark Room, May 28.

Miller, R. D., 2019, Kansas Department of Health and Environment, Mosaic meeting, February 21.

Miller, R. D., 2019, RISC Annual Meeting, Austin, Texas, January 15-16.

Potter, N., 2019, Kansas Historical Aerial Images: Preservation & Presentation: NGGDPP Lightning Talks, Golden, Colorado, September 24–25.

Schneider, B., 2019, Addressing bias in teaching: Earth Educator Rendezvous workshop.

Schneider, B., 2019, Creating inclusive classrooms and workplaces: Exploring different types of identities: Department of Ecology and Evolutionary Biology, University of Kansas, Lawrence, Kansas.

Schneider, B., 2019, Make it better: Assessing and addressing departmental and workplace culture issues: Earth Educator Rendezvous workshop.

Schneider, B., 2019, Women geoscientists in the workforce in 2019: What have we overcome, and what do we continue to face? Kansas Biological Survey, University of Kansas, Lawrence, Kansas.

Schneider, B., and Barnes, R., 2019, Improving workplace climate: Responding to harassment: Inclusive graduate education network national meeting.

Schneider, B., and Burns, K., 2019, Creating a positive workplace culture: University of Kansas School of Engineering workshop.

Schneider, B., and Case, S., 2019, Broadening participation: Strategies for developing and maintaining a positive workplace climate: NSEC 2019 National Conference workshop.

Smith, J. J., 2019, Life in the Dead Zone: A diverse Miocene ichnofauna preserved in volcanic ash, Ashfall Fossil Beds State Historical Park, Nebraska: Kansas Geological Survey Lecture Series, KU Energy & Environment Center, March 19.

Stewart, D., 2019, Kansas's website, well data and documents, Lightning Talk: USGS National Geological and Geophysical Data Preservation Workshop, Golden, Colorado, September 24.

Stewart, D., 2019, Oil and gas data on the KGS website, log scanning and materials and resources in the Data Resources Library: University of Kansas Geology 535, September 10.

Stewart, D., Killion, M., and Potter, N., 2019, Interactive mappers on the Kansas Geological Survey website: An overview of data, tools, and core repository: Rocks and Rolls, EEEC, University of Kansas Geology 535, November 12.

Thompson, I. P., Franseen, E. K., and Goldstein, R. H., 2019, Paleotopographic controls on the distribution of late Cenozoic coarse-grained heterozoan reservoir facies, Southeast Spain: Kansas Interdisciplinary Carbonate Consortium Annual Review Meeting. EXTENDED ABSTRACT

Zipper, S. C., et al., 2019, Exploring the potential and limits of analytical depletion functions for estimating streamflow: American Geophysical Union Fall Meeting.

Zipper, S. C., et al., 2019, Lots of streams, not much time or money? Rapid and accurate analytical tools for evaluating groundwater pumping impacts on streamflow and ecosystems: American Geophysical Union, Chapman Conference on Aquifer Sustainability.

Ziska, C., Johnson, N. L., and Layzell, A. L., 2019, The Nebraska buried sites GIS in practice: Initial results and next steps: 77th Plains Anthropological Conference, Bloomington, Indiana, October 16–19.

Awards & Honors

Meng, J., et al. — 2019 HGS Applied Geoscience Conference, third-place poster presentation, "Geomechanical Characteristics of the prospective CO_2 sinks and Seals, Eastern Gulf of Mexico"
Miller, R. D. — President and Chair of the Board, SEG
Miller, R. D. — Institutional Contribution Award, EEGS
Morton, S. L. — Award for Excellence in Geotechnical Eng. Education and Student Activities, American Society of Civil Engineers Kansas City Geo-Institute Chapter, 2019
Morton, S. L. — Second Place, Best Student Paper Award for Oral Presentation, International Conference on Engineering Geophysics, 2019
Morton, S. L. — Lee C. & Darcy Gerhard Field Research Student Award, Kansas Geological Survey (KGS), 2019
Morton, S. L. — Third Place, National GeoPoster Student Competition, GeoCongress, 2019
Schneider, B. — 2019 Facilitators' Choice Recognition, 2019 NSF STEM for All Video Showcase
Schneider, B. — 2019 SEG Special Commendation Award

Internal Service

Bode, I. Y. — Co-organizer of KGS/KU United Way Campaign fundraising event
Dunham, J. W. — Chair, search committee for Cartographic Services Specialist position
Evans, C. S. — Kansas Field Conference, South-Central Kansas, June 10–12, 2019
Franseen, E. K. — Chair, Promotion and Review Committee
Franseen, E. K. — Member, Petroleum Geologist (3 positions) Search Committee
Franseen, E. K. — Chair, Stratigraphic Nomenclature Committee
Franseen, E. K. — Member, Editorial Board, Midcontinent Geoscience
Hendershot, S. — KGS booth, KDHE Geology & Well Technology Seminar/Tech Fair, Wichita, Kansas, Oct 8–9
Hollenbach, J. — KGS booth, KIOGA, Wichita, Kansas, August 11–13, 2019
Layzell, A. L. — Member, Stratigraphic Nomenclature Committee
Layzell, A. L. — Editor, Midcontinent Geoscience
Ludvigson, G. A. — Chair, search committee for postdoctoral researcher in Paleozoic stratigraphy
Mandel, R. D. — Director and State Geologist
Mandel, R. D. — Member, Stratigraphic Nomenclature Committee
Miller, R. D. — KGS Arbuckle Working Group
Mohammadi, S. — Member, committee for the Dangermond, Gerhard, and Plummer student awards, May
Mohammadi, S. — Host, KGS chili cook-off fund raiser for United Way campaign
Schneider, B. — Host/committee member, KGS United Way Campaign
Schneider, B. — Coordinator, KGS Tuesday Lecture Series
Schneider, B. — Member, Interagency Research Coordination Committee, Kansas Water Office
Schneider, B. — Volunteer, KGS booth, Governor's Conference on the Future of Water in Kansas November 7–8
Schneider, B. — Volunteer, KGS booth, Kansas Sheriff's Association Conference, November 6
Schneider, B. — Volunteer, KGS booth, AAPG Mid-Continent Meeting, October 6–8
Schneider, B. — KGS booth, KIOGA, Wichita, Kansas, August 11–13
Schneider, B. — Volunteer, KGS booth, KIOGA Annual Meeting, October 11–12
Schneider, B. — Volunteer, KGS booth, KDHE Geology & Well Technology Seminar, October 8–9
Smith, J. J. — KGS STATEMAP Coordinator
Smith, J. J. — Chair, KGS Associate Director for Research Search Committee
Smith, J. J. — Member, Outstanding Support Staff Recognition Award Committee
Smith, J. J. — Member, Sabbatical Initial Review Committee
Smith, J. J. — Member, Postdoctoral Research Assistant Search Committee
Smith, J. J. — Member, Cartographer Search Committee
Smith, J. J. — Associate Editor, Midcontinent Geoscience
Smith, J. J. — Post-doc supervisor for Stephan Oborny, Kansas Geological Survey
Stewart, D. — KGS booth, KIOGA, Wichita, Kansas, August 11–13
Stewart, D. — KGS booth, KDHE Geology & Well Technology Seminar/Tech Fair, Wichita, Kansas, October 8–9
Tollefson, J. M. — Member (ex-officio), KGS Stratigraphic Nomenclature Committee
Zipper, S. C. — Member, Associate Director of Research search committee
Zipper, S. C. — Agency reviews (3x): City of Gove, City of Cimarron, City of Fredonia

External Service

Borisov, D. — Visiting researcher, Princeton University

Borisov, D. — Professional journal reviews: Geophysics, Geophysical Journal International, Earthquake Science, and Near Surface Geophysics

Butler, J. J., Jr. — Member, Kansas Water Resources Institute Administrative Council

Butler, J. J., Jr. — Member, Kansas Water Bank Review Group

Butler, J. J., Jr. — Member, Organizing Committee, NovCare 2019 (Novel Methods for Subsurface Characterization and Monitoring: From Theory to Practice), Waterloo, Ontario, May 29–31

Butler, J. J., Jr. — Conference co-chair, American Geophysical Union Chapman Conference: The Quest for Sustainability of Heavily Stressed Aquifers at Regional to Global Scales, Valencia, Spain, October 21–24

Butler, J. J., Jr. — Moderator, 28th Annual Kansas Hydrology Seminar, Topeka, November 22

Butler, J. J., Jr. — Moderator and presenter, Fall Meeting of the American Geophysical Union, San Francisco, California, December

Butler, J. J., Jr. — Reviewer for the National Science Foundation, Kansas Water Resources Institute, Humphrys Fellowship Program, and the Geotechnical Testing Journal

Dunham, J. W. — Member, USGS-AASG National Cooperative Geologic Mapping Program (NCGMP) Geologic Map Schema (GeMS) Working Group

Dunham, J. W. — Member, USGS-AASG National Geologic Map Database (NGMDB) Working Group

Dunham, J. W. — Member, USGS-AASG Digital Mapping Techniques (DMT) NCGMP09 Working Group

Evans, C. S. — Developed Road Scholar (mapping) section for 2019 Northeast Kansas Regional Science Olympiad

Evans, C. S. — Member, KU Research Communications Council

Franseen, E. K. — Member, Nominations Committee, Department of Geology, University of Kansas

Franseen, E. K. — Co-organizer, KU Geology Career Symposium, Department of Geology, University of Kansas

Franseen, E. K. — Chair, Ph.D. committee; co-chair, 2 Ph.D. committees; co-chair, 3 M.S. committees; member 3 Ph.D. and 4 M.S. committees

Franseen, E. K. — Kansas Interdisciplinary Carbonates Consortium post-doc supervisor

Franseen, E. K. — Member, Board of Visitors (Alumni Board), Department of Geology, University of Wisconsin-Madison

Franseen, E. K. — Member, SEPM Student Research Grant Evaluation Committee

Franseen, E. K. — Member, SEPM Executive Director Search Committee

Franseen, E. K. — External advisor, Earth and Space Sciences Department, Columbus State University, Georgia

Franseen, E. K. — Organizer and convener, 2019 Kansas Interdisciplinary Carbonates Consortium (KICC) Annual Meeting

Franseen, E. K. — Teaching: Advanced Topics in Geology, Special Studies in Geology, Master's Thesis, Topics in Regional Field Geology

Layzell, A. L. — Member, National Geologic Map Database Project Technical Advisory Working Group

Layzell, A. L. — Session chair, Landscape Response to Neogene Climate Change, Annual Meeting of the Geological Society of America, Phoenix, Arizona

Layzell, A. L. — Guest lecturer, Geoarchaeology Graduate Seminar (ANTH 849), University of Kansas, Department of Anthropology, April

Layzell, A. L. — Member, Kansas Watershed Restoration and Protection Strategy (WRAPS) Work Group

Layzell, A. L. — Student mentor; Roy J. Shlemon Mentors Program in Applied Geology, Geological Society of America Joint Section Meeting (South-Central, North-Central, Rocky Mountain sections), Manhattan, Kansas

Layzell, A. L. — Fieldtrip co-organizer: Looking Beneath the Plains: Geology of the Ogallala Formation and the Central High Plains of Kansas, Geological Society of America Joint Section Meeting (South-Central, North-Central, Rocky Mountain sections), Manhattan, Kansas

Liu, G. — Associate editor, Water Resources Research

Liu, G. — Technical advisory member, Kansas Department of Health and Environment drinking water protection committee

Liu, G. — Reviewer, Water Resources Research, Groundwater, Groundwater Monitoring and Remediation

Liu, G. — Judge, student presentations, American Geophysical Union annual meeting, Governor's Conference on the Future of Water in Kansas

Ludvigson, G. A. — Member, search committee for research technician in thin section laboratory in the KU Department of Geology

Ludvigson, G. A. — Associate editor, Journal of Sedimentary Research
Mandel, R. D. — Member, KU Center for Research's Search Committee for the Director of the Kansas Biological Survey
Mandel, R. D. — Associate Editor, Geoarchaeology: An International Journal, John Wiley & Sons, Inc.
Mandel, R. D. — Organizer and trip leader, "Late-Quaternary Landscape Evolution and Geoarchaeology in the Flint Hills of Northeastern Kansas: A Tale of Two Sites." 2019 Joint Geological Society of America Section Meeting: South-Central, North-Central, and Rocky Mountain Sections, Manhattan, Kansas, March 24, 2019
Mandel, R. D. — Chair, National Academy of Sciences U.S. National Committee, International Union for Quaternary Research (INQUA)
Mandel, R. D. — As chair of the U.S. National Committee for Quaternary Research-INQUA, represented the United States at the International Council Meetings, XX INQUA Congress, Dublin, Ireland, July 24–31, 2019.
Mandel, R. D. — On behalf of the U.S. National Committee for the International Union for Quaternary Research (INQUA) and the National Academy of Sciences, co-organized and chaired a mentoring event for early career Quaternary scientists at the XX INQUA Congress, Dublin, Ireland, July 24, 2019.
Mandel, R. D. — On behalf of the U.S. National Committee for the International Union for Quaternary Research (INQUA) and the National Academy of Sciences, organized and chaired a topical session, "The Application of Quaternary Science to Societal Issues in the 21st Century," XX INQUA Congress, Dublin, Ireland, July 24–31, 2019.
Mandel, R. D. –Chair, Awards Committee, Geological Society of America's Archaeological Geology Division
Mandel, R. D. — Member, Executive Committee, KU Department of Anthropology
Mandel, R. D. — Reviewer, one manuscript submitted to Quaternary Science Reviews
Mandel, R. D. — Reviewer, 1one manuscript submitted to Catena
Miller, R. D. — SEG, Compensation Committee
Miller, R. D. — Co-chair, ICEG, Scientific and Technical Program Committee, Al Ain, UAE, October
Miller, R. D. — Chair, SEG, Strategy and Planning Committee
Miller, R. D. — ICEG, Innovations in Geophysics Award, Selection Committee
Miller, R. D. — Geophysical Technology, Inc. (GTI) Advisory Board
Miller, R. D. — KU RGS Research Achievement Award Selection Committee
Mohammadi, S. — Peer reviewer, Carbonates and Evaporites Journal, 2017–Present
Schneider, B. — Vice-chair and chair, SEG Women's Network Committee
Schneider, B. — Associate editor, Journal of Environmental and Engineering Geophysics
Schneider, B. — Member, AGU Honors and Recognition Committee
Schneider, B. — Peer reviewer, PLOS One and The Leading Edge
Schneider, B. — Member, AWG Paleontological Awards Selection Committee
Schneider, B. — Member, AWG Professional Excellence Awards Committee
Schneider, B. — Member, KU Geology Department Applied Geophysics Position Search Committee
Schneider, B. — Volunteer, Central Missouri Regional FIRST Robotics Competition
Smith, J. J. — Co-chair, Adam Jackson, Ph.D. Committee, University of Kansas
Smith, J. J. — Co-chair, Maurícius Nascimento Menezes, Ph.D. Committee, Ph.D., Universidade Federal de Rio de Janeiro
Smith, J. J. — Session co-convener: Behavioral Innovations and Environmental Feedbacks: Insights from the Trace Fossil Record and Other Archives, 11th North American Paleontological Convention, July 23–27, Riverside, California
Smith, J. J. — Session co-convener: The Low Down on the High Plains: Geologic and Hydrogeologic Studies of the High Plains Aquifer, Geological Society of America, Joint South-Central, North-Central, and Rocky Mountains Sections Meeting
Smith, J. J. — Field trip co-leader: Looking Beneath the Plains: Geology of the Ogallala Formation and the Central High Plains of Kansas, Geological Society of America, Joint South-Central, North-Central, and Rocky Mountains Sections Meeting
Zipper, S. C. — Member, American Geophysical Union Ecohydrology Technical Committee (in charge of social media and website)
Zipper, S. C. — Session co-convener, Agrohydrology in a Changing World: From Global Processes to Local Outcomes. American Geophysical Union Fall Meeting
Zipper, S. C. — Co-organized, staffed "Coding Help Desk" at American Geophysical Union Fall Meeting (with Sheila Saia)

Zipper, S. C. — 6 ad hoc journal reviews: 1x Proceedings of the National Academy of Sciences, 1x Journal of Hydrology: Regional Studies, 2x Environmental Research Letters, 2x Agricultural and Forest Meteorology

Zipper, S. C. — Curator, CRAN Hydrology Task View (https://cran.r-project.org/web/views/Hydrology.html)

Grants

Butler, J. J., Jr., and Bohling, G. C.: High Plains aquifer index well program, $305,000, Kansas Water Office, 2019–2024.

Butler, J. J., Jr., and Liu, G.: Dynamic NMR logging technologies for high-resolution measurement of hydrogeologic properties and soil response, Vista Clara subcontract for DoE SBIR, $145,371, 2018–2020.

Butler, J. J., Jr., and Liu, G.: INFEWS/T1: Developing pathways toward sustainable irrigation across the United States using process-based systems models (SIRUS), U.S. Dept. of Agriculture, $148,704, 2018–2022.

Butler, J. J., Jr., Perrone, D., and Hyndman, D.: Travel Grant Proposal: AGU Chapman Conference — The Quest for Sustainability of Heavily Stressed Aquifers at Regional to Global Scales, National Science Foundation, $44,965, 2019.

Butler, J. J., Jr., and Seybold, E. C.: Assessment of groundwater mineralization in the upper Arkansas River corridor, $77,000, Kansas Water Office, 2019–2021.

Liu, G., and Butler, J. J., Jr.: Contaminant barriers or pathways? Hydraulic and chemical methods to improve characterization of shallow aquitards, $29,786, Kansas Water Resources Research Institute, 2017–2019.

Liu, G., Butler, J. J., Jr., and Bohling, G. C.: Estimating mobile-immobile mass transfer parameters using direct push tools, $229,964, DoD Strategic Environmental Research and Development Program, 2015–2020.

Miller, R. D.: Kansas Corporation Commission, Time-lapse, high-resolution seismic reflection imaging of a void in the Hutchinson Salt beneath #1 Knackstedt disposal well, McPherson County, Kansas, 2019, $14,803. (PI)

Miller, R. D.: Fibertek, Inc. ESS, Acquisition design and data conditioning in advance of implementation of K-Scope for assessment of technology demonstrator capabilities to improve subterranean detection capabilities, 2019, $87,701. (PI)

Miller, R. D.: U.S. Army Corps of Engineers, Advancement in seismic imaging for tunnel detection: ASI to ASII–skinny, 2019, $499,999. (PI)

Miller, R. D.: U.S. Army Corps of Engineers, Enhanced implementation of K-Scope and ASII tunnel detection analysis approach using FWI, modal segmentation methods, and integrated multi-modal techniques, 2019, $2,369,176. (PI)

Mohammadi, S. (PI): KICC-KS Interdisciplinary Carbonate Consortium; Total amount: $19,476.00; Period of support: September 30, 2019–September 30, 2020; Title: Structural control of hydrothermal fluid migration, Northern Oklahoma and Kansas: Impact on reservoir properties.

Mohammadi, S. (Co-PI): Department of Energy; Total amount: $5.5 M, KGS portion $270 K; Period of support: September 2019–September 2022; Title: Carbon Utilization and Storage Partnership (CUSP) for the Western USA.

Seybold, E.: Kansas Water Office: Assessment of Groundwater Mineralization in the Upper Arkansas River Corridor. Co-PI. Total amount $77,000. 2019–2022.

Smith, J. J. (PI), Co-PIs: Layzell, A., Ludvigson, G. A., Mandel, J. R., and Dunham, J. W., 2019, Geologic Mapping in Kansas for FY19. U.S. Geological Survey STATEMAP Program, federal and state match total: $292,588.

Stewart, D., Dealy, M., and Potter, N., National Geological and Geophysical Data Preservation Program Grant to Data Resources Library, Wichita Well Sample Library, and KGS Library and Archive, Kansas Geological Survey, administered through U. S. Geological Survey, 2018–2019, $79,519. (Stewart PI)

Stewart, D., Dealy, M., and Potter, N., National Geological and Geophysical Data Preservation Program Grant to Data Resources Library, Wichita Well Sample Library, and KGS Library and Archive, Kansas Geological Survey, administered through U. S. Geological Survey, 2019–2020, $82,549. (Stewart PI)

Wilson, B. B., Liu, G., Butler, J. J., Jr., Bohling, G. C., and Brookfield, A.: GMD2 groundwater model update, Kansas Water Office and Equus Beds Groundwater Management District #2, $115,000, 2017–2019.

Wilson, B. B., Liu, G., Butler, J. J., Jr., and Bohling, G. C.: Development of GMD4 groundwater model, $140,000, Kansas Water Office and Northwest Kansas Groundwater Management District #4, 2018–2020.

Zipper, S. C. — Stockholms Universitet/Formas, Ripples of Resilience: Navigating cross-scale SDG interactions of water, land, and climate within planetary boundaries, $210,755 ($24,243 to KGS)

2018

Refereed Publications

Butler, J. J., Jr., Whittemore, D. O., Wilson, B. B., and Bohling, G. C., 2018, Sustainability of aquifers supporting irrigated agriculture: A case study of the High Plains aquifer in Kansas: Water International, v. 43, no. 6, p. 815–828. doi: 10.1080/02508060.2018.1515566

Core, E. E., and Franseen, E. K., 2018, Depositional and reservoir character of mixed heterozoan-large benthic foraminifera-siliciclastic sequences, Middle Miocene, Dominican Republic: American Association of Petroleum Geologists Search and Discovery Article #51506, 10 p.

Flotron, A., Franseen, E. K., and Goldstein, R. H., 2018, Sedimentologic and stratigraphic controls on reservoir sweet spots in Wolfcamp 'A,' Howard County, Midland Basin: American Association of Petroleum Geologists Search and Discovery Article #11142, 6 p.

Franseen, E. K., Sawin, R. S., Watney, W. L., West, R. L., Layzell, A. L., and Ludvigson, G. A., 2018, Mississippian stratigraphic nomenclature revisions in Kansas: Current Research in Earth Sciences, Kansas Geological Survey Bulletin 264. http://www.kgs.ku.edu/Current/2018/Franseen/index.html

Golab, J. A., Smith, J. J., and Hasiotis, S. T., 2018, Paleoenvironmental and paleogeographic implications of paleosols and ichnofossils in the Upper Pennsylvanian-Permian Halgaito Formation, Southeastern Utah: PALAIOS, v. 33, p. 296–311. doi: http:// dx.doi.org/10.2110/palo.2017.074

Liu, G., Borden, R., and Butler, J. J., Jr., 2018, Simulation assessment of direct push injection logging for high resolution aquifer characterization: Groundwater. doi: 10.1111/gwat.12826

Modrak, R. T., Borisov, D., Lefebvre, M., and Tromp, J., 2018, Seisflows—flexible waveform inversion software: Computers & Geosciences, v. 115, p. 88–95.

Peterie, S. L., Miller, R. D., Buchanan, R., and DeArmond, B., 2018, Fluid injection wells can have a wide seismic reach: EOS, v. 98, n. 7, p. 25–30. https://doi.org/10.1029/2018EO096199

Peterie, S. L., Miller, R. D., Intfen, J. W., and Gonzales, J. B., 2018, Earthquakes in Kansas induced by extremely far-field pressure diffusion: Geophysical Research Letters, v. 45, p. 1,395–1,401. https://doi.org/10.1002/2017GL076334

Richey, J. D., Upchurch, G. R., Montañez, I. P., Lomax, B. H., Suarez, M. B., Crout, N. M., Joeckel, R. M., Ludvigson, G. A., and Smith, J. J., 2018, Changes in CO_2 during the Ocean Anoxic Event 1d indicate similarities to other carbon cycle perturbations: Earth and Planetary Science Letters, v. 491, p. 172–182. https://doi.org/10.1016/j.epsl.2018.03.035

Seybold, E. C., and McGlynn, B. L., 2018, Hydrologic and biogeochemical drivers of dissolved organic carbon and nitrate uptake in headwater stream networks: Biogeochemistry. https://doi.org/10.1007/s10533-018-0426-1

Smith, J. J., Turner, E., Möller, A., Joeckel, R. M., and Otto, R., 2018, First U-Pb zircon ages for late Miocene Ashfall Konservat-Lagerstätte and Grove Lake ashes from eastern Great Plains, USA: PLoS ONE, v. 13, no. 11, e0207103. https://doi.org/10.1371/journal.pone.0207103

Wang, N., Li, J., Borisov, D., Gharti, H., Shen, Y., Zhang, W., and Savage, B., 2018, Modeling three-dimensional wave propagation in anelastic models with surface topography by a collocated-grid finite-difference method: Journal of Geophysical Research.

Whittemore, D. O., Butler, J. J., Jr., and Wilson, B. B., 2018, Status of the High Plains aquifer in Kansas: Kansas Geological Survey, Technical Series 22, 14 p.

Nonrefereed Publications

Bennett, B., and Brohammer, M., 2018, 2017 water level data acquisition statistics: Kansas Geological Survey Open-File Report 2018-1. http://www.kgs.ku.edu/Hydro/Publications/2018/OFR18_1/index.html

Bennett, B., and M. Brohammer, 2018, 2018 Water level data acquisition statistics: Kansas Geological Survey Open-File Report 2018-18. http://www.kgs.ku.edu/Hydro/Publications/2018/OFR18_18/index.html

Bohling, G. C., Whittemore, D. O., Brookfield, A. E., Reboulet, E. C., Wilson, B. B., and Butler, J. J., Jr., 2019, Addressing groundwater goals of the Missouri Regional Planning Area, Phase II: First year progress report: Kansas Geological Survey Open-File Report 2019-3, 48 p.

Butler, J. J., Jr., Whittemore, D. O., Reboulet, E., Knobbe, S., Wilson, B. B., and Bohling, G. C., 2018, High Plains aquifer index well program: 2017 annual report: Kansas Geological Survey Open-File Report 2018-17, 60 p.

Evans, C. S., Stover, S., and Tollefson, J., 2018, Rocks, minerals, and fossils of Kansas: Kansas Geological Survey, Educational Series 18, 24 p.
Ivanov, J., Miller, R. D., Peterie, S. L., Schwenk, J. T., Nolan, J. J., Bennett, B., Wedel, B., Anderson, J., Chandler, J., and Green, S., 2013, Preliminary report: Enhanced passive seismic characterization of high priority salt jugs in Hutchinson, Kansas: Kansas Geological Survey Open-File Report 2018-2, 23 p.
Johnson, W. C., Schlagel, N. A., and Dunham, J. W., 2018, Preliminary surficial geology of the Akron quadrangle, Cowley County, Kansas: Kansas Geological Survey, Open-File Report 2018-4, scale 1:24,000, unpublished.
Johnson, W. C., Schlagel, N. A., and Dunham, J. W., 2018, Preliminary surficial geology of the Arkansas City quadrangle and the Cowley County portion of the Geuda Springs quadrangle, Kansas: Kansas Geological Survey, Open-File Report 2018-3, scale 1:24,000, unpublished.
Johnson, W. C., Schlagel, N. A., and Dunham, J. W., 2018, Preliminary surficial geology of the Hackney quadrangle, Cowley County, Kansas: Kansas Geological Survey, Open-File Report 2018-5, scale 1:24,000, unpublished.
Layzell, A. L., and Dunham, J. W., 2018, Preliminary surficial geology of the Adamsville quadrangle, Sumner and Cowley counties, Kansas: Kansas Geological Survey, Open-File Report 2018-8, scale 1:24,000, unpublished.
Layzell, A. L., and Dunham, J. W., 2018, Preliminary surficial geology of the Oxford quadrangle, Sumner and Cowley counties, Kansas: Kansas Geological Survey, Open-File Report 2018-9, scale 1:24,000, unpublished.
Layzell, A. L., and Dunham, J. W., 2018, Preliminary surficial geology of the South Haven quadrangle, Sumner County, Kansas: Kansas Geological Survey, Open-File Report 2018-6, scale 1:24,000, unpublished.
Miller, R. D., 2018, President's Page: Membership matters: Leading Edge, v. 37, n. 11, p. 800.
Morton, S. L., Peterie, S., Ivanov, J., Miller, R., Anderson, J., Bennett, B., Farwell, M., Fishburn, J., Intfen, J., Scobee, J., and Wedel, B., 2018, Passive characterization of high priority salt jugs near Hutchinson, Kansas: November 2017: Kansas Geological Survey Open-File Report 2018-16, 26 p.
Parcell, W. C., Dinkel, G. L., Post, S. D., and Dunham, J. W., 2018, Preliminary surficial geology of the Sedgwick County portion of the Andover quadrangle, Kansas: Kansas Geological Survey, Open-File Report 2018-10, scale 1:24,000, unpublished.
Parcell, W. C., Dinkel, G. L., Post, S. D., and Dunham, J. W., 2018, Preliminary surficial geology of the Wichita East quadrangle, Sedgwick County, Kansas: Kansas Geological Survey, Open-File Report 2018-11, scale 1:24,000, unpublished.
Smith, J. J., and Dunham, J. W., 2018, Preliminary surficial geology of the Bluff City East quadrangle, Harper and Sumner counties, Kansas: Kansas Geological Survey, Open-File Report 2018-12, scale 1:24,000, unpublished.
Smith, J. J., and Dunham, J. W., 2018, Preliminary surficial geology of the Bluff City West quadrangle, Harper County, Kansas: Kansas Geological Survey, Open-File Report 2018-13, scale 1:24,000, unpublished.
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Stover, S., and Evans, C. S., 2018, North-central Kansas — New developments in agriculture, water management, and local economies, Kansas Field Conference guidebook: Kansas Geological Survey, Open-File Report 2018-15, 74 p. http://www.kgs.ku.edu/Field/Reports/KGS_OF_2018-15.pdf

Abstracts

Ansari, E., Bidgoli, T., Hollenbach, A., and Nolte, K., 2018, Interplay between pore pressure and poroelastic stress induces midcontinent seismicity: American Geophysical Union, Washington, D.C.
Borisov, D., Gao, F., Williamson, P., Simons, F., and Tromp, J., 2018, Waveform inversion of surface and body waves for near-surface onshore imaging: 2018 Fall Meeting, American Geophysical Union, December, Washington, D.C.
Borisov, D., Gao, F., Williamson, P., Simons, F., and Tromp, J., 2018, Waveform inversion of surface and body waves for near-surface onshore imaging: 32nd IUGG Conference on Mathematical Geophysics, International Union of Geodesy and Geophysics.
Butler, J. J. Jr., Whittemore, D. O., Wilson, B. B., and Bohling, G., 2018, The hour is late, but all is not lost: Striving for sustainability of the High Plains aquifer in Kansas: Abstract H33E-06, American Geophysical Union Fall Meeting. https://agu.confex.com/agu/fm18/meetingapp.cgi/Paper/410393

Christensen, A. D., Smith, J. J., Sanderson, B., Stotler, R., Katz, B., and Mandel, R., 2018, Particle size analyses of a long continuous core retrieved from Cenozoic High Plains aquifer in Thomas County, Kansas: Transactions of the Kansas Academy of Science, Abstracts from the 150th Annual Meeting of the Kansas Academy of Science.

Core, E. E., and Franseen, E. K., 2018, Sea level and paleotopographic controls on mixed heterozoan-large benthic foraminifera-siliciclastic sequences in a tropical setting, Middle Miocene, Dominican Republic: Implications for reservoir characterization: AAPG Annual Convention and Exhibition, Salt Lake City, Utah, May 20–23, 2018.

Feigenbaum, D. Z., Ivanov, J., Miller, R. D., and Sloan, S. D., 2018, Joint analysis of refractions and reflections (JARR) for calculating long-wavelength static corrections: SEG Technical Program Expanded Abstracts 2018, p. 2,858–2,862.

Flotron, A., Franseen, E. K., and Goldstein, R. H., 2018, Sedimentologic and stratigraphic controls on reservoir sweet spots in Wolfcamp 'A,' Howard County, Midland Basin: 2018 Geological Society of America South-Central Section Annual Meeting, Little Rock, Arkansas.

Flotron, A., Franseen, E. K., and Goldstein, R. H., 2018, Sedimentologic and stratigraphic controls on reservoir sweet spots in Wolfcamp 'A,' Howard County, Midland Basin: AAPG Annual Convention and Exhibition, Salt Lake City, Utah, May 20–23, 2018.

Hoch, A. M., Ivanov, J., Peterie, S. L., and Miller, R. D., 2018, Improved seismic diffraction velocity estimation with fixed-depth semblance analysis: SEG Technical Program Expanded Abstracts 2018, p. 2,702–2,706.

Ivanov, J., Miller, R. D., Peterie, S. L., and Hoch, A. M., 2018, Detecting subsurface objects and identifying voids possibilities using seismic diffractions: SEG Technical Program Expanded Abstracts 2018, p. 2,692–2,696.

Knight, J. A. II, Suarez, M. B., and Ludvigson, G. A., 2018, Paleotemperature and paleoprecipitation analysis of paleosols from the early Cretaceous Ruby Ranch Member of the Cedar Mountain Formation, east-central Utah: Geological Society of America, Abstracts with Programs, v. 50, no. 1. doi: 10.1130/abs/2018SC-309952

Ludvigson, G. A., Joeckel, R. M., Doveton, J. H., and Mandel, R. D., 2018, The KGS Gaydusek #1 core in Washington County, Kansas: A record of the OAE 1d and OAE2 in Albian-Turonian strata; *in* C. R. Fielding and R. M Joeckel, eds., New Insights into Carboniferous Cyclothems, The Fourth Biennial Field Conference of the AAPG Mid-Continent Section, University of Nebraska School of Natural Resources Conservation and Survey Division, Field Guide No. 28, p. 45–46.

Ludvigson, G. A., Möller, A., Joeckel, R. M., Upchurch, G. R., Jr., and Smith, J. J., 2018, Scientific investigations on Cretaceous (Albian-Turonian) strata from the Rose Creek Escarpment (RCE) along the Nebraska-Kansas border, cratonic margin of the Western Interior Basin: Geological Society of America, North-Central Section Meeting, Abstracts with Programs, v. 50, no. 4. doi:10.1130/abs/2018NC-312703

Ludvigson, G. A., Ross, J. B., and Schroder-Adams, C. J., 2018, Same as it ever was: Persistent case for very low $\delta^{18}O$ values for polar paleoprecipitation in Cretaceous greenhouse worlds and new example from the Sverdrup Basin of northern Canada: 20th International Sedimentological Congress, Quebec City, Canada, August 13–17, 2018, Book of Abstracts, v. 1, ISC2018.ORG, p. 432.

Morton, S. L. C., Lane, J. W., Jr., Thomas, M. A., and Liu, L., 2018, Seismic hazard classifications and VS30 in Connecticut using MASW and HVSR Methods: SEG Technical Program Expanded Abstracts 2018, p. 2,521–2,525.

Morton, S. L. C., Miller, R. D., Ivanov, J., Peterie, S. L., Parsons, R. L., and Livers-Douglas, A. J., 2018, Time-lapse monitoring of subsidence features within the Hutchinson Salt in Kansas: SEG Technical Program Expanded Abstracts 2018, p. 2,642–2,646.

Peterson, A., Smith, J. J., Layzell, A., and Bidgoli, T. S., 2018, Structural mapping in the Humboldt Fault Zone using remote sensing, Chase County, Kansas: Transactions of the Kansas Academy of Science, Abstracts from the 150th Annual Meeting of the Kansas Academy of Science.

Peterson, A., Smith, J. J., Layzell, A., and Ludvigson, G. A., 2018, Mapping potential surface expressions of structural features from LiDAR and high resolution imagery in east-central Kansas: Geological Society of America Abstracts with Programs, v. 50, no. 6. doi: 10.1130/abs/2018AM-324848

Ross, J. B., Ludvigson, G. A., and Schroder-Adams, C. J., 2018, High latitude meteoric oxygen isotope compositions from the Cenomanian lower Kanguk Formation, Axel Heiberg Island, Canadian Arctic Archipelago: Geological Society of America, Abstracts with Programs, v. 50, no. 4. doi: 10.1130/abs/2018NC-312779

Schwenk, J. T., and Miller, R. D., 2018, Velocity characterization and subsidence-feature imaging using seismic methods [Abs.]: Louisiana Coastal Geology Symposium, Baton Rouge, Louisiana, July 10–11, 2018.

Smith, J. J., Joeckel, R. M., Otto, R. E., and Tucker, S. T., 2018, Life in the dead zone: A diverse Miocene ichnofaunal assemblage preserved in volcanic ash, Ashfall Fossil Beds State Historical Park, Nebraska, USA: Geological Society of America Abstracts with Programs, v. 50, no. 6. doi: 10.1130/abs/2018AM-318389

Smith, J. J., Ludvigson, G. A., Layzell, A., and Dunham, J. W., 2018, Geologic mapping in Kansas: Overview of programmatic directions and current projects: 2018 Geologic Mapping Forum, Minnesota Geological Survey, University of Minnesota, Minneapolis, March 27–29.

Smith, J. J., Ludvigson, G. A., Layzell, A., and Dunham, J. W., 2018, Overview and direction of the geologic mapping projects at the Kansas Geological Survey: Transactions of the Kansas Academy of Science, Abstracts from the 150th Annual Meeting of the Kansas Academy of Science, Washburn University, Topeka, Kansas, April 6–7.

Smith, J. J., Ludvigson, G. A., Layzell, A., and Möller, A., 2018, Recent advances in developing a U-Pb zircon chronostratigraphy of Cenozoic strata in the High Plains of western U.S.A.: 20th International Sedimentological Congress, Quebec City, Canada, August 13–17, Book of Abstracts, v. 1, ISC2018.ORG, p. 439.

Smith, J. J., Turner, E., Möller, A., Joeckel, R. M., Tucker, S. T., and Otto, R. E., 2018, Discovery of zircons in the Ashfall Fossil Beds and Grove Lake volcanic deposits of northeastern Nebraska: U-Pb ages and successful sampling strategies: Geological Society of America, North-Central Section Meeting, Abstracts with Programs, v. 50, no. 4. doi:10.1130/abs/2018NC-312753

Wang, Y., Miller, R. D., Tu, X., Sloan, S. D., Moran, M. L., and Cudney, H. H., 2018, Tunnel detection by full-waveform inversion of land streamer data: SEG Technical Program Expanded Abstracts 2018, p. 2,672–2,676.

Whittemore, D. O., Butler, J. J. Jr., and Wilson, B. B., 2018, Predicting irrigation pumping reductions to achieve sustainability at different scales in the High Plains aquifer, Kansas: Geological Society of America Abstracts with Programs, v. 50, no. 6. doi: 10.1130/abs/2018AM-317810

Whittemore, D. O., Butler, J. J. Jr., and Wilson, B. B., 2018, Status of the High Plains aquifer in Kansas: Governor's Conference on Future of Water in Kansas, Manhattan, Kansas. https: https://kwo.ks.gov/docs/default-source/governor's-water-conference/2018-gov-conf/whittemorehpa_status_gov_conf_2018-final.pdf?sfvrsn=b5c58414_0

Zhu, L., Fan, M., Thomas, Y. E., and Smith, J. J., 2018, Volcanic glass hydrogen isotope evidence for latest Eocene high-elevation of the southern Rockies: Geological Society of America Abstracts with Programs, v. 50, no. 6. doi: 10.1130/abs/2018AM-323920

Presentations

Ansari, E., Bidgoli, T., and Dubois, M., 2018, Integrated CCS for Kansas (ICKAN), DOE review meeting, Pittsburgh, Pennsylvania.

Ansari, E., Bidgoli, T., and Hollenbach, A., 2018, The role of pressure diffusion in U. S. midcontinent seismicity, American Association of Petroleum Geologists (AAPG), Salt Lake City.

Ansari, E., Bidgoli, T., and Hollenbach, A., 2018, Statistical analysis of the Arbuckle pressure and static fluid level, GSA midcontinent, Little Rock.

Bennett, C. E., Franseen, E. K., and Goldstein, R. H., 2018, Evaluation of facies controls on distal fine-grained chalky facies in the Miocene Agua Amarga Basin, SE Spain: An analog for fine-grained reservoirs: Kansas Interdisciplinary Carbonate Consortium Annual Review Meeting. EXTENDED ABSTRACT

Core, E. E., and Franseen, E. K., 2018, Depositional and reservoir character of mixed heterozoan-large benthic foraminifera-siliciclastic sequences, Middle Miocene, Dominican Republic: Kansas Interdisciplinary Carbonate Consortium Annual Review Meeting. EXTENDED ABSTRACT

Core, E. E., and Franseen, E. K., 2018, Not just a regional ramp system: The role of variable paleotopography on Late Oligocene and Miocene heterozoan-large benthic foraminifera-coral sequences, Jamaica: Kansas Interdisciplinary Carbonate Consortium Annual Review Meeting. EXTENDED ABSTRACT

Dunham, J. W., 2018, Preliminary surficial geology of the Lyons SE quadrangle, Rice County, Kansas: Map Gallery (poster) presentation, Esri International User Conference, San Diego, California, July 9.

Dunham, J. W., 2018, Preliminary surficial geology of Miami County, Kansas: Map Gallery (poster) presentation, Esri International User Conference, San Diego, California, July 9.

Flotron, A. N., Franseen, E. K., and Goldstein, R. H., 2018, Sedimentologic and stratigraphic controls on reservoir sweet spots in the Wolfcamp 'A', Howard County, Midland Basin: Kansas Interdisciplinary Carbonate Consortium Annual Review Meeting. EXTENDED ABSTRACT

Franseen, E. K., 2018, Invited talk: Primary factors affecting depositional and stratigraphic nature of heterozoan and mixed heterozoan-limited photozoan carbonate systems, Repsol Oil Co., Madrid, Spain, June 25.

Franseen, E. K., 2018, Organizer and convener, 2018 Kansas Interdisciplinary Carbonates Consortium (KICC) Annual Meeting.

Ludvigson, G. A., 2018, Geologic mapping program at the Kansas Geological Survey: Utility Division, Kansas Contractors Association Annual Meeting, Intercontinental Hotel, Kansas City, Missouri, January 25, 2018.

Hoch, A. M., Ivanov, J., Peterie, S. L., and Miller, R. D., 2018, Improved seismic diffraction velocity estimation with fixed-depth semblance analysis [Exp. Abs.]: Presentation at Annual Meeting of the Society of Exploration Geophysicists, Anaheim, California, October 14–19.

Ivanov, J., 2018, Practical seismic surface wave methods: Basics to cutting edge, Short course at the Annual Meeting of the Society of Exploration Geophysicists., Anaheim, California, October 13–14.

Ivanov, J., 2018, SurfSeis workshops, March 1–2, May 24–25, July 12–13, November 8–9, November 29–30, Kansas Geological Survey.

Ivanov, J., 2018, SurfSeis workshop, Doha, Qatar, July 21–22.

Ivanov, J., Miller, R. D., Peterie, S. L., and Hoch, A. M., 2018, Detecting subsurface objects and identifying voids possibilities using seismic diffractions [Exp. Abs.]: Presentation at Annual Meeting of the Society of Exploration Geophysicists, Anaheim, California, October 14–19.

Miller, R. D., 2018, Seismicity in Hutchinson KS Area, Kansas Senators and House Reps from Reno County Area.

Miller, R. D., 2018, Kansas Department of Health and Environment, Topeka, Kansas, December 12.

Miller, R. D., 2018, Association for Women Geoscientists, AWG Mini-Symposium, Wichita, Kansas, October 29.

Miller, R. D., 2018, Kansas Department of Health and Environment, Tech Fair, Wichita, Kansas, October 9-10.

Miller, R. D., 2018, Newmont webinar, July 19.

Miller, R. D., 2018, Consortium to Study Trends in Seismicity, 2018 Annual Meeting, Kansas Seismic Monitoring Network/Consortium Monitoring Network Update, Wichita, Kansas, July 18.

Miller, R. D., 2018, Town Hall Meeting, Hutchinson Public Library, Hutchinson, Kansas, May 16.

Miller, R. D., 2018, Association for Women Geoscientists, Wichita, Kansas, May 10.

Miller, R. D., 2018, Mississippi Department of Environmental Quality (MDEQ), Technical Review Series, Jackson, Mississippi, April 23-24.

Miller, R. D., 2018, API Meeting, Great Bend, Kansas, April 11.

Miller, R. D., 2018, Association for Women Geoscientists, Wichita, Kansas, March 16.

Miller, R. D., 2018, Army meeting, Washington, DC, March 13.

Miller, R. D., 2018, Oklahoma Geological Survey, Seismic Workshop, Norman, Oklahoma, February 21.

Miller, R. D., 2018, Hearing at the Capitol, February 15.

Miller, R. D., 2018, Association for Women Geoscientists (KDHE/KCC), Meeting, January 10.

Mohammadi, S., 2018, Diagenesis of Mississippian carbonates on the southern midcontinent, USA, Kansas Geological Society.

Mohammadi, S., 2018, Diagenesis of Mississippian carbonates on the southern midcontinent, USA, University of Kansas.

Morton, S. L. C., Miller, R. D., Ivanov, J., Peterie, S. L., Parsons, R. L., and Livers-Douglas, A. J., 2018, Time-lapse monitoring of subsidence features within the Hutchinson Salt in Kansas [Exp. Abs.]: Presentation at Annual Meeting of the Society of Exploration Geophysicists, Anaheim, California, October 14–19.

Smith, J. J., 2018, A cast of thousands: Ant-nest ichnofossils and casting modern western harvester nests, Kansas Biological Survey, Lawrence, Kansas.

Smith, J. J., 2018, Getting to the bottom of the Ogallala: Chronostratigraphic investigations in the High Plains of Western Kansas, Kansas Geological Survey Advisory Committee.

Stover, S. G., 2018, Carbon capture, utilization and storage: Legal, regulatory and public policies framework and gaps, Kansas Geological Society, Wichita, October 3.

Stover, S. G., 2018, Climate change and water, Sierra Club Annual Meeting, Baker Wetlands Center, Lawrence, Kansas, March 24.

Stover, S. G., 2018, A drive through Kansas: It's all about geology, water, and time, Basehor Public Library, June 20.

Stover, S. G., 2018, Kansas geology and physiography, Naturalist Class, Dillon Nature Center, Hutchinson, Kansas, March 1.

Stover, S. G., 2018, Kansas water history and conditions, Topeka Sierra Club, May 8, Topeka, Kansas.
Stover, S. G., 2018, Kansas water: Where is it? Who owns it? Symphony in the Flint Hills, June 9.
Stover, S. G., 2018, Science: More amazing than fiction quiz, Women In Science Day, (260 eighth-grade girls), Washburn University, October 22.
Stover, S. G., Water in Kansas and its imperfect management, University of Kansas Geography Class, May 1.
Thompson, I. P., Franseen, E. K., and Goldstein, R. H., 2018, Paleotopography as a depositional control on Late Cenozoic carbonate reservoir analogs in the Cabo de Gata Region, Southeast Spain: Kansas Interdisciplinary Carbonate Consortium Annual Review Meeting. EXTENDED ABSTRACT
Wang, Y., Miller, R. D., Tu, X., Sloan, S. D., Moran, M. L., and Cudney H. H., 2018, Tunnel detection by full-waveform inversion of land streamer data [Exp. Abs.]: Presentation at Annual Meeting of the Society of Exploration Geophysicists, Anaheim, California, October 14–19.

Awards & Honors

Dunham, J. W. — 2018 Esri International User Conference Map Gallery, 3rd place, Large Format Printed Map category, for "Preliminary Surficial Geology of Miami County, Kansas"
Miller, R. D. — Elected, President-Elect, SEG
Miller, R. D. — Elected, Chairman, SEG Global Inc, Board of Directors
Morton, S. L. — Director's Award and Student Award of Excellence, KGS, 2018
Morton, S. L. — First Place, Geotechnical Engineering Student Poster Competition, American Society of Civil Engineers Kansas City Geo-Institute Chapter, 2018

Internal Service

Delaney, A. — KGS representative, KU's United Way campaign
Evans, C. S. — Kansas Field Conference, August 13–15, 2018
Evans, C. S. — Member, Outstanding Student Awards Committee, Kansas Geological Survey
Evans, C. S. — Revised and collected for rocks, minerals and fossils box, KGS
Jones, E. — Host, KGS bake sale fund raiser for KU's United Way campaign
Ludvigson, G. A. — Chair, Search committee for Energy Research project manager
Ludvigson, G. A. — Chair, KGS Lab Space Committee to identify lab spaces for early career scientists
Ludvigson, G. A. — Led KGS staff initiative to prompt renovation and modernization of the KGS Core Lab
Ludvigson, G. A. — Host and coordinator, KGS stratigraphic research seminar, A decade of global analysis of late Paleozoic stratigraphy: What do we know and where do we go from here? (by Erik L. Gulbranson, University of Wisconsin-Milwaukee)
Mandel, R. — Kansas Field Conference, August 13–15, 2018
Miller, R. D. — KGS Arbuckle Working Group
Smith, J. J. — KGS STATEMAP Coordinator
Smith, J. J. — Member, Associate Research Director Search Committee
Smith, J. J. — Member, KGSS Lab Space Utilization Committee
Smith, J. J. — Member, Current Research in Earth Sciences Advisory Board
Smith, J. J. — Member, Geospatial Analyst Search Committee
Stewart, D. — Host, KGS chili cook-off fund raiser for KU's United Way campaign
Stover, S. G. — Kansas Field Conference, August 13–15, 2018
Stover, S. G. — Revised and collected for rocks, minerals and fossils box, KGS
Stover, S. G. — 12 environmental reviews of proposed projects as part of inter-agency coordination
Stover, S. G. — Chaired the Legal, Regulatory and Public Policy team for CarbonSAFE project, KGS
Stover, S. G. — 2018 Legislative Session, bills and hearing tracking and attendance
Stover, S. G. — Kansas Geologic Mapping Advisory Committee member, KGS
Stover, S. G. — Established a KGS office at the Earth, Energy and Environment Center
Stover, S. G. — Member, Interagency Research Coordination Committee, Kansas Water Office
Suchy, D. R. — Volunteer, KGS booth, Kaw Valley Eagles Day, January 20, 2018, Lawrence, Kansas
Suchy, D. R. — Volunteer, KGS booth, Governor's Conference on the Future of Water in Kansas November 13-14, 2018
Tollefson, J. M. — Member (ex-officio), KGS Stratigraphic Nomenclature Committee

External Service

Ansari, E. — Taught reservoir simulation software to petroleum engineers at KU CPE department and administered a waterflood project

Dunham, J. W. — Member, USGS-AASG National Cooperative Geologic Mapping Program (NCGMP) Geologic Map Schema (GeMS) Working Group

Dunham, J. W. — Member, USGS-AASG National Geologic Map Database (NGMDB) Working Group

Dunham, J. W. — Member, USGS-AASG Digital Mapping Techniques (DMT) NCGMP09 Working Group

Evans, C. S. — Developed geologic mapping section questions for 2018 Northeast Kansas Regional Science Olympiad

Evans, C. S. — Volunteer, KGS booth, Kaw Valley Eagles Day, January 20, 2018

Franseen, E. K. — Member, Nominations Committee, Department of Geology, University of Kansas

Franseen, E. K. — Co-organizer, KU Geology Career Symposium, Department of Geology, University of Kansas

Franseen, E. K. — Chair, Elson Core, Ph.D. committee

Franseen, E. K. — Co-chair, Cesar Cuapio-Perez, Ph.D. committee

Franseen, E. K. — Co-chair, master's committees for Ian (Rick) Thompson, Craig Bennett, and Alyssa Flotron

Franseen, E. K. — Member, Ph.D. committees for Leila Joyce, Jason Rush, and Thomas Neal

Franseen, E. K. — Member, master's committees for Adrienne Duarte, Thomas Neal, Arwin Dobber, Andrew Hollenbach, Karin Abrahamsson, and Erich DeZoeten

Franseen, E. K. — Post-doc supervisor for Hassan Eltom, KICC, University of Kansas

Franseen, E. K. — Chair, Promotion and Tenure Committee, Kansas Geological Survey

Franseen, E. K. — Member, Petroleum Geologist (2 positions) Search Committee, Kansas Geological Survey

Franseen, E. K. — Chair, Stratigraphic Nomenclature Committee, Kansas Geological Survey

Franseen, E. K. — Member, Editorial Board, Current Research on Earth Sciences, Kansas Geological Survey

Franseen, E. K. — Invited member, SEPM Strategic Plan Retreat, Quebec, Canada, August 17–19, 2018

Franseen, E. K. — Member, Board of Visitors (Alumni Board), Department of Geology, University of Wisconsin-Madison

Franseen, E. K. — Member, SEPM Student Research Grant Evaluation Committee

Franseen, E. K. — Member, SEPM Executive Director Search Committee

Franseen, E. K. — Member, Review committee for abstracts submitted to the 2018 AAPG Annual Meeting

Franseen, E. K. — External advisor, Earth and Space Sciences Department, Columbus State University, Georgia

Ludvigson, G. — KGS Core Display, Open House, Earth Energy and Environment Center, May 5, 2018, Lawrence, Kansas

Ludvigson, G. A. — Topical session organizer, Session 3.7 on Mesozoic-Cenozoic terrestrial environments and climates, 20th International Sedimentological Congress, Quebec, Canada, August 13–17, 2018

Ludvigson, G. A. — Member, Search committee for research technician in thin section laboratory in the KU Department of Geology

Miller, R. D. — Town Hall Meeting, Hutchinson, Kansas, May 16, 2018

Miller, R. D. — WDAF-TV Interview, May 11, 2018

Miller, R. D. — Chair, SEG, Strategy and Planning Committee

Miller, R. D. — Geophysical Technology, Inc. (GTI) Advisory Board

Miller, R. D. — SEG, Appointed, Global Inc., Board of Directors

Miller, R. D. — KU RGS Research Achievement Award Selection Committee

Miller, R. D. — SEG Technical Session Chair

Mohammadi, S. — Poster judge, G-Hawker Symposium, University of Kansas

Mohammadi, S. — Co-PI, Interdisciplinary Carbonate Consortium, University of Kansas

Mohammadi, S. — Courtesy appointment, Geology Department, University of Kansas

Mohammadi, S. — Peer Reviewer, Carbonates and Evaporites Journal, 2017–present

Mohammadi, S. — Peer Reviewer, Journal of African Earth Sciences, 2017–present

Potter, N. — KGS Core Display, Open House, Earth Energy and Environment Center, May 5, 2018, Lawrence, Kansas

Smith, J. J. — Session co-convener, Recent Advances in Ichnology: Traces of Modern and Ancient Behavior, Geological Society of America Annual Meeting

Smith, J. J. — Invited member: Taphonomy and Stratigraphic Paleobiology Research Group, Brazilian Council for Research (CNPq)

Smith, J. J. — Member, Deserae Jennings, Ph.D. dissertation committee, University of Kansas

Stewart, D. — KGS booth, Kaw Valley Eagles Day, Lawrence Free State High School, Lawrence, Kansas
Stover, S. G. — Planning Committee, Ogallala Aquifer Summit, KSU–CSU, 9–10 April 2018, Garden City, Kansas
Stover, S. G. — Selection Committee, E-An Zen Geology Outreach Grant, Geological Society of America
Stover, S. G. — Member, KU Geology Associates Advisory Board, 4–5 May 2018
Stover S. G. — Co-chair for Field Trips, South Central, North Central and Rocky Mountain Sections joint meeting, to be held in Kansas in March 2019
Stover, S. G. — Member, Advisory Committee, Kansas River Sustainable Rivers Program
Stover, S. G. — KGS Booth, Kaw Valley Eagle Days, Lawrence Free State High School, Lawrence, Kansas
Stover, S. G. — Radio update on the Ogallala High Plains aquifer, for National Ground Water Association, February 2, 2018
Stover, S. G. — KGS Booth, Science Day, Prairie Park Elementary School, Lawrence, Kansas, March 10, 2018
Stover, S. G. — KGS Booth, Kansas Rural Water Association, Wichita, Kansas, March 27–29, 2018
Stover, S. G. — KGS Core Display, Open House, Earth Energy and Environment Center, May 5, 2018, Lawrence, Kansas
Stover, S. G. — Hands-on workshop on rocks, minerals and fossils for all second graders at Coffeyville Elementary School, Kansas
Stover, S. G. — Chair, Geology & Society Division, Geological Society of America
Stover, S. G. — Convener and presenter, Women Rising: Removing Barriers and Achieving Parity in the Geosciences, Pardee Symposium, November 5, 2018, GSA Annual Meeting, Indianapolis, Indiana
Stover, S. G. — Borehole Geology spring semester class, by John Doveton and Gene Rankey, University of Kansas
Stover, S. G. — Geological Ethics Codes, Webinar, AGI, March 1, 2018
Suchy, D. R. — Member and Chairman, Board of Directors, Rural Water District #5, Douglas County, Kansas
Suchy, D. R. — Member and Treasurer, Board of Directors, Public Wholesale Water Supply District #25, Douglas and Osage Counties, Kansas

Grants

Mandel, R. D.: GWPC-Regional Induced Seismicity Collaborative (RISC), $65,000, U.S. Department of Energy. 2018–2023.
Miller, R. D.: U.S. Army Corps of Engineers, Advancement in seismic imaging for tunnel detection: ASI to ASII–skinny, 2018, $1,500,000. (PI)
Miller, R. D., Buchanan, R., and Peterie, S. L., 2018, Regional Induced Seismicity Collaborative (RISC): University of Texas at Austin, GWPC, $65,000. (Miller PI)
Miller, R. D., and Peterie, S. L., 2018, Norcal Geophysical Consultants, High-resolution seismic reflection to characterize Quaternary and younger sediments associated with the Silver Creek Fault beneath the Santa Clara Valley, California, $107,441. (Miller PI)
Miller, R. D., and Peterie, S. L., 2018, ONEOK Underground Storage Company, LLC, Establishing a Kansas CSTS compatible seismograph station near Bushton in Rice County, Kansas, $15,953. (Miller PI)
Mohammadi, S., and Goldstein, R., 2018, KICC-KS Interdisciplinary Carbonate Consortium, Structural Control of Hydrothermal Fluid Migration, Northern Oklahoma and Kansas: Impact on Reservoir Properties. $19,476.00. (Mohammadi PI)
Smith, J. J., 2018, Merriam Research Award, Kansas Geological Survey. KU Endowment funds, $500. (Smith PI)
Smith, J. J., Ludvigson, G. A., Layzell, A., Mandel, R. D., Newell, K. D., and Dunhamn, J. W., 2018, Geologic Mapping in Kansas for FY18. United States Geological Survey, STATEMAP Program. Federal and state match totaling $295,861. (Smith PI)
Stewart, D., Dealy, M., and Potter, N., 2018, National Geological and Geophysical Data Preservation Program Grant to Data Resources Library, Wichita Well Sample Library, and KGS Library and Archive, Kansas Geological Survey, administered through U. S. Geological Survey, 2018–2019, $79,519. (Stewart PI)
Suchy, D. R., Stewart, D., Dealy, M. T., and Potter, N., 2018, National Geological and Geophysical Data Preservation Program Grant to Data Resources Library, Wichita Well Sample Library, and KGS Library and Archive, Kansas Geological Survey, administered through U. S. Geological Survey, 2017–2018, $79,488. (Suchy PI)

Website

Placed 26 Bulletins, 33 other publications, and 11 maps online.

Placed 22 open-file reports online.

2,335 water-well forms came in using KOLAR; the Data Library processed 4,695 forms that arrived on paper. All older water well forms have been scanned.

16,000 aerial photos have been scanned and placed online; 5,000 of them have longitude-latitude centroids to help in location mapping.

Added oil and gas well documents from 11,391 wells to the website; added wireline logs from 4,551 wells.

Developed several new forms for Kansas On-Line Automated Reporting (KOLAR): paper forms required by the state to regulate the oil and gas industries and water well drilling can now be completed, submitted, and processed by the government online.

2017

Refereed Publications

Brookfield, A., Gnau, C., and Wilson, B., 2017, Incorporating surface water operations in an integrated hydrologic model: Model development and application to the Lower Republican River Basin, USA: Journal of Hydrologic Engineering, v. 22, no. 4. doi: 10.1061/(ASCE)HE.1943-5584

Brookfield, A. E., Macpherson, G. L., and Covington, M. D., 2017, Effects of changing meteoric precipitation patterns on groundwater temperature in karst environments: Groundwater, v. 55, no. 2, p. 227–236. doi: 10.1111/gwat.12456

Brookfield, A. E., Stotler, R. L., and Reboulet, E., 2017, Interpreting temporal variations in river response functions: An example from the Arkansas River, Kansas, USA: Hydrogeology Journal, v. 25, no. 5, p. 1,271–1,282.

Feigenbaum, D., Ivanov, J., and Miller, R. D., 2017, Determining migration velocity for the near surface using joint analysis of refractions and reflections [Exp. Abs.]: Annual Meeting of the Society of Exploration Geophysicists, Houston, Texas, p. 2,654–2,659.

Fleure, T., Halvorson, W., and Miller, R., 2017, Receiver ground coupling revisited; a laboratory experiment to investigate the effects of an autonomous nodal recording system [Exp. Abs.]: Annual Meeting of the Society of Exploration Geophysicists, Houston, Texas, p. 264–268.

Franseen, E. K., and Goldstein, R. H., 2017, Build-and-fill stratigraphic sequences in carbonates: American Association of Petroleum Geologists Search and Discovery Article #51403, 13 p.

Franseen, E. K., and Goldstein, R. H., 2017, The impact of paleotopography on transport of reef carbonates to basinal settings: Lessons from the Upper Miocene of SE Spain: American Association of Petroleum Geologists Search and Discovery Article #51404, 13 p.

Golab, J. A., Smith, J. J., Clark, A. K., and Blome, C. D., 2017, Effects of Thalassinoides ichnofabrics on the petrophysical properties of the Lower Cretaceous Lower Glen Rose Limestone, Middle Trinity Aquifer, Northern Bexar County, Texas: Sedimentary Geology, v. 351, p. 1–10. http://dx.doi.org/10.1016/j.sedgeo.2017.02.001

Golab, J. A., Smith J. J., Clark, A. K., and Morris, R. R., 2017, Bioturbation-influenced fluid pathways within a carbonate platform system: The Lower Cretaceous (Aptian–Albian) Glen Rose Limestone: Palaeogeography, Palaeoclimatology, Palaeoecology, v. 456, p. 138–155. doi: 10.1016/j.palaeo.2016.10.025

Gomez-Hernandez, J. J., Butler, J. J., Jr., Fiori, A., Bolster, D., Cvetkovic, V., Dagan, G., and Hyndman, D., 2017, Introduction to special section on "Modeling highly heterogeneous aquifers: Lessons learned in the last 30 years from the MADE experiments and others": Water Resources Research, v. 53, p. 2,581–2,584. doi: 10.1002/2017WR020774, 2017

Griggs, B. W., and Butler, J. J., Jr., 2017, Groundwater in the American West: How to harness hydrogeological analysis to improve groundwater management; *in* The Water Problem: Climate Change and Water Policy in the United States, P. Mulroy, ed.: Brookings Institution Press, p. 113–144 (invited contribution).

Guelard, J., Beaumont, V., Rouchon, V., Guyot, F., Pillot, D., Adler, M., Newell, K. D., and Deville, E., 2017, Natural H_2 in Kansas: Deep or shallow origin? Geochemistry, Geophysics, Geosystems, v. 18, no. 10, p. 1,841–1,865. doi:10.1002/2016GC006544

Hembree, D. I., Smith, J. J., Buynevich, I. V., and Platt, B. F., 2017, Neoichnology of semiarid environments: Soils and burrowing animals of the Sonoran Desert, Arizona: U.S.A. PALAIOS, v. 32, p. 1–19. doi: http://dx.doi.org/10.2110/palo.2017.009

Holubnyak, Y., Watney, W., Birdie, T., Rush, J., Fazelalavi, M., and Wreath, D., 2017, Pilot scale CO_2 EOR in Mississippian carbonate reservoir at Wellington Field in South-Central Kansas: Energy Procedia, EGYPRO30710.

Holubnyak, Y., Williams, E., Watney, W., Bidgoli, T., Rush, J., Fazelalavi, M., and Gerlach, P., 2017, Calculation of CO_2 storage capacity for Arbuckle Group in Southern Kansas: Implications for a seismically active region: Energy Procedia, EGYPRO30482.

Ivanov, J., Miller, R. D., Feigenbaum, D., Morton, S. L. C., Peterie, S. L., and Dunbar, J. B., 2017, Revisiting levees in southern Texas using Love-wave multi-channel analysis of surface waves (MASW) with the high-resolution linear radon transform (HRLRT): Interpretation, v. 5, no. 3, T287-T298.

Ivanov, J., Miller, R. D., Feigenbaum, D. Z., and Peterie, S. L., 2017, Detecting subsurface objects and identifying voids possibilities using the backscatter analysis of surface wave (BASW) method [Ext. Abs.]: Fourth International Conference on Engineering Geophysics, Al Ain, UAE, p. 116–119.

Ivanov, J., Miller, R. D., Feigenbaum, D. Z., and Schwenk, J. T., 2017, Benefits of using the high-resolution linear radon transform (HRLRT) with the multi-channel analysis of surface waves (MASW) method [Exp. Abs.]: Annual Meeting of the Society of Exploration Geophysicists, Houston, Texas, p. 2,647–2,653.

Joeckel, R. M., Ludvigson, G. A., and Kirkland, J. I., 2017, Lower Cretaceous paleo-vertisols and sedimentary interrelationships in stacked alluvial sequences, Utah, USA.: Sedimentary Geology, v. 361, p. 1–24. https://doi.org/10.1016/j.sedgeo.2017.09.009

Layzell, A. L., Sawin, R. S., Mandel, R. D., Ludvigson, G. A., Franseen, E. K., West, R. R., and Watney, W. L., 2017, Quaternary stratigraphy and stratigraphic nomenclature revisions in Kansas: Current Research in Earth Sciences, Kansas Geological Survey Bulletin 263, 9 p. http://www.kgs.ku.edu/Current/2017/Layzell/index.html

Li, Z., Goldstein, R. H., and Franseen, E. K., 2017, Meteoric calcite cementation: Diagenetic response to relative sea-level fall and effect on porosity and permeability: Sedimentary Geology, 348, p. 1–18.

Miller, R. D., Peterie, S. L., and Ivanov, J., 2017, Anomalies: Detect or resolve using 2-D seismic reflection imaging [Ext. Abs.]: Fourth International Conference on Engineering Geophysics, Al Ain, UAE, p. 380–383.

Morton, S. L. C., Peterie, S. L., Ivanov, J. M., Miller, R. D., and Sloan, S. D., 2017, Joint interpretation of multi-component surface wave data for tunnel detection [Exp. Abs.]: Annual Meeting of the Society of Exploration Geophysicists, Houston, Texas, p. 5,458–5,464.

Oborny, S. C., Cramer, B. D., Heckel, P. H., Ludvigson, G. A., and Henthorne, R. W., 2017, Development of phylloid-algal carbonate mounds during regression: Expanding the build-and-fill model: Journal of Sedimentary Research, v. 87, p. 688–706. doi: http://dx.doi.org/10.2110/jsr.2017.38

Peterie, S. L., Newell, K. D., Miller, R. D., Intfen, J. W., Gonzales, J. B., Buchanan, R. C., DeArmond, B., and Cochran, M., 2017, Possible evidence of a regional pressure front in Kansas caused by deep fluid injection [Exp. Abs.]: Annual Meeting of the Society of Exploration Geophysicists, Houston, Texas, p. 5,362–5,367.

Ross, J. B., Ludvigson, G. A., Möller, A., González, L. A., and Walker, J. D., 2017, Stable isotope paleohydrology and chemostratigraphy of the Albian Wayan Formation from the wedge-top depozone, North American Western Interior Basin: SCIENCE CHINA — Earth Sciences, v. 60, p. 44–57. doi: 10.1007/s11430-016-0087-5

Smith, J., Borisov, D., Modrak, R., Tromp, J., Cudney, H., Moran, M., Sloan, S., Miller, R., and Peterie, S., 2017, Near-surface seismic imaging of tunnels using 3D elastic full-waveform inversion [Exp. Abs.]: Annual Meeting of the Society of Exploration Geophysicists, Houston, Texas, p. 2,637–2,641.

Smith, J. J., Ludvigson, G. A., Layzell, A., Möller, A., Harlow, R. H., Turner, E., Platt, B., and Petronis, M., 2017, Discovery of Paleogene deposits of the central High Plains aquifer in the western Great Plains, USA: Journal of Sedimentary Research, v. 87, p. 880–896. doi: http://dx.doi.org/10.2110/jsr.2017.48

Stover, S. G., and Buchanan, R., 2017, The High Plains aquifer: Can we make it last? Groundworks, GSA Today, v. 27, no. 6, p. 44.

Suarez, M. B., Ludvigson, G. A., González, L. A., and You, H.-L., 2017, Continental paleotemperatures from an early Cretaceous dolomitic lake, Gansu Province, China: Journal of Sedimentary Research, v. 87, p. 486–499. doi: http://dx.doi.org/10.2110/jsr.2017.31

Suarez, M. B., Suarez, C. A., Al-Suwaidi, A. H., Hatzell, G., Kirkland, J. I., Slazar-Verdin, J., Ludvigson, G. A., and Joeckel, R. M., 2017, Terrestrial carbon isotope chemostratigraphy in the Yellow Cat Member of the Cedar Mountain Formation: Complications and pitfalls; *in* Terrestrial Depositional Systems: Deciphering Complexities through Multiple Stratigraphic Methods, K. E. Zeigler and W. Parker, eds.: Elsevier, Amsterdam, p. 303–336. doi: http://dx.doi.org/10.1016/B978-0-12-803243-5.00008-X

Vero, S. E., Macpherson, G. L., Sullivan, P. L., Brookfield, A. E., Kirk, M. F., Datta, S., and Kempton, P., 2017, Developing a conceptual framework of landscape and hydrology on tallgrass prairie: Vadose Zone Journal. doi: 10.2136/vzj2017.03.0069

Wang, Y., Miller, R. D., Peterie, S. L., Sloan, S. D., Moran, M. L., and Cudney, H. H., 2017, A focusing study of near surface full-waveform inversion based on wave mode separation [Exp. Abs.]: Annual Meeting of the Society of Exploration Geophysicists, Houston, Texas, p. 2,632–2,636.

Wang, Y., Miller, R. D., Peterie, S. L., Sloan, S. D., Moran, M. L., and Cudney, H. H., 2017, Tunnel detection by full-waveform inversion at Yuma Proving Grounds, Arizona [Exp. Abs.]: Annual Meeting of the Society of Exploration Geophysicists, Houston, Texas, p. 2,660–2,665.

Books and Edited Volumes

Baker, H., and Miller, R. D., eds., 2017, Proceedings of the Fourth International Conference on Engineering Geophysics, Al-Ain, UAE, 382 p.

Nonrefereed Publications

Brookfield, A., 2017, Evaluating alternatives to increase the water available to water rights in the Lower Republican River Basin scenarios: Final report: Submitted to Kansas Water Office, 28 p.

Butler, J. J., Jr., Whittemore, D. O., Reboulet, E., Knobbe, S., Wilson, B. B., and Bohling, G. C., 2017, High Plains aquifer index well program: 2016 annual report: Kansas Geological Survey, Open-File Report 2017-10, 144 p. http://www.kgs.ku.edu/Hydro/Publications/2017/OFR17_10/index.html

Butler, J. J., Jr., Whittemore, D. O., and Wilson, B. B., 2017, Equus Beds Groundwater Management District No. 2 sustainability assessment: Kansas Geological Survey, Open-File Report 2017-3, 93 p. http://www.kgs.ku.edu/Hydro/Publications/2017/OFR17_3/index.html

Dunham, J., Sawin, R., West, R., Jarvis, R., and Price, R. Z., 2017, Surficial geology of Morris County, Kansas (map); *in* ESRI Map Book, vol. 32: Redlands, California, Esri Press, 192 p.

Fazelalavi, M., 2017, Determination of relative permeability curves in the Arbuckle: Kansas Geological Survey, Open-File Report 2017-6, 12 p. http://www.kgs.ku.edu/Publications/OFR/2017/OFR17_6/index.html

Holubnyak, Y., and Watney, W. L., 2017, Twenty-third quarterly progress report — Small scale field test demonstrating CO_2 sequestration in Arbuckle saline aquifer and by CO_2-EOR at Wellington Field, Sumner County, Kansas: Kansas Geological Survey. http://www.kgs.ku.edu/PRS/Ozark/SmallScale/2017/Q23_2017.pdf

Holubnyak, Y., and Watney, W. L., 2017, Twenty-second quarterly progress report — Small scale field test demonstrating CO_2 sequestration in Arbuckle saline aquifer and by CO_2-EOR at Wellington Field, Sumner County, Kansas: Kansas Geological Survey. http://www.kgs.ku.edu/PRS/Ozark/SmallScale/2017/Q22_2017.pdf

Holubnyak, Y., and Watney, W. L., 2017, Twenty-first quarterly progress report — Small scale field test demonstrating CO_2 sequestration in Arbuckle saline aquifer and by CO_2-EOR at Wellington Field, Sumner County, Kansas: Kansas Geological Survey. http://www.kgs.ku.edu/PRS/Ozark/SmallScale/2017/Q21_2017.pdf

Johnson, W. C., Schlagel, N. A., and Dunham, J. W., 2017, Preliminary surficial geology of the Little River quadrangle and the Rice County portion of the Crawford quadrangle, Kansas: Kansas Geological Survey, Open-File Report 2017-21, scale 1:24,000. http://www.kgs.ku.edu/Publications/OFR/GeoMaps/KsGS_OFR_2017-21_Little_River_Crawford.pdf

Johnson, W. C., Schlagel, N. A., and Dunham, J. W., 2017, Preliminary surficial geology of the Lyons SE quadrangle, Rice County, Kansas: Kansas Geological Survey, Open-File Report 2017-22, scale 1:24,000. http://www.kgs.ku.edu/Publications/OFR/GeoMaps/KsGS_OFR_2017-22_Lyons_SE.pdf

Johnson, W. C., Schlagel, N. A., and Dunham, J. W., 2017, Preliminary surficial geology of the Rice County portion of the Windom SW quadrangle, Kansas: Kansas Geological Survey, Open-File Report 2017-23, scale 1:24,000. http://www.kgs.ku.edu/Publications/OFR/GeoMaps/KsGS_OFR_2017-23_Windom_SW.pdf

Johnson, W. C., Schlagel, N. A., and Dunham, J. W., 2017, Preliminary surficial geology of the Windom quadrangle and the Rice County portion of the Langley quadrangle, Kansas: Kansas Geological Survey, Open-File Report 2017-24, scale 1:24,000. http://www.kgs.ku.edu/Publications/OFR/GeoMaps/KsGS_OFR_2017-24_Windom_Langley.pdf

Layzell, A. L., and Mandel, R. D., 2017, Systematic approach to identifying deeply buried archeological deposits: Final report prepared for the Nebraska Department of Transportation.

Layzell, A. L., Newell, K. D., Mandel, R. D., and Dunham, J., 2017, Preliminary surficial geology of Miami County, Kansas: Kansas Geological Survey, Open-File Report 2017-20. http://www.kgs.ku.edu/Publications/OFR/GeoMaps/KsGS_OFR_2017-20_Miami_Co.pdf

Lueck, E. J., Buhta, A. A., Mandel, R. D., and Layzell, A. L., 2017, Phase I archeological survey and geomorphic evaluation of the Iowa and Cedar Rivers HDD pipeline replacement project in Muscatine and Louisa Counties, Iowa: Report prepared for Natural Gas Pipeline Co. of America.

Mandel, R. D., 2017, Testimony — Rolfe Mandel, Kansas Geological Survey, to House Water and Environment Committee, 17 January 2017: Kansas Geological Survey, Open-File Report 2017-1, 3 p. http://www.kgs.ku.edu/Publications/OFR/2017/OFR17_1/index.html

Mandel, R. D., 2017, Testimony — Rolfe Mandel, Kansas Geological Survey, to House Water and Environment Committee on HB2272, 9 February 2017: Kansas Geological Survey, Open-File Report 2017-4, 8 p. http://www.kgs.ku.edu/Publications/OFR/2017/OFR17_4/index.html

Miller, R. D., Ivanov, J., Peterie, S. L., Schwenk, J. T., Judy, B. E., Nolan, J. J., Wedel, B., Nelson, R., Bennett, B., and Anderson, J., 2017, Final report: Seismic analysis at strategic border sites, DTRA-T1: Report to U.S. Department of Homeland Security and U.S. Geological Survey: Kansas Geological Survey, Open-File Report 2017-45.

Miller, R. D., Ivanov, J., Peterie, S. L., Schwenk, J. T., Livers, A. J., Nolan, J. J., Wedel, B., Nelson, R., Bennett, B., and Anderson, J., 2017, Final report: Seismic analysis at strategic border sites, Nog-C_N3 (DTRA N2): Report to U.S. Department of Homeland Security and U.S. Geological Survey: Kansas Geological Survey, Open-File Report 2017-43.

Miller, R. D., Ivanov, J., Peterie, S. L., Schwenk, J. T., Livers, A. J., Nolan, J. J., Wedel, B., Nelson, R., Bennett, B., and Anderson, J., 2017, Final report: Seismic analysis at strategic border sites, Nog-E_N4 (DTRA N3): Report to U.S. Department of Homeland Security and U.S. Geological Survey: Kansas Geological Survey, Open-File Report 2017-44.

Miller, R. D., Ivanov, J., Peterie, S. L., Schwenk, J. T., Nolan, J. J., Wedel, B., Nelson, R., Bennett, B., and Anderson, J., 2017, Final report: Seismic analysis at strategic border sites, Nog-W_N1 (DTRA N1): Report to U.S. Department of Homeland Security and U.S. Geological Survey: Kansas Geological Survey, Open-File Report 2017-41.

Miller, R. D., Ivanov, J., Peterie, S. L., Schwenk, J. T., Wang, Y., Nolan, J. J., Wedel, B., Nelson, R., Bennett, B., and Anderson, J., 2017, Final report: Seismic analysis at strategic border sites, DTRA-T3: Report to U.S. Department of Homeland Security and U.S. Geological Survey: Kansas Geological Survey, Open-File Report 2017-46.

Miller, R. D., Schwenk, J. T., Ivanov, J., Peterie, S. L., Judy, B. E., Nolan, J. J., Wedel, B., Nelson, R., Bennett, B., and Anderson, J., 2017, Final report: Seismic analysis at strategic border sites, trip 1: DTRA-C3: Report to U.S. Department of Homeland Security and U.S. Geological Survey: Kansas Geological Survey, Open-File Report 2017-33.

Miller, R. D., Schwenk, J. T., Ivanov, J., Peterie, S. L., Judy, B. E., Nolan, J. J., Wedel, B., Nelson, R., Bennett, B., and Anderson, J., 2017, Final report: Seismic analysis at strategic border sites, trip 1: DTRA-SL2(C): Report to U.S. Department of Homeland Security and U.S. Geological Survey: Kansas Geological Survey, Open-File Report 2017-39.

Miller, R. D., Schwenk, J. T., Ivanov, J., Peterie, S. L., Judy, B. E., Nolan, J. J., Wedel, B., Nelson, R., Bennett, B., and Anderson, J., 2017, Final report: Seismic analysis at strategic border sites, trips 1 and 2: DTRA-C1: Report to U.S. Department of Homeland Security and U.S. Geological Survey: Kansas Geological Survey, Open-File Report 2017-32.

Miller, R. D., Schwenk, J. T., Ivanov, J., Peterie, S. L., Nolan, J. J., Wedel, B., Nelson, R., Bennett, B., and Anderson, J., 2017, Final report: Seismic analysis at strategic border sites, trip 1: DTRA OM1: Report to U.S. Department of Homeland Security and U.S. Geological Survey: Kansas Geological Survey, Open-File Report 2017-34.

Miller, R. D., Schwenk, J. T., Ivanov, J., Peterie, S. L., Nolan, J. J., Wedel, B., Nelson, R., Bennett, B., and Anderson, J., 2017, Final report: Seismic analysis at strategic border sites, trip 1: DTRA OM2: Report to U.S. Department of Homeland Security and U.S. Geological Survey: Kansas Geological Survey, Open-File Report 2017-35.

Miller, R. D., Schwenk, J. T., Ivanov, J., Peterie, S. L., Nolan, J. J., Wedel, B., Nelson, R., Bennett, B., and Anderson, J., 2017, Final report: Seismic analysis at strategic border sites, trip 1: DTRA OM4: Report to U.S. Department of Homeland Security and U.S. Geological Survey: Kansas Geological Survey, Open-File Report 2017-36.

Miller, R. D., Schwenk, J. T., Ivanov, J., Peterie, S. L., Nolan, J. J., Wedel, B., Nelson, R., Bennett, B., and Anderson, J., 2017, Final report: Seismic analysis at strategic border sites, trip1: DTRA OM5: Report to U.S. Department of Homeland Security and U.S. Geological Survey: Kansas Geological Survey, Open-File Report 2017-37.

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Miller, R. D., 2017, Kansas Department of Health and Environment, Governor's Brief, Topeka, Kansas, June 23.

Miller, R. D., 2017, American Society of Civil Engineers (ASCE), Annual Kansas City Specialty Seminar, Seismic methods for site characterization and investigations, Burns & McDonnell, Kansas City, Missouri, January 20.

Robertson, C., Franseen, E. K., and Enos, P., 2017, Sedimentologic controls, stratigraphic architecture, and reservoir potential of Mississippian (Osagean) carbonate and chert facies, Anadarko Basin: Kansas Interdisciplinary Carbonate Consortium Annual Review Meeting. EXTENDED ABSTRACT.

Stewart, D. L., 2017, Oil and gas data on the KGS website, log scanning and materials and resources in the Data Resources Library: University of Kansas Geology 535, September 7, 2017.

Stover, S. G., 2017, "Book Bytes" on Ogallala aquifer water: High Plains Public Radio, aired January and February 2017. http://hppr.org/programs/hppr-radio-readers-book-club?page=2&ajax=1

Stover, S. G., 2017, Communicating science: Graduate students orientation, Geology Department, University of Kansas, Lawrence, Kansas, August 18, 2017.

Stover, S. G., 2017, Geoscience for lawmakers: Geological Society of America, Seattle, Washington, October 25, 2017.

Stover, S. G., 2017, My careers in geosciences: STEM event, University of Kansas, Overland Park, Kansas, November 21, 2017.

Stover, S. G., 2017, Water and the environment: Kansas Health Foundation, Topeka, Kansas, March 1, 2017.

Stover, S. G., 2017, Water and Kansas: A brief history: History class, Washburn University, Topeka, Kansas, April 25, 2017.

Stover, S. G., 2017, Water and politics: Examples from Kansas: invited keynote speaker, Human Water conference, Wichita, Kansas, October 28, 2017.

Stover, S. G., 2017, Water in Kansas: Conditions, problems, possible solutions: Geography class, University of Kansas, Lawrence, Kansas, April 13, 2017.

Awards & Honors

Franseen, E. K. — Nominated for KU Graduate Student Advisor Award, 2017
Franseen, E. K. — Recipient, Merriam International Studies Award
Franseen, E. K. — Two featured articles in AAPG Search and Discovery Digest, October 2017
Miller, R. D. — Elected, Chairman, SEG Global Inc, Board of Directors

Internal Service

Brookfield, A. E. — Five agency reviews
Butler, J. J., Jr. — Member, KGS Outstanding Support Staff Recognition Award Committee
Evans, C. S. — Kansas Field Conference, September 11–13, 2017
Dealy, M. T. — KGS booth, General Electric Strother, Community Day, 2017, Winfield, Kansas
Dealy, M. T. — Twelve environmental reviews of wastewater or water supply projects, inter-agency coordination
Dealy, M. T. — Volunteer, University of Kansas, Kansas State Fair booth, Hutchinson, Kansas
Delaney, A. — Assistant, KGS chili cook-off and cookie sale fund raiser for KU's United Way campaign
Franseen, E. K. — Member, Promotion and Tenure Committee
Franseen, E. K. — Member, Petroleum Geologist Search Committee (two positions)
Franseen, E. K. — Member, Stratigraphic Nomenclature Committee
Franseen, E. K. — Member, Editorial Board, Current Research in Earth Sciences
Jones, E. — Assistant, KGS chili cook-off and cookie sale fund raiser for KU's United Way campaign
Layzell, A. L. — Member, Stratigraphic Nomenclature Committee
Layzell, A. L. — Member, Petroleum Geoscientist Search Committee (2 positions)
Ludvigson, G. A. — Member, KGS Stratigraphic Nomenclature Committee
Ludvigson, G. A. — KGS STATEMAP Coordinator
Ludvigson, G. A. — Interim chair, KGS Promotion and Review Committee
Mandel, R. — Kansas Field Conference, September 11–13, 2017
Peterson, A. — Assistant, KGS chili cook-off and cookie sale fund raiser for KU's United Way campaign
Potter, N. — Assistant, KGS chili cook-off and cookie sale fund raiser for KU's United Way campaign
Sawin, R. S. — Chair, KGS Stratigraphic Nomenclature Committee
Smith, J. J.—Member, Kansas Geological Mapping Advisory Committee (KGMAC)
Smith, J. J.—Member, search committee for geochemist, KGS
Smith, J. J.—Assisted with KGS Field Conference, September 12–13, 2017
Stewart, D. L. — KGS representative, KU's United Way campaign
Stewart, D. L. — Host, KGS chili cook-off and cookie sale fund raiser for KU's United Way campaign
Stover, S. G. — Kansas Field Conference, September 11–13, 2017
Stover, S. G. — Nine environmental reviews of proposed projects as part of inter-agency coordination
Stover, S. G. — Key personnel, CarbonSAFE study; led the Legal, Regulatory and Public Policy team
Stover, S. G. — Member, Interagency Research Coordination Committee
Stover, S. G. — Member, KU Geology Associates Advisory Board
Stover, S. G. — Member, Kansas Geologic Mapping Advisory Committee
Stover, S. G. — Member, Ogallala Summit Planning Committee
Stover, S. G. — KGS booth, Kaw Valley Eagles Day, January 21, 2017, Lawrence, Kansas
Stover, S. G. — KGS booth, Kansas Rural Water Association, March 28–30, 2017, Wichita, Kansas
Stover, S. G. — KGS booth, Third Annual Science Discovery Day, April 15, 2017, Prairie Park Elementary School, Lawrence, Kansas
Suchy, D. R. — KGS booth, Kaw Valley Eagles Day, January 21, 2017, Lawrence, Kansas
Suchy, D. R. — KGS booth, Third Annual Science Discovery Day, April 15, 2017, Prairie Park Elementary School, Lawrence, Kansas
Tollefson, J. M. — Chair, KGS Outstanding Support Staff Recognition Award Committee
Tollefson, J. M. — Member (ex-officio), KGS Stratigraphic Nomenclature Committee
Watney, L. — Member, KGS Stratigraphic Nomenclature Committee

External Service

Brookfield, A. E. — Editor, Hydrogeology Division of Geological Society of America newsletter
Brookfield, A. E. — Associate Editor, Ground Water
Brookfield, A. E. — Courtesy Assistant Professor, University of Kansas Geology Department
Brookfield, A. E. — WRAPS representative
Brookfield, A. E. — Representative, KU Center for Science and Research Support
Brookfield, A. E. — World Water Day Outreach — Hills Pet Nutrition
Brookfield, A. E. — Volunteer, Douglas County Water Festival
Brookfield, A. E. — Volunteer, GSA Hydro Division career and networking event
Brookfield, A. E. — Judge, GSA student poster
Brookfield, A. E. — Professional manuscript reviews: Computing in Science and Engineering (1); Journal of Hydrologic Engineering (1); Groundwater (8); Reviews of Geophysics (1); Water Resources Research (2); CATENA (1); Journal of Hydrology (5); Water (1); HESS (1)
Brookfield, A. E. — Member, doctoral committee, University of Kansas Geology Department
Butler, J. J., Jr. — Testified to the House Committee on Water and the Environment at the request of Dwane Roth, irrigator in southwest Kansas, February 2, 2017, Topeka, Kansas
Butler, J. J., Jr. — Briefed Governor Brownback on the KGS sustainability approach and its findings, June 15, 2017, Governor's Office, Topeka, Kansas
Butler, J. J., Jr. — Participated in two press events with Governor Brownback and Lieutenant Governor Colyer to present the findings of the KGS sustainability approach to irrigators in western Kansas, July 18, 2017, Hoxie and Garden City
Butler, J. J., Jr. — Associate Editor, Ground Water (reviewed seven papers in 2017)
Butler, J. J., Jr. — Cox Visiting Professor, Department of Geophysics, Stanford University (spring quarter 2017 — taught course on assessment of aquifers supporting irrigated agriculture)
Butler, J. J., Jr. — Member, Kansas Water Resources Institute Administrative Council
Butler, J. J., Jr. — Member, Organizing Committee, NovCare 2017 (Novel Methods for Subsurface Characterization and Monitoring: From Theory to Practice), June 2017, Dresden, Germany
Butler, J. J., Jr. — Panel member, United States–Egypt Science and Technology Joint Fund, National Academies of Sciences, Engineering and Medicine
Butler, J. J., Jr. — Reviewer, National Science Foundation, Water Resources Research, the New Mexico Geological Survey, the Ecohydrology Journal, Mathematical Geology, Geophysical Research Letters, and others
Butler, J. J., Jr. — Tenure and promotion evaluator, University of Wisconsin at Madison
Butler, J. J., Jr. — Member, Erin Haacker Ph.D. committee, Michigan State University
Butler, J. J., Jr. — Member, Brooks Bailey M.S. committee, University of Kansas
Dealy, M. T. — Member, Kansas Corporation Commission, Oil and Gas Advisory Committee
Dealy, M. T. — Member, Kansas Geological Society, Nomenclature Committee
Dealy, M. T. — Event Coordinator, Wichita State University, Kansas Science Olympiad
Dealy, M. T. — Judge, Exploration Place, Sedgwick County Science and Discovery Center, Wichita Regional Science Fair, Wichita, Kansas
Dealy, M. T. — Judge, Kansas State Science and Engineering Fair, Wichita, Kansas
Evans, C. S. — Volunteer, 2017 Northeast Kansas Regional Science Olympiad (wrote Road Scholar section for competition)
Franseen, E. K. — Organizer and Convener, 2017 Kansas Interdisciplinary Carbonates Consortium (KICC) Annual Meeting
Franseen, E. K. — Member, Nominations Committee, Department of Geology, University of Kansas
Franseen, E. K. — Co-Organizer, KU Geology Career Symposium, Department of Geology, University of Kansas
Franseen, E. K. — Evaluator, Faculty Teaching, Department of Geology, University of Kansas
Franseen, E. K. — Chair, two doctoral and two master's degree candidate committees, University of Kansas
Franseen, E. K. — Co-chair, one doctoral and two master's degree candidate committees, University of Kansas
Franseen, E. K. — Member, two doctoral and five master's degree candidate committees, University of Kansas
Franseen, E. K. — Post-doc supervisor; Research topic: Integrative petroleum characterization studies, Kansas Interdisciplinary Carbonates Consortium
Franseen, E. K. — Member, Board of Visitors (Alumni Board), Department of Geology, University of Wisconsin-Madison
Franseen, E. K. — Chair, SEPM Officer Election Committee
Franseen, E. K. — Member, SEPM Student Research Grant Evaluation Committee

Franseen, E. K. — Member, SEPM Executive Director Search Committee
Franseen, E. K. — Member, review committee for abstracts submitted to the 2018 AAPG Annual Meeting
Franseen, E. K. — Member, review committee for abstracts submitted to the 2017 AAPG Annual Meeting
Franseen, E. K. — External Advisor, Earth and Space Sciences Department, Columbus State University, Georgia
Layzell, A. L. — Member, National Geologic Map Database Project Technical Advisory Working Group
Layzell, A. L. — Member, Kansas Streambank Research Team
Ludvigson, G. A. — Chair, University of Kansas Search Committee for KGS Director
Ludvigson, G. A. — Member, University of Kansas Office of Research Intermediate Review Committee
Ludvigson, G. A. — Associate Editor, Journal of Sedimentary Research
Ludvigson, G. A. — Co-instructor, University of Kansas Graduate Reading Seminar EVRN 700 on the Anthropocene, fall semester
Ludvigson, G. A. — Member, University of Kansas graduate thesis committees for Brian Sitek, Holly Field, Bridget Pettit, Jeff Ross, Brittany Hendrix, Caroline Nazworth, Clark Sturdevant, Thomas Neal, Maggie Graham, Isaac Allred, and Keelan Umbarger
Miller, R. D. — ICEG, Innovations in Geophysics Award, Selection Committee
Miller, R. D. — Geophysical Technology, Inc. (GTI) Advisory Board
Miller, R. D. — ICEG, Co-Chair, Scientific and Technical Program Committee, Al Ain, UAE, October
Miller, R. D. — SEG, Appointed, Global Inc., Board of Directors
Miller, R. D. — SEG, Inter-Society Presidential Task Force
Miller, R. D. — KU RGS Research Achievement Award Selection Committee
Smith, J. J.—Member, Deserae Jennings, Ph.D. dissertation committee, University of Kansas
Smith, J. J.—Peer Reviews: PALAIOS (one manuscript), Palaeogeography, Palaeoclimatology, Palaeoecology (three manuscripts), and American Chemical Society-Petroleum Research Fund, New Directions Grant (one proposal)
Smith, J. J.—Invited Mentor, Roy J. Shlemon Mentors Program in Applied Geoscience, Geological Society of America South-Central Section meeting, San Antonio, Texas
Smith, J. J.—Rocks and fossils presentation to all third-grade classes at Eudora Elementary School, February 2017, Eudora, Kansas
Stover, S. G. — Organizer and moderator, Governor's Conference on the Future of Water in Kansas, November 8–9, 2017, Manhattan, Kansas
Stover, S. G. — Organizer and presenter, Women in Science Day, October 31, 2017, Washburn University, Topeka, Kansas
Stover, S. G. — Chair, Geology and Society Division, Geological Society of America
Stover, S. G. — Mentor, GSA annual meeting, October 23, 2017, Seattle, Washington
Stover, S. G. — Convener, Distinguished Lecture: Darwin in Galapagos, Geological Society of America, October 24, 2017, Seattle, Washington
Stover, S. G. — Co-convener, Geoscience and the Legal System, Geological Society of America, October 25, 2017, Seattle, Washington
Stover, S. G. — Coordinator and judge, Geological Society of America Geology and Society's 2017 Outstanding Student Paper
Stover, S. G. — Member at large, subject matter expert, and Public Outreach/Uniform Procedures Committee member, Association of State Boards of Geology (ASBOG)
Stover, S. G. — Member, Association for Women Geoscientists, Osage Chapter
Stover, S. G. — Fellow, Geological Society of America
Suchy, D. R. — Member and Chairman, Board of Directors, Rural Water District #5, Douglas County, Kansas
Suchy, D. R. — Member and Treasurer, Board of Directors, Public Wholesale Water Supply District #25, Douglas and Osage Counties, Kansas

Grants

Geologic Mapping in Kansas for FY17. United States Geological Survey, STATEMAP Program Contract No. G17AC00261. Principle investigator: G. A. Ludvigson,. Co-PIs: R. D. Mandel, K. D. Newell, A. Layzell, J. J. Smith, W. C. Johnson, T. Bidgoli, and J. W. Dunham. Federal and state match totaling $311,046.
Merriam Research Award, Kansas Geological Survey. Principle investigator: G. A. Ludvigson. KU Endowment funds, $3,482.

Miller, R. D.: S.S. Papadopulos & Associates, Inc., High resolution seismic reflection study to detect accumulations of free gas in Quaternary and Tertiary units overlying Eminence Dome in SE Mississippi, 2017, $273,192. (PI)

Miller, R. D.: Kansas Department of Health and Environment, Microseismic monitoring and analysis with focus on trends and clusters in proximity to UIC Class 1 wells in Kansas, 2017, $40,000. (PI)

Miller, R. D.: Burns & McDonnell Engineering Company, Passive seismic monitoring of high priority salt jugs near the Irsik & Doll Elevator, BNSF Railroad, V&S Railroad right-of-way, and parallel to William Street in Hutchinson, Kansas, 2017, $179,715. (PI)

National Geological and Geophysical Data Preservation Program Grant to Data Resources Library, Wichita Well Sample Library, and KGS Library and Archive, Kansas Geological Survey, D. R. Suchy, PI; D. Stewart, co-PI; administered through U. S. Geological Survey, 2017–2018, $79,488.

National Geological and Geophysical Data Preservation Program Grant to Data Resources Library, Wichita Well Sample Library, and KGS Library and Archive, Kansas Geological Survey, M. T. Dealy and D. Stewart, Co-PI; administered through U. S. Geological Survey, 2016–2017, $64,599.

Website

- Placed 55 publications online.
- Placed 47 open-file reports online.
- Scanned more than 17,000 water well records (completed scanning of all older records).
- Scanned almost 4,000 wireline logs.

2016

Refereed Publications

Bohling, G. C., Liu, G., Dietrich, P., and Butler, J. J., Jr., 2016, Reassessing the MADE direct-push hydraulic conductivity data using a revised calibration procedure: Water Resources Research, v. 52, no. 11, p. 8,790–8,985. doi: 10.1002/2016WR019008

Brookfield, A., and Gnau, C., 2016, Optimizing water management for irrigation under climate uncertainty: Evaluating operational and structural alternatives in the Lower Republican River Basin, Kansas, USA: Water Resources Management, v. 20, no. 2, p. 607–622.

Brookfield, A., Gnau, C., and Wilson, B., 2016, Incorporating surface water operations in an integrated hydrologic model: Model development and application to the Lower Republican River Basin, USA: Journal of Hydrologic Engineering, doi: 10.1061/(ASCE)HE.1943-5584

Brookfield, A. E., Macpherson, G. L., and Covington, M. D., 2016, Early view. Effects of changing meteoric precipitation patterns on groundwater temperature in karst environments: Groundwater. doi: 10.1111/gwat.12456

Butler, J. J., Jr., Whittemore, D. O., Wilson, B. B., and Bohling, G. C., 2016, A new approach for assessing the future of aquifers supporting irrigated agriculture: Geophysical Research Letters, v. 43, no. 5, p. 2,004–2,010. doi: 10.1002/2016GL067879

Feigenbaum, D. Z., Ivanov, J., Miller, R. D., Peterie, S. L., and Morton, S. L. C., 2016, Near-surface Qp and Qs estimations using multichannel analysis of surface waves (MASW) and the effect of non-fundamental mode energy on Q-estimation: An example from Yuma Proving Ground, Arizona [Exp. Abs.]: Annual Meeting of the Society of Exploration Geophysicists, Dallas, Texas, p. 4,971–4976.

Ivanov, J., Miller, R. D., and Peterie, S. L., 2016, Detecting and delineating voids and mines using surface wave methods in Galena, Kansas [Exp. Abs.]: Annual Meeting of the Society of Exploration Geophysicists, Dallas, Texas, p. 2,344–2,350.

Ivanov, J., Tsoflias, G., Miller, R. D., Peterie, S., Morton, S., and Xia, J., 2016, Impact of density information on Rayleigh surface wave inversion results: Journal of Applied Geophysics, v. 135, p. 43–54.

Katz, B., Stotler, R., Hirmas, D., Ludvigson, G., Smith, J., and Whittemore, D., 2016, Geochemical recharge estimation and the effects of a declining water table: Vadose Zone Journal, p. 1–13. doi:10.2136/vzj2016.04.0031

Knight, R., Walsh, D. O., Butler, J. J., Jr., Grunewald, E., Liu, G., Parsekian, A. D., Reboulet, E. C., Knobbe, S., and Barrows, M., 2016, NMR logging to estimate hydraulic conductivity in unconsolidated aquifers: Groundwater, v. 54, no. 1, p. 104–114. doi: 10.1111/ gwat.12324

Layzell, A. L., Mandel, R. D., Rittenour, T. M., Smith, J. J., Harlow, R. H., and Ludvigson, G. A., 2016, Stratigraphy, morphology, and geochemistry of late Quaternary buried soils on the High Plains of southwestern Kansas, USA: Catena, v. 144, p. 45–55. http://dx.doi.org/10.1016/j.catena.2016.05.003

Liu, G., Knobbe, S., Reboulet, E. C., Whittemore, D. O., Handel, F., and Butler, J. J., Jr., 2016, Field investigation of a new artificial recharge approach for ASR projects in near-surface aquifers: Groundwater, v. 54, no. 3, p. 425–433. doi: 10.1111/ gwat.12363

Malehmir, A., Socco, L. V., Bastani, M., Krawczyk, C. M., Pfaffhuber, A. A., Miller, R. D., Maurer, H., Frauenfelder, R., Suto, K., Bazin, S., Merz, K., and Dahlin, T., 2016, Near-surface geophysical characterization of areas prone to natural hazards: A review of the current and perspective on the future; in, Advances in Geophysics, v. 57, L. Nielsen, ed.: Elsevier Inc., Amsterdam, The Netherlands, p. 51–146.

Miller, R. D., Black, W., Miele, M., Morgan, T., Ivanov, J., Peterie, S., and Wang, Y., 2016, High resolution seismic reflection to improve accuracy of hydrogeologic models in Ventura County, California, USA: Leading Edge, v. 35, n. 9, p. 760–769.

Morton, S. L. C., Peterie, S. L., Ivanov, J., Miller, R. D., Feigenbaum, D., Sloan, S. D., Moran, M. L., and Cudney, H. H., 2016, Feasibility study using surface wave attenuation and seismic quality factor for tunnel detection at the Yuma Proving Ground, Arizona [Exp. Abs.]: Annual Meeting of the Society of Exploration Geophysicists, Dallas, Texas, p. 2,351–2,356.

Peterie, S. L., Miller, R. D., Ivanov, J., Wang, Y., Morton, S., Sloan, S. D., Moran, M., and Cudney, H., 2016, Tunnel detection using SH-wave diffraction imaging [Exp. Abs.]: Annual Meeting of the Society of Exploration Geophysicists, Dallas, Texas, p. 5,006–5,010.

Poteet, J., Goldstein, R. H., and Franseen, E. K., 2016, Diagenetic controls on stepwise shifts in location of reservoir sweet spots relative to structural highs: *in,* Reservoir Quality of Clastic and Carbonate Rocks: Analysis, Modelling and Prediction, Armitage, P. J., Butcher, A. R., Churchill, J. M., Csoma, A. E., Hollis, C., Lander, R. H., Omma, J. E., and Worden, R. H., eds.: Geological Society, London, Special Publications, 435, 39 p.

Sawin, R. S., 2016, Classification of red beds at Point of Rocks, Morton County, Kansas: A historical review: Kansas Geological Survey, Current Research in Earth Sciences, Bulletin 262, 6 p. http://www.kgs.ku.edu/Current/2016/Sawin/Bulletin262.pdf

Sawin, R. S., and West, R. R., 2016, Surficial geology of Morris County, Kansas: Kansas Geological Survey, Map M-125, scale 1:50,000. http://www.kgs.ku.edu/General/Geology/County/klm/morrisLarge.html

Schwenk, J. T., Sloan, S. D., Ivanov, J., and Miller, R. D., 2016, Surface-wave methods for anomaly detection: Geophysics, v. 81, p. EN29–EN42.

Sloan, S. D., Cudney, H. H., Miller, R. D., Ivanov, J., and Moran, M. L., 2016, Depth estimation of voids using backscattered surface waves [Exp. Abs.]: Annual Meeting of the Society of Exploration Geophysicists, Dallas, Texas, p. 2,362–2,366.

Sloan, S. D., Miller, R. D., Smith, J., Peterie, S. L., Borisov, D., Moran, M. L., Tromp, J., and Cudney, H. H., 2016, Feasibility study on applying full waveform inversion of 3D multicomponent near-surface seismic data to tunnel detection: Proceedings of the 2016 Meeting of the Military Sensing Symposia (MSS) Specialty Group on Battlefield Acoustic and Seismic, Magnetic and Electric Field Sensors, Gaithersburg, Maryland. Published on CD.

Smith, J. J., Layzell, A. L., Lukens, W. E., Morgan, M. L., Keller, S. M., Martin, R. A., and Fox, D. L., 2016, Getting to the bottom of the High Plains aquifer: New insights into the depositional history, stratigraphy, and paleoecology of the Cenozoic High Plains; *in*, Unfolding the Geology of the West, Keller, S. M., and Morgan, M. L., eds.: Geological Society of America Field Guide 44, p. 93–124. doi:10.1130/2016.0044(04)

Suarez, C. A., Flaig, P. P., Ludvigson, G. A., González, L. A., Tian, R., Zhou, H., McCarthy, P. J., Van Der Kolk, D. A., and Fiorillo, A. R., 2016, Reconstructing the paleohydrology of a Cretaceous Alaskan paleopolar coastal plain from stable isotopes of bivalves: Palaeogeography, Palaeoclimatology, Palaeoecology, v. 441, p. 339–351. http://dx.doi.org/10.1016/j.palaeo.2015.07.025

Wang, Y., Baker, G. S., and Miller, R. D., 2016, Near-surface vibroseis signal enhancement using a fractional Fourier domain method [Exp. Abs.]: Annual Meeting of the Society of Exploration Geophysicists, Dallas, Texas, p. 2,372–2,376.

Whittemore, D. O, Butler, J. J., Jr., and Wilson, B. B., 2016, Assessing the major drivers of water-level declines: New insights into the future of heavily stressed aquifers: Hydrological Sciences Journal, v. 61, no. 1, p. 134–145. doi: 10.1080/02626667.2014.959958

Nonrefereed Publications

Alig, P., Mandel, R. D., Layzell, A. L., Meade, T., Perkl, B., Keeney, K., and Hall, S. M., 2016, Phase II intensive archaeological inventory survey of eight areas and the National Register of Historic Places site evaluation of two sites within the Fort Leavenworth, U.S. Army Garrison Command, Leavenworth County, Kansas: Report to U.S. Army Garrison Command, Fort Leavenworth, Kansas by the U.S., Army Corps of Engineers, Kansas City District. Report prepared for the U.S. Army Garrison Command, Fort Leavenworth, Kansas.

Bennett, B., and Brohammer, M., 2016, 2016 Water level data acquisition statistics: Kansas Geological Survey, Open-File Report 2016-32, 19 p.

Brookfield, A., 2016, Evaluating alternatives to increase the water available to water rights in the Lower Republican River Basin scenarios: Progress report: Technical Report for Kansas Water Office, 14 p.

Brookfield, A., Stotler, R., and Hill, M., 2016, Quantifying recharge in the High Plains aquifer in Kansas by coupling space and ground observations: Technical Report for Kansas NASA EPSCoR, 17 p.

Brookfield, A. E., 2016, Minimum saturated thickness calculator: Method overview and spreadsheet description: Kansas Geological Survey, Open-File Report 2016-3, 7 p.

Brookfield, A. E., 2016, Water is for fighting over and other myths about water in the West: Groundwater, v. 55:1. doi: 10.1111/gwat.12485

Butler, J. J., Jr., Whittemore, D. O., Reboulet, E., Knobbe, S., Wilson, B. B., Stotler, R. L., and Bohling, G. C., 2016, High Plains aquifer index well program: 2015 annual report: Kansas Geological Survey, Open-File Report 2016-4, 179 p.

Dunham, J. W. (compiler), 2016, The Flint Hills with prairie areas (map): Kansas Geological Survey, Open-File Report 2016-1, scale 1:325,000.
Evans, C., 2016, Earthquakes in Kansas: Causes and remediation: KEMSA Chronicle, Kansas Emergency Medical Services Association, v. 2, issue 3, p. 23–25.
Gomez-Hernandez, J. J., Butler, J. J., Jr., and Fiori, A., 2016, Groundwater transport in highly heterogeneous aquifers: Eos, v. 97. doi:10.1029/2016EO047263
Holubnyak, Y., Watney, W., Birdie, T., Rush, J., and Fazelalavi, M., Reservoir modeling of CO_2 injection in Arbuckle saline aquifer at Wellington Field, Sumner County, Kansas: Kansas Geological Survey, Open-File Report 2016-29, 150 p.
Ludvigson, G. A., 2016, Geologic mapping in the state of Kansas: Kansas Geological Society Bulletin, v. 91, no. 4, p. 12–13. http://www.kgslibrary.com/downloads/bulletins/2016/July%20-%20August%202016.pdf
Ludvigson, G. A., Mandel, R., Macfarlane, A., and Smith, J. J., 2016, Capturing the record of Neogene climate change from strata of the High Plains aquifer in Kansas: Research activities and findings: Open-File Report 2016-31, 32 p. http://www.kgs.ku.edu/Publications/OFR/2016/OFR16_31/index.html
Miller, R. D., Peterie, S. L., Gonzales, J. B., Intfen, J. W., and Buchanan, R. C., 2016, Earthquake Highlights, Issue 1: Kansas Geological Survey, Open-File Report 2016-20, 29 p.
Peterie, S. L., Miller, R. D., Bennett, B., Anderson, J., and Scobee, J., 2016, Baseline seismicity observed at seismograph station RC01 near Bushton, Kansas: Kansas Geological Survey, Open-File Report 2016-22, 17 p.
Peterie, S. L., Miller, R. D., Gonzales, J. B., Bennett, B. C., Anderson, J. M., and Scobee, J. R., 2016, Seismicity observed at seismograph station RC01 located near Bushton, Kansas: January 1 to June 30, 2016: Kansas Geological Survey, Open-File Report 2016-33 13 p.
Peterie, S. L., Miller, R. D., Gonzales, J. B., Intfen, J. W., and Buchanan, R. C., 2016, Earthquake Highlights, Issue 2: Kansas Geological Survey, Open-File Report 2016-21, 14 p.
Peterie, S., Miller, R. D., and Ivanov, J., 2016, Overview of passive seismic characterization and monitoring recommendations for high priority salt jugs near the Irsik & Doll Elevator, BNSF Railroad, and William Street in Hutchinson, Kansas: Report to Burns & McDonnell Engineering Company, June 2016, Kansas Geological Survey, Open-File Report 2016-26, 27 p.
Peterie, S., Miller, R. D., and Ivanov, J., 2016, Overview of passive seismic characterization and monitoring recommendations for high priority salt jugs near the V&S Railroad right-of-way in Hutchinson, Kansas: Report to Burns & McDonnell Engineering Company, June 2016, Kansas Geological Survey, Open-File Report 2016-25, 26 p.
Sawin, R. S., 2016, Preliminary surficial geology of the Lincoln County portion of the Juniata and Brookville SW quadrangles, Kansas**:** Kansas Geological Survey, Open-File Report 2016-5, 1 sheet, scale 1:24,000. http://www.kgs.ku.edu/Publications/OFR/GeoMaps/KsGS_OFR2016-05_Juniata_Brookville_SW.pdf
Sawin, R. S., 2016, Preliminary surficial geology of the Lincoln County portion of the Sylvan Grove quadrangle, Kansas: Kansas Geological Survey, Open-File Report 2016-8, 1 sheet, scale 1:24,000. http://www.kgs.ku.edu/Publications/OFR/GeoMaps/KsGS_OFR2016-08_Sylvan_Grove.pdf
Sawin, R. S., 2016, Preliminary surficial geology of the Lincoln quadrangle, Lincoln County, Kansas**:** Kansas Geological Survey, Open-File Report 2016-6, 1 sheet, scale 1:24,000. http://www.kgs.ku.edu/Publications/OFR/GeoMaps/KsGS_OFR2016-06_Lincoln.pdf
Sawin, R. S., 2016, Preliminary surficial geology of the Vesper quadrangle, Lincoln County, Kansas: Kansas Geological Survey, Open-File Report 2016-9, 1 sheet, scale 1:24,000. http://www.kgs.ku.edu/Publications/OFR/GeoMaps/KsGS_OFR2016-09_Vesper.pdf
Sawin, R. S., 2016, Preliminary surficial geology of the Westfall NW quadrangle and the Lincoln County portion of the Westfall SW quadrangle, Kansas**:** Kansas Geological Survey, Open-File Report 2016-11, 1 sheet, scale 1:24,000. http://www.kgs.ku.edu/Publications/OFR/GeoMaps/KsGS_OFR2016-11_Westfall_NW_Westfall_SW.pdf
Sawin, R. S., 2016, Preliminary surficial geology of the Westfall quadrangle and the Lincoln County portion of the Westfall SE quadrangle, Kansas: Kansas Geological Survey, Open-File Report 2016-10, 1 sheet, scale 1:24,000. http://www.kgs.ku.edu/Publications/OFR/GeoMaps/KsGS_OFR2016-10_Westfall_Westfall_SE.pdf
Sawin, R. S., and West R. R., 2016, Data control points used to construct the surficial geology map (M-125) of Morris County, Kansas: Kansas Geological Survey, Open-File Report 2016-2, 240 p. http://www.kgs.ku.edu/Publications/OFR/2016/OFR16_02/index.html

Stover, S., and Evans, C. S., 2016, West-Central Kansas — Natural resources, economics, and decisions for the future, 2016 Kansas Field Conference guide: Kansas Geological Survey, Open-File Report 2016-23, 68 p. http://www.kgs.ku.edu/Field/Reports/KGS_OF_2016-23.pdf

Suchy, D., and Stewart, D., 2016, WWC5 forms and KOLAR: Location reporting: Kansas Geological Survey, Open-File Report 2016-27, 59 p.

Wilson, B. B., 2016, Establishing Kansas as a data provider to the National Ground-water Monitoring Network: Kansas Geological Survey, Open-File Report 2016-28, 12 p. http://www.kgs.ku.edu/Hydro/Publications/2016/OFR16_28/index.html

Woods, J. J., and Wilson, B. B., 2016, Western Kansas GMD1 maps: Kansas Geological Survey, Open-File Report 2016-19, 7 maps. http://www.kgs.ku.edu/Hydro/Publications/2016/OFR16_19/index.html

Abstracts

Brookfield, A. E., Hill, M. C., Stotler, R. L., and Porter, M. E., 2016, Interpreting satellite-based data from the GRACE mission using in-situ measurements from the High Plains aquifer in Kansas: Governor's Conference on the Future of Water in Kansas, Manhattan, Kansas, November 14–15.

Brookfield, A. E., Macpherson, G. L., and Covington, M. D., 2016, Effects of changing meteoric precipitation patterns on groundwater temperature in karst environments: Presentation with abstract, GSA Annual Meeting, Denver, Colorado, September 25–28.

Butler, J. J., Jr., 2016, Assessing the sustainability of aquifers supporting irrigated agriculture, invited presentation for Earth Resources Engineering Symposium, National Academy of Engineering, Washington, D.C., October 11. http://blog.uvm.edu/webwizrd-nae/presentations/

Butler, J. J., Jr., 2016, Subsurface characterization over a range of temporal and spatial scales, invited presentation for 2016 CUAHSI Biennial Symposium — Finding your place in big data: Using observations to understand hydrologic processes for predicting a changing world, Shepherdstown, West Virginia, July 26 (p. 21 at www.cuahsi.org/Files/Pages/documents/25003/2016_ cuahsi_biennial_program_-_online.pdf).

Butler, J. J. Jr., Whittemore, D. O., and Wilson, B. B., 2016, Assessing prospects for sustainability in the High Plains aquifer in southwest Kansas, Governor's Conference on Future of Water in Kansas, Manhattan, Kansas, November 15. http://www.kwo.org/Projects/2016_Govs_Conf/PowerPoints/Day%202/Butler_Sustainability%20Assessment%20for%20SW%20Kansas.pdf

Butler, J. J. Jr., Whittemore, D. O., and Wilson, B. B., 2016, The High Plains aquifer: A Kansas perspective, invited presentation for American Geosciences Institute Critical Issues Forum — Addressing Changes in Regional Groundwater Resources: Lessons from the High Plains Aquifer, Golden, Colorado, October 27. https://www.americangeosciences.org/policy/ci-forum-2016/presentations

Butler, J. J., Jr., Whittemore, D. O., and Wilson, B. B., 2016, The High Plains aquifer in Kansas: Current conditions and future projects: Geological Society of America Abstracts with Programs v. 48, no. 7, invited presentation at the 2016 GSA Conference, September 27. doi:10.1130/abs/2016AM-281471

Butler, J. J., Jr., Whittemore, D. O., Wilson, B. B., and Bohling, G. C., 2016, A sustainability index for assessment and management of aquifers supporting irrigated agriculture, Abstract H54B-05, 2016 Fall Meeting, American Geophysical Union, San Francisco, December 15.

Butler, J. J. Jr., Whittemore, D. O., Wilson, B. B., and Knobbe, S., 2016, Monitoring the hydrologic impacts of the Sheridan 6 Local Enhanced Management Area, Governor's Conference on Future of Water in Kansas, Manhattan, Kansas, November 15. http://www.kwo.org/Projects/2016_Govs_Conf/PowerPoints/Day%202/Butler_LEMA.pdf

Core, E. E., Ramirez, W. R., Santos, H., Ortega-Ariza, D., and Franseen, E. K., 2016, Miocene-Pliocene Heterozoan-Dominated Systems in the Dominican Republic: Analogs for Neogene Reservoirs in the Caribbean: AAPG/SEPM Annual Meeting, Calgary, Canada.

Core-Suárez, E. E., Ramirez, W. R., Santos-Mercado, H., Ortega-Ariza, D., and Franseen, E. K., 2016, Miocene-Pliocene Heterozoan-Dominated Systems in the Dominican Republic: Analogs for Neogene Reservoirs in the Caribbean: Kansas Interdisciplinary Carbonate Consortium Annual Review Meeting. EXTENDED ABSTRACT

Feigenbaum, D. Z., Ivanov, J., Miller, R. D., Peterie, S. L., and Morton, S. L. C., 2016, Near-surface Qp and Qs estimations using multichannel analysis of surface waves (MASW) and the effect of non-fundamental mode energy on Q-estimation: An example from Yuma Proving Ground, Arizona: Annual Meeting of the

Society of Exploration Geophysicists, Dallas, Texas, October 16–21, p. 4971-4976. EXPANDED ABSTRACT

Flotron, A. N., Goldstein, R. H., and Franseen, E. K., 2016, Sedimentologic and Stratigraphic Controls on Reservoir Sweet Spots in Wolfcamp 'A,' Howard County, Midland Basin: Kansas Interdisciplinary Carbonate Consortium Annual Review Meeting. EXTENDED ABSTRACT

Franseen, E.K., 2016, Some Primary Factors on Depositional and Stratigraphic Nature of Heterozoan and Mixed Heterozoan-Photozoan Carbonate Systems: Kansas Interdisciplinary Carbonate Consortium Annual Review Meeting. EXTENDED ABSTRACT

Franseen, E. K., and Goldstein, R. H., 2016, Build-and-Fill Stratigraphic Sequences in Carbonates: Abstract Book, Dolomieu Conference on Carbonate Platforms and Dolomite, Selva Di Val Gardena, Italy, October 4-7, p. 53-54.

Golab, J. A., and Smith, J. J., 2016. Effects of biogenic porosity on the petrophysical properties of the karstic Lower Cretaceous Glen Rose Limestone, Bexar County, Texas. Geological Society of America, Abstracts with Programs, 48(7). doi: 10.1130/abs/2016AM-283302

Graham, M. A., Möller, A., Ludvigson, G. A., Hallman, J. A., and Smith, J. J., 2016, Trace element fingerprinting of Yellowstone hotspot track (YHT) major eruptions in volcanic ashes from High Plains strata in Kansas: Geological Society of America, Abstracts with Programs, v. 48, no. 7. doi: 10.1130/abs/2016AM-281965

Hallman, J. A., McLean, N., Möller, A., Ludvigson, G. A., Smith, J. J., and Sitek, B. C., 2016, Spatial and temporal patterns of Ogallala Formation deposition revealed by U-Pb zircon geochronology: Geological Society of America, Abstracts with Programs, v. 48, no. 7. doi: 10.1130/abs/2016AM-279868

Holubnyak, Y., Watney, L., and Bidgoli, T. S., 2016, Lessons learned from waste water disposal in Kansas: Applications for CO_2 geological storage: 15th Annual Conference on Carbon Capture Utilization & Storage, Tysons, Virginia, June 13–16, 2016.

Holubnyak, Y., Watney, W., Birdie, T., Rush, J., Fazelalavi, M., and Wreath, D., 2016, Pilot scale CO_2 EOR at Wellington Field in South-Central Kansas: 15th Annual Conference on Carbon Capture Utilization & Storage, Tysons, Virginia, June 13–16.

Ivanov, J., Miller, R. D., and Peterie, S. L., 2016, Detecting and delineating voids and mines using surface wave methods in Galena, Kansas: Annual Meeting of the Society of Exploration Geophysicists, Dallas, Texas, October 16–21, p. 2,344–2,350. EXPANDED ABSTRACT

Joeckel, R. M., Tucker, S. T., Ludvigson, G. A., Möller, A., Field, H. L., and Korus, J. T., 2016, The emerging deeper understanding of Cenozoic stratigraphy in Nebraska and the power of interstate cooperation: Geological Society of America, Abstracts with Programs, v. 48, no. 7. doi: 10.1130/abs/2016AM-285804

Layzell, A. L., Ludvigson, G. A., and Fox, D. L., 2016, Stable isotopic paleohydrology of pedogenic carbonate nodules from Pliocene paleosols in the Meade Basin, southwestern Kansas: Geological Society of America, Abstracts with Programs, v. 48, no. 7. doi: 10.1130/abs/2016AM-281581

Lechtenberg, K. S., Goldstein, R. H., and Franseen, E. K., 2016, Modeling Controls on the Architecture of Phylloid Algal and Associated Reservoirs from Outcrop Analogs: Lower Ismay Zone (Pennsylvanian), Utah, USA: AAPG/SEPM Annual Meeting, Calgary, Canada.

Ludvigson, G. A., González, L. A., Joeckel, R. M., Suarez, M. B., Möller, A., and Ross, J. B., 2016, Exploring the frontier of terrestrial Aptian-Albian (Cretaceous) C-isotope stratigraphy and paleoclimatology: A tribute to the scientific career of Michael A. Arthur: Geological Society of America, Abstracts with Programs, v. 48, no. 7. doi: 10.1130/abs/2016AM-281223

Ludvigson, G. A., González, L. A., Suarez, M. B., Joeckel, R. M., and Möller, A., 2016, Terrestrial paleoclimatology of the Early Cretaceous Western Interior foreland basin of North America: AAPG Annual Convention & Exhibition, Calgary, Alberta, June 19–22.

Ludvigson, G. A., González, L. A., Suarez, M. B., and Möller, A., 2016, Terrestrial records of carbon isotope excursions associated with Aptian-Albian (Cretaceous) OAEs: SEPM Research Conference on Oceanic Anoxic Events, November 2–7, Austin, Texas, USA.

Morton, S. L. C., Peterie, S. L., Ivanov, J., Miller, R. D., Feigenbaum, D., Sloan, S. D., Moran, M. L., and Cudney, H. H., 2016, Feasibility study using surface wave attenuation and seismic quality factor for tunnel detection at the Yuma Proving Ground, Arizona: Annual Meeting of the Society of Exploration Geophysicists, Dallas, Texas, October 16–21, p. 2,351–2,356. EXPANDED ABSTRACT

Ortega-Ariza, D., and Franseen, E. K., 2016, Effects of sea level and upwelling on development of a Miocene shallow-water tropica carbonate ramp system, Ponce, Puerto Rico, USA: Abstract Book, Dolomieu Conference on Carbonate Platforms and Dolomite, Selva Di Val Gardena, Italy, October 4-7, p. 113-114.

Ortega-Ariza, D., Franseen, E. K., Santos-Mercado, H., Ramirez-Martinez, W., and Core-Suárez, E., 2016, Strontium-isotope stratigraphy for Oligocene-Miocene carbonate systems in Puerto Rico and the Dominican Republic: Implications for Caribbean processes affecting depositional history, XII International Scientific Research Congress, Ministry of Higher Education - Science and Technology (MESCYT), Santo Domingo, Dominican Republic.

Peterie, S. L., Miller, R. D., Ivanov, J., Wang, Y., Morton, S., Sloan, S. D., Moran, M., and Cudney, H., 2016, Tunnel detection using SH-wave diffraction imaging: Annual Meeting of the Society of Exploration Geophysicists, Dallas, Texas, October 16–21, p. 5,006–5,010. EXPANDED ABSTRACT

Platt, B. F., Hembree, D. I., Smith, J. J., and Buynevich, I. V., 2016, Neoichnology at the Santa Catalina Critical Zone Observatory: Three-dimensional analysis of soil fauna burrows from the Sonoran Desert, Arizona, USA. Geological Society of America, Abstracts with Programs, 48(7). doi: 10.1130/abs/2016AM-287558

Pugliano, T., Goldstein, R. H., and Franseen, E. K., 2016, Diagenetic and stratigraphic impact on petrophysical properties of heterozoan carbonates: Kansas Interdisciplinary Carbonate Consortium Annual Review Meeting. EXTENDED ABSTRACT

Pugliano, T., Goldstein, R. H., and Franseen, E. K., 2016, Fining upward cyclothems and clinothems are fundamental units making up the architecture of many heterozoan carbonate systems: Kansas Interdisciplinary Carbonate Consortium Annual Review Meeting. EXTENDED ABSTRACT

Pugliano, T. M., Goldstein, R. H., and Franseen, E. K., 2016, Fundamental controls on modeling reservoir properties of fining-updip heterozoan carbonates: AAPG/SEPM Annual Meeting, Calgary, Canada.

Pugliano, T. M., Goldstein, R. H., Franseen, E. K., and Eltom, H., 2016, Impact of low-temperature diagenesis on petrophysical properties in heterozoan carbonates: Abstract Book, Dolomieu Conference on Carbonate Platforms and Dolomite, Selva Di Val Gardena, Italy, October 4-7, p. 125–126.

Sitek, B. C., Smith, J. J., Möller, A., Ludvigson, G. A., McLean, N., and Hallman, J. A., 2016, Chronostratigraphy of the Ogallala Formation in western Kansas: A new approach using paleosols: Geological Society of America, Abstracts with Programs, v. 48, no. 7. doi: 10.1130/abs/2016AM-281004

Sloan, S. D., Cudney, H. H., Miller, R. D., Ivanov, J., and Moran, M. L., 2016, Depth estimation of voids using backscattered surface waves: Annual Meeting of the Society of Exploration Geophysicists, Dallas, Texas, October 16–21, p. 2,362–2,366. EXPANDED ABSTRACT

Smith, J. J., Ludvigson, G. A., Layzell, A. L., Möller, A., Stotler, R. L., Harlow, R. H., Petronis, M., Rittenour, T. M., and Doveton, J. H., 2016, Maximum depositional age constraints and provenance of Cenozoic deposits of the central High Plains in western Kansas, USA: Geological Society of America, Abstracts with Programs, v. 48, no. 7. doi: 10.1130/abs/2016AM-287381

Smith J. J., Ludvigson, G. A., Layzell, A., Stotler, R. L., and Möller, A., 2016, Scientific drilling in the Cenozoic strata of the High Plains of western Kansas. Transactions of the Kansas Academy of Science, Abstracts from the 148th Annual Meeting of the Kansas Academy of Science, 119(2): 261.

Smith, J. J., Stover, S. G., and Johnston, P., 2016. The Neal trace fossil locality: a new Pennsylvanian ichnofossil assemblage in Greenwood County, Kansas. Geological Society of America, Abstracts with Programs, v. 48, no. 7. doi: 10.1130/abs/2016AM-287434

Stotler, R. L., Butler, J. J., Jr., Hirmas, D. R., Johnson, W. C., Katz, B. S., Knobbe, S., Layzell, A. L., Long, M. M., Ludvigson, G. A., Reboulet, E. C., Smith, J. J., and Whittemore, D. O., 2016, Understanding the role of geology on recharge to and production from the High Plains aquifer in Kansas: Geological Society of America Abstracts with Programs v. 48, no. 7. doi:10.1130/abs/2016AM-283041

Vero, S. E., Macpherson, G. L., Sullivan, P. L., Brookfield. A. E., Kirk, M. F., Datta, S., and Kempton, P., 2016, The Konza Prairie, Northeast Kansas, USA: The hydrologic evolution of a merokarst landscape: Poster with abstract, AGU Fall Meeting, San Francisco, California, December 12–16.

Wang, Y., Baker, G. S., and Miller, R. D., 2016, Near-surface vibroseis signal enhancement using a fractional Fourier domain method: Annual Meeting of the Society of Exploration Geophysicists, Dallas, Texas, October 16–21, p. 2,372–2,376. EXPANDED ABSTRACT

Whittemore, D. O., Butler, J. J., Jr., and Wilson, B. B., 2016, The importance of capture in stream valleys to water resources in the High Plains aquifer, Governor's Conference on Future of Water in Kansas, Manhattan, Kansas, November 15. http://www.kwo.org/Projects/2016_Govs_Conf/PowerPoints/Day%202/Whittemore_Importance%20of%20Capture.pdf

Presentations

Brookfield, A. E., Hill, M., and Porter, E., 2016, Developing tools for data-model integration in fully-coupled hydrologic models: NASA Goddard Terrestrial Water Cycle Seminar Series, Greenbelt, Maryland, January 13.

Butler, J. J., Jr., 2016, Aquifer testing for improved hydrogeologic site characterization featuring Aqtesolv and the In-Situ LevelTroll (two-day short course), Midwest Geosciences Group, Montreal, Quebec, April 14–15, and Fort Collins, Colorado, October 18–19.

Butler, J. J., Jr., 2016, Assessing the future of the High Plains aquifer in Kansas (teleconference), Kansas Farm Bureau Tour, August 25.

Butler, J. J., Jr., 2016, Assessing the sustainability of aquifers supporting irrigated agriculture: A case study of the High Plains aquifer in Kansas (invited presentation), Department of Earth and Environmental Sciences, Michigan State University, September 30.

Butler, J. J., Jr., 2016, Assessing the sustainability of aquifers supporting irrigated agriculture (invited presentation), Earth Resources Engineering Symposium on Groundwater Depletion, National Academy of Engineering, Washington, D.C., October 11.

Butler, J. J., Jr., 2016, Drought resilience and groundwater: A Kansas perspective (invited presentation), Drought Resilience and Groundwater Workshop, Robert S. Kerr Environmental Research Center, Environmental Protection Agency, Ada, Oklahoma, August 4.

Butler, J. J., Jr., 2016, Geohydrology section overview, KGS Advisory Council, April 26.

Butler, J. J., Jr., 2016, GMD2 sustainability assessment: Initial results, GMD2 Board Meeting, Halstead, June 24.

Butler, J. J., Jr., 2016, Groundwater forum advanced aquifer testing program design (half-day short course), 24th NARPM Training Program, Environmental Protection Agency, Pittsburgh, Pennsylvania, May 3.

Butler, J. J., Jr., 2016, Hydrogeological methods for estimation of spatial variations in hydraulic conductivity (invited presentation), National Ground Water Association Groundwater Sampling and Environmental Monitoring Workshop, Lawrence, Kansas, July 28.

Butler, J. J., Jr., 2016, KGS Index Well Program update, KGS Advisory Council, November 4.

Butler, J. J., Jr., 2016, KGS update: High Plains aquifer activities, Kansas Water Authority, Oakley, May 17.

Butler, J. J., Jr., 2016, Prospects for extending the lifetime of the High Plains aquifer, Kansas Farm Bureau 9th District Meeting, Tribune, April 7.

Butler, J. J., Jr., 2016, Prospects for extending the lifetime of the High Plains aquifer — The role of groundwater flow, 60th Annual Meeting of the Southwest Kansas Irrigation Association, Ulysses, February 9.

Butler, J. J., Jr., 2016, Pumping tests for aquifer evaluation: Overview of theory and practice, KU Geology 592/792, March 30.

Butler, J. J., Jr., 2016, Subsurface characterization over a range of temporal and spatial scales (invited presentation), 2016 CUAHSI Biennial Symposium, Shepherdstown, West Virginia, July 26.

Butler, J. J., Jr., 2016, What does the future hold for the High Plains aquifer? KU Mini College, Lawrence, June 9.

Butler, J. J., Jr., and Whittemore, D. O., 2016, Index Well Program, Kansas Water Office, Topeka, May 24.

Butler, J. J., Jr., Whittemore, D.O., and Wilson, B. B., 2016, The High Plains aquifer: A Kansas perspective (invited presentation): American Geosciences Institute Critical Issues Forum – Addressing Changes in Regional Groundwater Resources: Lessons from the High Plains Aquifer, Golden, Colorado, October 27.

Butler, J. J., Jr., Whittemore, D. O., and Wilson, B. B., 2016, The High Plains aquifer in Kansas: Current conditions and future prospects, Pardee Keynote Session – The High Plains Aquifer: Can It be Managed for Today and the Future? (invited presentation), 2016 Geological Society of America Annual Meeting, Denver, Colorado, September 27.

Butler, J. J., Jr., Whittemore, D. O., and Wilson, B. B., 2016, Sustainability of aquifers supporting irrigated agriculture: A case study of the High Plains aquifer in Kansas (invited presentation), OECD-WFI Virtual Water in Agriculture Products: Quantification, Limitations, and Trade Policy Workshop, Lincoln, Nebraska, September 16.

Dunham, J. W., 2016, Surficial geology of Morris County, Kansas: Map Gallery (poster) presentation, Esri International User Conference, San Diego, California, June 27.

Dunham, J. W., 2016, 'You are Here' – Flint Hills Maps & Education Program: Map Gallery (poster) presentation, Esri International User Conference, San Diego, California, June 27.

Franseen, E. K., 2016, Organizer and Convener, 2016 Kansas Interdisciplinary Carbonates Consortium (KICC) Annual Meeting

Franseen, E. K., 2016, Scientific Committee Member - Dolomieu Conference on Carbonate Platforms and Dolomite, Selva di Val Gardena, Italy, October 4-7

Franseen, E. K., 2016, Session Chair – Carbonate Platforms Through Space and Time, Dolomieu Conference on Carbonate Platforms and Dolomite, Selva di Val Gardena, Italy, October 4-7

Franseen, E. K., 2016, Invited speaker – Permian Basin Section-SEPM, Character of the Avalon Shale (Bone Spring Formation) of the Delaware Basin, West Texas and Southeast New Mexico: Effect of Carbonate-rich Sediment Gravity Flows, Midland, Texas, January 19.

Franseen, E. K., 2016, Invited talk, Total E&P, Some Primary Factors on Depositional and Stratigraphic Nature of Heterozoan and Mixed Heterozoan-Photozoan Carbonate Systems, Houston, Texas, May 17.

Franseen, E. K., 2016, Invited talk, Total E&P, Potential Caribbean Outcrop Analog Sites for Cenozoic Mixed Heterozoan-Photozoan Caribbean reservoir systems, Houston, Texas, May 17.

Johnson, W. C., Dunham, J. W., and Child, S. F., 2016, Geologic Mapping of Rice County, Kansas: poster presented by William C. Johnson, Geological Society of America 2016 Annual Meeting, Denver, Colorado, September 25–28.

Layzell, A. L., 2016, A stratigraphic assessment of streambank erodibility in northeastern Kansas: Kansas Geological Survey Advisory Council Meeting, November

Layzell, A. L., and Mandel, R. D., 2016, Variability of streambank erosion in northeast Kansas: The importance of litho- and soil-stratigraphy: Transactions of the Kansas Academy of Science, vol. 119, no. 2, p. 252.

Layzell, A. L., Mandel, R. D., Ziska, C., and Bozell, R., 2016, Developing a geographic information system (GIS) as a predictive tool for locating deeply buried archaeological deposits in Nebraska: 74th Plains Anthropological Conference, Lincoln, Nebraska.

Ludvigson, G. A., 2016, The emerging terrestrial record of Mid-Cretaceous global change: Department of Earth and Environmental Sciences, University of Iowa, Iowa City, Iowa, October 21.

Miller, R. D., 2016, Earthquake network in Kansas, Kansas House Energy, Utilities, and Telecomm Committee.

Miller, R. D., 2016, Geotech Conference, November 10.

Miller, R. D., 2016, Consortium, Lawrence, Kansas, August 15.

Miller, R. D., 2016, Kansas Department of Health and Environment Seminar, Wichita, Kansas, September 8.

Miller, R. D., 2016, Kansas Department of Health and Environment, Seismic Consortium Meeting, Wichita, Kansas, July 28.

Miller, R. D., 2016, GSAC Presentation, Section Summary, Kansas Geological Survey, Lawrence, Kansas, April 26.

Miller, R. D., 2016, Kansas Department or Health and Environment, Mosaic, Topeka, Kansas, March 22.

Miller, R. D., 2016, K-Scope Report Meeting, March 22.

Miller, R. D., 2016, OGS/OCC/KCC/KGS, Earthquakes, Norman, Oklahoma, February 29.

Miller, R. D., 2016, Legislative Info Hearing on Kansas Earthquake Activity in 2015, Topeka, Kansas, January 21.

Smith, J. J., 2016, Getting to the Bottom of the High Plains Aquifer: New insights into the Depositional History and Stratigraphy of the Cenozoic High Plains*:* National Association of State Boards of Geology, Council of Examiners Workshop Subject Matter Experts meeting, November 4, 2016, Lawrence, KS

Smith, J. J., 2016, High Plains-Ogallala Drilling Program: Progress Report and Preliminary Findings: Kansas Geological Mapping Advisory Committee, April 2, 2016, Lawrence, Kansas.

Smith, J. J., Ludvigson, G. A., Layzell, A. L., Stotler, R., Möller, A., 2016, Scientific drilling in the Cenozoic strata of the High Plains of western Kansas: Transactions of the Kansas Academy of Science, vol. 119, no. 2, p. 261.

Smith J. J., Stover, S., and Johnston, P., 2016, The Neal Trace Fossil Locality: A new Pennsylvanian ichnofossil assemblage in Greenwood County, Kansas: Poster presentation at Geological Society of America, September 28, Denver, Colorado.

Stover, S. G., 2016, Water in Kansas: Kaw Valley High School, January 19.

Stover, S. G., 2016, Expanding interest and opportunities for girls and women in science, technology, engineering and math (STEM) fields: Zonta International Women's Club, February 16, Topeka, Kansas.

Stover, S. G., 2016, Water in Kansas: University of Kansas geography class, April 12, Lawrence, Kansas.

Stover, S. G., 2016, Water and Kansas: A Brief History: Washburn University, April 19, Topeka, Kansas.

Stover, S. G., 2016, The Kansas Neosho River: A short history: Fredonia Library, March, Fredonia, Kansas.

Stover, S. G., 2016, Ogallala aquifer: Are we making progress? Science on Tap, Free State Brewing Company, July 27, Lawrence, Kansas.

Stover, S. G., 2016, The High Plains aquifer: Are we making progress: Optimist Club, August 2, Topeka, Kansas.

Stover, S. G., 2016, Science Quiz, Women In Science day: Washburn University, October 11, Topeka, Kansas.

Stover, S. G., 2016, Water and negotiation in the west, invited speaker, Addressing changes in regional groundwater resources: Lessons from the High Plains aquifer: AGI Critical Issue Forum, Oct 27–28, Golden, Colorado.

Stover, S. G., and Buchanan, R., moderators, 2016, The High Plains aquifer: Can it be managed for today and the future? Invited Pardee Session, Geological Society of America annual meeting, September 27, Denver, Colorado.
Suchy, D. R., and Stewart, D., September 2016, WWC-5 forms and KOLAR: Location reporting, KDHE Geology and Well Technology Section Fall 2016 Seminar and Training Event, Wichita, Kansas.
Wilson, B. B., 2016, Southwest Kansas Irrigators Association.
Wilson, B. B., 2016, Western Kansas GMD1 Annual Meeting, Tribune.
Wilson, B. B., 2016, Southwest Kansas GMD3 Annual Meeting.
Wilson, B. B., 2016, Wichita County WCA Group.
Wilson, B. B., 2016, Wallace County Irrigators.
Wilson, B. B., 2016, Kansas Rural Water Association Conference.
Wilson, B. B., 2016, KU's Speed Dating Researchers.
Wilson, B. B., 2016, National Groundwater Monitoring Network conference.
Wilson, B. B., 2016, National geographic Magazine Interview.

Awards & Honors

Dunham, J. W., 2016 Esri International User Conference Map Gallery, International Cartographic Association (ICA) and International Map Industry Association (IMIA) Excellence in Cartography Award for "Surficial Geology of Morris County, Kansas"
Dunham, J. W., 2016 Esri International User Conference Map Gallery, 2nd place, Large Format Printed Map category, also for "Surficial Geology of Morris County, Kansas"
Miller, R. D. — Elected, Treasurer, SEG Global Inc., Board of Directors
Miller, R. D. — Merriam Research Award, KGS

Internal Service

Brookfield, A. E. — Representative, KU Center for Science and Research Support
Brookfield, A. E. — Organized section seminars from February through June
Brookfield, A. E. — Performed 8 agency reviews
Buchanan, R. — Kansas Field Conference, West-Central Kansas, August 17-18, 2016
Butler, J. J., Jr. — Co-Chair, KGS Director Search Committee
Evans, C. S. — KGS Eagle Days booth, Lawrence, Kansas, January 23
Evans, C. S. — Kansas Field Conference, West-Central Kansas, August 17-18, 2016
Franseen, E. K. — Member, Promotion and Review Committee
Franseen, E. K. — Member, Stratigraphic Nomenclature Committee
Franseen, E. K. — Member, Editorial Board for Current Research on Kansas Geology Bulletin
Layzell, A. L. — Member, KGS Stratigraphic Nomenclature Committee
Ludvigson, G. A. — Chair, Search Committee for Director of the Kansas Geological Survey
Ludvigson, G. A. — Member, KU Research Promotion Committee
Ludvigson, G. A. — Co-Chair, Search Committee for Director of the Kansas Geological Survey
Sawin, B. — Kansas Field Conference, West-Central Kansas, August 17-18, 2016
Sawin, R. S. — Chair, KGS Stratigraphic Nomenclature Committee
Smith, J. J.—Member, Kansas Geological Mapping Advisory Committee (KGMAC)
Smith, J. J.—Member, search committee for Quaternary Geologist, KGS
Smith, J. J.—Member, Outstanding Support Staff Recognition Award Committee, KGS
Stover, S. G. — Kansas Field Conference, West-Central Kansas, August 17-18, 2016
Stover, S. G. — Member, Kansas Geologic Mapping Advisory Committee
Stover, S. G. — KGS booth, Kansas Rural Water Association, March 29–31, Wichita, Kansas
Stover, S. G., KGS booth, Earth Day at the Zoo, April 23, Topeka, Kansas
Stover S. G. — KGS booth, Kansas Independent Oil and Gas Association, August 14–15, Wichita, Kansas
Stover, S. G. — Edu-Lobby Committee, Earth, Energy, and Environment Center, University of Kansas
Stover, S. G. — Six environmental reviews of proposed projects, as part of inter-agency coordination.
Suchy, D. R. — Volunteer, KGS booth at Kaw Valley Eagles Day event, Free State High School, Lawrence, Kansas, January 23
Suchy, D. R. — Volunteer, KGS Earth Day booth, Topeka Zoo, Topeka, Kansas, April 23

Suchy, D. R. — Volunteer, KGS table at Earth Science Day, KU Natural History Museum, Lawrence, Kansas, October 15
Tollefson, J. M.—Member, KGS Outstanding Support Staff Recognition Award Committee
Tollefson, J. M. — Ex-officio member, KGS Stratigraphic Nomenclature Committee

External Service

Brookfield, A. E., Newsletter editor, Hydrogeology Division of Geological Society of America
Brookfield, A. E. — Associate Editor, Ground Water
Brookfield, A. E. — Courtesy Assistant Professor, KU Geology Department
Brookfield, A. E. — WRAPS Representative
Brookfield, A. E. — manuscript reviews: Water Resources Research (1), Ground Water (4), Journal of Hydrology (2), Journal of Geosciences Education (1), Hydrology Research (1)
Brookfield, A. E. — Member, 1 PhD and 1 MSc committee (KU Geology)
Brookfield, A. E. — Instructor, Geo 591/791 Differential Equations for Hydrology, Spring 2016
Brookfield, A. E. — Member, KU Geology's Career Panel
Brookfield, A. E. — Guest lecturer, KU Geology Hydro Field School, Practical Modeling
Butler, J. J., Jr. — Associate Editor, Ground Water
Butler, J. J., Jr. — Member, Search Committee for Chapman Conference Series Chair, American Geophysical Union
Butler, J. J., Jr. — Member, Kansas Water Resources Institute Administrative Council
Butler, J. J., Jr. — Member, Organizing Committee, NovCare 2017 (Novel Methods for Subsurface Characterization and Monitoring: From Theory to Practice), Dresden, Germany
Butler, J. J., Jr. — Panel member, United States Geological Survey/National Institutes for Water Resources National Competitive Grants Program
Butler, J. J., Jr. — Reviewer for the National Science Foundation, Water Resources Research, the Wisconsin Geological and Natural History Survey, the Ecohydrology Journal, and Geophysical Research Letters
Butler, J. J., Jr. — Promotion evaluator for King Fahd University of Petroleum and Minerals, Saudi Arabia
Butler, J. J., Jr. — Member, Erin Haacker Ph.D. committee, Michigan State University
Butler, J. J., Jr. — Member, Brooks Bailey M.S. committee, University of Kansas
Evans, C. S. — Developed geologic mapping section questions for 2016 Northeast Kansas Regional Science Olympiad
Franseen, E. K. — Evaluator, Faculty Teaching, Department of Geology, University of Kansas
Franseen, E. K. — Co-Organizer, KU Geology Career Symposium, Department of Geology, University of Kansas
Franseen, E. K. — Students Supervised: Diana Ortega-Ariza, Ph.D. (chair); Elson Core, Ph.D. (chair); Cesar Cuapio-Perez, Ph.D. (co-chair); Clay Robertson, MS (co-chair); Alyssa Flotron, MS (co-chair); Rafferty Sweeney, MS (co-chair); Tony Pugliano, MS (co-chair); Leila Joyce, Ph.D. (committee member); Adrienne Duarte, MS (committee member); Jason Rush, Ph.D. (committee member); Jennifer Lowry, MS (committee member); Thomas Neal, MS (committee member); Maritha Huber, MS (committee member); Erich DeZoeten, MS (committee member); Sean Fischer, MS (committee member); Alex Nolte, MS (committee member); Andrew Hollenbach, MS (committee member)
Franseen, E. K. — KICC (Kansas Interdisciplinary Carbonates Consortium) post-docs supervised: Hassan Eltom, University of Kansas (2014–present)
Franseen, E. K. — Member, Board of Visitors (Alumni Board), Department of Geology, University of Wisconsin-Madison
Franseen, E. K. — Chair, SEPM Officer Election Committee
Franseen, E. K. — Member, SEPM Student Research Grant Evaluation Committee
Franseen, E. K. — Member, Review Committee for abstracts submitted to the 2017 AAPG Annual Meeting
Franseen, E. K. — External Advisor, Earth and Space Sciences Department, Columbus State University, Georgia
Franseen, E. K. — Scientific Committee Member, Dolomieu Conference on Carbonate Platforms and Dolomite, Selva di Val Gardena, Italy, October 4-7
Franseen, E. K. — Session Chair, Carbonate Platforms Through Space and Time, Dolomieu Conference on Carbonate Platforms and Dolomite, Selva di Val Gardena, Italy, October 4-7
Layzell, A. L. — Reviewer, Geological Society of America Mackin, Howard, and Morisawa student awards, Quaternary Geology and Geomorphology Division
Layzell, A. L. — Chair, Topical Session (Soils and Geology), Kansas Academy of Science Annual Meeting

Ludvigson, G. A. — Citationist, Geological Society of America Eugene and Caroline Shoemaker Public Service Award to Rex C. Buchanan, Annual Meeting of the Geological Society of America, Denver, Colorado, September 25–28

Ludvigson, G. A. — Topical Session Organizer, Topical Session T201 on Cenozoic Geology of the Great Plains and Western United States: Toward an Integrated Understanding of a Sedimentary, Paleoecologic, and Geohydrologic System, Annual Meeting of the Geological Society of America, Denver, Colorado, September 25–28

Ludvigson, G. A. — Associate Editor, Journal of Sedimentary Research, Society for Sedimentary Geology

Miller, R. D. — Geophysical Technology, Inc. (GTI) Advisory Board

Miller, R. D. — SEG, Chair, China Operations Presidential Task Force

Miller, R. D. — SEG, Appointed, Global Inc., Board of Directors

Miller, R. D. — State of Kansas, Governor's Seismicity Task Force

Miller, R. D. — SEG Near Surface Presidential Task Force

Miller, R. D. — SEG, Inter-Society Presidential Task Force

Miller, R. D. — KU RGS Research Achievement Award Selection Committee

Miller, R. D. — SEG Technical Session Chair

Smith, J. J.—Panelist, National Science Foundation-Sedimentary Geology and Paleobiology Proposal Review Panel, Washington DC, April 18-20, 2016

Smith, J. J.—Member, SEPM Election Committee

Smith, J. J.—Co-Chair, James Golab, KU Ph.D. Dissertation, with Luis Gonzalez

Smith, J. J.—Co-Chair, Elijah Turner, KU Undergraduate Honors Thesis, with Andreas Möller

Smith, J. J.—Earth Science Day event, KU Natural History Museum, Lawrence, Kansas

Smith, J. J.—Peer Reviews: one manuscript for *Journal of Sedimentary Research*, one manuscript for *Palaeogeography, Palaeoclimatology, Palaeoecology*, and one manuscript for *PALAIOS*

Smith, J. J.—Rocks and fossils presentation to all third-grade classes at Eudora Elementary School, Eudora, KS, February 2016

Stewart, D. L. — Oil and gas data on the KGS website, log scanning and materials and resources in the Data Resources Library, presentation to University of Kansas Geology 535 class, September 13

Stewart, D. L. — Earth Day Celebration at the Topeka Zoo, April 23

Stewart, D. L. — KGS representative for the KU United Way Campaign, Lawrence, Kansas

Stover, S. G. — 2016, Vice Chair, Geology & Society Division, Geological Society of America

Stover, S. G. — Organizer and Moderator, Governor's Water Conference on the Future of Water in Kansas, November 14–15, 2016 Manhattan, Kansas

Stover, S. G. — Steering Committee, Women in Science STEM workshop, Washburn University

Stover, S. G. — Member, Geology Associates Advisory Committee, Geology Department, University of Kansas

Stover, S. G. — Geology & Society outstanding student presentation award judge and coordinator, GSA annual meeting, September 25–28, Denver, Colorado

Stover, S. G. — Mentor, GSA annual meeting, September 26, Denver, Colorado

Stover, S. G. — Subject Member Expert, Association of State Boards of Geology (ASBOG); evaluated tests for geologic licensing, August 4–5, November, Lawrence, Kansas

Stover, S. G. — Appointed Member, Water Vision Education Committee, Kansas Water Office

Stover, S. G. — GSA, Public Service Award Committee member, Geological Society of America

Stover, S. G. — USGS-GSA Congressional Science Fellow Selection Committee, Geological Society of America, March 4–7, Washington D.C.

Suchy, D. R. — Member and Chairman, Board of Directors, Rural Water District #5, Douglas County, Kansas

Suchy, D. R. — Member and Treasurer, Board of Directors, Public Wholesale Water Supply District #25, Douglas and Osage Counties, Kansas

Grants

Establishing Kansas as a Data Provider to the National Groundwater Monitoring Network (NGWMN), B.B. Wilson, PI; U.S. Geological Survey, Grant G16AC00017, $13,209.

Geologic Mapping in Kansas for FY16, PI Ludvigson, Co-PIs Johnson, Dunham, Mandel, Newell, Sawin, Smith, U.S. Geological Survey STATEMAP Program, 2016-2017, $151,010.

Miller, R. D.: U.S. Army Corps of Engineers, Advancement in full wavefield seismic imaging: Modification to Active seismic imaging (ASI) system—Mission upgrade, 2016, $791,175. (PI)

Miller, R. D.: U.S. Army Corps of Engineers, Advancing full wavefield seismic imaging for analysis, sensor concept development, analytical and field test evaluations, 2016, $279,752. (PI)

National Geological and Geophysical Data Preservation Program Grant to Data Resources Library, Wichita Well Sample Library, and KGS Library and Archive, Kansas Geological Survey, Daniel R. Suchy, PI; administered through U. S. Geological Survey, 2016–2017, $64,599.

Computer Software

Victorine, J. R. — **PSI Tides Java Applet - Lunar and Solar Tidal Pressure**, developed to read the Wellington KGS 1-28 CSV pressure/temperature files, to analyze the pressure data and to understand the pressure changes. The computer program removes the solar & lunar tidal pressures from the filtered measured pressure data and plots the data as profile plot in time. The final pressure with the lunar and solar pressures removed are plotted with the barometric pressure times the barometric efficiency factor. The two curves have been shown to line up almost entirely across each weeks measurements. The program shows that you can account for the natural every day influences, lunar & solar pressure and the barometric pressure, and basically all that is left is fluid movement due to the formation. http://www.kgs.ku.edu/PRS/Ozark/Software/PSI_Tides/index.html

Victorine, J. R. — **Gridding & Mapping Animation Java Applets**, a gridding and mapping module that allows the user to plot brine data for the CO_2 Project Wells Map.

Victorine, J. R. — **CO_2 Brine Data Gridding & Mapping Field Animation**
The map area is limited to 14 wells surrounding the CO_2 injection well, Wellington KGS 2-32. A limited set of brine sample measurements were taken on a regular basis to monitor the progression of the CO_2 in the Mississippian formation around the injection well, i.e. PH, Conductivity, Temperature, Alkalinity, Total Dissolved Solids (TDS), etc. The data was saved to the KGS database and each measurement set (sample date) was given a lab group number so the animation program could generate individual images by date for the animation. http://www.kgs.ku.edu/PRS/Ozark/Software/GRID_FIELD/index.html

Victorine, J. R. — **Fluid Level Gridding & Mapping Animation**
The map area is limited to 14 wells surrounding the CO_2 injection well, Wellington KGS 2-32. The fluid level was monitored on a regular basis to monitor the progression of the CO_2 in the Mississippian formation around the injection well, i.e. Oil Cut, Barrels of Oil per Day, Fluid Levels, Bottom Hole Pressure, etc. The data was saved to the KGS database and each measurement set (sample date) was given a fluid group number so the animation program could generate individual images by date for the animation. http://www.kgs.ku.edu/PRS/Ozark/Software/GRID_FLUID/index.html

Website

- Placed 36 publications online
- Placed 44 open-file reports online
- Scanned more than 27,000 water well records
- Scanned more than 23,000 wireline logs
- Launched revised GeoKansas: A place to learn about Kansas geology

2015

Refereed Publications

Bidgoli, T. S., Amir, E., Walker, J. D., Stockli, D. F., Andrew, J. E., and Caskey, J. S., 2015, Low-temperature thermochronology of the Black and Panamint mountains, Death Valley, CA: Implications for geodynamic controls on Cenozoic intraplate strain: Lithosphere, v. 8. doi:10.1130/L406

Bidgoli, T. S., Stockli, D. F., and Walker, J. D., 2015, Low-temperature thermochronologic constraints on the kinematic histories of the Castle Cliffs, Tule Springs, and Mormon Peak detachments, southeastern Nevada and southwestern Utah: Geosphere, v. 11. doi:10.1130/GES01083.1

Cramer, B. D., Vandenbroucke, T. R. A., and Ludvigson, G. A., 2015, High-Resolution Event Stratigraphy (HiRES) and the quantification of stratigraphic uncertainty: Silurian examples of the quest for precision in stratigraphy: Earth Science Reviews, v. 141, p. 136–153. http:/dx.doi.org/10.1016/j.earscirev.2014.11.011

Fontana, J.M., Peterie, S. L., Miller, R. D., Watney, W. L., and Buchanan, R., 2015, Baseline microseismic activity in Sumner County, Kansas [Ext. Abs.]: Symposium on the Application of Geophysics to Engineering and Environmental Problems (SAGEEP 2015), Austin, Texas, p. 330–335.

Ivanov, J., Miller, R. D., Morton, S. L., and Peterie, S. L., 2015, Dispersion-curve imaging considerations when using Multichannel Analysis of Surface Waves (MASW) method [Ext. Abs.]: Symposium on the Application of Geophysics to Engineering and Environmental Problems (SAGEEP 2015), Austin, Texas, p. 556–566.

Ivanov, J., Miller, R. D., Peterie, S. L., Ballard R. F., Jr., and Dunbar, J. B., 2015, Revisiting levees in southern Texas using Love-wave multi-channel analysis of surface waves (MASW) with the high-resolution linear radon transform (HRLRT) [Exp. Abs.]: Annual Meeting of the Society of Exploration Geophysicists, New Orleans, Louisiana, p. 2,211–2,217.

Johnson, B. G., Layzell, A. L., and Eppes, M. C., 2015, Chronosequence development and soil variability from a variety of sub-alpine, post-glacial landforms and deposits in the southeastern San Juan Mountains of Colorado: Catena, v. 127, p. 222–239.

Kraus, M. J., Woody, D. T., Smith, J. J., and Dukic, V., 2015, Alluvial response to the Paleocene-Eocene Thermal Maximum climatic event, Polecat Bench, Wyoming (U.S.A.): Palaeogeography, Palaeoclimatology, Palaeoecology. doi: 10.1016/j.palaeo.2015.06.021

Layzell, A. L., Mandel, R. D., Ludvigson, G. A., Rittenour, T. M., and Smith, J. J., 2015, Forces driving late Pleistocene (ca. 77–12 ka) landscape evolution in the Cimarron River valley, southwestern Kansas: Quaternary Research, v. 84, p. 106–117. http://dx.doi.org/10.1016/j.yqres.2015.05.003

Livers, A.J., Peterie, S. L., Ivanov, J., and Miller, R. D., 2015, Feasibility of parallel line beamsteering for enhanced tunnel detection [Exp. Abs.]: Annual Meeting of the Society of Exploration Geophysicists, New Orleans, Louisiana, p. 2,292–2,296.

Ludvigson, G. A., Joeckel, R. M., Murphy, L. R., Stockli, D. F., González, L. A., Suarez, C. A., Kirkland, J. I., and Al-Suwaidi, A., 2015, The emerging terrestrial record of Aptian-Albian global change: Cretaceous Research, v. 56, p. 1–24. http://dx.doi.org/10.1016/j.cretres.2014.11.008

Meixner, T., Manning, A. H., Stonestrom, D., Ajami, H., Allen, D. M., Blasch, K., Brookfield, A., Castro, C. L., Clark, J. F., Gochis, D., Flint, A., Neff, K., Niraula, R., Rodell, M., Scanlon, B., Singha, K., and Walvoord, M., 2015, Implications of projected climate change for groundwater recharge in the western United States: Journal of Hydrology, v. 534, p. 124–138.

Miller, R. D., Markiewicz, R. D., Ivanov, J., Peterie, S. L., and Xia, J., 2015, Seismic reflection for near-surface characterization of earthen dams and dikes: Upstream, downstream [Ext. Abs.]: Third International Conference on Engineering Geophysics, Al-Ain, UAE, Paper EG48, p. 200–204.

Miller, R. D., Peterie, S. L., Wang, Y., Ivanov, J., Hubbard, S., and Dunham, M., 2015, High-resolution seismic-reflection characterization at a challenging Atlantic Coastal Plain groundwater flow site [Exp. Abs.]: Annual Meeting of the Society of Exploration Geophysicists, New Orleans, Louisiana, p. 5,016–5,020. Selected Top 31 paper.

Morton, S. L., Ivanov, J., and Miller, R. D., 2015, A modified FK filter for removing the effects of higher-mode dispersion patterns from surface wave data [Ext. Abs.]: Symposium on the Application of Geophysics to Engineering and Environmental Problems (SAGEEP 2015), Austin, Texas, p. 445–451.

Morton, S. L. C., Ivanov, J., and Miller, R. D., 2015, Enhancing fundamental mode interpretation in heterogeneous media: An example from Canoga Park, California [Exp. Abs.]: Annual Meeting of the Society of Exploration Geophysicists, New Orleans, Louisiana, p. 2,224–2,229.

Ortega-Ariza, D., Franseen, E. K., Santos-Mercado, H., Ramirez-Martinez, W. R., and Core-Suarez, E. E., 2015, Strontium-isotope stratigraphy for Oligocene-Miocene carbonate systems in Puerto Rico and The Dominican Republic: Implications for Caribbean processes affecting depositional history: The Journal of Geology, v. 123, p. 539–560.

Parsekian, A., Dlubac, K., Grunewald, E., Butler, J. J., Jr., Knight, R., and Walsh, D. O., 2015, Bootstrap calibration and uncertainty estimation of downhole NMR hydraulic conductivity estimates in an unconsolidated aquifer: Groundwater, v. 53, no. 1, p. 111–121.

Peterie, S. L., and Miller, R. D., 2015, Near-surface scattering phenomena and implications for tunnel detection: Interpretation, v. 3, n. 1, p. SF43–SF54.

Peterie, S. L., Miller, R. D., Intfen, J., Bidgoli, T., and Buchanan, R., 2015, A geologically-based approach to mitigate potentially induced seismicity in Kansas [Exp. Abs.]: Annual Meeting of the Society of Exploration Geophysicists, New Orleans, Louisiana, p. 4,871–4,876.

Ramaker, E. M., Goldstein, R. H., Franseen, E. K., and Watney, W. L., 2015, What controls porosity in cherty fine-grained carbonate reservoir rocks? Impact of stratigraphy, unconformities, structural setting and hydrothermal fluid flow: Mississippian, SE Kansas; *in,* Fundamental Controls on Fluid Flow in Carbonates, S. M. Agar and S. Geiger, eds.: Geological Society, London, Special Publications, 406 p.

Shrout, J. D., and Newell, K. D., 2015, Production declines of Kansas coalbed methane wells as a function of their production rate and age: Transactions of the Kansas Academy of Science, v. 118, no. 1–2, p. 119–131.

Sloan, S. D., Peterie, S. L., Miller, R. D., Ivanov, J., Schwenk, J. T., and McKenna, J. R., 2015, Detecting clandestine tunnels using near-surface seismic techniques: Geophysics, v. 80, n. 5, p. EN127–EN135.

Smith, J. J., Platt, B. F., Ludvigson, G. A., Sawin, R. S., Marshall, C. P., and Olcott-Marshall, A., 2015, Enigmatic red beds exposed at Point of Rocks, Cimarron National Grassland, Morton County, Kansas: Chronostratigraphic constraints from uranium-lead dating of detrital zircons: Kansas Geological Survey, Current Research in Earth Sciences, Bulletin 261, 17 p., 1 appendix. http://www.kgs.ku.edu/Current/2015/Smith/index.html

Stolz, D. J., Franseen, E. K., and Goldstein, R. H., 2015, Character of the Avalon Shale (Bone Spring Formation) of the Delaware Basin, West Texas and Southeast New Mexico: Effect of carbonate-rich sediment gravity flows: Unconventional Resources Technology Conference (URTeC) Conference Proceedings, Paper 2154681, 6 p.

Stotler, R. L., Whittemore, D. O., Smith, J. J., Katz, B. S., Yoerg, A., Butler, J. J., Jr., Ludvigson, G. A., and Hirmas, D. R., 2015, Isotopic composition of the Ogallala–High Plains aquifer and vadose zone: Procedia Earth and Planetary Science, v. 13, p. 39–42. doi:10.1016/j.proeps.2015.07.009

Nonrefereed Publications

Bennett, B. B., and Brohammer, M. C., 2015, 2015 water level data acquisition statistics: Kansas Geological Survey, Open-File Report 2015-34, 19 p. http://www.kgs.ku.edu/Hydro/Publications/2015/OFR15_34/index.html

Bidgoli, T. S., Stockli, D. F., and Walker, J. D., 2015, Beaver Dam Mountains–Tule Springs Hills–Mormon Mountains thermochronology: Integrated Earth Data Applications (IEDA). doi:10.1594/IEDA/100520

Brookfield, A., and Wilson, B., 2015, Integrated groundwater/surface water model for the Lower Republican River Basin, Kansas: A progress report: Kansas Geological Survey, Open-File Report 2015-1, 27 p. http://www.kgs.ku.edu/Hydro/Publications/2015/OFR15_1/index.html

Brookfield, A., and Gnau, C., 2015, Integrated groundwater/surface water model for the Lower Republican River Basin, Kansas: Technical report for U.S. Bureau of Reclamation, 43 p.

Brookfield, A., and Gnau, C., 2015, Republican River Basin Study — Kansas modeling results tech memo: Technical report for U.S. Bureau of Reclamation, 31 p.

Buchanan, R. C., Newell, K. D., Evans, C. S., Miller R. D., and Peterie, S. L., (2014) 2015, Induced seismicity — The potential for triggered earthquakes in Kansas: Kansas Geological Survey, Public Information Circular 36, 6 p.

Buchanan, R. C., Wilson, B., B., Buddemeier, R. R., and Butler, J. J., Jr., (2001, 2009) 2015, The High Plains aquifer: Kansas Geological Survey Public Information Circular 18, 6 p.

Butler, J. J., Jr., Whittemore, D. O., Reboulet, E., Knobbe, S., Wilson, B. B., Stotler, R. L., and Bohling, G. C., 2015, High Plains aquifer index well program: 2014 annual report, Kansas Geological Survey Open-File Report 2015-3, 135 p.

Dunham, J. W., 2015, Flint Hills with prairie areas: Flint Hills Maps in Schools Committee.

Fazelalavi, M., 2015, Drainage capillary pressure curves in Arbuckle: Kansas Geological Survey, Open-File Report 2015-23, 8 p. http://www.kgs.ku.edu/Publications/OFR/2015/OFR2015_23.pdf

Fazelalavi, M., 2015, Fracture pressure in Arbuckle based on step-rate test: Kansas Geological Survey, Open-File Report 2015-19, 4 p. http://www.kgs.ku.edu/Publications/OFR/2015/OFR2015_19.pdf

Fazelalavi, M., 2015, Initial pressure in the Mississippian: Kansas Geological Survey, Open-File Report 2015-22, 7 p. http://www.kgs.ku.edu/Publications/OFR/2015/OFR2015_22.pdf

Fazelalavi, M., 2015, Permeability from NMR log of Well 1-32, Arbuckle Formation, Wellington Field (Rev 1): Kansas Geological Survey, Open-File Report 2015-24, 17 p. http://www.kgs.ku.edu/Publications/OFR/2015/OFR2015_24.pdf

Fazelalavi, M., 2015, Small scale CO_2-EOR in the Mississippian at Wellington Field, Sumner County, Kansas: Kansas Geological Survey, Open-File Report 2015-21, 15 p. http://www.kgs.ku.edu/Publications/OFR/2015/OFR2015_21.pdf

Fazelalavi, M., 2015, Step-rate test in the Mississippian Reservoir in the Wellington Field: Kansas Geological Survey, Open-File Report 2015-32, 16 p. http://www.kgs.ku.edu/Publications/OFR/2015/OFR15_32/index.html

Fazelalavi, M., 2015, Step-rate test, interference test results and DST results in Wellington: Kansas Geological Survey, Open-File Report 2015-20, 12 p. http://www.kgs.ku.edu/Publications/OFR/2015/OFR2015_20.pdf

Fazelalavi, M., 2015, The relation between vertical and horizontal permeability, Arbuckle Formaion, Wellington Field: Kansas Geological Survey, Open-File Report 2015-25, 4 p. http://www.kgs.ku.edu/Publications/OFR/2015/OFR2015_25.pdf

Fazelalavi, M., Fazelalavi, M., and Fazelalavi, M., 2015, Wellington Field, Mississippian Formation, preliminary reservoir description: Kansas Geological Survey, Open-File Report 2015-26, 75 p. http://www.kgs.ku.edu/Publications/OFR/2015/OFR2015_26.pdf

Johnson, W. C., and Koop, A. N., 2015, Preliminary surficial geology of the Chase quadrangle, Rice County, Kansas: Kansas Geological Survey, Open-File Report 2015-8, 1 sheet, scale 1:24,000. http://www.kgs.ku.edu/Publications/OFR/GeoMaps/KsGS_OFR2015-8_Chase.pdf

Johnson, W. C., and Koop, A. N., 2015, Preliminary surficial geology of the Rice County portion of the Alden NW quadrangle, Kansas: Kansas Geological Survey, Open-File Report 2015-6, 1 sheet, scale 1:24,000. http://www.kgs.ku.edu/Publications/OFR/GeoMaps/KsGS_OFR2015-6_Alden_NW.pdf

Johnson, W. C., and Koop, A. N., 2015, Preliminary surficial geology of the Rice County portion of the Alden quadrangle, Kansas: Kansas Geological Survey, Open-File Report 2015-5, 1 sheet, scale 1:24,000. http://www.kgs.ku.edu/Publications/OFR/GeoMaps/KsGS_OFR2015-5_Alden.pdf

Johnson, W. C., and Koop, A. N., 2015, Preliminary surficial geology of the Rice County portion of the Chase NW and Holyrood quadrangles, Kansas: Kansas Geological Survey, Open-File Report 2015-9, 1 sheet, scale 1:24,000. http://www.kgs.ku.edu/Publications/OFR/GeoMaps/KsGS_OFR2015-9_ChaseNW_Holyrood.pdf

Johnson, W. C., and Koop, A. N., 2015, Preliminary surficial geology of the Rice County portion of the Sterling quadrangle, Kansas: Kansas Geological Survey, Open-File Report 2015-10, 1 sheet, scale 1:24,000. http://www.kgs.ku.edu/Publications/OFR/GeoMaps/KsGS_OFR2015-10_Sterling.pdf

Ludvigson, G. A., González, L. A., and Layzell, A. L., 2015, Stable isotopic studies on core samples from the Cold Lake property: Report to Cold Lake Geoscience, Imperial, Canada, and the Alberta Energy Regulator Core Research Centre.

Mandel, R. D., and Newell, K. D., 2015, Preliminary surficial geology of the Paola East quadrangle, Miami County, Kansas: Kansas Geological Survey, Open-File Report 2015-11, 1 sheet, scale 1:24,000. http://www.kgs.ku.edu/Publications/OFR/GeoMaps/KsGS_OFR2015-11_PaolaEast.pdf

Mandel, R. D., and Newell, K. D., 2015, Preliminary surficial geology of the Paola West quadrangle, Miami County, Kansas: Kansas Geological Survey, Open-File Report 2015-12, 1 sheet, scale 1:24,000. http://www.kgs.ku.edu/Publications/OFR/GeoMaps/KsGS_OFR2015-12_PaolaWest.pdf

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Miller, R. D., 2015, KDHE ONEOK Meeting, Topeka, Kansas, November 10.

Miller, R. D., 2015, GTI Board Meeting, Houston, Texas, November 2.

Miller, R. D., 2015, Meeting, Harper County, Earthquake in Harper County, Kansas, September 8.

Miller, R. D., 2015, GSAC Presentation, Kansas Geological Survey, Lawrence, Kansas, July 31.

Miller, R. D., 2015, KGS Seismic Testimony to the Kansas Legislature, Topeka, Kansas, January 26.

Miller, R.D., Ivanov, J., Peterie, S. L., Morton, S. L. C., Livers, A., and Wang, Y., 2015, Cutting the seismic wavefield deck of cards for optimized characterizations: Technical Keynote—Invited presentation at the 2015 NovCare International Conference (Novel Methods for Subsurface Characterization and Monitoring: From Theory to Practice), University of Kansas, Lawrence, Kansas, May 20.

Ortega-Ariza, D., Franseen, E. K., Santos-Mercado, H., Ramirez-Martinez, W., and Core, E., 2015, Strontium-isotope stratigraphy for Oligocene-Miocene carbonate systems in Puerto Rico and the Dominican Republic: Implications for Caribbean processes affecting depositional history: Kansas Interdisciplinary Carbonate Consortium Annual Review Meeting. Extended abstract.

Pugliano, T., Goldstein, R. H., and Franseen, E. K., 2015, Fundamental units of heterozoan carbonates: Sedimentologic and reservoir properties of shoaling- and fining-upward cycles: Kansas Interdisciplinary Carbonate Consortium Annual Review Meeting. Extended abstract.

Smith, J. J., 2015, Chronostratigraphic assessment of enigmatic red beds at Point of Rocks, Cimarron National Grassland, Kansas: U-Pb age constraints from detrital zircons: Kansas Geological Survey Advisory Committee meeting, Lawrence, Kansas.

Smith, J. J., 2015, Lessons from the living: Using modern organisms to answer paleontological questions: Kansas-Missouri Paleontological Society meeting, January 25.

Stewart, D., Suchy, D. R., and Reboulet, E., 2015, WWC-5 forms and KOLAR: Reporting latitude, longitude and datum: Kansas Ground Water Association Convention, January 23, Hutchinson, Kansas.

Stover, S. G., 2015, Kansas Water Plan: Kansas Environmental Women Network panel, January 20, Lawrence, Kansas.

Stover, S. G., 2015, Kansas water: Where is it? Who uses it? And why does it matter anyway? Basehor-Linwood High School, January 27, Basehor, Kansas.

Stover, S. G., 2015, Kansas geology, water and physiography: Kansas Master Naturalists Class, KSU Research & Extension, April 8, Olathe, Kansas.

Stover, S. G., 2015, Kansas water: Conditions, problems, possible solutions: Geography class, University of Kansas, April 16, Lawrence, Kansas.

Stover, S. G., 2015, What's the matter with Kansas water? Association of Earth Science Editors, October 8, Lawrence, Kansas.

Stover, S. G., 2015, Kansas water management: Water Ideate, October 24, Anschutz Library, University of Kansas, Lawrence, Kansas.

Watney, L., and Holubnyak, Y., 2015, Update on induced seismicity studies by the Kansas Geological Survey: Kansas Geological Society, December 9, Wichita, Kansas.

Wilson, B. B., 2015, Kansas Agriculture and Rural Leadership (KARL), Greensburg.

Wilson, B. B., 2015, KSU Extension Service, Cover Your Acres Conference, Oberlin.

Wilson, B. B., 2015, KU GEOG558 (Intermediate GIS), Lawrence.

Wilson, B. B., 2015, Northwest Kansas GMD4 Annual Meeting, Colby.

Wilson, B. B., 2015, Central Plains Irrigation Conference, Colby.

Wilson, B. B., 2015, USFWS Darter Species Assessment Workshop, Manhattan.

Wilson, B. B., 2015, Southwest Kansas GMD3 Annual Meeting, Liberal.

Wilson, B. B., 2015, KRWA Conference, Booth display and presentation, Wichita.

Wilson, B. B., 2015, KWEA and KsAWWA Joint Annual Conference, Topeka.

Wilson, B. B., 2015, El Dorado Rotary Club, El Dorado.

Wilson, B. B., 2015, ACWI SOGW meeting (remote), Reston, Virginia.

Wilson, B. B., 2015, Pioneer Electric Cooperative, Ulysses.

Wilson, B. B., 2015, Western Kansas GMD#1 Board (x2), Scott City.

Wilson, B. B., 2015, Radio (WIBW) and TV (KSN Garden City) interviews.

Awards & Honors

Bidgoli, T. S. — American Association of Petroleum Geologists, Award of Excellence, Top 10 Oral Presentation, 2015

Dunham, J. W. — GIS Professional (GISP) certification, GIS Certification Institute (GISCI)

Franseen, E. K. — AAPG 2015 Award of Excellence "Top 10" Poster Presentation, AAPG/SEPM Annual Convention and Exhibition, Denver, Colorado

Franseen, E. K. — Featured article: Research on unconventional reservoirs was highlighted in an article in the AAPG Explorer, July 2015

Franseen, E. K. — SEPM 2014–2015 Past President of SEPM, the International Society for Sedimentary Geology

Miller, R. D. — Selected Top 31 paper at SEG annual meeting

Miller, R. D. — Elected, Treasurer, SEG Global Inc., Board of Directors

Miller, R. D. — Merriam Research Award, KGS

Stover, S. G. — Geological Society of America Fellow

Stover, S. G. — Geological Society of America, Geology and Public Policy Committee Chair (through June 2015); Past Chair (until June 2016)

Stover, S. G. — Geological Society of America, Geology and Society Division, Vice Chair

Internal Service

Bidgoli, T. S. — Member, Merriam Research Award Selection Committee
Bidgoli, T. S. — Volunteer, KGS Earth Day Booth
Bidgoli, T. S. — Supervisor, KGS Energy Research Section interns Minh C. Nguyen and Christa M. Jackson
Butler, J. J., Jr. — Co-Chair, KGS Director Search Committee
Brookfield, A. E. — KU Center for Science and Research Support Representative
Brookfield, A. E. — Member, GIS student hourly search Committee
Brookfield, A. E. — Performed six agency reviews
Brookfield, A. E. — Member, Merriam Research Award Committee
Dunham, J. W. — Chair, search committee, GIS Support-Cartographic Services position
Franseen, E. K. — Member, KGS Stratigraphic Nomenclature Committee
Franseen, E. K. — Member, Editorial Board for Current Research in Earth Sciences Bulletin, Kansas Geological Survey
Layzell, A. L. — Member, KGS Stratigraphic Nomenclature Committee
Ludvigson, G. A. — Member, KGS Stratigraphic Nomenclature Committee
Ludvigson, G. A. — KGS STATEMAP Program Coordinator
Ludvigson, G. A. — Chair, KGS Promotion & Review Committee
Ludvigson, G. A. — Co-Chair, KGS Director Search Committee
Ludvigson, G. A. — Member, Committee on Promotions for Intermediate Review by the KU Office of Research
Ludvigson, G. A. — Member, search committee for new lab manager for the Keck Paleoenvironmental & Environmental Stable Isotope Laboratory (KPESIL)
Ludvigson, G. A. — Research hours faculty supervisor for KU graduate students Jeff Ross and Holly Field
Ludvigson, G. A. — Member, two Ph.D. thesis committees (Tony Layzell and Julienne Emry), University of Kansas
Ludvigson, G. A. — Member, six MS thesis committees (Jeff Ross, Holly Field, Brittany Hendrix, Thomas Neal, Brian Sitek, and Jason Hallman), University of Kansas
Sawin, R. S. — Chair, KGS Stratigraphic Nomenclature Committee
Smith, J. J. — Member, Kansas Geological Mapping Advisory Committee (KGMAC)
Smith, J. J. — Performed eight agency reviews on potential environmental concerns for proposed construction and improvement projects in Kansas as requested by federal, state, and private agencies as part of their environmental due diligence requirements (supervised by Dan Suchy)
Smith, J. J. — Member, KGS Outstanding Support Staff Recognition Award Committee
Stover, S. G., Member, Kansas Geologic Mapping Advisory Committee
Tollefson, J. M. — Ex officio member, KGS Stratigraphic Nomenclature Committee

External Service

Bidgoli, T. S. — Member, Kansas Induced Seismicity Taskforce
Bidgoli, T. S. — Member, American Association of Petroleum Geologists, Grant-In-Aid Committee
Bidgoli, T. S. — Member, American Association of Petroleum Geologists, Education Committee
Bidgoli, T. S. — Co-chair, M.S. thesis committees for two students, Drew R. Schwab and James P. Tyrrell
Bidgoli, T. S. — Co-supervisor, Visiting Scholar (China University of Geosciences) Wei Wang
Bidgoli, T. S. — Instructor, Special Studies in Geology: (U-Th)/He Thermochronology
Bidgoli, T. S. — Co-Instructor, Advanced Topics in Geology: Induced Seismicity in Kansas
Bidgoli, T. S. — Co-Instructor, Geology for Petroleum Engineers
Buchanan, R. C. — Host co-chair, 49th annual meeting of the Association of Earth Science Editors, October 6–10, Lawrence, Kansas
Butler, J. J., Jr. — Member, Ph.D. committee, Erin Haacker, Department of Geological Sciences, Michigan State University, 2013–present
Butler, J. J., Jr. — Member, Ph.D. committee, Jose Solis, Department of Civil, Environmental and Architectural Engineering, University of Colorado, 2012–present
Butler, J. J., Jr. — Workshop instructor, Direct-Push Methods for High-Resolution Characterization of Subsurface Properties: From Theory to the Field, Consortium of Universities for the Advancement of the Hydrologic Sciences, Inc. (CUAHSI), September 28–October 1, Lawrence, Kansas

Butler, J. J., Jr. — Workshop instructor, Practical Guidelines to Get More from Your Pumping Test Data (Internet seminar), Midwest Geosciences Group, January 22
Butler, J. J., Jr. — Slug Tests for Site Characterization: The Six Key Steps (Internet seminar), Midwest Geosciences Group, January 15
Butler, J. J., Jr. — President (July 2013 to April 2015), International Commission on Ground Water, International Association of Hydrological Sciences
Butler, J. J., Jr. — Appointed Member, Kansas Water Resources Institute Administrative Council, 2011–present.
Butler, J. J., Jr. — Associate Editor, Ground Water, 2002–present
Butler, J. J., Jr., Instructor, Geology 851, Physical and Transport Hydrology, 2011–present
Brookfield, A. E. — Newsletter editor, Hydrogeology Division of Geological Society of America
Brookfield, A. E. — Associate editor, Ground Water
Brookfield, A. E. — Courtesy assistant professor, University of Kansas Geology Department
Brookfield, A. E. — WRAPS representative
Brookfield, A. E. — Professional Reviews: two manuscripts, Water Resources Research; three manuscripts, Ground Water; two manuscripts, Journal of Hydrologic Engineering; two manuscripts, Advances in Water Resources; one manuscript, Mathematical Geosciences; one manuscript, Hydrogeology Journal
Brookfield, A. E. — Member, one Ph.D. and two MS committees (University of Kansas) and one MS committee (McGill)
Brookfield, A. E. — Instructor, Geology 591/791: Differential Equations for Hydrology, Spring 2015
Evans, C. S. — Earth Day Celebration and Water Festival, Lawrence, Kansas
Franseen, E. K. — Organizer and Convener, 2015 Kansas Interdisciplinary Carbonates Consortium (KICC) Annual Meeting
Franseen, E. K. — Co-instructor for AAPG Education Program: "Controls on Porosity Types and Distribution in Carbonate Reservoirs," June 8–13, Almeria, Spain
Franseen, E. K. — Co-leader for field trip to look at Lansing–Kansas City strata for Worldwide Petroleum Services and Flatiron Oil geoscientists, November 8
Franseen, E. K. — Past President, SEPM (Society of Sedimentary Research)
Franseen, E. K. — Member, Board of Visitors (Alumni Board), Department of Geology, University of Wisconsin-Madison
Franseen, E. K. — Chair, SEPM Twenhofel Medal Award Committee
Franseen, E. K. — Member, SEPM Student Research Grant Evaluation Committee
Franseen, E. K. — Member, Promotion and Tenure Committee, Department of Geology, University of Kansas
Franseen, E. K. — Member, Graduate Students Admissions Committee, Department of Geology, University of Kansas
Franseen, E. K. — Evaluator, Faculty Teaching, Department of Geology, University of Kansas
Franseen, E. K. — Students Supervised: Diana Ortega-Ariza, Ph.D. (chair); Elson Core, Ph.D. (chair); Alyssa Flotron, MS (co-chair); Rafferty Sweeney (co-chair); Karen Ohmes-Lechtenburg, MS (co-chair); Tony Pugliano, MS (co-chair); Leila Joyce, Ph.D. (committee member); Adrienne Duarte, MS (committee member); Jason Rush, Ph.D. (committee member); Jennifer Lowry, MS (committee member); Thomas Neal, MS (committee member); Maritha Huber, MS (committee member); Sean Fischer, MS (committee member); Alex Nolte, MS (committee member); Erich DeZoeten, MS (committee member)
Franseen, E. K. — Post-docs supervised: Hassan Eltom, Kansas Interdisciplinary Carbonates Consortium (KICC), University of Kansas (2014–present)
Holubnyak, Y. — Member, Kansas Induced Seismicity State Task Force
Holubnyak, Y. — EPA Class VI Well permit application
Ludvigson, G. A. — Associate editor, Journal of Sedimentary Research. Coordinated peer reviews of four manuscripts
Ludvigson, G. A. — External reviewer for the promotion of Associate Professor André Desrochers to Full Professor, University of Ottawa, Ottawa, Ontario, Canada, November 2015
Ludvigson, G. A. — Peer review of two manuscripts for Palaeogeography, Palaeoclimatology, Palaeoecology, one manuscript for Sedimentology, one manuscript for Cretaceous Research, and two manuscripts for Nature Geoscience
Ludvigson, G. A. — Peer review of proposal for the U.S. National Science Foundation
Miller, R. D. — Geophysical Technology, Inc. (GTI) Advisory Board
Miller, R. D. — ICEG, Co-Chair, Scientific and Technical Program Committee, Al Ain, UAE, November
Miller, R. D. — SEG, Chair, China Operations Presidential Task Force

Miller, R. D. — SEG, Appointed, Global Inc., Board of Directors
Miller, R. D. — State of Kansas, Governor's Seismicity Task Force
Miller, R. D. — SEG Near Surface Presidential Task Force
Miller, R. D. — SEG, Inter-Society Presidential Task Force
Miller, R. D. — KU RGS Research Achievement Award Selection Committee
Miller, R. D. — ASTM Geophysics Subcommittee on Seismic Standards
Miller, R. D. — Geophysical Society of Kansas, Editor
Miller, R. D. — SEG Technical Session Chair
Smith, J. J. — Earth Science Day event, KU Natural History Museum, Lawrence, Kansas
Smith, J. J. — University of Kansas graduate thesis committee service: James Golab, Ph.D. candidate co-advised with Luis Gonzalez
Smith, J. J. — Technical assistance and training to KU students: Elijah Turner, Brian Sitek, Tony Pugliano, Abdul Wahab
Stewart, D. L. — Oil and gas data on the KGS website, log scanning and materials and resources in the Data Resources Library, presentation to University of Kansas Geology 535 class
Stewart, D. L. — Earth Day Celebration and Water Festival, Lawrence, Kansas
Stewart, D. L. — KGS representative for the KU United Way Campaign, Lawrence, Kansas
Stover, S. G. — Chair, GSA, Congressional Science Fellow Selection Committee
Stover, S. G. — Member, GSA, Public Service Award Committee
Stover, S. G. — Steering Committee, Women In Science Day, Washburn University
Stover, S. G. — Energy Expo planning committee, Kansas Corporation Commission
Stover, S. G. — Member, Geology Associates Advisory Committee, University of Kansas
Stover, S. G. — Earth Day Celebration, April 11, Lawrence, Kansas
Stover, S. G. — Earth Science Week, Natural History Museum, University of Kansas, October 17, Lawrence, Kansas
Stover, S. G. — Organizer and Moderator, Governor's Water Conference on the Future of Water in Kansas, November 18–19, Manhattan, Kansas
Stover, S. G. — Information Fair for new faculty, University of Kansas, December 7, Lawrence, Kansas
Suchy, D. R. — Research Senator, Unclassified Professional Staff Senate, University of Kansas (2012–April 2015)
Suchy, D. R. — Member and Vice Chairman, Board of Directors, Rural Water District #5, Douglas County, Kansas (2007–present)
Suchy, D. R. — Member and Treasurer, Board of Directors, Public Wholesale Water Supply District #25, Douglas and Osage Counties, Kansas (2007–present)
Tollefson, J. M. — Host co-chair, 49th annual meeting of the Association of Earth Science Editors, October 6–10, Lawrence, Kansas

Grants

National Geological and Geophysical Data Preservation Program Grant to Data Resources Library and Wichita Well Sample Library, Kansas Geological Survey, D. R. Suchy, PI; administered through U. S. Geological Survey, 2015–2016, $50,474.

The MADE challenge for groundwater transport in highly heterogeneous aquifers: Insights from 30 years of modeling and characterization at the field scale and promising future directions, J. J. Butler, Jr., co-PI; National Science Foundation, 2015, $45,120.

High Plains aquifer calibration monitoring well program, J. J. Butler, Jr., PI; Kansas Water Office, 2015–2016, $90,000.

Estimating mobile-immobile mass transfer parameters using direct push tools, J. J. Butler, Jr., co-PI; Strategic Environmental Research and Development Program (SERDP), 2015–2018, $171,520.

Developing and promoting water-, nutrient-, and climate-smart technologies to help agricultural systems adapt to climate and societal changes, J. J. Butler, Jr., PI (Kansas component); National Institute of Food and Agriculture, U.S. Dept. of Agriculture, 2015–2020, $235,481.

Miller, R. D.: S.S. Papadopulos & Associates, Inc., Feasibility of high-resolution seismic reflection to delineate the hydrostratigraphy, geologic structure, and presence of free gas in Quaternary and Tertiary units underlying Eminence Dome in SE Mississippi, 2015, $98,386. (PI)

Miller, R. D.: U.S. Army Corps of Engineers, Advancing full wavefield seismic imaging for analysis, sensor concept development, analytical and field test evaluations, 2015, $1,173,549. (PI)

Miller, R. D.: OneOK Partners, Establishing a Kansas temporary network compatible seismograph station near Bushton in Rice County, Kansas, 2015, $15,774. (PI)

Miller, R. D.: Kansas Department of Transportation, Seismic characterization of abandoned mine overburden along U.S. 69 Hwy north of the Kansas/Oklahoma state line, 2015, $35,357. (PI)

Computer Software

Victorine, J. R. — PS Wave Java Applet (creates velocity model for predicting shallow earthquakes under the Wellington Seismic Array). http://www.kgs.ku.edu/PRS/Ozark/Software/PSWave/index.html

Victorine, J. R. — LoQuake Applet (computes the location of shallow seismic event using 3 sensors to triangulate the position of the event). http://www.kgs.ku.edu/PRS/Ozark/Software/LoQuake/index.html

Victorine, J. R. — 2D Plot of Kansas Earthquakes by Magnitude versus Data Java Applet (two-dimensional plot of earthquake magnitudes versus dates for Kansas Earthquakes). http://www.kgs.ku.edu/PRS/Ozark/Software/KS_Earthquake_2DPlot/index.html

Victorine, J. R. — 3D Plot Kansas Earthquakes by Location Java Applet (two- and three- dimensional plots of Kansas earthquakes in Sumner and Harper counties). http://www.kgs.ku.edu/PRS/Ozark/Software/KS_Earthquake_3DPlot/index.html

Victorine, J. R. — 3D Plot Animation Kansas Earthquakes by Location Java Applet (animated 2 and 3 dimensional plots of Kansas earthquakes in Sumner and Harper counties). http://www.kgs.ku.edu/PRS/Ozark/Software/KS_Earthquake_3DMovie/index.html

Victorine, J. R. — Gridding & Mapping Brine Data Java Applet (allows the user to plot brine data for the CO_2 project wells map). http://www.kgs.ku.edu/PRS/Ozark/Software/GRID/index.html

Victorine, J. R. — Principal Component Analysis Brine Data Java Applet (allows the user to perform a principal component analysis on CO_2 brine data and to present the covariance, eigenvalues, eigenvectors matrices and plots to illustrate the data). http://www.kgs.ku.edu/PRS/Ozark/Software/PC/index.html

Website

- Placed 32 publications online
- Placed 48 open-file reports online
- Scanned 23,338 water well records
- Scanned 18,785 wireline logs

2014

Refereed Publications

Andrew, J. E., Rittase, W. M., Monastero, F. M., Bidgoli, T., and Walker, J. D., 2014, Geologic map of the northern Lava Mountains and Summit Range, San Bernardino County, California: Geological Society of America Digital Map and Chart Series 19. doi:10.1130/2014.DMCH019

Benson, G. S., Franseen, E. K., Goldstein, R. H., and Li, Z., 2014, Workflows for incorporating stratigraphic and diagenetic relationships into a reservoir-analogue model from outcrops of Miocene carbonates in southeastern Spain: Petroleum Geoscience, v. 20, p. 50–78.

Butler, J. J., Jr., Bohling, G. C., Brookfield, A. E., Liu, G., Whittemore, D. O., and Wilson, B. B., 2014, Importance of a sound hydrologic foundation for assessing the future of the High Plains aquifer in Kansas: Proceedings of the National Academy of Sciences of the United States of America, v. 111, no. 5, E531. doi:10.1073/pnas.1322176111

Dogan, M., Van Dam, R. L., Liu, G., Meerschaert, M. M., Butler J. J., Jr., Bohling, G. C., Benson, D. A., and Hyndman D. W., 2014, Predicting flow and transport in highly heterogeneous alluvial aquifers: Geophysical Research Letters, v. 41, p. 7,560–7,565. doi:10.1002/2014GL061800

Doveton, J., and Watney, W. L., 2014, Textural and pore size analysis of carbonates from integrated core and nuclear magnetic resonance logging: An Arbuckle study: Interpretation, v. 3, p. SA77–SA89.

Dvoretsky, R. A., Goldstein, R. H., Franseen, E. K., and Byrnes, A., 2014, Reservoir-analog modeling of focused-flow and dispersed-flow deepwater carbonates: Miocene Agua Amarga Basin, Southeast Spain; *in,* SEPM Special Publication 105, Deposits, Architecture and Controls of Carbonate Margin, Slope, and Basin Systems, p. 334–358.

Fazelalavi, M., Fazelalavi, M., and Fazelalavi, M., 2014, Determination of reservoir permeability based on irreducible water saturation and porosity from log data and FZI (Flow Zone Indicator) from Core Data. Control number: 13IPTC-P-1156-IPTC, 7th International Petroleum Technology Conference (IPTC) (patent pending).

Händel, F., Liu, G., Dietrich, P., Liedl, R., and Butler, J. J., Jr., 2014, Numerical assessment of ASR recharge using small-diameter wells and surface basins: Journal of Hydrology, v. 517, p. 54–63. doi:10.1016/j.jhydrol.2014.05.003

Heidari, A., González, L. A., Mahboubi, A., Moussavi-Harami, R., Ludvigson, G. A., and Chakrapani, G. J., 2014, Diagenetic model of carbonate rocks of Guri Member of Mishan Formation (Lower to Middle Miocene) SE Zagros Basin, Iran: Journal of the Geological Society of India, v. 84, p. 87–104.

Heidari, A., Shokri, N., Ghasemi-Nejad, E., González, L., and Ludvigson, G., 2014, Application of petrography, major and trace elements, carbon and oxygen isotope geochemistry to reconstruction of diagenesis of carbonate rocks of the Sanganeh Formation (Lower Cretaceous), East Kopet-Dagh Basin, NE Iran: Arabian Journal of Geoscience. doi:10.1007/s12517-014-1548-y

Hembree, D. I., Platt, B. F., and Smith, J. J., (eds.), 2014, Experimental approaches to understanding fossil organisms: Lessons from the living; *in*, Topics in Geobiology, v. 41: New York, Springer, 420 p.

Holubnyak, Y., Watney, W. Rush, J., and Fazelalavi, F., 2014, Reservoir engineering aspects of pilot scale CO2 EOR project in Upper Mississippian Formation at Wellington Field in Southern Kansas: Energy Procedia 00 (2013) 000–000, 9 p.

Ivanov, J., Tsoflias, G., Miller, R. D., and Peterie, S. L., 2014, Near-surface Qs and Qp estimations from Rayleigh waves using multi-channel analysis of surface waves (MASW) at an Arctic ice-sheet site [Exp. Abs.]: Annual Meeting of the Society of Exploration Geophysicists, Denver, Colorado, p. 2,006–2,012.

Judy, B., and Miller, R. D., 2014, Utility of high-resolution seismic reflection surveying to contrast dynamic and static natural dissolution within the Hutchinson Salt Member [Exp. Abs.]: Annual Meeting of the Society of Exploration Geophysicists, Denver, Colorado, p. 2,060–2,065.

Layzell, A. L., and Mandel, R. D., 2014. An assessment of the erodibility of Holocene lithounits comprising streambanks in northeastern Kansas, USA: Geomorphology 213, p. 116–127.

Li, Z., Goldstein, R. H., and Franseen, E. K., 2014, Climate, duration, and mineralogy controls on meteoric diagenesis: Interpretation, v. 2, p SF111–SF123.

Li, Z., Goldstein, R. H., and Franseen, E. K., 2014, Geochemical record of fluid flow and dolomitization of carbonate platforms: Ascending freshwater-mesohaline mixing, Miocene of Spain; *in,* Fundamental

Controls on Fluid Flow in Carbonates, S. M. Agar and S. Geiger, eds.: Geological Society, London, Special Publications, 406, First published May 13, 2014.
Meixner, T., Manning, A. H., Stonestrom, D., Ajami, H., Allen, D. M., Blasch, K., Brookfield, A., Castro, C. L., Clark, J. F., Gochis, D., Flint, A., Neff, K., Niraula, R., Rodell, M., Scanlon, B., Singha, K., and Walvoord, M., Implications of projected climate change for groundwater recharge in the western United States. Submitted for publication in Environmental Research Letters.
Merriam, D. F, and Newell, K. D., 2014, The producing oil mine in Kansas: Transactions of the Kansas Academy of Science, v. 117, no. 1–2, p. 88–90.
Miller, R. D., Ivanov, J., Sloan, S. D., Peterie, S. L., and Bailey, B., 2014, Near surface seismic imaging: One size does not fit all [Exp. Abs.]: Annual Meeting of the Society of Exploration Geophysicists, Denver, Colorado, p. 183–187.
Miller, R. D., and Wang, Y., 2014, Suppressing near-surface RTM artifact using a band-selecting imaging condition [Exp. Abs.]: Annual Meeting of the Society of Exploration Geophysicists, Denver, Colorado, p. 2,055–2,059.
Newell, K. D., Watney, W. L., and Gerlach, P., 2014, An overview and preliminary economic assessment of horizontal wells drilled in the Mississippian Limestone Play in Kansas, 2010–2012: Kansas Geological Society, Bulletin, v. 89, no. 1, p. 10–15.
Peterie, S. L., Bennett, B., Miller, R. D., and Morton, S. L. C., 2014, Downhole geophone modification for horizontal signal optimization [Exp. Abs.]: Annual Meeting of the Society of Exploration Geophysicists, Denver, Colorado, p. 5,102–5,106.
Ramaker, E. M., Goldstein, R. H., Franseen, E. K., and Watney, W. L., 2014, What controls porosity in cherty fine-grained carbonate reservoir rocks? Impact of stratigraphy, unconformities, structural setting and hydrothermal fluid flow: Mississippian, southeast Kansas; *in,* Fundamental Controls on Flow in Carbonates, S. M. Agar, S. Geiger, and J. Lamarche, eds.: Geological Society of London: Special Publications, V. 406, p. 179–208.
Schwenk, J. T., Sloan, S. D., Miller, R. D., and Ivanov, J., 2014, Correlation of the backscatter analysis of surface waves method (BASW) for anomaly detection [Exp. Abs.]: Annual Meeting of the Society of Exploration Geophysicists, Denver, Colorado, p. 2,029–2,035.
Suarez, C. A., González, L. A., Ludvigson, G.A., Kirkland, J. I., Cifelli, R. L., and Kohn, M. J., 2014, Multi-taxa isotopic investigation of paleohydrology in the Lower Cretaceous Cedar Mountain Formation, eastern Utah: Deciphering effects of the Nevadaplano plateau on regional climate: Journal of Sedimentary Research, v. 84, p. 975–987. http://dx.doi.org/10.2110/jsr.2014.76
Walker, J. D., Bidgoli, T. S., Diderickson, B. D., Stockli, D. F., and Andrew, J. F., 2014, Middle Miocene to recent exhumation of the Slate Range, eastern California, and implications for the timing of extension and the transition to transtension: Geosphere. doi:10.1130/GES00947.1
Whittemore, D. O., Macfarlane, P. A., and Wilson, B. B., 2014, Water resources of the Dakota aquifer in Kansas: Kansas Geological Survey, Bulletin 260, 60 p.
Woody, D. T., Smith, J. J., Kraus, M. J., and Hasiotis, S. T., 2014, Manganese-bearing rhizocretions in the Willwood Formation, Wyoming, U.S.A.: Implications for paleoclimate during the Paleocene-Eocene Thermal Maximum: PALAIOS, v. 29, p. 266–276.

Nonrefereed Publications

Bidgoli, T. S., 2014, Low-temperature thermochronometric constraints on Cenozoic intraplate deformation in the central Basin and Range [Ph.D. dissertation]: Lawrence, Kansas, University of Kansas, 225 p.
Birdie, T., Raney, J., et al., 2014, Berexco, LLC, UIC Class 6 Permit Application: Wellington oil field small scale carbon capture and storage project, submitted to US EPA, May 23, 416 p.
Buchanan, R. C., Newell, K. D., Evans, C. S., and Miller, R. D., 2014, Induced seismicity — The potential for triggered earthquakes in Kansas: Kansas Geological Survey, Public Information Circular 36, 6 p.
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Ortega-Ariza, D., and Franseen, E. K., 2014, A new strontium isotope stratigraphy for Upper Oligocene-Upper Miocene carbonate systems in Puerto Rico and the Dominican Republic: Kansas Interdisciplinary Carbonate Consortium Annual Review Meeting. EXTENDED ABSTRACT

Ortega-Ariza, D., and Franseen, E. K., 2014, Nutrients in the Miocene Caribbean Sea: A significant control on carbonate systems in the region? The role of depositional setting: Kansas Interdisciplinary Carbonate Consortium Annual Review Meeting. EXTENDED ABSTRACT

Pugliano, T., Goldstein, R. H., and Franseen, E. K., 2014, Sedimentologic and reservoir character of abrading-upward cycles: Fundamentals of heterozoan carbonate reservoirs: Kansas Interdisciplinary Carbonate Consortium Annual Review Meeting. EXTENDED ABSTRACT

Smith, J. J., 2014, Getting to the bottom of the Ogallala: Scientific drilling in the High Plains of Western Kansas, University of Mississippi, April 17, 2014.

Smith, J. J., 2014, Lessons from the living: Two Neoichnological case studies, New Mexico Highlands University, October 24, 2014.

Suchy, D. R., Wilson, B., Adkins-Heljeson, D., and Stewart, D. L., 2014, Groundwater management resources and tools on the Kansas Geological Survey website (poster): 59th Annual Midwest Ground Water Conference, October 1, 2014, Lawrence, Kansas.

Stewart, D. L., and Suchy, D. R., 2014, Coordinate systems: Latitude, longitude and datum for water well completion forms: KDHE Geology and Well Technology Section Fall 2014 Seminar, Wichita, Kansas, September 10, 2014.

Stolz, D., Franseen, E. K., and Goldstein, R. H., 2014, Reservoir character of the Avalon Shale (Bone Spring Formation) of the Delaware Basin, West Texas and Southeast New Mexico: Effect of carbonate-rich

sediment gravity flows: Kansas Interdisciplinary Carbonate Consortium Annual Review Meeting. EXTENDED ABSTRACT
Watney, W. L., 2014, Fluid migration and accumulation within the Mississippian: Why 2% oil cut here, 15% one mile away? AAPG Search and Discovery Article #90201 © AAPG Education Directorate Mississippi Lime Forum, February 20, 2014.
Watney, W. L., Bidgoli, T. S., and Holubnyak, E., 2014, Earthquakes in the southern midcontinent: What we know and what we need to know — Current research at KU and the Kansas Geological Survey. http://www.kgs.ku.edu/PRS/Seismicity/KS_Geo_Society_Talk_12022014.pdf
Watney, W. L., Birdie, T., Doveton, J., Rush, J., Fazelalavi, M., Holubnyak, Y., Scheffer, A., Hedke, D., Datta, S., and Roberts, J., 2014, Integrating modern suite of geophysical logs, geochemistry, and seismic data for characterizing deep aquifers, tools, techniques and methods session: NGWA Annual Summit, Denver, Colorado. http://www.kgs.ku.edu/PRS/Ozark/Reports/2014/NGWA_Integrating_logs_geochemistry.pdf
Watney, W. L., Birdie, T., Holubnyak, Y., Rush, J., Fazelalavi, M., Doveton, J., Hansen, T., Walker, C., Cooper, K., Wreath, D., and Raney, J., 2014, Geologic carbon storage in the Lower Ordovician Arbuckle Group saline aquifer in Kansas: NGWA Annual Summit, Brine and Deep Aquifers, Denver, Colorado. https://ngwa.confex.com/ngwa/2014gws/webprogram/Paper9776.html
Watney, W. L., and Rush, J., 2014, Small scale field test demonstrating CO2 sequestration in Arbuckle saline aquifer and by CO2-EOR at Wellington Field, Sumner County, Kansas, Project Number (DE-FE0006821): Carbon Storage R&D Project Review Meeting, DOE-NETL, August 20–22, Pittsburgh. http://www.kgs.ku.edu/PRS/Ozark/SmallScale/2014/Watney-Raney_DE-FE0006821_2014_CarbonStoragePittsburgh.pdf
Watney, W. L., Rush, J., and Raney, J., 2014, Carbon storage and utilization in Kansas — Are we ready?: Kansas Next Step Oil and Gas Conference, Hays, Kansas. http://www.kgs.ku.edu/PRS/Ozark/Reports/2014/Watney_Ks_nextstep_Aug7_2014_v2.pdf
Watney, W. L., Rush, J., and Raney, J., 2014, Modeling CO2 sequestration in saline aquifer and depleted oil reservoir to evaluate regional CO2 sequestration potential of Ozark Plateau Aquifer System, South-Central Kansas, Project Number (DE-FE0002056): Carbon Storage R&D Project Review Meeting, DOE-NETL, August 20–22, Pittsburgh. http://www.kgs.ku.edu/PRS/Ozark/Reports/2014/Watney-Raney_DE-FE0002056_2014_CarbonStorage.pdf
Whittemore, D. O., 2014, Development of an endorheic basin in the watershed of the upper Arkansas River, USA: Geological Society of America Annual Meeting, Vancouver, British Columbia, October 20, 2014.
Whittemore, D. O., 2014, Water quality of the upper Arkansas River and impact on aquifer water quality: to local cities and agencies, U.S. Bureau of Reclamation, Southwest Groundwater Management District No. 3, and Kansas Water Office, Garden City and Lakin, Kansas, February 25; Syracuse, Kansas, February 26; and Holly, Colorado, February 27, 2014.
Whittemore, D. O., and Kettle, W. D., 2014, Symposium overview — Ecohydrology and climate change at Kansas natural areas and research stations: Kansas Academy of Science Annual Meeting, April 4, 2014.
Whittemore, D. O., and Wilson, B. B., 2014, The Kansas River alluvial aquifer as a managed reservoir system: 23rd Annual Kansas Hydrology Seminar, Topeka, Kansas, November 23, 2014.
Wilson, B. B., 2014, 50-Year Vision Planning Meetings (Colby, Goodland, Lawrence).
Wilson, B. B., 2014, Governor's Conference on Water and the Future of Kansas.
Wilson, B. B., 2014, Hays Rotary Club.
Wilson, B. B., 2014, Kansas Corn Growers Annual Meeting.
Wilson, B. B., 2014, Kansas Energy Conference.
Wilson, B. B., 2014, Kansas Environmental Conference.
Wilson, B. B., 2014, Kansas Groundwater Association Conference.
Wilson, B. B., 2014, Kansas Rural Water Association Conference.
Wilson, B. B., 2014, Midwest Groundwater Conference.
Wilson, B. B., 2014, Northwest GMD4 Board Meeting.
Wilson, B. B., 2014, Southwest Kansas GMD3 Annual Meeting.
Wilson, B. B., 2014, Southwest Kansas GMD3 County LEMA Meetings (Dodge City, Plains, Sublette, Hugoton, Lakin).
Wilson, B. B., 2014, Southwest Kansas Irrigation Association Annual Meeting.
Wilson, B. B., 2014, USDA Lane County Conservation District.
Wilson, B. B., 2014, Western Kansas GMD1 (Board Meeting and Model Advisory Committee).

Wilson, B., Suchy, D. R., Adkins-Heljeson, D., and Butler, J., Online groundwater resources and tools from the Kansas Geological Survey: Governor's Conference on the Future of Water in Kansas, Manhattan, Kansas, November 13, 2014.

Awards & Honors

Bidgoli, T. S. — University of Kansas, Erasmus Haworth Graduate Honors in Geology, 2014
Bidgoli, T. S. — University of Kansas, Geology Department, Ph.D. Final Examination, Pass with Honors, 2014
Franseen, E. K. — 2014 E.F. Schramm Lecturer, University of Nebraska-Lincoln
Franseen, E. K. — SEPM 2014–2015 Past president of SEPM, the International Society for Sedimentary Geology
Franseen, E. K. — SEPM 2013–2014 President of SEPM, the International Society for Sedimentary Geology
Miller, R. D. — Life Membership Award, SEG
Miller, R. D. — Elected, Treasurer, SEG Global Inc., Board of Directors
Miller, R. D. — Merriam Research Award, KGS

Internal Service

Bidgoli, T. S. — Outreach Coordinator Search Committee (member)
Bidgoli, T. S. — Supervisor, KGS-Energy Research Section intern Minh C. Nguyen
Brookfield, A. E. — Geohydrology Geochemist Search Committee (member)
Brookfield, A. E. — KU CSRS representative
Evans, C. S. — Outreach Coordinator Search Committee (co-chair)
Franseen, E. K. — Stratigraphic Nomenclature Committee (member)
Franseen, E. K. — Editorial Board for Current Research on Kansas Geology Bulletin (member)
Ludvigson, G. A. — KGS Promotion and Review Committee (chair)
Ludvigson, G. A. — KGS Stratigraphic Nomenclature Committee (member)
Sawin, R. S. — KGS Stratigraphic Nomenclature Committee (chair)
Sawin, R. S. — Outreach Coordinator Search Committee (co-chair)
Sawin, R. S. — Petroleum Geoscientist Search Committee (member)
Sawin, R. S. — Merriam Research Award Committee (member)
Smith, J. J. — Helped coordinate and participated in the Kansas Geological Mapping Advisory Committee (KGMAC) meetings on May 28 and September 12, 2014
Smith, J. J. — Performed 13 agency reviews on potential environmental concerns for proposed construction and improvement projects in Kansas as requested by federal, state, and private agencies as part of their environmental due diligence requirements (supervised by Dan Suchy).
Watney, W.L., Associate Director Search Committee (member)

External Service

Adkins-Heljeson, D. — Earth Day Celebration and Water Festival, Lawrence, Kansas
Adkins-Heljeson, D. — Oil and gas data on the KGS website, log scanning and materials and resources in the Data Resources Library, presentation to University of Kansas Geology 535 class
Bidgoli, T. S. — Member, AAPG Grant-In-Aid Committee, 2014–present
Bidgoli, T. S. — Member, AAPG, Education Committee, 2014–present
Bidgoli, T. S. — Co-chair, M.S. thesis committee for KU graduate student Andrew (Drew) Schwab
Bidgoli, T. S. — Co-chair, M.S. thesis committee for KU graduate student James P. Tyrrell
Bidgoli, T. S. — Teaching Aid, Core Workshop for KU — OSHER Lifelong Learning Institute, 2014
Brookfield, A. E. — Newsletter editor, Hydrogeology Division of Geological Society of America
Brookfield, A. E. — Associate Editor, Ground Water
Brookfield, A. E. — Courtesy Assistant Professor, University of Kansas Geology Department
Brookfield, A. E. — WRAPS Representative
Brookfield, A. E. — Professional reviews for Water Resources Research (3 manuscripts), Ground Water (3 manuscripts), Journal of Hydrologic Engineering (2 manuscripts), HESS (1 manuscript), Journal of Hydrology (1 manuscript), Deutsche Forshungsgemeinschaft (DFG) (1 proposal), NSF Hydro Division (1 proposal)
Brookfield, A. E. — Served on 2 doctoral and 2 master's committees, University of Kansas Geo/Eng
Franseen, E. K. — Member, Promotion and Tenure Committee, Department of Geology, University of Kansas
Franseen, E. K. — Member, Graduate Students Admissions Committee, Department of Geology, University of Kansas

Franseen, E. K. — Member, Search Committee for Geophysicist, Department of Geology, University of Kansas
Franseen, E. K. — Evaluator, Faculty Teaching, Department of Geology, University of Kansas
Franseen, E. K. — Advising, Undergraduates, Department of Geology, University of Kansas
Franseen, E. K. — Chair, University of Kansas graduate committee, (1 doctoral student)
Franseen, E. K. — Co-chair, University of Kansas graduate committees (4 students)
Franseen, E. K. — Member, University of Kansas graduate committees (2 doctoral students and 5 master's students)
Franseen, E. K. — President, SEPM, Society of Sedimentary Research
Franseen, E. K. — Member, Board of Visitors (Alumni Board), Department of Geology, University of Wisconsin-Madison
Franseen, E. K. — Chair, SEPM Strategic Plan Committee
Franseen, E. K. — Chair, SEPM Twenhofel Medal Award Committee
Franseen, E. K. — Member, SEPM Student Research Grant Evaluation Committee
Laflen, D. — Earth Day Celebration and Water Festival, Lawrence, Kansas
Liu, G. — M.S. committee, two students in Department of Geology, University of Kansas
Liu, G. — Student paper judge at American Geophysical Union annual meeting
Ludvigson, G. A. — Topical session organizer, Topical Session T120 on Proxies for Paleoprecipitation. Annual Meeting of the Geological Society of America, Vancouver, British Columbia, Oct. 19–22, 2014
Ludvigson, G. A. — Theme session organizer, Theme session on Cenozoic Stratigraphy of the Great Plains, North-Central Section meeting, Geological Society of America, Lincoln, Nebraska, April 24–25, 2014
Ludvigson, G. A. — Elected Sedimentology Councilor, SEPM, The Society for Sedimentary Geology
Ludvigson, G. A. — Sedimentary Geology Division Representative, Joint Technical Program Committee, Geological Society of America
Ludvigson, G. A. — University of Kansas graduate thesis committee service: Matthew Meyers, MS, 2014; Michael Waynick, MS, 2014; Tony Layzell, Ph.D. candidate; Jeffrey Ross, M.S. candidate; Holly Field, M.S. candidate; Brian Sitek, M.S. candidate; Brittanry Hendrix, M.S. candidate; Julienne Emry, Ph.D. candidate; Thomas Neal, M.S. candidate; Jason Hallman, M.S. candidate
Lyle, S. — Earth Day Celebration and Water Festival, Lawrence, Kansas
Miller, R. D. — SEG, Chair, China Operations Presidential Task Force
Miller, R. D. — SEG, Chair, IDC Presidential Task Force
Miller, R. D. — SEG, Chairman/Convener, NS Imaging and modeling workshop, Bahrain, March
Miller, R. D. — SEG, Appointed, Global Inc., Board of Directors
Miller, R. D. — State of Kansas, Governor's Seismicity Task Force
Miller, R. D. — SEG Near Surface Presidential Task Force
Miller, R. D. — SEG, Inter-Society Presidential Task Force
Miller, R. D. — SEG/NSG EEGS Collaboration Committee, Chair
Miller, R. D. — KU RGS Research Achievement Award Selection Committee
Miller, R. D. — SEG Near-Surface Geophysics Section Publications Committee, Chairman
Miller, R. D. — ASTM Geophysics Subcommittee on Seismic Standards
Miller, R. D. — Editor, Geophysical Society of Kansas
Miller, R. D. — SEG Technical Session Chair
Potter, N. — Earth Day Celebration and Water Festival, Lawrence, Kansas
Reboulet, E. — Earth Day Celebration and Water Festival, Lawrence, Kansas
Sawin, R. S. — Member, Kansas State University Geology Advisory Council (1995–present)
Smith, J. J. — Session Co-Chair, Cenozoic Stratigraphy of the Great Plains, North-Central Section Annual Meeting of the Geologic Society of America
Smith, J. J. — Participant, KU Water Research Community Team Leads meetings, January 3 and March 13, 2014
Smith, J. J. — Co-leader (with Randy Stotler), High Plains Working Group
Stewart, D. L. — Oil and gas data on the KGS website, log scanning and materials and resources in the Data Resources Library, presentation to University of Kansas Geology 535 class
Stewart, D. L. — Earth Day Celebration and Water Festival, Lawrence, Kansas
Suchy, D. R. — Research Senator, Unclassified Professional Staff Senate, University of Kansas (2012–present)
Suchy, D. R. — Member and Vice-Chairman, Board of Directors, Rural Water District #5, Douglas County, Kansas (2007–present)
Suchy, D. R. — Member and Treasurer, Board of Directors, Public Wholesale Water Supply District #25, Douglas and Osage Counties, Kansas (2007–present)
Watney, W. L. — AAPG Education Committee

Watney, W. L. — Student research review, SEPM
Watney, W. L. — Advising of students – Co-Advise Luis Montalvo with Luis Gonzalez; committee member for Allison Joy, Becky Doward, Clyde Redger, Yousuf Fadolakarem, Christa Jackson, Brent Campbell (KSU)
Whittemore, D. O. — Organized, with Dean Kettle of the Kansas Biological Survey, the Symposium on Ecohydrology and Climate Change at Kansas Natural Areas and Research Stations, held at Kansas Academy of Science Annual Meeting, Emporia, KS, April 4, 2014
Whittemore, D. O. — Main organizer and coordinator of 59th Annual Midwest Groundwater Conference and field trip, Lawrence, Kansas, September 30–October 2, 2014
Whittemore, D. O. — Council Member, Kansas Academy of Science
Whittemore, D. O. — Member, Upper Arkansas River Conservation Reserve Enhancement Program (CREP) Steering Committee
Whittemore, D. O. — Member, Molly Long M.S. committee, Department of Geology, University of Kansas (degree received 2014)
Whittemore, D. O. — Member, Jose Solis Ph.D. committee, University of Colorado, (comprehensives passed 2014)
Whittemore, D. O. — Geochemical identification of saltwater source, for Kansas Corporation Commission
Wilson, B. B. — Presentation to University of Kansas GEOG558 class
Wilson, B. B. — Presentation for University of Kansas mini-wheat state tour

Grants

Ludvigson, G. A. — 2014-2015: Principal investigator, Geologic Mapping in Kansas for FY14. United States Geological Survey, STATEMAP Program Contract No. G14AC00226. Co-PIs are R.D. Mandel, K.D. Newell, R.S. Sawin, W.C. Johnson, J.W. Dunham, J.J. Smith, and R. Stotler. Federal and state match totaling to $308,293
Ludvigson, G. A. — 2013-2014: Principal investigator, Geologic Mapping in Kansas for FY13. United States Geological Survey, STATEMAP Program Contract No. G13AC00168. Co-PIs are R.D. Mandel, K.D. Newell, R.S. Sawin, W.C. Johnson, J.W. Dunham, J.J. Smith, and R. Stotler. Federal and state match totaling to $223,129
Liu, G. — Aquifer storage and recovery in near-surface aquifers: Development of a new recharge approach using small-diameter, low-cost wells: NIWR/USGS National Competitive Grant Program, $177,336, 2011-2014. ($83,377 for 2014)
Miller, R. D.: Kansas Department of Health and Environment, Support of statewide seismic monitoring network, 2014, $25,000. (PI)
Miller, R. D.: Kansas Corporation Commission, Memorandum of Understanding for the purchase of portable seismic arrays, 2014, $83,780. (PI)
Miller, R. D.: Norcal Geophysical Consultants, High-resolution seismic reflection to characterize the basement faults in southern Oregon, 2014, $65,877. (PI)
Miller, R. D.: Barr Engineering Company, Surface wave characterization of wind turbine sites in Jamaica using the MASW and Side Scatter methods, 2014, $40,899. (PI)
Miller, R. D.: Burns & McDonnell Engineering Company, Extended term passive seismic characterization of high priority salt jugs in Hutchinson, Kansas [Mosaic], 2014, $34,070. (PI)
Miller, R. D.: Burns & McDonnell Engineering Company, Feasibility of passive seismic characterization of selected salt jugs in Hutchinson [Cargill], Kansas, 2014, $33,672. (PI)
Miller, R. D.: XRI Geophysics LLC, High resolution seismic reflection to delineate the hydrostratigraphy of Cretaceous and Triassic formations in Big Lake Ranch Area, Reagan County, Texas, 2014, $60,097. (PI)
Suchy, D. R. — National Geological and Geophysical Data Preservation Program Grant to Data Resources Library and Wichita Well Sample Library, Kansas Geological Survey, Daniel R. Suchy, PI; administered through U. S. Geological Survey, 2014–2015, $50,006

Computer Software

Victorine, J. R., 2014, Hingle & Pickett Plots Web Site (http://www.kgs.ku.edu/software/Pf/).
Victorine, J. R., 2014, Gamma Ray Colorlith Cross Section Web Site (http://www.kgs.ku.edu/stratigraphic/GR_CROSS_SECTION/).
Victorine, J. R., 2014, Brine Data Plot & Data Entry (http://www.kgs.ku.edu/stratigraphic/BRINE/).
Wilson, B. B., 2014, Numerical Groundwater Model for Western Kansas Groundwater Management District.

Website

— Placed 13 bulletins and 7 books from other series online.
— Placed, or replaced, 3 Public Information Circulars online.
— Placed all 2014 open-file reports (that were suitable for the web) online. In addition, added several from earlier years (mostly from the 1990s) for a total of 20.
— Scanned 17,685 water well records.
— Scanned 11,000 wireline logs.
— Added 5,909 other oil and gas documents.

2013

Refereed Publications

Bailey, B. B., Miller, R. D., Peterie, S., and Ivanov, J., 2013, Implications of Vp/Vs ratio on shallow P and S reflection correlation and lithology discrimination [Exp. Abs.]: Annual Meeting of the Society of Exploration Geophysicists, Houston, Texas, p. 1,944–1,949.

Butler, J. J., Jr., Stotler, R. L., Whittemore, D. O., and Reboulet, E. C., 2013, Interpretation of water-level changes in the High Plains aquifer in western Kansas: Groundwater, v. 51, no. 2, p. 180–190. doi: 10.1111/j.1745-6584.2012.00988.x

Dvoretsky, R. A., Goldstein, R. H., Franseen, E. K., and Byrnes, A., in press, Reservoir-analog modeling of focused-flow and dispersed-flow deepwater carbonates: Miocene Agua Amarga Basin, Southeast Spain: SEPM Special Publication, Deposits, Architecture and Controls of Carbonate Margin, Slope, and Basin Systems.

Goldstein, R. H., Franseen, E. K., and Lipinski, C. J., 2013, Topographic and sea-level controls on oolite-microbialite-coralgal reef sequences: The terminal carbonate complex of Southeast Spain: AAPG Bulletin**,** v. 97, pp. 1,997–2,054.

Haney, M. M., and Miller, R. D., 2013, Introduction to this special section — Nonreflection seismic and inversion of surface and guided waves: Leading Edge, v. 32, n. 6, p. 610–611.

Ivanov, J., Schwenk, J. T., Miller, R. D., and Peterie, S., 2013, Dispersion-curve imaging nonuniqueness studies from multi-channel analysis of surface waves (MASW) using synthetic seismic data [Exp. Abs.]: Annual Meeting of the Society of Exploration Geophysicists, Houston, Texas, p. 1,794–1,800.

Judy, B., and Miller, R. D., 2013, Geoforensic analysis of high-resolution seismic reflection data to unravel the complex past of natural salt dissolution features in the upper 250 m [Exp. Abs.]: Annual Meeting of the Society of Exploration Geophysicists, Houston, Texas, p. 1,934–1,938.

Li, Z., Goldstein, R. H., and Franseen, E. K., in press, A model for dolomitization of carbonate platforms: Ascending freshwater-mesohaline mixing, La Molata, Spain: Geological Society London Special Publication.

Li, Z., Goldstein, R. H., and Franseen, E. K., 2013, Ascending freshwater-mesohaline mixing: A new scenario for dolomitization: Journal of Sedimentary Research, v. 83, p. 277–283.

Liu, G., Knobbe, S., and Butler, J. J. Jr., 2013, Resolving centimeter-scale flows in aquifers and their hydrostratigraphic controls: Geophysical Research Letters, v. 40, p. 1098–1103. doi:10.1002/grl .50282

Lipinski, C. J., Franseen, E. K., and Goldstein, R. H., 2013, Reservoir analog model for oolite-microbialite sequences, Miocene Terminal Carbonate Complex, Spain: AAPG Bulletin, v. 97, pp. 2,035–2,057.

Ludvigson, G. A. González, L. A., Fowle, D. A., Roberts, J. A., Driese, S. G., Villarreal, M. A., Smith, J. J., and Suarez, M. B., 2013, Paleoclimatic applications and modern process studies of pedogenic siderite; in, S. Driese and L. Nordt, eds., New Frontiers in Paleopedology and Terrestrial Paleoclimatology: SEPM Special Publication No. 104, p. 79–87. doi: 10.2110/sepmsp.104.01

Miller, R. D., 2013, Introduction to this special section — Urban geophysics: Leading Edge, v. 32, n. 3, p. 248–249.

Miller, R. D., 2013, Near-surface applied geophysics: Unraveling mysteries of and characterizing geohazards, groundwater, archaeology, and engineering [Keynote Presentation]: Proceedings of the Second International Conference on Engineering Geophysics, p. 24–29.

Miller, R. D., Luczaj, J., and Evans, T. J., 2013, Delineating shallow basement faults on high-resolution seismic reflection data plagued with extreme static in NE Wisconsin, USA [Exp. Abs.]: Annual Meeting of the Society of Exploration Geophysicists, Houston, Texas, p. 1,718–1,722.

Miller, R. D., and Singha, K., 2013, Introduction to this special section — Hydrogeophysics: Leading Edge, v. 32, n. 7, p. 740–741.

Nolan, J. J., Miller, R. D., Ivanov, J., Peterie, S., and Lindgren, E., 2013, Near-surface salt dissolution void identification using passive MASW [Exp. Abs.]: Annual Meeting of the Society of Exploration Geophysicists, Houston, Texas, p. 2,212–2,217.

Ortega-Ariza, D., Santos-Mercado, H., Franseen, E. K., and Ramírez-Martínez, W., 2013, Las Calizas de la Costa Norte de Puerto Rico: Espeleo Revista Puerto Rico, Federacion Espeleologica de Puerto Rico, Junio-Diciembre 2013, p. 6–17.

Ramaker, E. M., Goldstein, R. H., Franseen, E. K., and Watney, W. L., in press, What controls porosity in cherty fine-grained carbonate reservoir rocks? Impact of stratigraphy, unconformities, structural setting and hydrothermal fluid flow: Mississippian, southeast Kansas: Petroleum Geoscience Special Volume.

Sawin, R. S., Franseen, E. K., Ludvigson, G. A., Watney, W. L., and West, R. R., 2013, Precambrian nomenclature in Kansas: Kansas Geological Survey, Bulletin 259, pt. 1, 5 p. http://www.kgs.ku.edu/Current/2013/Sawin/index.html

Suarez, C. A., Ludvigson, G. A., González, L. A., Fiorillo, A. R., Flaig, P., and McCarthy P. J., 2013, Use of multiple oxygen isotope proxies for elucidating Arctic Cretaceous paleohydrology; in, A.-V. Bojar, M. C. Melinte-Dobrinescu, and J. Smit, eds., Isotopic Studies in Cretaceous Researc:, Geological Society, London, Special Publications 382. doi 10.1144/SP382.3

Suarez, M. B., Ludvigson, G. A., González, L. A., Al-Suwaidi, A. H., and You, H., 2013, Stable isotope chemostratigraphy in lacustrine strata of the Xiagou Formation, Gansu Province, NW China; in, A.-V. Bojar, M. C. Melinte-Dobrinescu, and J. Smit, eds., Isotopic Studies in Cretaceous Research: Geological Society, London, Special Publications 382. doi 10.1144/SP382.1

Sloan, S. D., Peterie, S. L., Miller, R. D., Ivanov, J., McKenna, J. R., Broadfoot, S. W., and Metheny, O. M., 2013, Tunnel detection using near-surface seismic methods: GSH Journal, v. 4, n. 3, p. 13–16.

Sloan, S. D., Peterie, S. L., Miller, R. D., Snow, T. L., McKenna, J. R., and Metheny, O. M., 2013, In-theater seismic acquisition: Operational examples from a tunnel detection team [Exp. Abs.]: Annual Meeting of the Society of Exploration Geophysicists, Houston, Texas, p. 1,801–1,805.

Walsh, D., Turner, P., Grunewald, E., Zhang, H., Butler, J. J. Jr., Reboulet, E., Knobbe, S., Christy, T., Lane, J. W. Jr., Johnson, C. D., Munday, T., and Fitzpatrick, A., 2013, A small-diameter NMR logging tool for groundwater investigations: Groundwater, v. 51, no. 6, p. 914–926.

Xia, J., Shen, C., Xu, Y., and Miller, R. D., 2013, Near-surface shear-wave velocities and quality factors derived from high-frequency surface waves: Proceedings of the Near Surface Geophysics Asia Pacific Conference, Beijing, China, p. 1–4.

Zschornack, L., Bohling, G. C., Butler, J. J. Jr., and Dietrich, P., 2013, Hydraulic profiling with the direct-push permeameter: Assessment of probe configuration and analysis methodology: Journal of Hydrology, v. 496, p. 195–204.

Nonrefereed Publications

Butler, J. J., Jr., Whittemore, D. O., Bohling, G. C., Reboulet, E., Stotler, R. L., and Wilson, B. B., 2013, High Plains aquifer index well program: 2012 annual report: Kansas Geological Survey Open-File Report 2013-1, 127 p.

Cramer, B. D., Vandenbroucke, T. R., and Ludvigson, G. A., in review, Review article: Asking old rocks new questions: High-resolution stratigraphy and the Phanerozoic time scale: submitted as invited review article to Marine and Petroleum Geology (submitted March 2013).

Evans, C. S., and Newell, K. D., 2013, The Mississippian limestone play in Kansas — Oil and gas in a complex geologic setting: Kansas Geological Survey, Public Information Circular 33, 6 p.

Franseen, E. K., 2013, Presidents comments: The Sedimentary Record, SEPM, v. 11, n. 4, December 2013, p. 13.

Franseen, E. K., 2013, Presidents comments: The Sedimentary Record, SEPM, v. 11, n. 3, September 2013, p. 10.

Franseen, E. K., 2013, Presidents comments: The Sedimentary Record, SEPM, v. 11, n. 2, June 2013, p. 11.

Layzell, A. L., and Evans C. S., 2013, Kansas droughts — Climatic trends over 1,000 years: Kansas Geological Survey, Public Information Circular 35, 6 p.

Lyle, S. A., Evans, C. S., Buchanan, R. C., and Sawin, R. S., eds., 2013, South–central Kansas — Oil exploration, water allocation, and range management, 2013 Kansas Field Conference, field guide: Kansas Geological Survey, Open-File Report 2013-3, 73 p.

Ludvigson, G. A., Joeckel, R. M., Murphy, L. R., Stockli, D. F., González, L. A., Suarez, C. A., Kirkland, J. I., and Al-Suwaidi, A., in revision, Review paper: The emerging terrestrial record of Aptian-Albian global change: submitted as invited review paper to Cretaceous Research, 32 p.

Smith, J. J., 2013, Preliminary geology field maps and stratigraphic column, Haskell County, Kansas (Copeland, West of Copeland, and Plains NW USGS 7.5 minute quadrangle): Kansas Geological Survey, Open-File Report 2013-9, 3 sheets, scale 1:24,000.

Suarez, C. A., González, L. A., Ludvigson, G. A., Kirkland, J. I., Cifelli, R. L., and Kohn, M. J., in review, Multiproxy investigation of paleohydrology in the Early Cretaceous Cedar Mountain Formation, eastern Utah: Deciphering effects of the Nevadaplano plateau on regional climate: Journal of Sedimentary Research (submitted April 2013).

Suchy, D. R., 2013, The Mineral industry of Kansas; in, U.S. Geological Survey, 2013, Area Reports — Domestic: U.S. Geological Survey Minerals Yearbook 2009, v. II, p. 18.0–18.5. http://minerals.usgs.gov/minerals/pubs/state/ks.html

Computer Software

Victorine, J. R., 2013, Production Plot & Decline Curve Analysis Web Site. http://www.kgs.ku.edu/software/production/

Abstracts

Butler, J. J., Jr., Bohling, G. C., Reboulet, E. C., and Olson, J., 2013, Signal not noise: Getting more from water-level responses to barometric-pressure fluctuations: Abstract 9198 presented at 2013 Ground Water Summit, National Ground Water Association, San Antonio, Texas, May 2013.

Butler, J. J., Jr., Liu, G., Knobbe, S., Reboulet, E., and Dietrich, P., 2013, Subsurface characterization: Some recent developments and future prospects: International Association of Hydrological Sciences, 2013 Joint Assembly Program with Abstracts, Gothenburg, Sweden, July 2013.

Butler, J. J. Jr., Whittemore, D. O., and Wilson, B. B., 2013, A simple, first-order approach for assessing aquifer response to anthropogenic and climatic stresses: New insights into the future of the High Plains aquifer in Kansas: Abstract H13O-02, American Geophysical Union Meeting, San Francisco, California.

Duarte, A., Smith, J. J., Sleezer, R. O., Platt, B. F., and Ludvigson, G. A., 2013, Chronostratigraphic investigations of the McPherson Channel deposits in south-central Kansas: Preliminary interpretations from particle size and stable isotopic analyses: Geological Society of America, Abstracts with Programs, v. 45, no. 7, p. 136.

Dvoretsky, R., Franseen, E. K., and Goldstein, R. H., 2013, Static reservoir-analog modeling of focused-flow and dispersed-flow resedimented deepwater carbonate deposits: Fourth Annual Deepwater Reservoirs Geosciences Technology Workshop, Jan. 15–16, 2013, Houston, Texas.

Händel, H., Liu, G., Dietrich, P., Liedl, R., and Butler, J. J. Jr., 2013, Numerical investigation of shallow aquifer recharge using small-diameter, low-cost wells and infiltration basins: Abstract 9197 presented at 2013 Ground Water Summit, National Ground Water Association, San Antonio, Texas, May 2013.

Händel, H., Liu, G., Dietrich, P., Liedl, R., Fank, J., and Butler, J. J. Jr., 2013, Numerical comparison of artificial recharge by small-diameter wells to common systems, Abstract H11F-1214: American Geophysical Union fall meeting, San Francisco, California, December 2013.

Harlow, R. H., González, L. A., Ludvigson, G. A., and Petronis, M., 2013, Employment of non-traditional techniques to improve stratigraphic correlation in the Ogallala Formation and their applications for future groundwater management: Official Program, Midcontinent Section Meeting, American Association of Petroleum Geologists, October 12–15, Wichita, Kansas, p. 40.

Harlow, R. H., Ludvigson, G. A., Smith, J. J., Doveton, J. H., and Murphy, L. R., 2013, Evolution of the Neogene High Plains succession depositional history through paleoclimatic and vertical sequence analysis: southwestern Kansas: Program & Abstracts for the 2013 Meeting of the Society for Cenozoic Research (TER-QUA), Lawrence, Kansas, p. 12.

Harlow, R. H., Ludvigson, G. A., Smith, J. J., Doveton, J. H., Petronis, M., and Gonzalez, L. A., 2013, Employment of non-traditional techniques to improve stratigraphic correlation of the High Plains Succession and their applications for future groundwater management: 10th Annual Capitol Graduate Research Summit, Topeka, Kansas.

Hasiotis, S. T., Halfen, A. F., Counts, J. W., Kraus, M. J., Smith, J. J., and Hembree, D. I., 2013, Bioturbation is the major process in the evolution of soils and landscapes — Evidence from modern and deep time: Geological Society of America, Abstracts with Programs, v. 45, no. 7, p. 633.

Hasiotis, S. T., Halfen, A. F., Counts, J. W., Wasserman, H., Platt, B. F., Hembree, D. I., Jones, M. F., Hirmas, D. R., and Smith, J. J., 2013, Exploring old and new frontiers in continental ichnology — Evaluating its place in ichnology and its role in geology: Geological Society of America, Abstracts with Programs, v. 45, no. 7, p. 898.

Joeckel, R. M., Ludvigson, G. A., Kirkland, J. I., and Suarez, C. A., 2013, Alluvial architecture, paleosols, vertic features, and preliminary chemostratigraphy of the Yellow Cat Member (Lower Cretaceous) of the Cedar Mountain Formation in Grand County, Utah, USA: Geological Society of America, Abstracts with Programs, v. 45, no. 7, p. 133.

Katz, B. S., Stotler, R. L., Hirmas, D. R., Whittemore, D. O., Butler, J. J., Smith, J. J., and Ludvigson, G. A., 2013, Implications of $\delta^{18}O$ and $\delta^{2}H$ stable isotopes for recharge to the High Plains Aquifer, northwestern Kansas: Geological Society of America, Abstracts with Programs, v. 45, no.7, p. 350.

Layzell, A. L., and Mandel, R. D., 2013. An assessment of the lithostratigraphy and erodibility of Holocene alluvial fills (Deforest Formation) in northeastern Kansas, USA: Geological Society of America, Abstracts with Programs, Vol. 45, No. 7, p. 120

Li, Z., Goldstein, R. H., and Franseen, E. K., 2013, Meteoric calcite cementation: Diagenetic response to relative sea-level fall and effect on porosity and permeability, Upper Miocene, Southeast Spain: AAPG Annual Meeting, Pittsburg, Pennsylvania, May 2013.

Long, M. M., Whittemore, D. O., and Stotler, R. L., 2013, Characterizing surface and groundwater interactions of different subsurface geologic environments using geochemical and isotopic analyses in Kansas: Geological Society of America Abstracts with Programs, v. 45, no. 7, p 350.

Ludvigson, G. A., González, L. A, Fowle, D. A., Roberts, J. A., Driese, S. G., and Suarez, M., 2013, Recent progress on the pedogenic paleoclimate siderite proxy: Geological Society of America, Abstracts with Programs, v. 45, no.7, p. 736.

Ludvigson, G. A., González, L. A., Suarez, C., Fiorillo, A. R., McCarthy, P., and Flaig, P., 2013, Exploring the role of the hydrologic cycle in Arctic Amplification during the greenhouse worlds of the Cretaceous and Paleogene: Geological Society of America, Abstracts with Programs, v. 45, no.7, p. 897.

Ludvigson, G. A., Smith, J. J., Harlow, R. H., Doveton, J. A., Mandel, R. D., González, L. A., Zeigler, K., Petronis, M., Möller, A., Feldman, J., Stotler, R., and Rittenour, T. M., 2013, A scientific drilling program in the Cenozoic strata of the high plains in western Kansas, Program & Abstracts for the 2013 Meeting of the Society for Cenozoic Research (TER-QUA), Lawrence, Kansas, p. 16.

Ortega-Ariza, D., and Franseen, E. K., 2013, Evaluating Controls on Miocene Carbonate-Dominated Sequences in Puerto Rico and the Dominican Republic: GSA Southeastern Section — 62nd Annual Meeting (20–21 March 2013).

Platt, B. F., Smith, J. J., and Ludvigson, G. A., 2013, Ichnological and stratigraphic investigations of the Neogene Ogallala Formation of western Kansas: Traces, tiering, and timing: Program & Abstracts for the 2013 Meeting of the Society for Cenozoic Research (TER-QUA), Lawrence, Kansas, p. 22.

Richey, J. D., Upchurch, G. R., Joeckel, R., Smith, J. J., Ludvigson, G. A., and Lomax, B. H., 2013, Atmospheric carbon dioxide and its relation to carbon cycle perturbations during Ocean Anoxic Event 1d: A high resolution record from dispersed plant cuticle: Geological Society of America, Abstracts with Programs, v. 45, no. 7, p. 333.

Richey, J. D., Upchurch, G. R., Joeckel, R., Smith, J. J., Ludvigson, G. A., and Lomax, B. H., 2013, Atmospheric carbon dioxide and its relation to carbon cycle perturbations during Ocean Anoxic Event 1d: A high resolution record from dispersed plant cuticle: American Geophysical Union Fall Meeting, San Francisco, California; PP33B-1923.

Smith, J. J., Ludvigson, G. A., Harlow, R. H., Doveton, J. H., Zeigler, K. E., Petronis, M., Möller, A., Feldman, J., Stotler, R. L., and Rittenour, T., 2013, Paleogene strata of the High Plains in western Kansas? Preliminary radiometric dates from volcanogenic zircons in mature paleosols: Geological Society of America, Abstracts with Programs, v. 45, no.7, p. 478.

Smith, J. J., Platt, B. F., Thomasson, J. R., Ludvigson, G. A., Packauskas, R., Flores, T., Leiker, J., Walters, G., and Barrick, R., 2013, Ant nest trace fossils of the Neogene Ogallala Formation and preliminary analysis of aluminum casts of modern western harvester ant nests from Hays, Kansas: Program & Abstracts for the 2013 Meeting of the Society for Cenozoic Research (TER-QUA), Lawrence, Kansas, p. 25–26

Solis, J. A., Rajaram, H., Whittemore, D. O., Butler, Jr. J. J., Eichinger, W. E., and Reboulet, E. C., 2013, Comparison of riparian evapotranspiration estimated using Raman LIDAR and water balance based estimates from a soil moisture sensor network: Abstract H13J-1503, American Geophysical Union Meeting, San Francisco, California.

Stolz, D., Mouton, K., Goldstein, R. H., Franseen, E., and Doveton, J., 2013, Sediment gravity flow deposits in the Avalon Shale Play of the Delaware Basin, West Texas and Southeast New Mexico: AAPG Annual Meeting, Pittsburg, Pennsylvania, May 2013.

Stotler, R. L., Butler, J. J., Whittemore, D. O., Reboulet, E. C., Katz, B. S., Hirmas, D. R., Smith, J. J., and Ludvigson, G. A., 2013, Monitoring, groundwater age, and assessing water availability: Lessons from the High Plains Aquifer, Kansas, USA: submitted for Groundwater and Global Palaeoclimate Signals, ICSU-INQUA-IGCP-GRAPHIC Worskhop, Bobole, Mozambique, October 14–19, 2013.

Suchy, D. R., Stewart, D. L., and Adkins-Heljeson, D., 2013, Kansas Geological Survey water well, water level, and water usage information on the Internet (abst.): Governor's Conference on the Future of Water in Kansas, Manhattan, Kansas.

Trevino, S. F., Zeigler, K. E., Petronis, M., Smith, J. J., Ludvigson, G. A., and Doveton, J. H., 2013, New magnetic polarity data from the High Plains–Ogallala drilling project core HP1A: A preliminary magnetostratigraphy from the Eocene-Oligocene White River Group, southwestern Kansas: Geological Society of America, Abstracts with Programs, v. 45, no. 7, p. 135.

Whittemore, D. O., and Butler, J. J. Jr., 2013, Drought impacts on Kansas groundwater levels: Program with Abstracts, 58th Annual Midwest Ground Water Conference, Bismarck, North Dakota.

Whittemore, D. O., Butler, J. J. Jr., and Wilson, B. B., 2013, A new approach for assessing the impact of climatic and pumping stresses on the High Plains aquifer in Kansas: Governor's Conference on Future of Water in Kansas, Topeka, Kansas.

Whittemore, D. O., Butler, J. J. Jr., and Wilson, B. B., 2013, Prediction of water-level changes in the High Plains aquifer in Kansas from climatic indices: Geological Society of America Abstracts with Programs, v. 45, no. 7, p 490.

Whittemore, D. O., and Kettle, W. D., 2013, Ecohydrology and climate change at Kansas natural areas and research stations: Transactions of the Kansas Academy Science, v. 116, no. 1/2. http://www.bioone.org/doi/full/10.1660/062.116.0114

Presentations

Brookfield, A. E., 2013, Integrated hydrologic models: Building new tools for water management, University of Nebraska-Lincoln Spring 2013 Water Seminar Series, January 16.

Butler, J. J. Jr., Presentation on the High Plains aquifer as part of "Beyond the Long Hot Summer: The Future of Water in Kansas" symposium, Lawrence, March 1, 2013.

Butler, J. J. Jr., Presentation on the Index Well Program to the Ogallala Aquifer Advisory Committee, Scott City, April 8, 2013.

Butler, J. J. Jr., Presentation on the Index Well Program at the Kansas Water Office, April 25, 2013.

Butler, J. J. Jr., Presentation on the Haskell Index Well to the Ogallala Aquifer Advisory Committee, Dodge City, Nov. 5, 2013.

Butler, J. J., Jr., Bohling, G. C., Reboulet, E. C., and Olson, J., 2013, Signal not noise: Getting more from water-level responses to barometric-pressure fluctuations: 2013 Ground Water Summit, National Ground Water Association, San Antonio, Texas, May 2013.

Butler, J. J., Jr., Liu, G., Knobbe, S., Reboulet, E., and Dietrich, P., 2013, Subsurface characterization: Some recent developments and future prospects: International Association of Hydrological Sciences, 2013 Joint Assembly, Gothenburg, Sweden, July 2013.

Butler, J.J., Jr., Whittemore, D. O., and Wilson, B. B., 2013, A simple first-order approach for assessing aquifer response to anthropogenic and climatic stresses: New insights into the future of the High Plains aquifer in Kansas, American Geophysical Union fall meeting, San Francisco, California, December 2013.

Dunham, J., 2013, Surficial geology of Hodgeman County, Kansas: Map Gallery (poster) presentation, ESRI International User Conference, San Diego, California, July 8, 2013.

Dunham, J., 2013, Using ArcScan in geologic mapping to convert hand-drawn geologic contacts: Map Gallery (poster) presentation, ESRI International User Conference, San Diego, California, July 8, 2013.

Dunham, J., 2013, Scanning and digital cleanup of out-of-print maps: Digital Mapping Techniques (DMT) AASG-USGS Annual Workshop, Colorado School of Mines, Golden, Colorado, June 3, 2013.

Dunham, J. W., Koop, A. N., and Johnson, W. C., 2013, Applying ArcScan in geologic mapping to convert hand-drawn geologic contacts: poster presented by W. C. Johnson, Geological Society of America 2013 Annual Meeting, Denver, Colorado, October 28, 2013.

Franseen, E. K., 2013, Invited speaker, University of Nebraska-Lincoln, Mylan T. Stout Lecture Series Seminar: A new concept in sequence stratigraphy: Build-and-fill sequences in carbonate-dominated systems, April 2013.

Franseen, E. K., 2013, Invited luncheon speaker, Build-and-fill sequences in carbonate-dominated systems: A developing concept for sequence-stratigraphy, GCAGS-GCSSEPM Annual Meeting, New Orleans, Louisiana, Oct. 6–8, 2013.

Franseen, E. K., 2013, Invited presentation — Unconventional reservoirs: Mississippian Lime Play, Kansas; Avalon Shale, Texas & New Mexico; Miocene Chalks, SE Spain: Chevron Energy Technology Center, Houston, Texas, March 2013.

Franseen, E. K., 2013, Invited Presentation — Controls on Mississippian (Osagean) inner ramp heterozoan carbonate & biosiliceous deposits in a midcontinent setting: Repsol Oil Company, Madrid, Spain, November 2013.

Franseen, E. K., 2013, Session chair — Interplay of evaporites and carbonates including microbialites: 2013 AAPG Annual Convention, Pittsburg, Pennsylvania, May 19–22.

Franseen, E. K., 2013, Session chair — Modern carbonates: 2013 AAPG Annual Convention, Pittsburg, Pennsylvania, May 19–22.

Franseen, E. K., 2013, Session chair — Carbonates and evaporites I & II: 2013 AAPG Annual Convention, Pittsburg, Pennsylvania, May 19–22.

Franseen, E. K., 2013, Co-instructor for Total Oil Company geologists to Miocene-Pliocene carbonate complexes, SE Spain, November 27–29, 2013.

Franseen, E. K., 2013, Co-instructor for AAPG Education Program: Controls on porosity types and distribution in carbonate reservoirs: Almeria, Spain, June 2–7, 2013.

Händel, H., Liu, G., Dietrich, P., Liedl, R., and Butler, J. J. Jr., 2013, Numerical investigation of shallow aquifer recharge using small-diameter, low-cost wells and infiltration basins: 2013 Ground Water Summit, National Ground Water Association, San Antonio, Texas, May 2013.

Ludvigson, G. A., 2013, Preliminary findings from the HP1A core at the Haskell County Index Well Site, southwest Kansas: Kansas Geological Survey, Lawrence, Kansas, June 18, 2013.

Ludvigson, G. A., What's up with the pedogenic siderite paleoclimate proxy?: Validation by modern process studies and new applications to the Cretaceous Arctic: Department of Geoscience, University of Iowa, Iowa City, Iowa, April 12, 2013.

Miller, R. D., 2013, ICEG, Al Ain, UAE, Keynote Address, November.

Miller, R. D., Luczaj, J., and Evans, T. J., 2013, Delineating shallow basement faults on high-resolution seismic reflection data plagued with extreme static in NE Wisconsin, USA [Exp. Abs.]: Annual Meeting of the Society of Exploration Geophysicists, Houston, Texas, September 22–27.

Miller, R. D., 2013, SEG Near Surface Asia Pacific Conference, Near Surface Honorary Lecture, Near-surface seismic: More than a problem of scale, Keynote Address, Beijing, China, July 2013.

Miller, R. D., 2013, ASCE, Geotechnical Conference, Overland Park, Kansas, April 2013.

Miller, R. D., 2013, SEG 2012 Near Surface Honorary Lecturer, Near-surface seismic: More than a problem of scale (26 lectures total):

— Tulsa Geophysical Society, Tulsa, Oklahoma, April 11, 2013.
— Near Surface Asia Pacific Conference, Beijing, China, July 2013
— Qatar Geoscience Society, Doha, Qatar, November 28, 2013.
— Oman Geophysics Society, Muscat, Oman, December 2, 2013.

Sawin, R. S., 2013, Benefits and uses of geologic maps: Joseph A. Holmes Safety Association, September 18, 2013, Lawrence, Kansas.

Smith, J. J., and Duarte, A., 2013, Update: Sediment mapping within the McPherson Channel, with Adrienne Duarte. Kansas Geological Survey Advisory Committee meeting, November 15, 2013.

Stewart, D., 2013, The Data Resources Library at the Kansas Geological Survey — Records processing and presentation on the web: Energy Library Conference, Oklahoma City, Oklahoma, October 24, 2013.

Suchy, D. R., Stewart, D. L., Adkins-Heljeson, D., 2013, Kansas Geological Survey water well, water level, and water usage information on the Internet (poster): Governor's Conference on the Future of Water in Kansas, Manhattan, Kansas, October 24–25, 2013.

Whittemore, D. O., and Butler, J. J. Jr., 2013, Drought impacts on Kansas groundwater levels: 58th Annual Midwest Ground Water Conference, Bismarck, North Dakota.

Whittemore, D. O., Butler, J. J. Jr., and Wilson, B. B., 2013, Prediction of water-level changes in the High Plains aquifer in Kansas from climatic indices: Geological Society of America, Denver, Colorado, October 2013.

Whittemore, D. O., Butler, J. J. Jr., and Wilson, B. B., 2013, A new approach for assessing the impact of climatic and pumping stresses on the High Plains aquifer in Kansas: Governor's Conference on Future of Water in Kansas, Topeka, Kansas.

Whittemore, D. O., and Kettle, W. D., 2013, Ecohydrology and climate change at Kansas natural areas and research stations: Kansas Academy of Science.

Grant Awards

National Geological and Geophysical Data Preservation Program Grant to Data Resources Library and Wichita Well Sample Library, Kansas Geological Survey; administered through U. S. Geological Survey, 2013-2014, $46,350.

National Geological and Geophysical Data Preservation Program Grant to Data Resources Library, Kansas Geological Survey; administered through U. S. Geological Survey, 2012-2013, $23,000.

U.S. Geological Survey, Geophysical methods development for subsurface characterization for various near-surface settings (Task 2–Data acquisition and technique enhancement), 2013, $483,908. (PI: Miller)

MWH Americas Inc., Santa Susana Field Laboratory pilot seismic study, 2013, $273,372. (Co-PI: Miller)

XRI Geophysics LLC, Advancing full wavefield seismic imaging and detection technologies, 2013, $521,471. (PI: Miller)

Awards

Franseen, E. K. — 2014 E.F. Schramm Lecturer, University of Nebraska-Lincoln

Franseen, E. K. — SEPM 2013–2014 President of SEPM, the International Society for Sedimentary Geology

Ludvigson, G. A. — Elected Sedimentology Councilor, SEPM; The Society for Sedimentary Geology, 2013–2014

Ludvigson, G. A. — Sedimentary Geology Division, Joint Technical Program Committee, Geological Society of America, 2013–2014

Miller, R. D. — Appointed, 1st Vice President, SEG Board, November 2012–2013

Miller, R. D. — USP Service Award, SEG 2012

Miller, R. D. — Merriam Research Award, KGS, 2013

Internal Service

Franseen, E. K. — Member, KGS Stratigraphic Nomenclature Committee

Franseen, E. K. — Member, search committee for Budget Director

Franseen, E. K. — Member, Editorial Board for Current Research on Kansas Geology Bulletin

Ludvigson, G. A. — Member, KGS Stratigraphic Nomenclature Committee

Ludvigson, G. A. — STATEMAP Program Coordinator for the KGS

Ludvigson, G. A. — Member, search committee for Field Research Assistant Driller

Miller, R. D. — KGS Current Research Bulletin Advisory Board, 1992–present

Miller, R. D. — KGS Borehole Standards, Remediation, and Reclamation Committee, Chair, 1990–present

Miller, R. D. — KGS Emergency Preparedness Committee, 1987–present

Sawin, R. S. — Chair, KGS Stratigraphic Nomenclature Committee

Smith, J. J. — Member, search committee for Postdoctoral Research Assistant

External Service

Butler, J. J., Jr. — President-Elect (July 2011–July 2013), President (July 2013–present), International Commission on Ground Water, International Association of Hydrological Sciences

Butler, J. J., Jr. — Elected Member, Board of Directors, Scientists and Engineers Division, National Ground Water Association (2010–2013)

Butler, J. J., Jr. — Appointed Member, Chair (2012–13), Awards Committee, Scientists and Engineers Division, National Ground Water Association

Butler, J. J., Jr. — Appointed Member, Kansas Water Resources Institute Administrative Council

Butler, J. J., Jr. — Associate Editor — Ground Water

Butler, J. J., Jr. — National Science Foundation — Hydrologic Sciences Proposal Panelist November 2013)

Butler, J. J., Jr. — Promotion and Tenure Evaluator, Department of Geosciences, Colorado State University (2013)

Butler, J. J., Jr. — Member, Erin Haacker Ph.D. committee, Department of Geological Sciences, Michigan State University (2013–present)

Butler, J. J., Jr. — Member, Brooks Bailey M.S. committee, Department of Geology, University of Kansas (2013–present)

Butler, J. J., Jr. — Meeting or Special Session Convener:
- Characterizing Water Quantity and Water Quality: New Approaches and Future Directions, International Association of Hydrological Sciences, 2013 Joint Assembly, Gothenburg, Sweden, July 2013
- Eliminating or Exploiting Environmental Fluctuations to Improve Hydraulic Characterization, National Ground Water Association, Ground Water Summit, San Antonio, Texas, May 2013

Butler, J. J., Jr. — Member, Organizing Committee, NovCare 2013 (Novel Methods for Subsurface Characterization and Monitoring: From Theory to Practice), May 2013, Leipzig, Germany
Butler, J. J., Jr. — Associate, Center for East Asian Studies, University of Kansas
Butler, J. J., Jr. — Core Faculty Member, Center for Global and International Studies, University of Kansas
Butler, J. J., Jr. — Courtesy Full Professor, Department of Geology, University of Kansas
Butler, J. J., Jr. — Worked with NBC Learn and Michigan State University to develop educational video on the High Plains aquifer, April 2013 (http://archives.nbclearn.com/portal/site/k-12/flatview?cuecard=65288)
Butler, J. J., Jr. — Session Moderator:
- 2013 NGWA Ground Water Summit, San Antonio, Texas, May 2013
- International Association of Hydrological Sciences, 2013 Joint Assembly, Gothenburg, Sweden, July 2013
- 2013 Governor's Conference on Future of Water in Kansas, October 2013
- 22nd Annual Kansas Hydrology Seminar, Topeka, Kansas, November 2013
- 2013 Ground Water Expo, National Ground Water Assoc., Nashville, Tennessee, December 2013

Butler, J. J., Jr. — Visiting Researcher, Hydrogeology Group, Universitat Politècnica de València, September 2012–January 2013, Valencia, Spain (KU sabbatical leave)
Dunham, J. — Represented KGS at the annual USGS-AASG Digital Mapping Techniques (DMT) conference, Champaign, IL, Illinois State Geological Survey, University of Illinois, May 20–23, 2012
Dunham, J. — Represented KGS at the annual USGS-AASG Digital Mapping Techniques (DMT) conference, Golden, Colorado, Colorado Geological Survey, Colorado School of Mines, June 2–5, 2013
Franseen, E. K. — Member, Promotion and Tenure Committee, Department of Geology, University of Kansas
Franseen, E. K. — Member, Graduate Students Admissions Committee, Department of Geology, University of Kansas
Franseen, E. K. — Member, Search Committee for Petroleum Engineer, Chemical and Petroleum Engineering Department, University of Kansas
Franseen, E. K. — Member, Search Committee for Geophysicist, Department of Geology, University of Kansas
Franseen, E. K. — Evaluator, Faculty Teaching, Department of Geology, University of Kansas
Franseen, E. K. — Advising, Undergraduates (sophomores), Department of Geology, University of Kansas
Franseen, E. K. — President, SEPM (Society of Sedimentary Research)
Franseen, E. K. — Member, Board of Visitors (Alumni Board), Department of Geology, University of Wisconsin-Madison
Franseen, E. K. — Chair, SEPM Strategic Plan Committee
Franseen, E. K. — President-Elect, SEPM (Society of Sedimentary Research)
Franseen, E. K. — Chair, SEPM Shepard Medal Award Committee
Franseen, E. K. — Chair, SEPM Ethics Violations Committee
Franseen, E. K. — Chair, SEPM Sedimentary Record Editor Search Committee
Franseen, E. K. — Member, SEPM Student Research Grant Evaluation Committee
Franseen, E. K. — Chair, Ph.D. committee for Diana Ortega-Ariza
Franseen, E. K. — Co-chair, Ph.D. committee for Zhaoqi Li
Franseen, E. K. — Co-chair, MS committees for Dustin Stolz, Rafferty Sweeney, Karen Ohmes-Lechtenburg, Justin Fairchild, and Tony Pugliano
Franseen, E. K. — Member, Ph.D. committee for Jason Rush
Franseen, E. K. — Member, MS committees for Brad King, Jennifer Lowry, Thomas Neal, Maritha Huber, and Sean Fischer
Franseen, E. K. — Instructor for Geology 532 — Stratigraphy, Fall Semester, 2013, Geology Department, University of Kansas
Franseen, E. K. — Co-Instructor for Geology 761 — Regional Field Geology, Spring Semester, 2013, Geology Department, University of Kansas
Ludvigson, G. A. — Member, search committee for the KU Geology Department Ritchie Distinguished Professorship in Sedimentary Geology
Ludvigson, G. A. — Member, search committee for a new geochronologist for the KU Department of Geology

Ludvigson, G. A. — Elected 2013-2014 Councilor for Sedimentology for SEPM, The Society for Sedimentary Geology
Ludvigson, G. A. — Member, ad-hoc SEPM Council committee in fall 2013 to select the incoming co-editor for JSR
Ludvigson, G. A. — 2013-2014 GSA Sedimentary Geology Division Representative, GSA Joint Technical Program Committee (JTPC)
Ludvigson, G. A. — Associate Editor, Journal of Sedimentary Research
Ludvigson, G. A. — Participating faculty member in GEOL 791-020 seminar course Current Research in Sedimentary Geology, Department of Geology, University of Kansas; August–December 2013
Ludvigson, G. A. — Research hours faculty supervisor for KU graduate students Hunter Harlow and Jeff Ross; spring and summer semesters 2013
Ludvigson, G. A. — Mentored KGS postdoctoral researcher Dr. Brian Platt, spring and summer semesters 2013
Ludvigson, G. A. — Co-chair, M.S. thesis committee for KU student Hunter Harlow
Ludvigson, G. A. — Co-chair, M.S. thesis committee for KU graduate student Jeff Ross
Ludvigson, G. A. — Chair, M.S. thesis committee for KU graduate student Holly Field
Ludvigson, G. A. — Member, Ph.D. committee of KU graduate student Tony Layzell
Ludvigson, G. A. — Member, graduate committees of KU graduate students Julienne Emry (Ph.D), Matthew Meyers (M.S.), and Michael Waynick (M.S.)
Miller, R. D. — Chair, master's thesis committees, for Amanda Livers (University of Kansas), Jordan Nolan (University of Kansas), Yao Wang (University of Kansas), and Tyler Schwenk (University of Kansas)
Miller, R. D. — Co-chair, master's thesis committee, for Bevin Bailey (University of Kansas)
Miller, R. D. — Session Co-chair, Shallow Seismology, Near Surface Asia Pacific Conference, Beijing, China, July 18, 2013
Miller, R. D. — AGU, Session Co-convener, "Developments and practical applications of the multichannel seismic-data surface-wave analysis method," AGU Fall Meeting, San Francisco, December 9–13, 2013
Miller, R. D. — SEG Board, November 2012–2013. SEG-EEGS Merger Task Force, Continuing Education Committee, and Inter-Society Relations Committee
Miller, R. D. — KU Faculty Senate Research Committee, 2011–2013
Miller, R. D. — DOE-EM30 Scientific Opportunities for Monitoring of Environmental Remediation Sites (SOMERS) Task Force, 2010–present
Miller, R. D. — SEG Near Surface Task Force, 2010–present
Miller, R. D. — SEG, Intersociety Task Force, 2010–present
Miller, R. D. — SEG/NSG EEGS Collaboration Committee, Chair, 2010–present
Miller, R. D. — SEG, Special Issue Editor, *The Leading Edge*: July 2013 (v. 32, n. 7), hydrogeophysics; June 2013 (v. 32, n. 6), nonreflection seismic and inversion of surface and guided waves; March 2013 (v. 32, n. 3), urban geophysics
Miller, R. D. — KU RGS Research Achievement Award Selection Committee, 2008–2013
Miller, R. D. — SEG Near-Surface Geophysics Section Publications Committee, Chairman, 2008–present
Miller, R. D. — National Advisory Team for Geophysics in Hydrology, organized by the Consortium of Universities for the Advancement of Hydrologic Sciences Inc., 2006–present
Miller, R. D. — ASTM Geophysics Subcommittee on Seismic Standards, 2006–present
Miller, R. D. — Geophysical Society of Kansas, Editor, 2005–present
Miller, R. D. — SEG Technical Session Chair, 2012, 2013
Miller, R. D. — SAGEEP EEGS Technical Session Chair, 2013
Miller, R. D. — Consultant, APACHE CORP, 2013, High Resolution Seismic Imaging Geohazard
Sawin, R. S. — Member, Kansas State University Geology Advisory Council (1995–present)
Sawin, R. S. — Member, Reservoir Siting Technical Advisory Committee, Kansas Water Office
Smith, J. J. — Co-Chair, 2013 Annual Meeting of the Society for Cenozoic Research (TerQua), Lawrence, Kansas
Smith, J. J. — Co-Chair, Recent Advances in Stratigraphic Research, Annual Meeting of the Geological Society of America
Suchy, D. R. — Research Senator, Unclassified Professional Staff Senate, University of Kansas (2012–Present)
Suchy, D. R. — Member and Vice-Chairman, Board of Directors, Rural Water District #5, Douglas County, Kansas (2007–Present)
Suchy, D. R. — Board Member and Treasurer, Public Wholesale Water Supply District #25, Douglas and Osage Counties, Kansas (2007–Present)
Whittemore, D. O. — Geochemical identification of saltwater sources for Kansas Corporation Commission

Whittemore, D. O. — Council member of Kansas Academy of Science
Whittemore, D. O. — State Steering Committee of Conservation Reserve Enhancement Program
Whittemore, D. O. — Reviewer for following journals: *Journal of Contaminant Hydrology*, *Water Quality Exposure and Health*, *Environmental Science & Technology*, *Environmental Earth Sciences*
Whittemore, D. O. — PhD committee, student at University of Colorado
Whittemore, D. O. — M.S. committee, student in Department of Geology, University of Kansas

KGS Website Additions

Placed online:
8 bulletins and 15 books from other series (most from the Irrigation series)
Three Public Information Circulars
21 open-file reports, including all 2013 open-file reports that were suitable for the web and several from earlier years (mostly from the 1990s)
41,500 wireline logs since mid-2012
16,600 other oil and gas documents
Scanned 21,000 water well records since mid-2012

2012

Refereed Publications

Bailey, B. L., Steeples, D. W., Miller, R. D., Peterie, S. L., Ivanov, J., and Markiewicz, R. D., 2012, Evaluation of extended correlation on shallow Vibroseis data [Exp. Abs.]: Annual Meeting of the Soc. of Expl. Geophys., Las Vegas, Nevada, November 4-9, 3 p. (e-Poster.)

Bohling, G. C., Liu, G., Knobbe, S. J., Reboulet, E. C., Hyndman, D. W., Dietrich, P., and Butler, J. J., Jr., 2012, Geostatistical analysis of centimeter-scale hydraulic conductivity variations at the MADE site: Water Resources Research, v. 48, W02525. doi:10.1029/2011WR010791

Bunn, A. L., Wellman, D. M., Deeb, R. A., Hawley, E. L., Truex, M. J., Peterson, M. J., Freshley, M. D., Pierce, E. M., McCord, J., Young, M. H., Gilmore, T. J., Miller, R. D., Miracle, A. L., Kaback, D., Eddy-Dilek, C., Rossabi, J., Lee, M. H., Bush, R., Beam, P., Chamberlain, G. M., Marble, J., Whitehurst, L., Gerdes, K., and Collazo, Y. T., 2012, Scientific Opportunities for Monitoring at Environmental Remediation Sites (SOMERS): Integrated systems-based approaches to monitoring. DOE/PNNL-21379. Prepared for Office of Soil and Groundwater Remediation, Office of Environmental Management, U.S. Department of Energy, Washington, DC, by Pacific Northwest National Laboratory, Richland, WA.

Bunn, A., Wellman, D., Freshley, M., Gilmore, T., Miracle, A., Truex, M., Deeb, R., Hawley, E., Eddy-Dilek, C., Kabak, D., McCord, J., Miller, R. D., Peterson, M., Pierce, E., Rossabi, J., Young, M., Bush, R., Beam, P., Chamberlain, S., Gerdes, K., and Collazo, Y., 2012, Scientific opportunities for monitoring of environmental remediation sites: Proceedings of the Waste Management Symposia — WM2012: Improving the Future in Waste Management, Phoenix, Arizona, February 26-March 1.

Butler, J. J., Jr., in press, Slug tests in wells screened across the water table: Some additional considerations: Ground Water.

Butler, J. J., Jr., Stotler, R. L., Whittemore, D. O., and Reboulet, E. C., in press, Interpretation of water-level changes in the High Plains aquifer in western Kansas: Ground Water.

Devlin, J. F., Brookfield, A. E., Huang, B., and Schillig, P. C., 2012, Using the Domenico solution to teach contaminant transport modeling: Journal of Geoscience Education, v. 60, no. 2, p. 123–132.

Doll, W. E., Miller, R. D., and Bradford, J., 2012, The emergence and future of near-surface geophysics: Leading Edge, v. 31, n. 6, p. 684–689.

Emry, J. R., Goldstein, R. H., and Franseen, E. K., 2012, A first-cut field method to evaluate limestone aggregate durability: ACI Materials Journal, v. 109, p. 557–564.

Franseen, E. K., and Byrnes, A. P., 2012, Arbuckle Group platform strata in Kansas — A Synthesis; *in,* The Great American Carbonate Bank: The Geology and Economic Resources of the Cambrian–Ordovician Sauk Megasequence of Laurentia: AAPG Memoir 98, J. R. Derby, R. D. Fritz, S. Longacre, W. A. Morgan, and C. A. Sternbach, eds., p 1,031–1,047.

Franseen, E. K., and Byrnes, A. P., 2012, Extended abstract — Arbuckle Group platform strata in Kansas — A Synthesis, *in,* The Great American Carbonate Bank: The Geology and Economic Resources of the Cambrian–Ordovician Sauk Megasequence of Laurentia: AAPG Memoir 98, J. R. Derby, R. D. Fritz, S. Longacre, W. A. Morgan, and C. A. Sternbach, eds., p. 445a–452a.

Gleeson, T., Alley, W. M., Allen, D. M., Sophocleous, M. A., Zhou, Y., Taniguchi, M., and VanderSteen, J., 2012, Towards sustainable groundwater use: Setting long-term goals, backcasting and managing adaptively: Ground Water, v. 50, no. 1, p. 19–26.

Goldstein, R. H., Franseen, E. K., Dvoretsky, R., and Sweeny, R., 2012, Controls on focused-flow and dispersed-flow deepwater carbonates: Miocene Agua Amarga Basin, Spain: Journal of Sedimentary Research, v. 82, p. 499–520.

Halfen, A. F., Johnson, W. C., Hanson, P. R., Woodburn, T. L., Young, A. R., and Ludvigson, G. A., 2012, Activation history of the Hutchinson Dunes in east-central Kansas, USA, during the past 2200 years: Aeolian Research, v. 5, p. 9–20. http://dx.doi.org/10.1016/j.aeolia.2012.02.001

Hasiotis, S. T., and Platt, B. F., 2012, Exploring the sedimentary, pedogenic, and hydrologic factors that control the occurrence and role of bioturbation in soil formation and horizonation in continental deposits: An integrative approach: The Sedimentary Record, p. 4–9.

Hasiotis, S. T., Platt, B. F., Reilly, M., Amos, K., Lang, S., Kennedy, D., Todd, J. A., and Michel, E., 2012, Actualistic studies of the spatial and temporal distributions of terrestrial and aquatic organism traces in continental environments to differentiate lacustrine from fluvial, eolian, and marine deposits in the geologic record, *in,* Lacustrine Sandstone Reservoirs and Hydrocarbon Systems: American Association of Petroleum Geologists Memoir 95, Baganz, O. W., Bartov, Y., Bohacs, K., and Nummendal, D., eds., p. 433–489.

Hirmas, D. R., Platt, B. F., and Hasiotis, S. T., 2012, Determination of calcite and dolomite content in soils and paleosols by continuous coulometric titration: Soil Science Society of America Journal, v. 75, p. 1,100–1,106.

Kenward, P., Goldstein, R. H., Brookfield, A. E., Gonzalez, L. A., and Roberts, J. A. (2012). Model for how archaeal methanogenesis can preserve early porosity in dolomite and limestone reservoirs: AAPG Bulletin, v. 96, p. 399–413.

Li, Z., Goldstein, R. H., and Franseen, E. K., in press, Ascending freshwater-mesohaline mixing: A new scenario for dolomitization: Journal of Sedimentary Research.

Liu, G., Butler, J. J., Jr., Reboulet, E.C., and Knobbe, S., 2012, Hydraulic conductivity profiling with direct-push methods: Grundwasser, v. 17, no. 1, p. 19–29. doi: 10.1007/s00767-011-0182-9

Liu, G., Knobbe, S., and Butler, J. J., Jr., in press, Resolving centimeter-scale flows in aquifers and their hydrostratigraphic controls, Geophysical Research Letters.

Ludvigson, G. A. González, L. A., Fowle, D. A., Roberts, J. A., Driese, S. G., Villarreal, M. A., Smith, J. J., and Suarez, M. B., in press, Paleoclimatic applications and modern process studies of pedogenic siderite: Submitted for publication *in* New Frontiers in Paleopedology and Terrestrial Paleoclimatology, S. Driese, and L. Nordt, eds., SEPM Special Publication.

Merriam, D. F., Brady, L. L., and Newell, K. D., 2012, Kansas energy resources, a geological review: Natural Resources Research, v. 21, no. 1, p. 163–175.

Miller, R.D., 2012, Introduction to this special section — Archaeology: *Leading Edge*, v. 31, n. 8, p. 914-915.

Miller R.D., 2012, President's Page: Advancing by division: *Leading Edge*, v. 31, n. 7, p. 748, 750.

Miller R.D., 2012, President's Page: Surfacing our potential: *Leading Edge*, v. 31, n. 1, p. 8.

Miller, R. D., Bailey, B. L., Peterie, S. L., Ivanov, J., and Markiewicz, R., 2012, Shallow P- and S-wave reflections to characterize the near-surface [Exp. Abs.]: Annual Meeting of the Soc. of Expl. Geophys., Las Vegas, NV, November 4-9, 4 p.

Murphy, L. R., and Mandel, R. D., 2012, Geoarchaeology and paleoenvironmental context of the Burntwood Creek rockshelter, High Plains of northwestern Kansas, U.S.A.: Geoarchaeology: An International Journal, v. 27, p. 344–362.

Philippine National Water Resources Board, Philippine Nuclear Research Institute, and International Atomic Energy Agency_IAEA (Dunning, C. P., and Sophocleous, M. A.), 2012, Investment needs for resource assessment capability in the Philippines to improve the planning and management of water infrastructure. A report of the Philippine IWAVE Pilot Study, part of the IAEA Water Availability Enhancement Project, August 2012, 130 p. http://dl.dropbox.com/u/90583024/NWRB_book_FINAL.pdf

Platt, B. F., Hasiotis, S. T., and Hirmas, D. R., 2012, Empirical determination of physical controls on megafaunal footprint formation through neoichnological experiments with elephants: PALAIOS, v. 27, p. 725–737.

Schwenk, J. T., Miller, R. D., Ivanov, J., Sloan, S. D., and McKenna, J. R., 2012, Dispersion interpretation from synthetic seismograms and multi-channel analysis of surface waves (MASW) [Exp. Abs.]: Annual Meeting of the Soc. of Expl. Geophys., Las Vegas, Nevada, November 4-9, 8 p.

Sloan, S. D., Peterie, S. L., Miller, R. D., Ivanov, J., McKenna, J. R., Broadfoot, S. W., and Metheny, O. M., 2012, Tunnel detection using near-surface seismic methods [Exp. Abs.]: Annual Meeting of the Soc. of Expl. Geophys., Las Vegas, Nevada, November 4-9, 5 p.

Sophocleous, M. A., 2012, Conserving and extending the useful life of the largest aquifer in North America: The future of the High Plains/Ogallala aquifer: Ground Water, v. 50 no. 6, p. 831–839.

Sophocleous, M. A., 2012, The evolution of groundwater management paradigms in Kansas and possible new steps towards water sustainability: Journal of Hydrology, p. 414–415: 550–559.

Sophocleous, M. A., 2012, On understanding and predicting groundwater response time: Ground Water, v. 50 no. 4, p. 528–540.

Sophocleous, M. A., and Merriam, D. F., 2012, The Ogallala formation of the Great Plains in central U.S. and its containment of life-giving water: Natural Resources Research, v. 21, no. 4, p. 415–426.

Suarez, C. A., González, L. A., Ludvigson, G. A., Cifelli, R. L., and Tremain, E., 2012, Water utilization of the Cretaceous Mussentuchit Member local vertebrate fauna, Cedar Mountain Formation, Utah, USA: Using

oxygen isotopic composition of phosphate: Palaeogeography, Palaeoclimatology, Palaeoecology, v. 313, p. 78–92. doi:10.1016/j.palaeo.2011.10.011
Suarez, M. B., Ludvigson, G. A., González, L. A., Al-Suwaidi, A. H., and You, H., in press, Carbon isotope chemostratigraphy in lacustrine strata of the Xiagou Formation, Gansu Province, NW China: Geological Society London Special Publication Isotopic Studies in Cretaceous Research.
Suarez, C. A., Ludvigson, G. A., González, L. A., Fiorillo, A. R., Flaig, P., and McCarthy P. J., in press, Use of multiple oxygen isotope proxies for elucidating Arctic Cretaceous paleohydrology: Geological Society London Special Publication Isotopic Studies in Cretaceous Research.
Walsh, D., Turner, P., Grunewald, E., Zhang, H., Butler, J. J., Jr., Reboulet, E., Knobbe, S., Christy, T., Lane, J. W., Jr., Johnson, C. D., Munday, T., and Fitzpatrick, A., in press, A small-diameter NMR logging tool for groundwater investigations: Ground Water.
Wang, X., Zheng, C., Liu, G., Li, W., Knobbe, S., Reboulet, E. C., and Butler, J. J., Jr., 2012, A review of recent developments in using direct-push technologies for rapid, high-resolution hydraulic conductivity measurements (in Chinese): Hydrogeology and Engineering Geology, v. 39, no. 1, p. 8–12.
Whittemore, D. O., 2012, Potential impacts of stormwater runoff on water quality in urban sand pits and adjacent groundwater*:* J. American Water Resources Association, v. 48, no. 3, p. 584-602. doi: 10.1111/j.1752-1688.2011.00637.x
Xia, J., Xu, Y., Luo, Y., Miller, R. D., Cakir, R., and Zeng, C., 2012, Advantages of using multichannel analysis of Love waves (MALW) to estimate near-surface shear-wave velocity: *Survey in Geophysics*, v. 33, p. 841-860.
Xia, J., Xu, Y., Miller, R. D., and Ivanov, J., 2012, Estimation of near-surface quality factors by constrained inversion of Rayleigh-wave attenuation coefficients: *Journal of Applied Geophysics*, v. 82, p. 137-144.
Zeng, C., Xia, J., Miller, R. D., and Tsoflias, G. P., 2012, An improved vacuum formulation for 2D finite-difference modeling of Rayleigh waves including surface topography and internal discontinuities: *Geophysics*, v. 77, p. T1-T9.
Zeng, C., Xia, J., Miller, R. D., Tsoflias, G. P., and Wang, Z., 2012, Numerical investigation of MASW applications in presence of surface topography: Journal of Applied Geophysics, v. 84, p. 52–60.

Nonrefereed/Unpublished Papers

Butler, J. J., Jr., Stotler, R. L., Whittemore, D. O., Reboulet, E., Bohling, G. C., and Wilson, B. B., 2012, High Plains aquifer calibration monitoring well program: Fifth year progress report: Kansas Geological Survey Open-File Report 2012-2, 85 p.
Dunham, J., 2012, Defining the Flint Hills (map). Symphony in the Flint Hills — Field Journal 2012, v. IV, p. 119. Strong City, Kansas: Symphony in the Flint Hills Press. 182 pp.
Dunham, J. (compiler), 2012, Flint Hills Ecoregion (map): Kansas Geological Survey, Open-File Report 2012-6, scale 1:500,000.
Dunham, J., 2012, Headwater streams in Lyon County (map): Symphony in the Flint Hills — Field Journal 2012, v. IV, p. 111. Strong City, Kansas: Symphony in the Flint Hills Press. 182 pp.
Dunham, J., 2012, Streams and rivers in the Flint Hills (map): Symphony in the Flint Hills — Field Journal 2012, v. IV, p. 108. Strong City, Kansas: Symphony in the Flint Hills Press. 182 pp.
Franseen, E. K., and Goldstein, R. H., 2012, Miocene-Pliocene carbonate complexes of SE Spain with emphasis on microbialite-oolite sequences of the terminal carbonate complex. 60 p.
Fross, D., Sophocleous, M. A., Wilson, B., and Butler, J., 2012. Kansas High Plains Aquifer Atlas. http://www.kgs.ku.edu/HighPlains/HPA_Atlas/index.html
Gagnon, G. F., 2012, LEOWEB Version 11.0 User Manual, Kansas Geological Survey, Open-File Report 2012-14, 34 p. http://www.kgs.ku.edu/Publications/OFR/2012/OFR12_14/index.html
Layzell, A. L., 2012. A thousand years of drought and climate variability in Kansas: Implications for water resources management: Kansas Geological Survey, Open-File Report 2012-18.
Liu, G., Wilson, B. B., Whittemore, D. O., and Butler, J. J., Jr., 2012, Ground-water model for Southwest Kansas Groundwater Management District No. 3: Future scenarios, Kansas Geological Survey Open-File Report 2012-3, 121 p.
Lyle, S. A., Evans, C. S., Buchanan, R. C. and Sawin, R. S., eds., 2012, Northwest Kansas — Water conservation and consumption, energy and transportation, and the agricultural economy, 2012 Kansas Field Conference, field guide: Kansas Geological Survey, Open-File Report 2012-4, 84 p.

Mandel, R. D., 2012, Geoarchaeology; *in*, Archeological Investigations at Arkansas City, Kansas, R. J. Hoard, ed.: Kansas Historical Society, Topeka, Kansas, Archeology Publication No. 26, p. 85–100.
Mandel, R. D., 2012, Geoarchaeology of Area A; *in*, Agate Basin Archaeology at Beacon Island, North Dakota, M. D. Mitchell, ed.: Paleocultural Research Group, Arvada, Colorado, Monograph Series, Research Contribution No. 86, p. 9–25.
Murphy, L. R., and Mandel, R. D., 2012, Paleoenvironmental context: The stable carbon isotope and phytolith record; *in*, Agate Basin Archaeology at Beacon Island, North Dakota, M. D. Mitchell, ed.: Paleocultural Research Group, Arvada, Colorado, Monograph Series, Research Contribution No. 86, p. 191–199.
Newell, K. D., Sawin, R. S., and Brady, L. L., 2012, Gas from coal in Kansas: Kansas Geological Survey Public Information Circular 19 (revised), 4 p.
Platt, B. F., 2012, Quantification of ichnological, paleoecological, paleohydrological, and paleoclimatological information from the Upper Jurassic Morrison Formation: unpublished Ph.D. dissertation, University of Kansas, Lawrence, 501 p.
Sawin, R. S., and West, R. R., 2012, Field geology maps, Morris County, Kansas; preliminary field geology maps for Americus, Lake Kahola, and Wilsey SE 1:24,000-scale quadrangles: Kansas Geological Survey, Open-File Report 2012-5, 39 p.
Smith, J. J., and Johnson, W. C., 2012, Preliminary geology field maps and stratigraphic column, Haskell County, Kansas (Ryus, Satanta, and Sublette USGS 7.5 minute quadrangle): Kansas Geological Survey, Open-File Report 2012-9, 3 sheets, scale 1:24,000.
Smith, J. J., and Sleezer, R., 2012, Preliminary geology field maps and stratigraphic column, Harvey County, Kansas (Peabody NW, Elbing, and Whitewater USGS 7.5 minute quadrangles): Kansas Geological Survey, Open-File Report 2012-10, 3 sheets, scale 1:24,000.
Suchy, D. R., 2012, The mineral industry of Kansas; *in*, U.S. Geological Survey, Area Reports — Domestic: U.S. Geological Survey Minerals Yearbook 2008, v. II, 406 p., p. 18.0–18.5. http://minerals.usgs.gov/minerals/pubs/state/ks.html
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Gagnon, G. F., 2012, LEOWEB 11. http://chasm.kgs.ku.edu/apex/f?p=120418
Victorine, J. R., 2012, PfEFFER-java Web Site. http://www.kgs.ku.edu/software/PfEFFER-java/
Victorine, J. R., 2012, Drill Stem Test (DST) Data Entry & Quantitative Analysis Web Site. http://www.kgs.ku.edu/software/DST/
Victorine, J. R., 2012, Synthetic Seismic Profile Plot Web Site. http://www.kgs.ku.edu/software/SS/
Victorine, J. R., 2012, Digitize Electric Well Log (E-Log) Image Plot Web Site. http://www.kgs.ku.edu/software/DEWL/
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Abstracts

Bailey, B.L., Steeples, D.W., Miller, R.D., Peterie, S.L., Ivanov, J., and Markiewicz, R., 2012, Implications of Vp/Vs ratio on shallow P and S reflection correlation and lithology discrimination [Abs.]: Symposium on the Application of Geophysics to Engineering and Environmental Problems (SAGEEP 2013), Denver, Colorado, March 17-21, 2013. Published on CD.

Barker, R., Watney, W. L., Scheffer, A., Ford, S., and Datta, S., 2012, Geochemical and mineralogical characterization of the Arbuckle aquifer: Studying mineral reactions and its implications for CO_2 sequestration, GSA Annual Meeting, Charlotte, Nov. 4–7.

Benson, B. E., Tsoflias, G., and Mandel, R. D., Geophysical investigations of the Mound City borrow pits, Ross County, Ohio. Presented at the Annual Meeting of the Society of Exploration Geophysicists, Las Vegas, Nevada, November 2012. (Invited).

Benson, G. S., Franseen, E. K., Goldstein, R. H., and Li, Z., 2012, Data collection, interpretation, and geologic modeling of outcrop: Cerro La Molata, Cabo de Gata, Spain: AAPG/SPE/SEG Hedberg Research Conference, Fundamental Controls on Flow in Carbonates, July 8–13, 2012, Saint-Cyr Sur Mer, Provence, France, 4 p. Extended abstract.

Bohling, G. C., Liu, G., and Butler, J. J., Jr., Adaptive integration of auxiliary information into inverse problems: Application to direct-push hydraulic profiling, Abstract H41K-04 presented at 2012 Fall Meeting, AGU, San Francisco, Dec. 2012.

Boss, S. K., Cothren, J., Suarez, C., Williamson, M., Platt, B. F., and Kvamme, J. A., 2012, Wide-field LIDAR imaging and online interactive measurement of a dinosaur trackway site from southwest Arkansas, USA: Geological Society of America Abstracts with Programs, v. 44.

Brookfield, A., Ensz, A., Stover, S., Wilson, B., Lyon, A., and Beightel, C., 2012. Republican River basin study: The start of a multi-state research effort. Presentation with abstract, Governor's Conference on the Future of Water in Kansas, Manhattan, Kansas, October 30–31.

Brookfield, A. E., and Sudicky, E. A., 2012, Implications of hyporheic flow on temperature-based estimates of GW/SW interactions. Presentation with published abstract, AGU 2012 Fall Meeting, San Francisco, California, Dec. 3–7.

Brookfield, A., Wilson, B., Stover, S., Ensz, A., Beightel, C. and Lyons, A., 2012, Managing the water resources of the lower Republican River basin. Presentation with published abstract, GSA 2012 Annual Meeting, Minneapolis, Minnesota, November 4–7.

Butler, J. J., Jr., Zheng, C., Hyndman, D.W., Bianchi, M., and Gorelick, S., 2012, A generation of research at the MADE site and a view to the future, Abstract 8556 presented at 2012 Ground Water Summit, NGWA, Garden Grove, California, May 2012.

Dempsey, E. C., Mandel, R. D., and Hanson, P. R., 2012, Landscape evolution and geoarchaeology of the Current River Valley, Southeast Missouri. Presented at the Annual Midwest Archaeological Conference, East Lansing, Michigan, October 2012.

Dempsey, E. C., Mandel, R. D., and Hanson, P. R., 2012, Late-Quaternary geoarchaeological investigations in the Current River Valley, Southeast Missouri. Poster presented at the 22nd Biennial Meeting of the American Quaternary Association, Duluth, Minnesota, June 2012.

Dvoretsky, R. A., Goldstein, R. H., and Franseen, E. K., 2012, Static reservoir-analog modeling of focused-flow and dispersed-flow resedimented deep-water carbonate deposits: Upper Miocene, Agua Amarga Basin, Southeast Spain: AAPG Annual Meeting, Long Beach, California, April 2012.

Fairchild, J., Franseen, E. K., and Goldstein, R. H., 2012, Paleotopography and sea-level controls on facies distribution and stratal architecture in the Westerville Limestone (Upper Pennsylvanian), NE Kansas and NW Missouri: AAPG Annual Meeting, Long Beach, California, April 2012.

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Fross, D., Sophocleous, M., Wilson, B., and Butler, J., 2012, Kansas High Plains Atlas. Governor's Conference on the Future of Water in Kansas, October 30–31, 2012, Manhattan, Kansas.

Goldstein, R. H., Franseen, E. K., and Lipinski, C. J., 2012, Controls on high-frequency oolite-microbialite-coral reef sequences, Upper Miocene, SE Spain: AAPG Hedberg Research Conference, Microbial Carbonate Reservoir Characterization, Houston, Texas, June 3–8, 2012, 4 p. Extended abstract.

Goldstein, R. H., Li, Z., and Franseen, E. K., 2012, Duration and climate effects on meteoric diagenesis: Non-Karstic control on distribution of porosity and permeability: AAPG/SPE/SEG Hedberg Research Conference, Fundamental Controls on Flow in Carbonates, July 8–13, 2012, Saint-Cyr Sur Mer, Provence, France, 4 p. Extended abstract.

Harlow, H. R., Ludvigson, G. A., Smith, J. J., Doveton, J. H., and Petronis, M., 2012, Stratigraphic, chemostratigraphic, and geochemical investigations of the first intact drill core of the Neogene High Plains Succession in western Kansas: Geological Society of America, Abstracts with Programs, v. 44, no. 7, p. 585.

Hoopes, J. W., Mandel, R. D., Stinson, P. M., and Egitto, A. C., 2012, Longterm water security in Afghanistan: Lessons from archaeology and history. Presented at the Environmental Security Conference, University of Kansas, Lawrence, Kansas, April 2012.

Jackson, C., Scheffer, A., Fowle, D., Watney, W. L., Strazisar, B., and Roberts, J. A., 2012, Geochemical and microbiological influences on seal integrity during SC-CO_2 exposure, Arbuckle aquifer, SE Kansas, GSA Annual Meeting, Charlotte, Nov. 4–7.

Judy, B. E., and Miller, R. D., 2012, High-resolution seismic reflection imaging of the natural salt-dissolution front of the Hutchinson Salt Member [Abs.]: Symposium on the Application of Geophysics to Engineering and Environmental Problems (SAGEEP 2013), Denver, Colorado, March 17-21, 2013. Published on CD.

Knobbe, S., Liu, G., Butler, J. J., Jr., and Reboulet, E. C., 2012, A new thermal method for characterizing groundwater flux variations, Abstract 8448 presented at 2012 Ground Water Summit, NGWA, Garden Grove, California, May 2012.

Li, Z., Goldstein, R. H., and Franseen, E. K., 2012, Diagenetic controls on porosity and permeability in Upper Miocene carbonates, La Molata, SE Spain: AAPG Annual Meeting, Long Beach, California, April 2012.

Lipinski, C. J., Franseen, E. K., and Goldstein, R. H., 2012, Reservoir analog model for oolite-microbialite sequences, Miocene terminal carbonate complex, Spain: AAPG Hedberg Research Conference, Microbial Carbonate Reservoir Characterization, Houston, Texas, June 3–8, 2012, 4 p. Extended abstract.

Liu, G., Butler, J. J., Jr., Knobbe, S., Reboulet, E. C., and Bohling, G. C., 2012, High-resolution hydraulic conductivity profiling with direct-push methods, Abstract 8528 presented at 2012 Ground Water Summit, NGWA, Garden Grove, California, May 2012.

Liu, G., Knobbe, S., Butler, J. J., Jr., and Reboulet, E. C., 2012, A new method for characterizing groundwater flux variations, 21st Annual Kansas Hydrology Seminar, Topeka, Kansas.

Lorenz, J. C., Cooper, S. P., Watney, W. L., Robertson, R., 2012, Natural fractures in limestone vs. dolomite: Comparing fracture characteristics in the Canyon (Sacroc Field, TX) and the Arbuckle (Wellington Field, KS) Formations: April 22–15, AAPG Annual Meeting, Long Beach, California.

Ludvigson, G. A., González, L. A., Fowle, D. A., Roberts, J. A., Driese, S. G., Suarez, C. A., and Villarreal, M. A., 2012, The paleoclimatic record of pedogenic siderites: Validation by modern process studies and new applications to the Cretaceous Arctic (Invited): American Geophysical Union Fall Meeting, San Francisco, California; PP33D-06.

Ludvigson, G. A., González, L. A., Fowle, D. A., Roberts, J. A., Driese, S. G., Villarreal, M. A., and Suarez, M., 2012, What's the low down on soil-formed siderite?: Modern process studies and validation of a deep-time terrestrial paleoclimate proxy: Geological Society of America, Abstracts with Programs, v. 44, no. 7, p. 363.

Ludvigson, G. A., González, L. A., Suarez, M. B., Joeckel, R. M., Kirkland, J. I., You, H., Suarez, C. A., and Murphy, L. R., 2012, Progress and prospects for carbon isotope chemostratigraphy of Early Cretaceous terrestrial strata: Geological Society of America, Abstracts with Programs, v. 44, no. 5, p. 62–63.

Lynott, M. J., Mandel, R. D., Brown, J. A., and Ruby, B., 2012, Earthen monument construction at Mound City, Ross County, Ohio: 2009-2011 Investigations. Presented at the 77th annual meeting of the Society for American Archaeology, Memphis, Tennessee, April 2012. (Invited).

Mandel, R. D., 2012, Inferring Late-Quaternary flood magnitudes from buried alluvial paleosols in the Central Great Plains, USA. Presented at the annual meeting of the Geological Society of America, Charlotte, North Carolina, October 2012. (Invited).

Mandel, R. D., 2012, Stratigraphy, geoarchaeology, and paleoenvironments of Late-Quaternary valley fills in draws on the High Plains of western Kansas. Poster presented at the 22nd biennial meeting of the American Quaternary Association, Duluth, Minnesota, June 2012.

Mandel, R. D., 2012, The search for paleoindian and pre-paleoindian sites in the Central Great Plains of North America: A soils-geomorphic approach. Presented at the 77th annual meeting of the Society for American Archaeology, Memphis, Tennessee, April 2012. (Invited).

Mandel, R. D., Stinson, P. M., Hoopes, J. W., and Egitto, A. C., 2012, Modeling cultural landscapes and water resources: A case study in Afghanistan. Presented at the 4th annual meeting of the COCOM Cultural Heritage Action Group, Arlington, Virginia, September 2012. (Invited).

Miller, R. D., 2012, Near-surface seismic: More than a problem of scale [Abs.]: Abstracts of Lectures and Posters, GeoHannover 2012, October 1-3, p. 40.

Murphy, L. R., and Mandel, R. D., 2012, Paleoenvironmental reconstruction at the Beacon Island Site, a paleoindian bison kill in northwestern North Dakota. Presented at the 77th annual meeting of the Society for American Archaeology, Memphis, Tennessee, April 2012.

Oborny, S., Cramer, B. D., Ludvigson, G. A., and Henthorne, R., 2012, Limestone aggregate resources in northeast Kansas: Integrated lithostratigraphy, stable isotope chemostratigraphy, and cathodoluminescence as a tool to evaluate current and potential aggregate resources in Miami County, Kansas: Geological Society of America, Abstracts with Programs, v. 44, no. 7, p. 130.

Ortega-Ariza, D., and Franseen, E. K., 2012, Sequence development of the Late Miocene mixed carbonate-siliciclastic Cercado Formation, NW Dominican Republic: AAPG Annual Meeting, Long Beach, California, April 2012.

Parsekian, A., Dlubac, K., Butler, J., Grunewald, E., Knight, R., and Walsh, D., 2012, Borehole NMR permeability estimates and uncertainty in an unconsolidated fluvial aquifer, Kansas, USA, Abstract 1602 presented at the 2012 SAGEEP Conference, Environmental and Engineering Geophysics Society, Tucson, Arizona, March 28, 2012.

Peterie, S. L., Miller, R. D., Ivanov, J., Schwenk, J. T., Bailey, B. L., Schwarzer, J., and Markiewicz, R. D., 2012, Multi-method determination of continuous 2D velocity profiles from the surface to 1 km [Abs.]: 2012 AGU Fall Meeting, San Francisco, California, December 3-7.

Platt, B. F., Smith, J. J., and Ludvigson, G. A., 2012, Ichnology and calcrete stratigraphy of the Neogene Ogallala Formation, High Plains of western Kansas: Geological Society of America, Abstracts with Programs, v. 44, no. 7, p. 530.

Scheffer, A., Stotler, R. L., Watney, W. L., Fowle, D., Doveton, J. H., Rush, J., Newell, K. D., Fazelalavi, M., Whittemore, D. O., and Roberts, J. A., 2012, Geochemical, microbiological, and permeability characteristics indicating vertical zonation of the Arbuckle saline aquifer, a potential CO_2 storage reservoir, GSA Annual Meeting, Charlotte, Nov. 4–7.

Scheffer, A., Watney, W. L., Fowle, D. A., and Roberts, J. A., 2012, Geochemical and microbiological influences on seal integrity during SC-CO_2 exposure, Arbuckle aquifer, SE Kansas, Kansas Interdisciplinary Carbonate Consortium, Lawrence.

Schwenk, J. T., Miller, R. D., Ivanov, J., Peterie, S. L., and Sloan, S. D., 2012, Analysis of synthetic seismograms for the detection of voids using the surface-wave backscatter-analysis technique [Abs.]: 2012 AGU Fall Meeting, San Francisco, California, December 3-7.

Sirazhiev, A., Tsoflias, G. P., and Watney, W. L., 2012, Relating seismic amplitude and frequency response to porosity variability at the top of the Mississippian chert, south-central KS, Kansas Interdisciplinary Carbonate Consortium, Lawrence.

Smith, J. J., Platt, B. F., Thomasson J., Packauskas, R. J., Flores, T., Leiker, J., Walters, G., Barrick, R., and Ludvigson, G. A., 2012, A cast of thousands: preliminary analysis of a western harvester ant nest cast in aluminum from western Kansas and comparisons with ichnofossils of purported Formicidae construction. Geological Society of America, Abstracts with Program, v. 44, no. 7, p. 501.

Smith, J. J., Sleezer, R. O., Platt, B. F., Ludvigson, G. A., and Harlow, R. H., 2012, Geologic mapping and subsurface investigations of Equus Beds aquifer sediments in south-central Kansas: Geological Society of America Abstracts with Programs, v. 44, no. 7, p. 259.

Sophocleous, M. A., 2012, How water law and management practices are evolving towards groundwater sustainability in Kansas and possible new steps to accelerate this process. NGWA 2012 Groundwater Summit, Garden Grove, California, May 8, 2012. http://groundwatersummit.org/program/

Sophocleous, M. A., 2012, How the State of Kansas is addressing the water stress related problems of the High Plains/Ogallala aquifer. Water for Food 2012 Global Conference, Lincoln, Nebraska, May 31, 2012.

Sophocleous, M. A., 2012, Conserving and extending the useful life of the largest aquifer in North America: The High Plains/Ogallala aquifer. IAH 2012 Congress, Niagara Falls, Canada, September 16–21, 2012.

Sophocleous, M. A., 2012, Management strategies for aquifers threatened by unsustainable water use: The case of the High Plains aquifer in Kansas. Geological Society of America, November 4–7, 2012, Annual Meeting, Charlotte, North Carolina.

Sophocleous, M. A., 2012, Conserving and extending the useful life of the High Plains/Ogallala aquifer in Kansas. Governor's Conference on the Future of Water in Kansas, October 30–31, 2012, Manhattan, Kansas.

Stotler, R. L., Butler, J. J., Jr., Whittemore, D. O., and Reboulet, E. C., 2012, Groundwater age and water levels in the High Plains aquifer, Abstract 8515 presented at 2012 Ground Water Summit, NGWA, Garden Grove, California, May 2012.

Suarez, M. B., Ludvigson, G. A., González, L. A., and You, H., 2012, Linking Cretaceous continental climate change and ocean anoxic events: Evidence from the Xiagou Formation of Gansu Province, China: American Geophysical Union Fall Meeting, San Francisco, California, PP41C-01.

Warusavitharana, C., Parcell, W. C., and Franseen, E. K., 2012, Outcrop and subsurface characterization of microbialite facies in the Ordovician Arbuckle Group of Missouri and Kansas: AAPG Hedberg Research Conference, Microbial Carbonate Reservoir Characterization, Houston, Texas, June 3–8, 2012, 6 p. Extended abstract.

Watney, W. L., 2012, Business implications of a Class VI permit — The long view? — A Kansas perspective, putting the business elements together for CO_2 EOR using captured carbon, April 4–5, 2012, Golden, Colorado, sponsored by Permian Basin CCUS Center and Colorado PTTC.

Watney, W. L., 2012, Carbon sequestration in Kansas update on DOE funded projects — a) characterization of CO_2 sequestration capacity southern Kansas (FE0002056) b) small scale field test at Wellington Field, Sumner County (FE0006821), August 8, Kansas Environmental Conference, Wichita, Kansas.

Watney, W. L., 2012, Modeling CO_2 sequestration in saline aquifer and depleted oil reservoir to evaluate regional CO_2 sequestration potential of Ozark Plateau aquifer system, South-Central Kansas Project Number (DE-FE0002056), August 21, NETL Carbon Storage R&D Project Review Meeting, Pittsburgh, Pennsylvania.

Watney, W. L., 2012, Small scale field test demonstrating CO_2 sequestration in Arbuckle saline aquifer and by CO_2-EOR at Wellington Field, Sumner County, Kansas Project Number DE-FE0006821, August 22, NETL Carbon Storage R&D Project Review Meeting, Pittsburgh, Pennsylvania.

Watney, W. L., Rush, J., Doveton, J., Fazelalavi, M., Newell, K. D., Hedke, D., Scheffer, A., Roberts, J., Fowle, D., Wreath, D., Koudele, R., Gerlach, P., Nicholson, L., Hansen, T., Victorine, J., Tsoflias, G., Sirazhiev, A., Barker, R., and Datta, S., 2012, Geologic assessment of the Mississippian System in southern Kansas incorporating log and core petrophysics and seismic data from Wellington Field, Sumner County, Kansas, AAPG GeoScience Technology Workshop (GTW), New Directions in Carbonates, February 27–29, 2012, Fort Worth, Texas.

Watney, W. L., Rush, J., Doveton, J., Fazelalavi, M., and Scheffer, A., 2012, Geologic assessment of the Mississippian system in southern Kansas incorporating log and core petrophysics and seismic data from Wellington Field, Sumner County, Kansas, Kansas Interdisciplinary Carbonate Consortium, Lawrence.

Whittemore, D. O., 2012, Long-term changes in chloride and nitrate concentrations in the Wichita well field: Transactions of the Kansas Academy of Science, v. 115, no. 1/2, p. 80.

Whittemore, D. O., Butler, J. J., Jr., Reboulet, E. C., Rajaram, H., Solis, J. A., Stotler, R. L., Knobbe, S. J., Dealy, M. T., and Kluitenberg, G. J., 2012, Contrasts in stream-aquifer interactions driven by hydrogeology and geomorphology, Geological Society America, Abstracts with Programs v. 44, no. 7, p. 355, Charlotte, North Carolina, November 2012.

Whittemore, D. O., and Wilson, B. B., 2012, Beyond (and beneath) the Ogallala: Water resources in the Dakota aquifer in Kansas: National Ground Water Association, Program with abstracts, Conference on Great Plains Aquifers, Omaha, Nebraska.

Whittemore, D. O., and Wilson, B. B., 2012, Water resources of the Dakota aquifer in Kansas: 29th Annual Water and Future of Kansas Conference, Topeka, Kansas.

Zeigler, K. E., Petronis, M. S., Smith, J. J., Ludvigson, G. A., and Doveton, J., 2012, The Neogene Ogallala Formation in southwestern Kansas and northeastern New Mexico: Preliminary magnetostratigraphic analyses for the High Plains-Ogallala drilling program. American Geophysical Union Fall Meeting, San Francisco, California, GC33C-1032.

Zeigler, K. E., Petronis, M. S., Smith, J. J., Ludvigson, G. A., and Doveton, J., 2012. Preliminary magnetostratigraphic analyses of the Neogene Ogallala Formation in southwestern Kansas and northeastern New Mexico for the High Plains-Ogallala drilling program. Geological Society of America, Rocky Mountain Section — 64th Annual Meeting, Abstracts with Programs, v. 44, no. 6.

Zung, A. B., Feddema, J. J., and Mandel, R. D., 2012, Using buried soils to reconstruct past climate: A quantitative approach, Soil Science Society of America Annual Meeting, Cincinnati, Ohio, October 2012.

Zung, A. B., and Mandel, R. D., 2012, Late-Quaternary landscape evolution of the Caddo Canyons, Central Oklahoma. Poster presented at the 22nd Biennial Meeting of the American Quaternary Association, Duluth, Minnesota, June 2012.

Zung, A. B., Mandel, R. D., and Feddama, J. J., 2012, Applying a quantitative method for reconstructing Late-Quaternary climate on the U.S. Great Plains based on buried soil properties. Presented at the Annual Meeting of the Geological Society of America, Charlotte, North Carolina, October 2012.

Presentations

Benson, G. S., Franseen, E. K., Goldstein, R. H., and Li, Z., Data Collection, Interpretation, And Geologic Modeling Of Outcrop: Cerro La Molata, Cabo de Gata, Spain: ExxonMobil FC^2 Conference, Houston, Texas, Nov. 8–9, 2012.

Butler, J., Direct-Push Methods For Hydrogeologic Characterization (sole instructor), Kansas Department of Health and Environment, Topeka, Kansas, Jan. 30, 2012.

Butler, J., Presentations on the Index Well Program and the Megawatershed Theory, 2012 Kansas Field Conference, June 6–7, 2012.

Butler, J. J., Jr., Interpretation of water-well hydrographs from the High Plains aquifer: New insights from an old "tool": Universitat Politècnica de València, Valencia, Spain, Oct. 23, 2012.

Butler, J. J., Jr., Interpretation of well hydrographs: New insights into aquifer management from an old "tool": Centre d'hydrogéologie et de géothermie, Université de Neuchâtel, Neuchatel, Switzerland, Nov. 6, 2012.

Butler, J., and Stotler, R., Presentation on the Index Well Program, Kansas Water Office, May 14, 2012.

Dunham, J. W., Flint Hills Ecoregion. Map Gallery (poster) presentation, ESRI International User Conference, San Diego, California, July 23, 2012.

Dunham, J. W., Surficial Geology of Saline County, Kansas. Map Gallery (poster) presentation, ESRI International User Conference, San Diego, California, July 23, 2012.

Dunham, J. W., Surficial Geology of Saline County, Kansas. Electronic poster presentation, 13th Biennial MidAmerica GIS Symposium, MidAmerica GIS Consortium (MAGIC), Kansas City, Missouri, April 23, 2012.

Franseen, E. K., The enigma of Osagean Low-Latitude, Shallow-Water Heterozoan & Biosiliceous Facies OR The Mississippian Lime Play: Pack Your Bags, We're Heading North: Kansas Geological Survey Stratigraphic Research Seminar Series No. 23, Nov. 20, 2012.

Franseen, E. K., The Geoscientist Retention & Recruitment Crisis, Kansas Geologic Survey Advisory Council, August 2012.

Franseen, E. K., The Kansas Interdisciplinary Carbonates Consortium (KICC), Kansas Geologic Survey Advisory Council, April 2012.

Franseen, E. K., Session Chair — Carbonates in Time and Space: Sedimentology, Stratigraphy, and Diagenesis: 2012 GSA Annual Meeting & Exposition, Charlotte, North Carolina.

Franseen, E. K., Session Chair — Microbial Carbonate Reservoirs, Reservoir Analogs, and Geologic Models: AAPG Hedberg Research Conference, Microbial Carbonate Reservoir Characterization, Houston, Texas, June 3–8, 2012.

Franseen, E. K., Session Chair — Interplay of Evaporites and Carbonates Including Microbialites: 2013 AAPG Annual Convention, Pittsburgh, Pennsylvania, May 19–22. Reviewed & selected abstracts in 2012.

Franseen, E. K., Session Chair — Modern Carbonates: 2013 AAPG Annual Convention, Pittsburgh, Pennsylvania, May 19–22. Reviewed & selected abstracts in 2012.

Franseen, E. K., Session Chair — Carbonates and Evaporites I & II: 2013 AAPG Annual Convention, Pittsburgh, Pennsylvania, May 19–22. Reviewed & selected abstracts in 2012.

Franseen, E. K., Co-Instructor for Shell Oil Brazil and Total Oil Company geoscientists to Miocene-Pliocene Carbonate Complexes, SE Spain, Aug. 28–Sept. 2, 2012.

Franseen, E. K., Organized and co-convened KICC Annual Meeting, April 2–3, 2012.

Franseen, E. K., Organized and co-led KICC Annual Meeting field trip, March 4–6, 2012.

Franseen, E. K., and Goldstein, R. H., Build and Fill Sequences In Carbonate-Dominated Systems: Towards Predictive Models From Global Examples Throughout The Rock Record: Kansas Interdisciplinary Carbonate Consortium Annual Review Meeting, 2012.

Gagnon, G. F., LEOWEB & Design Methodology, GIS Policy Board, Topeka, Kansas, July 13, 2012.

Layzell, A. L., Historic Kansas Droughts, keynote address, 68th annual convention of Kansas Association of Conservation Districts, Wichita, Kansas, Nov. 19, 2012.

Lechtenberg, K. S., Goldstein, R. H., and Franseen, E. K., Evaluating Build-and-Fill Architecture of Lower Ismay (Pennsylvanian) Carbonates along the San Juan River, Utah — A Progress Report: Kansas Interdisciplinary Carbonate Consortium Annual Review Meeting, 2012.

Li, Z., Goldstein, R. H., and Franseen, E. K., Early Diagenetic Effects on Redistribution of Porosity and Permeability in Upper Miocene Carbonates, La Molata, SE Spain*:* Kansas Interdisciplinary Carbonate Consortium Annual Review Meeting, 2012.

Li, Z., Goldstein, R. H., and Franseen, E. K., Diagenetic Controls on Porosity and Permeability in Upper Miocene Carbonates, La Molata, SE Spain: ExxonMobil FC^2 Conference, Houston, Texas, Nov. 8–9, 2012.

Liu, G., Recent Advances in Hydrogeologic Characterizations of the Shallow Subsurface Using Direct-Push and Distributed Temperature Sensing, KU Department of Geology Colloquium, Aug. 23, 2012.

Ludvigson, G. A., What's Up with the Pedogenic Siderite Paleoclimate Proxy? Validation by Modern Process Studies and New Applications to the Cretaceous Arctic: Department of Geological Sciences, University of Missouri, Columbia, Missouri, Oct. 26, 2012.

Ludvigson, G. A., The STATEMAP Geologic Mapping Program in Kansas: Kansas GIS Policy Board Meeting, Topeka, Kansas, March 9, 2012.

Lyle, S. A., Groundwater Information at the Kansas Geological Survey (oral presentation); Kansas Rural Water Conference, Annual Meeting, Wichita, Kansas, March 27–29, 2012.

Miller, R. D., GeoBahrain International Meeting, President's Address.

Miller, R. D., SEG Virtual Course, Working the problems of near-surface seismic reflection, December 2012 (2 courses).

Miller, R. D., SEG 2012 Near Surface Honorary Lecturer, Near-surface seismic: More than a problem of scale (22 lectures):

— Kansas Geophysical Society, Wichita, Kansas, August 9.
— Boise State University Geophysical Society, Boise, Idaho, September 4.
— Colorado School of Mines Student Society, Golden, Colorado, September 6.
— University of Texas at El Paso Geophysical Society, El Paso, Texas, September 7.
— Rutgers-Newark Geophysical Society, University of Rutgers, Newark, New Jersey, September 12.
— City College of New York Student Chapter, Department of Earth and Atmospheric Sciences, New York, September 13.
— Korean Society of Earth and Exploration Geophysicists (KSEG) International Symposium on Geophysics for Discovery and Exploration, Jeju, South Korea, September 19.
— Student Geoscientific Society Berlin & Potsdam, Freie Universität Berlin, Berlin, Germany, October 1.
— German Geophysical Society, GeoZentrum Hannover, Hannover, Germany, October 3.
— Near-Surface Geophysics Section, University of Lausanne, Switzerland, October 5.
— South African Geophysical Association, Johannesburg, South Africa, October, 8.
— University of Kansas Geophysical Society, Lawrence, Kansas, October 25.
— China University of Petroleum Geophysical Society, Beijing, China, November 16.
— China University of Geosciences, Wuhan, China, November 17.
— Kyoto University Geophysical Society, Kyoto, Japan, November 19.
— Society of Exploration Geophysicists Japan (SEGJ), Tokyo, Japan, November 20.
— Australian Society of Exploration Geophysicists Queensland, Brisbane, Australia, December 5.
— Australian Society of Exploration Geophysicists Victoria, Melbourne, Australia, December 6.
— Australian Society of Exploration Geophysicists New South Wales, Sydney, Australia, December 7.
— Australian Society of Exploration Geophysicists Australian Capital Territory, Canberra, Australia, December 10.
— Australian Society of Exploration Geophysicists South Australia, Adelaide, Australia, December 12.
— Australian Society of Exploration Geophysicists Western Australia, Perth, Australia, December 14.

Ortega-Ariza, D., and Franseen, E. K., Evaluating Controls on Miocene Carbonate-Dominated Sequences in Puerto Rico and the Dominican Republic: Progress Report*:* Kansas Interdisciplinary Carbonate Consortium Annual Review Meeting, 2012.

Platt, B. F., Integrating Ichnology with Sedimentology and Stratigraphy: Practical Applications and Research Directions: Department of Geology and Geological Engineering, University of Mississippi, Oxford, Mississippi, Dec. 4, 2012.

Platt, B. F., Integrating Ichnology with Sedimentology and Stratigraphy: Practical Applications and Research Directions: Stratigraphic Research Seminar Series No. 24, Kansas Geological Survey, Lawrence, Kansas, Nov. 30, 2012.

Platt, B. F., The Straw that Broke the Devil's Backbone: Trace Fossils in the Ogallala Formation, Western Kansas: Kansas and Missouri Paleontological Society, Park University, Parkville, Missouri, Nov. 18, 2012.

Smith, J. J., Coring the Ogallala: Scientific Drilling in the High Plains of Western Kansas, KU Department of Geology Colloquium Series, 2012.

Sophocleous, M. A., Invited colloquium speaker, Department of Geosciences, University of Missouri-Kansas City, on water resources sustainability and the Kansas water scene, March 15, 2012.

Sophocleous, M. A., Invited colloquium speaker, Department of Geosciences, University of Arkansas, Fayetteville, on groundwater sustainability and the High Plains aquifer, Oct. 12, 2012.

Sophocleous, M. A., Invited lecture, Unsaturated Zone Flow and Transport, for Prof. Devlin's Physical & Contaminant Hydrogeology class at the University of Kansas Department of Geology, Dec. 4, 2012.

Stolz, D., Goldstein, R. H., and Franseen, E. K., Distribution and Reservoir Character of Deep-Water Sedimentary Gravity Flow Deposits in the Avalon Shale Play of the Delaware Basin: Kansas Interdisciplinary Carbonate Consortium Annual Review Meeting, 2012.

Suchy, D. R., Invited public presentation for Douglas County Conservation District on water wells and groundwater in Douglas County, Aug. 21, 2012.

Tsau, J. S., Nguyen, M. C., Franseen, E., Goldstein, R., Benson, G., Ballard, M., and Liang, J., La Molata Model Simulation — Impact of Heterogeneous Carbonates on Flow Behavior and Oil Production: ExxonMobil FC^2 Conference, Houston, Texas, Nov. 8–9, 2012.

Tsoflias, G. P., Knoph, K., Franseen, E. K., and Goldstein, R. H., Ground-Penetrating Radar Imaging of Depositional and Diagenetic Features in an Upper Miocene Carbonate Reservoir Analog, SE Spain*:* Kansas Interdisciplinary Carbonate Consortium Annual Review Meeting, 2012.

Young, E., Goldstein, R. H., Franseen, E. K., and Watney, W. L., Stratigraphy, Porosity Evolution, and Fluid Flow History, Mississippian Lime, Southeast Kansas: Kansas Interdisciplinary Carbonate Consortium Annual Review Meeting, 2012.

Watney, W. L., Mississippian System and Horizontal Drilling in Kansas: Kansas Next Step Oil and Gas Seminar, Hays, Kansas, Aug. 2, 2012.

Watney, W. L., Mississippian Carbonates in Kansas, AAPG E-Symposium, Aug. 30, 2012.

Watney, W. L., Arbuckle Fluid Disposal Considerations — Regional and Local Perspectives in the Context of the Mississippian Play in Kansas, PTTC/TORP Oil and Gas in the Midcontinent, Wichita, Kansas, Dec. 4, 2012.

Watney, W. L., Integration of the Recently Drilled Basement Test at Cutter Field, Stevens County, Kansas, into the Evaluation of Regional CO_2 Storage Potential, Kansas Geological Society, Dec. 18, 2012.

Watney, W. L., et al., Geofest 2012, Kansas Geological Survey, focused on a review of the DOE funded CCUS research in a morning seminar and a core workshop in the afternoon to examine the entire 1600 ft long core from Wellington KGS #1-32, Lawrence, Kansas, Oct. 26, 2012.

Watney, W. L., and Rush, J., Kansas Geological Survey and collaborating team, Evaluating CO_2-EOR and CO_2 Storage Capacity in Kansas, Kansas Geological Society, March 6, 2012.

Whittemore, D. O., Long-Term Changes in Chloride and Nitrate Concentrations in the Wichita Well Field: Kansas Academy of Science, 2012.

Whittemore, D. O., Contrasts in Stream-Aquifer Interactions Driven by Hydrogeology and Geomorphology: Geological Society of America, 2012.

Whittemore, D. O., and Wilson, B. B., Beyond (and Beneath) the Ogallala: Water Resources in the Dakota Aquifer in Kansas: National Ground Water Association, Conference on Great Plains Aquifers, Omaha, Nebraska, 2012.

Whittemore, D. O., and Wilson, B. B., Water Resources of the Dakota Aquifer in Kansas: 29th Annual Water and Future of Kansas Conference, Topeka, Kansas, 2012.

Wilson, B. B., Western Kansas GMD No. 1 Annual Meeting, March 2012.

Wilson, B. B., Southwest Kansas GMD No. 3 Annual Meeting, March 2012.

Wilson, B. B., Kansas Environmental Leadership Program, March 2012.

Wilson, B. B., Kansas Rural Water Conference, March 2012.

Wilson, B. B., Kansas Water Office Brownbag Professional Series, April 2012.

Wilson, B. B., Kansas Geological Survey's GIS Seminar, April 2012.

Wilson, B. B., Governor's Ogallala Stakeholder Meetings (Scott City and Garden City), August 2012.

Wilson, B. B., Kansas Farm Bureau Great Bend Producers Meeting, September 2012.

Wilson, B. B., Kansas Geological Survey's GeoFest, October 2012.

Wilson, B. B., Kansas Department of Agriculture, Division of Water Resource LEMA Public Hearing, November 2012.

Wilson, B. B., Western Kansas GMD No. 1 Board Meeting, November 2012.

Wilson, B. B., Kansas Farm Bureau — Wallace County Producers Meeting, December 2012.

Woodburn, T. L., Johnson, W. C., Dunham, J. W., and Phillips-Lander, C. M., Surficial geology of Hodgeman County, Kansas, poster presented by T. L. Woodburn, Geological Society of America 2012 Annual Meeting, Charlotte, North Carolina, November 5, 2012.

Awards

Butler, J. — Elected Member, Board of Directors, Scientists and Engineers Division, National Ground Water Association (2010–)
Butler, J. — President-Elect, International Commission on Ground Water, International Association of Hydrological Sciences (2011–)
Butler, J. — Sabbatical Leave Award, University of Kansas, 2012
Butler, J. — Sabbatical leave award for visiting professors and researchers, Spanish Ministry of Education, 2012
Dunham, J. W. — 2012 Esri Cartography Special Interest Group Map Award for "Flint Hills Ecoregion," Esri International User Conference
Franseen, E. K. — Elected as President of SEPM**,** the International Society for Sedimentary Geology, 2012
Franseen, E. K. — Journal of Sedimentary Research paper selected as a key research article in the earth sciences: Earth Emphasis (http://earthemphasis.com/key-research-articles/), 2012
Franseen, E. K. — SEPM 2012 Certificate of Recognition for Excellent Technical Presentation at National Meeting (replaces best presentation award)
Layzell, A. L. — Governor's Award for Outstanding Graduate Poster, Governor's Conference on the Future of Water in Kansas, 2012
Ludvigson, G. A. — Elected Fellow, Geological Society of America, 2012
Mandel, R. D. — Kansas Board of Regents' Higuchi/Irvin E. Youngberg Award for Applied Sciences Research, 2012
Miller, R. D. — Elected, First Vice President, SEG Board, Nov. 2012–present
Miller, R. D. — Honorary Lecturer, Inaugural Near Surface, SEG, 2012
Miller, R. D. — Elected, SEG Second Vice President, Executive Committee, 2011–Nov. 2012
Platt, B. F. — Defended dissertation with honors, KU Geology Department, May 2012
Platt, B. F. — Kansas Geological Survey Lee C. and Darcy Gerhard Field Research Student Award, 2012
Platt, B. F. — Presented graduation robe and hood of N. Gary Lane (KU Geology MS '54, PhD '58), May 2012
Platt, B. F. — Publication (Platt et al., 2012) featured on BioOne, December 2012
Watney, W. L. — KU Employee of the Month, March 2012

Internal Service

Brookfield, A. E. — Courtesy Faculty, KU Department of Geology (2010–present)
Brookfield, A. E. — Serving on dissertation committee at KU Dept. of Geology (Ph.D.) Rubina Firudous
Brookfield, A. E. — 2012 KGS Student Awards Committee, Chair
Brookfield, A. E. — Taught Geology 591/791, Differential Equations for Hydrology, Spring 2013
Butler, J. — Co-Chair, Search Committee for Hydrogeologist to lead and coordinate High Plains aquifer activities in the Geohydrology Section
Butler, J. — Chair, Search Committee, Applied Geohydrology Summer Research Assistantship Program
Butler, J. — Associate, Center for East Asian Studies, University of Kansas
Butler, J. — Core Faculty Member, Center for Global and International Studies, University of Kansas
Butler, J. — Courtesy Full Professor, Department of Geology, University of Kansas
Butler, J. — Member, University of Kansas Office of the Vice Provost for Research and Graduate Studies Promotion Committee (through first quarter of 2012)
Deputy, J. — Member of KOLAR Web Developer search committee
Dunham, J. W. — KGS search committee for Editor position
Evans, C. S. — KGS search committee for Editor position
Franseen, E. K. — Member — Promotion and Tenure Committee, Department of Geology, University of Kansas
Franseen, E. K. — Member — Graduate Students Admissions Committee, Department of Geology, University of Kansas
Franseen, E. K. — Member — Search Committee for Petroleum Engineer, Chemical and Petroleum Engineering Department, University of Kansas
Franseen, E. K. — Teaching Evaluator, Department of Geology, University of Kansas
Franseen, E. K. — Sophomore Advising, Department of Geology, University of Kansas
Franseen, E. K. — Instructor for Geology 79 — Carbonate Sequence Stratigraphy/Modeling, spring semester, Department of Geology, University of Kansas

Franseen, E. K. — Students Supervised:
— Chair — Diana Ortega-Ariza, Ph.D., Expected Spring 2014
— Co-Chair — Katharine Knoph, MS, Completed Summer 2011
— Co-Chair — Anya Hess, MS, Completed Fall 2011
— Co-Chair — Dustin Stolz, MS, Expected Summer 2013
— Co-Chair — Rafferty Sweeney, MS, Expected Fall 2012
— Co-Chair — Zhaoqi Li, Ph.D., Expected Fall 2012
— Co-Chair — Karen Ohmes-Lechtenburg, MS, Expected Fall 2012
— Co-Chair — Justin Fairchild, MS, Expected Fall 2012
— Co-Chair — Nicholas Welsh, MS, Expected Fall 2014
— Member — Brad King, MS committee
— Member — Alejandra Rodriguez, MS committee
— Member — Jason Rush, Ph.D. committee
Franseen, E. K. — Member — Stratigraphic Nomenclature Committee, Kansas Geological Survey
Franseen, E. K. — Member — KGS Admin. Evaluation & Salary Process, Kansas Geological Survey
Franseen, E. K. — Member — Search committee for Budget Director, Kansas Geological Survey
Franseen, E. K. — Member — Editorial Board for Current Research on Kansas Geology Bulletin, Kansas Geological Survey
Liu, G. — Courtesy Assistant Professor, Department of Geology, University of Kansas
Liu, G. — Member of search committee, Energy Research Section (Geoscientist Position)
Liu, G. — Member of search committee, Energy Research Section (Petroleum Engineer Position)
Liu, G. — Member of search committee, Geohydrology Section (High Plains program leader Position)
Liu, G. — Current Graduate Student Advisees —
— Brant Konetchy, M.S., Department of Geology, University of Kansas (Chair)
— Angela Thompson, M.S., Department of Geology, University of Kansas
Ludvigson, G. A. — Host & coordinator, KGS Stratigraphic Research Seminar on Integrating Ichnology with Sedimentology and Stratigraphy: Practical Applications and Research Directions (by Brian Platt, Kansas Geological Survey), November 2012
Ludvigson, G. A. — Host & coordinator, KGS Stratigraphic Research Seminar on The Enigma of Osagean Low-Latitude, Shallow-Water Heterozoan & Biosiliceous Facies (by Evan Franseen, Kansas Geological Survey), November 2012
Ludvigson, G. A. — Host & coordinator, KU Geology Colloquium presentation on Obliquity forcing and the amplification of high-latitude climate processes during Oceanic Anoxic Event *2* (by Stephen R. Meyers, University of Wisconsin-Madison), October 2012
Ludvigson, G. A. — Host & coordinator, KU NSF IGERT C-Change Colloquium presentation on Future climate change: Clues from the deep past (by Dana Royer, Wesleyan University), October 2012
Ludvigson, G. A. — Host & coordinator, KGS Stratigraphic Research Seminar on High Fidelity: The Deep Time Earth History Revolution (by Brad Cramer, Kansas Geological Survey), July 2012
Ludvigson, G. A. — Member, KGS Stratigraphic Nomenclature Committee
Ludvigson, G. A. — STATEMAP Coordinator for the KGS
Ludvigson, G. A. — Service on KGS Search Committee for hiring Administrative Assistant to the Director
Ludvigson, G. A. — Service on KGS Search Committee for hiring Field Research Assistant in Exploration Services Section
Ludvigson, G. A. — Service on KU Geology Search Committee for the Ritchie Distinguished Professorship in Sedimentary Geology
Ludvigson, G. A. — Service on KU Geology Search Committee for tenure-track position in Thermochronology (2012-1013 academic year)
Ludvigson, G. A. — Co-instructor for the KU NSF IGERT Program Graduate Seminar: EVRN 701 Climate Change, Ecological Change, Social Change; August–December 2012
Ludvigson, G. A. — Research hours faculty supervisor for KU graduate students Hunter Harlow (Jan–Dec 2012) and Jeff Ross (Aug-Dec 2012); KU undergraduate student Stephan Oborny (Aug–Dec 2012)
Ludvigson, G. A. — Mentored KGS Postdoctoral researcher Dr. Brad Cramer (Feb–Aug 2012)
Ludvigson, G. A. — Co-mentored KGS Postdoctoral researcher Dr. Brian Platt (Aug–Dec 2012)
Ludvigson, G. A. — Cochaired M.S. thesis committee for KU MS student Mark Villarreal
Ludvigson, G. A. — Co-chairing M.S. thesis committee for KU MS student Hunter Harlow
Ludvigson, G. A. — Co-chairing Ph.D. Dissertation Committee for KU doctoral candidate Tony Layzell

Miller, R. D. — KU Faculty Senate Research Committee, 2011-2012
Miller, R. D. — KU RGS Research Achievement Award Selection Committee, 2008-2012
Miller, R. D. — KGS Current Research Bulletin Advisory Board, 1992-present
Miller, R. D. — KGS Borehole Standards, Remediation, and Reclamation Committee, Chair, 1990-present
Miller, R. D. — KGS Emergency Preparedness Committee, 1987-present
Miller, R. D. — Thesis committee member: Amanda Livers, masters, University of Kansas (chair); Jordan Nolan, masters, University of Kansas (chair); Yao Wang, masters, University of Kansas (chair); Bevin Bailey, masters, University of Kansas (co-chair); Tyler Schwenk, masters, University of Kansas (chair); Craig Hendrix, masters, University of Kansas (chair)
Platt, B. F. — Taught GEOL 532: Stratigraphy, Fall 2012
Sawin, R. S. — KGS Stratigraphic Nomenclature Committee (Chair)
Sawin, R. S. — Search committee member for KGS Librarian/Archivist
Sawin, R. S. — Search committee member for KGS Editor
Smith, J. J. — Courtesy Faculty, KU Department of Geology
Smith, J. J. — Member of search committee for Hydrogeologist position, KGS
Smith, J. J. — Member of search committee for Postdoctoral Research Assistant, KGS
Sophocleous, M. A. — KGS Promotion and Review Committee
Sophocleous, M. A. — Geohydrology Seminar Coordinator
Watney, W. L. — 2012, Review Committee: Kansas Transfer of Wealth 2012 Report by Center for Economic Development and Business Research, W. Frank Barton School of Business, Wichita State University
Watney, W. L., and Doveton, J. — 2012, Overview of Mississippian and Arbuckle research seminar to industry teams as part of KICC, February 15, July 26, and November 25
Whittemore, D. O. — Coordinator of KGS Analytical Laboratory
Whittemore, D. O. — M.S. thesis committee, Department of Geology (Molly Long)
Wilson, B. B. — Co-chair of search committee for Geohydrology's Hydrogeologist to lead the High Plains Aquifer Program and committee member for Cartographic Services' Assistant Cartographer (student position). Kansas Geological Survey

External Service

Brookfield, A. E. — Newsletter Editor, Geological Society of America Hydrogeology Division (2009–)
Brookfield, A. E. — Associate Editor, Ground Water (2011–)
Butler, J. — Associate Editor, Ground Water (2002–present)
Butler, J. — Co-Chair, 2012 NGWA Ground Water Summit, National Ground Water Association
Butler, J. — Special Session Convener, 2012 NGWA Ground Water Summit, National Ground Water Association
Butler, J. — Member, Kansas Water Resources Institute Administrative Council
Butler, J. — Member, Organizing Committee, NovCare 2013 (Novel Methods for Subsurface Characterization and Monitoring: From Theory to Practice)
Butler, J. — Chair, Awards Committee, Scientists and Engineers Division, National Ground Water Association
Butler, J. — Member, Erin Haacker doctoral dissertation committee, Dept. of Geological Sciences, Michigan State University (2012–)
Butler, J. J., Jr. — Workshop Instructor:
- Site Characterization — The Slug Test and Beyond, Empresa Nacional de Residuos Radiactivos, Madrid, Spain, Dec. 27, 2012
- Hydraulic Testing for Aquifer Characterization: Getting the Information Modelers Need, Universitat Politècnica de València, València, Spain, Dec. 10-13, 2012

Dunham, J. W. — Represented KGS at the annual USGS-AASG Digital Mapping Techniques (DMT) conferences listed below:
2011: Williamsburg, VA, Virginia Division of Geology and Mineral Resources, College of William & Mary, May 22–25
2012: Champaign, IL, Illinois State Geological Survey, University of Illinois, May 20–23
Dunham, J. W. — Member of USGS-AASG Digital Mapping Techniques (DMT) group working on development of Esri FGDC style and cartographic representation files
Franseen, E. K. — President-Elect — SEPM (Society of Sedimentary Research)
Franseen, E. K. — Chair — SEPM Shepard Medal Award Committee
Franseen, E. K. — Chair — SEPM Ethics Violations Committee

Franseen, E. K. — Chair — SEPM Sedimentary Record Editor Search Committee
Franseen, E. K. — Member — SEPM Student Research Grant Evaluation Committee
Franseen, E. K. — SEPM Councilor of Sedimentology
Franseen, E. K. — Member — SEPM Council
Franseen, E. K. — Chair — SEPM Pettijohn Medal Award Committee
Franseen, E. K. — Chair — SEPM Journal of Sedimentary Research Outstanding Paper Award Committee
Franseen, E. K. — Member – SEPM Foundation Board
Franseen, E. K. — Member – NSF Carbonate Focused Research Group, Community Modeling
Ludvigson, G. A. — Associate Editor for the Journal of Sedimentary Research for SEPM, The Society for Sedimentary Geology
Ludvigson, G. A. — Representatives for the GSA Sedimentary Geology Division on the GSA Joint Technical Program Committee (for annual meeting); Two-year term began in December 2012
Ludvigson, G. A. — Reviewed Canadian NSERC Discovery Grant Proposal (by Claudia Schroder-Adams, Carleton University, Ontario); January 2012
Ludvigson, G. A. — Reviewed NSF proposal to Arctic Natural Sciences program (by A. Hope Jahren, University of Hawaii); January 2012
Ludvigson, G. A. — Reviewed NSF proposal to Sedimentary Geology & Paleobiology Program (by Brian Hampton, Michigan State University); April 2012
Ludvigson, G. A. — Coordinated peer review and made Associate Editor recommendation for paper submitted to the Journal of Sedimentary Research (by Bojanowski et al., recommended publication; paper published in August 2012); April 2012
Ludvigson, G. A. — Coordinated peer review and made Associate Editor recommendation for paper submitted to the Journal of Sedimentary Research (by Mack et al., recommended publication; paper published in August 2012); May 2012
Ludvigson, G. A. — Reviewed manuscript for Palaeogeography, Palaeoclimatology, Palaeoecology (by Xianghui Li, et al.; recommended moderate revision); November 2012
Ludvigson, G. A. — Coordinated peer review and made Associate Editor recommendation for paper submitted to the Journal of Sedimentary Research (by Torres et al., recommended publication with minor revision); December 2012
Lyle, S.A. — Member, Kansas State University Geology Advisory Committee, (2011–present)
Lyle, S.A. — Member, Kansas Next Generation Science Standards Committee, (2011–present)
Mandel, R. D. — Chair, U.S. National Committee for the International Union for Quaternary Research (INQUA), The National Academies, 2012-2016
Mandel, R. D. — Chair, Awards Committee, Archaeological Geology Division, Geological Society of America, 2012
Mandel, R. D. — Associate Editor, Encyclopedia of Geoarchaeology, Springer Press, 2012
Mandel, R. D. — Associate Editor, Geoarchaeology: An International Journal, Wiley-Blackwell, 2012
Mandel, R. D. — Co-organizer of the SERC-NSF On the Cutting Edge Workshop. Teaching Climate Change from the Geologic Record: Insights from Large Lakes, co-sponsored by the U.S. National Committee for the International Union for Quaternary Research and the American Quaternary Association, University of Minnesota-Duluth, June 19–20, 2012
Miller, R. D. — AGU, Session Co-convener, "Developments and practical applications of the multichannel seismic-data surface-wave analysis method," AGU Fall Meeting, San Francisco, California, December 3–7, 2012
Miller, R. D. — SEG Board, Nov. 2012-present. SEG-EEGS Merger Task Force, Continuing Education Committee, and Inter-Society Relations Committee
Miller, R. D. — SEG Executive Committee, 2011-Nov. 2012. Liaison to Committee on University & Student Programs, Continuing Education Committee, Online Committee, Mining and Geothermal Committee, Near-Surface Task Force, Inter-Society Collaboration Committee, and the AGI Environmental Geoscience Advisory Committee
Miller, R. D. — SEG, President's Page, *The Leading Edge*: July 2012 (v. 31, n. 7); January 2012 (v. 31, n. 1)
Miller, R. D. — SEG, Special Issue Editor, *The Leading Edge*: August 2012 (v. 31, n. 8), archaeology; February 2011 (v. 30, n. 2) near-surface geophysics
Miller, R. D. — SEG Near-Surface Geophysics Section Publications Committee, Chairman, 2008-present
Miller, R. D. — National Advisory Team for Geophysics in Hydrology, organized by the Consortium of Universities for the Advancement of Hydrologic Sciences Inc., 2006-present
Miller, R. D. — ASTM Geophysics Subcommittee on Seismic Standards, 2006-present

Miller, R. D. — Geophysical Society of Kansas, Editor, 2005-present
Miller, R. D. — Referee for SEG annual meeting abstracts, 2012
Miller, R. D. — Referee for EAGE annual meeting expanded abstracts, 2012
Platt, B. F. — Reviewer for Journal of Sedimentary Research — one manuscript
Sawin, R. S. — Member, Kansas State University Geology Advisory Council (1995–present)
Sawin, R. S. — Member, Reservoir Siting Technical Advisory Committee, Kansas Water Office
Sophocleous, M.A. — Editorial Advisory Board, Computers & Geosciences
Sophocleous, M.A. — Editorial Advisory Board, Natural Resources Research
Sophocleous, M.A. — Associate Editor-in-Chief, Journal of Arid Land
Sophocleous, M.A. — Advisor to the Editor-in-Chief, Ground Water
Sophocleous, M.A. — Co-chair of Session M3-F: Groundwater Sustainability II (with Prof. Kevin Hiscock of UK) at the 39th International Association of Hydrogeologists (IAH) Congress, Niagara Falls, Canada, Sept. 17, 2012
Sophocleous, M. A. — KGS representative for Kansas Watershed Restoration and Protection Strategy (WRAPS) Work Group
Sophocleous, M. A. — KGS representative for Wetland Program Plan for Kansas
Sophocleous, M. A. — Kansas Agencies service reviews:
— C&D Landfill in City of Wichita, KS (March 1, 2012)
— City of Salina, KS Public Water Supply (June 5, 1012)
— Butler County Landfill expansion (June 13, 2012)
— Chase Co. Public Wholesale Water Supply District #26 (June 21, 2012)
— City of Leoti, Wichita Co., Public Drinking Water System (July 3, 2012)
— Infill Recycling and Disposal, Atchison, KS (July 17, 2012)
— City of Smith Center, KS, Water System Improvements (Aug. 5, 2012)
— City of Argonia, KS, Water System Improvements (Aug. 28, 2012)
— City of Woodston, KS, Sewer System (Sept. 25, 2012)
— Tarkio CD Landfill, Riley Co (Sept. 26, 2012)
— City of Russell, Public Water Supply (Oct. 10, 2012)
— City of Minneola, Public Water Supply (Dec. 5, 2012)
Sophocleous, M. A. — Reviewer for NSF Hydrological Sciences
Sophocleous, M. A. — Reviewer for Estonian Research Council
Sophocleous, M. A. — Reviewer for Oklahoma Water Resources Research Institute
Sophocleous, M. A. — Reviewer for Journal of Hydrology
Sophocleous, M. A. — Reviewer for Water Resources Research
Sophocleous, M. A. — Reviewer for Hydrological Sciences Journal
Sophocleous, M. A. — Reviewer for Ground Water
Sophocleous, M. A. — Reviewer for EOS Transactions
Sophocleous, M. A. — Reviewer for Computers & Geosciences
Sophocleous, M. A. — Reviewer for Journal of Arid Land
Sophocleous, M. A. — Reviewer for Natural Resources Research
Sophocleous, M. A. — Reviewer for Hydrology and Earth System Science (HESS)
Sophocleous, M. A. — Reviewer for Proceedings of the National Academy of Science (PNAS)
Suchy, D. R. — Member, Board of Directors, Rural Water District #5, Douglas County, Kansas (March 2007–present); Vice Chairman (March 2008–present)
Suchy, D. R. — Alternate Board Member or Board Member (October 2007–present) and Treasurer (2012–2013), Public Wholesale Water Supply District #25
Suchy, D. R. — KGS contact for Kansas Division of Emergency Management's Kansas Response Plan (2007–present)
Suchy, D. R. — Senator, KU Unclassified Professional Staff Senate (May 2012–present)
Watney, W. L. — 2012, Organizing Committee member, 2013 Mid-Continent AAPG Sectional Meeting, Wichita

Watney, W. L. — 2012, Advising students as thesis committee member: Christa Jackson, Luis Montavo, Jennifer Raney, Aimee Scheffer, Robin Barker (KSU), Derek Robert (KSU), Randi Jo Lee (KSU)
M.S. Theses:
— Aimee Scheffer, 2012, Geochemical and microbiological characterization of the Arbuckle Saline Aquifer, a potential CO_2 storage reservoir; Implications for hydraulic separation and caprock integrity
— Ayrat Sirazhiev, 2012, Seismic attribute analysis of the Mississippian chert at the Wellington Field, south-central Kansas: M.S. Thesis, Department of Geology, The University of Kansas
— Ohl, Derek Robert, 2012, Rock formation characterization for carbon dioxide geosequestration: 3D seismic amplitude and coherency anomalies, and seismic petrophysical facies classification, Wellington and Anson-Bates fields, Sumner County, Kansas, USA, M.S. Thesis, Department of Geology, Kansas State University, 77 p.
— Randi Jo Lee, 2012, Integration of in situ and laboratory velocity measurements: Analysis and calibration for rock formation characterization Isham, M.S. Thesis, Department of Geology, Kansas State University.

Whittemore, D. O. — Council Member, Kansas Academy of Science

Whittemore, D. O. — Geochemical identification of saltwater sources for Kansas Corporation Commission in four Kansas counties

Wilson, B. B., and Woods, J. J. — Developed maps and graphs showing trends in the water resource conditions and reported use for the Western Kansas GMD#1 in support of county-based Local Enhanced Management Area meetings

KGS Web Site Additions

Placed online:
12 bulletins and books (most from the Ground Water series and Chemical Quality series)
One new and one revised Public Information Circular
31 open-file reports from 2012 and previous years
43,000 wireline logs
19,000 other oil and gas documents
Scanned 27,000 water well records since mid-2011

Fross, D., Sophocleous, M. A., Wilson, B. B., and Butler, J. J., Jr., 2012, Kansas High Plains Aquifer Atlas (www.kgs.ku.edu/HighPlains/HPA_Atlas/index.html), Kansas Geological Survey.

Wilson, B. B., Adkins-Heljeson, D., Moore, M., and Wood, J. J., The Kansas Master Well Inventory project completed initial well matching across the state. The inventory contains more than 294,000 unique well sites that were matched and are linked to more than 357,000 well records maintained by individual state water agencies. The master well inventory was incorporated in the KGS database web sites in May 2012.

2011

Refereed Publications

Beeton, J. M., and Mandel, R. D., 2011, Soils and late-Quaternary landscape evolution in the Cottonwood River basin, east-central Kansas: Implications for archaeological research: Geoarchaeology: An International Journal, v. 26, p. 693-723.

Bianchi, M., Zheng, C., Wilson, C., Tick, G. R., Liu, G., and Gorelick, S. M., 2011, Spatial connectivity in a highly heterogeneous aquifer: From cores to preferential flow paths, Water Resources Research, 47, W05524. doi: 10.1029/2009WR008966

Butler, J. J., Jr., Jin, W., Mohammed, G. A., and Reboulet, E. C., 2011, New insights from well responses to fluctuations in barometric pressure: Ground Water, v. 49, no. 4, pp. 525-533.

Cordova, C. E., Johnson, W. C., Mandel, R. D., and Palmer, M. W., 2011, Late Quaternary environmental change inferred from phytoliths and other soil-related proxies: Case studies from the central and southern Great Plains, USA: Catena, v. 85, p. 87-108.

Goldstein, R. H., Li, Z., and Franseen, E. K., 2011, Diagenetic controls on character of carbonate reservoirs: Surfaces and setting: *in* Carbonate Geochemistry: Reactions and Processes in Aquifers and Reservoirs, Karst Waters Institute Special Publication 16, p. 31-34.

Holliday, V. T., Meltzer, D. J., and Mandel, R. D., 2011, Stratigraphy of the Younger Dryas chronozone and paleoenvironmental implications: Central and southern Great Plains: Quaternary International, v. 242, p. 520–533.

Ivanov, J., Miller, R. D., Peterie, S. L., Zeng, C., Xia, J., and Schwenk, T., 2011, Multi-channel analysis of surface waves (MASW) of models with high shear-wave velocity contrast [Exp. Abs.]: Annual Meeting of the Society of Exploration Geophysicists, San Antonio, Texas, September 18–23, p. 1384–1390.

Leitner, B., Miller, R. D., and Ivanov, J., 2011, Optimal spread design for passive MASW [Ext. Abs.]: 17th European Meeting of Environmental and Engineering Geophysics, Association of Geoscientists and Engineers (EAGE), Leicester, United Kingdom, September 12–14, 4 p.

Luo, Y., and Sophocleous, M., 2011, Two-way coupling of unsaturated-saturated flow by integrating the SWAT and MODFLOW models with application in an irrigation district in arid region of West China: Journal of Arid Land, v. 3, no. 3, p. 164–173.

McCauley, J. R., 2011, Surficial geology of Saline County, Kansas; text and geologic-unit descriptions by C. M. Phillips-Lander and R. S. Sawin; cross section geology by R. S. Sawin: Kansas Geological Survey, Map M-123, 1 sheet, 59 x 40 inches, scale 1:50,000.

Miller, R. D., and Baker, G., 2011, Introduction to this special section — Near-surface geophysics: Leading Edge, v. 30, no. 2, p. 138–139.

Miller, R. D., Black, W., Miele, M., Morgan, T., Ivanov, J., Xia, J., and Peterie, S. L., 2011, Feasibility of high resolution seismic reflection to improve accuracy of hydrologic models in a culturally noisy part of Ventura County, CA [Exp. Abs.]: Annual Meeting of the Soc. of Exploration Geophysicists, San Antonio, Texas, September 18–23, p. 3,722–3,726.

Mintz, J. S., Driese, S. G., Breecker, D. O., and Ludvigson, G. A., 2011, Influence of changing hydrology on pedogenic calcite precipitation in vertisols, Dance Bayou, Brazoria County, Texas, U.S.A. — Implications for estimating paleoatmospheric pCO_2: Journal of Sedimentary Research, v. 81, p. 394–400.

Park, Y.-J., Sudicky, E. A., Brookfield, A. E., and Jones, J. P., 2011, Hydrologic response of catchments to precipitation — Quantification of mechanical carriers and origins of water: Water Resources Research v. 47.

Rickards, B. T., Steeples, D., Miller, R. D., Ivanov, J., Peterie, S. L., Sloan, S. D., and McKenna, J. R., 2011, Near-surface shear-wave velocity measurements in unlithified sediment [Exp. Abs.]: Annual Meeting of the Society of Exploration Geophysicists, San Antonio, Texas, September 18–23, p. 1,416–1,420.

Sloan, S. D., McKenna, J. R., Broadfoot, S. W., Metheny, O. M., Miller, R. D., Peterie, S. L., Ivanov, J., and Wakeley, L. D., 2011, Active seismic imaging at San Luis, Arizona, in support of tunnel detection: U.S. Army Corps of Engineers Engineer Research and Development Center Report ERDC TR-11-7, 49 p.

Smith, J. J., Platt, B. F., Ludvigson, G. A., and Thomasson, J. R., 2011, Ant-nest ichnofossils in honeycomb calcretes, Neogene Ogallala Formation, High Plains region of western Kansas, U.S.A.: Palaeogeography, Palaeoclimatology, Palaeoecology, v. 308, p. 383–394.

Sophocleous, M. A., 2011, Ground-water legal framework and management practices in the High Plains aquifer, USA; *in*, Groundwater Management Practices, A. N. Findikakis and K. Sato, eds.: IAHR Monograph, CRC Press, p. 325–366.
Suarez, M. B., González, L. A., and Ludvigson, G. A., 2011, Quantification of a greenhouse hydrologic cycle from equatorial to polar latitudes — The mid-Cretaceous water bearer revisited: Palaeogeography, Palaeoclimatology, Palaeoecology, v. 307, p. 301–312.
Xia, J., Xu, Y., Luo, Y., Miller, R. D., Cakir, R., and Zeng, C., in press, Advantages of using multichannel analysis of Love waves (MALW) to estimate near-surface shear-wave velocity: Survey in Geophysics.
Zeng, C., Xia, J., Miller, R. D., and Tsoflias, G. P., in press, An improved vacuum formulation for 2D finite-difference modeling of Rayleigh waves including surface topography and internal discontinuities: Geophysics.
Zeng, C., Xia, J., Miller, R. D., and Tsoflias, G. P., 2011, Application of the multiaxial perfectly matched layer (M-PML) to near-surface seismic modeling with Rayleigh waves: Geophysics, v. 76, no. 3, p. T43–T52.
Zeng, C., Xia, J., Miller, R. D., and Tsoflias, G. P., 2011, Feasibility of waveform inversion of Rayleigh waves for shallow shear-wave velocity using a genetic algorithm: Journal of Applied Geophysics, v. 75, p. 648–655.

Nonrefereed/Unpublished Papers

Brady, L. L, Newell, K. D., and Recoy, K., 2011, Field trip of the 34th forum of the coal geologists of the western interior coal region, Pittsburg, Kansas: Kansas: Kansas Geological Survey, Open-File Report 2011-6, 59 p.
Evans, C. S., 2011, Geothermal energy and heat pump potential in Kansas: Kansas Geological Survey, Public Information Circular 31, 6 p.
Lyle, S. A., 2011, Tomographic characterization of aquifer heterogeneity with a sinusoidal signal, Kansas Geological Survey, Open-File Report 2011-1.
Lyle, S. A., Evans, C. S., Buchanan, R. C., and Sawin, R. S., eds., 2011, Topeka, Lawrence, and Kansas City — Water as infrastructure; population growth; and sustainability, 2011 Kansas Field Conference, field guide: Kansas Geological Survey, Open-File Report 2011-8, 100 p.
Lyle, S. A., and McElwee, C. D., 2011, Tomographic characterization of aquifer heterogeneity with a sinusoidal signal (poster): American Geophysical Union, Fall Meeting, Dec. 5–9, 2011, San Francisco, California.
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Wilson, B. B., 2011, Assisted with writing the final reports and the development of future scenario runs of the Kansas Groundwater Management District No. 3 Numerical Model with Gaisheng, Don Whittemore, and Jim Butler.

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Platt, B. F., and Hasiotis, S. T., 2011, Network analyses of the dinosaur-dominated ecosystem of the Upper Jurassic Morrison Formation, Western Interior North America: Geological Society of America Abstracts with Programs v. 43, no. 5.

Rajaram, H., Solis, J. A., Whittemore, D. O., Butler, J. J., Jr., Reboulet, E., Knobbe, S., and Dealy, M., 2011, A long-term reach-scale monitoring network for riparian evapotranspiration, Rock Creek, Kansas, Abstract H31K-02 presented at 2011 Fall Meeting, AGU, San Francisco, Dec. 7, 2011.

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Suarez, C. A., Ludvigson, G. A., González, L. A., Fiorillo, A. R., McCarthy, P. J., Lollar, J. C., and Flaig, P., 2011, Investigations of Late Cretaceous arctic paleohydrology by integration of terrestrial stable isotope proxies: Geological Society of America, Abstracts with Programs, v. 43, no. 5, p. 163.

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Villarreal, M. A., Ludvigson, G. A., Fowle, D. A., González, L. A., Roberts, J. A., Smith, J. J., Driese, S. G., and McKay, L. D., 2011, Actualistic calibration of the pedogenic siderite proxy: Geological Society of America, Abstracts with Programs, v. 43, no. 5, p. 618.

Watney, W. L., Bhattacharya, S., Doveton, J., Newell, D., Rush, J., Victorine, J., Xia, J., Wreath, Koudele, R., Lamb, W., Roberts, J., Scheffer, A., Hansen, T., Nicholson, L., Gerlach, P., Smith, A., Barker, R., Datta, S., Raef, A., Hedke, D., Nissen, S., Koger, D., Baker, R., Lorenz, J., and Cooper, S., 2011, Wellington field, Sumner County, Kansas, as a calibration site for CO_2-EOR in Mississippian chert reservoir and deep saline aquifer CO_2 sequestration (abs.): Proceedings of the Midcontinent Section of the American Association of Petroleum Geologists, Oklahoma City, Oklahoma.

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Whittemore, D. O., 2011, Uranium in the Upper Arkansas River and impact on the Ogallala-High Plains aquifer: Proceedings 28th Annual Water and Future of Kansas Conference, Topeka, Kansas.

Whittemore, D. O., 2011, Migration of a nearly 80-year-old saltwater plume in the High Plains aquifer, Kansas: Geological Society of America Abstracts with Programs, v. 43, no. 5, p. 111.

Whittemore, D. O., Butler, J. J., Jr., Reboulet, E., Knobbe, S., Solis, J. A., Rajaram, H., and Dealy, M., 2011, Water-level variations in a shallow, confined limestone aquifer in a stream valley near Wichita, Kansas (abstract), Program with Abstracts, 56th Annual Midwest Ground Water Conference, Lexington, Kentucky, p. 39.

Xia, J., Miller, R. D., Ivanov, J., and Peterie, S. L., 2011, Estimation of near-surface quality factors by constrained inversion of Rayleigh-wave attenuation coefficients: Symposium on the Application of Geophysics to Engineering and Environmental Problems (SAGEEP 2011), Charleston, South Carolina, April 10-14, 2011, p. 63.

Xia, J., Xu, Y., Luo, Y., Miller, R. D., and Cakir, R., 2011, Advantages of using multichannel analysis of Love waves (MALW) in determining near-surface shear-wave velocity [abs.]: 2011 AGU Fall Meeting, San Francisco, California, December 5–9.

Zeng, C., Xia, J., Miller, R. D., and Tsoflias, G. P., 2011, Application of the multiaxial perfectly matched layer to near-surface seismic modeling with Rayleigh waves: Symposium on the Application of Geophysics to Engineering and Environmental Problems (SAGEEP 2011), Charleston, South Carolina, April 10-14, 2011, p. 62.

Presentations

Bohling, G. C., Workshop on Petrophysical Modeling and Geostatistical Reservoir Characterization, Jan. 13-14, 2011, Columbus, OH.

Brookfield, A. E., Critically Assessing Numerical Model Results, Kansas Department of Health and Environment, Topeka, Kansas, Dec. 12, 2011.

Brookfield, A. E., Liu, G., and Sophocleous, M., Simulating the Effects of a Changing Climate on Water Resources in Kansas. Presentation with published abstract, Water and the Future of Kansas Conference, Topeka, Kansas, Sept. 30, 2011.

Butler, J., Presentation on the Index Well Program, 28th Annual Water and the Future of Kansas Conference, Topeka, Kansas, Sept. 30, 2011.

Butler, J., Presentation on the Index Well Program, American Institute of Hydrology meeting, Topeka, Kansas, Nov. 18, 2011.

Butler, J., 50-minute classroom presentation (Sept. 20, 2011) and two-hour field demonstration (Sept. 22, 2011) on slug tests for Geology 851, University of Kansas.

Dunham, J. W., Surficial Geology of Geary County, Kansas. Map Gallery (poster) presentation, ESRI International User Conference, San Diego, California, July 11, 2011.

Franseen, E. K., Instructor – Workshop on Evaluating Controls on Carbonate Stratigraphic Sequences: A Field-based Approach: University of Puerto Rico-Mayaguez, June 14-16, 2011.

Franseen, E. K., Field-trip leader – Miocene Carbonate Systems, Puerto Rico, for University of Puerto Rico-Mayaguez, June 15-16, 2011.

Franseen, E. K., Co-instructor for BHP-Billiton Oil Company geologists to Miocene-Pliocene Carbonate Complexes of SE Spain, Oct. 9-14, 2011.

Franseen, E. K., Organized and co-led Kansas Interdisciplinary Carbonate Consortium Meeting, March 30-31, 2011.

Franseen, E. K., and Goldstein, R. H., 2011, Build-and-Fill Sequences in Carbonate Systems: An Emerging Picture: Kansas Interdisciplinary Carbonate Consortium Annual Review Meeting, Program with Extended Abstracts, p. 83-87.
Franseen, E. K., and Goldstein, R. H., 2011, Miocene-Pliocene Carbonate Complexes in SE Spain – An Overview of 26 Years of Research: Kansas Interdisciplinary Carbonate Consortium Annual Review Meeting, Program with Extended Abstracts, p. 88-93.
Franseen, E. K., Lipinski, C. J., and Goldstein, R. H., 2011, Controls on High-Frequency Oolite-Microbialite-Coral Reef Sequences and 3-D Reservoir Analog Model Development: Upper Miocene, SE Spain: Kansas Interdisciplinary Carbonate Consortium Annual Review Meeting, Program with Extended Abstracts, p. 24-28.
Goldstein, R. H., Franseen, E. K., Dvoretsky, R. A., and Sweeney, R. J., 2011, Controls on Focused-Flow and Dispersed-Flow Deepwater Reservoir Analogs: Miocene, Agua Amarga Basin, Spain: Kansas Interdisciplinary Carbonate Consortium Annual Review Meeting, Program with Extended Abstracts, p. 16-19.
Goldstein, R. H., Franseen, E. K., Li, Z., Young, E., Csoma, A., Buijs, G., and Poteet, J., 2011, Diagenetic Controls on Reservoir Character: Surfaces and Setting: Kansas Interdisciplinary Carbonate Consortium Annual Review Meeting, Program with Extended Abstracts, p. 38-43.
Goldstein, R. H., Li, Z., and Franseen, E. K., Diagenetic Controls on the Character of Carbonate Reservoirs: Surfaces and Settings: ExxonMobil FC^2 Conference, Delft, Netherlands, September 2011.
Goldstein, R. H., Li, Z., and Franseen, E. K., 2011, Diagenetic Controls on Character of Carbonate Reservoirs: Surfaces and Setting: Karst Waters Institute Symposium on Carbon and Boundaries in Karst, July, 2011.
Hess, A. V., Goldstein, R. H., and Franseen, E. K., 2011, Sequence Stratigraphic Stacking of Heterozoan Carbonates, Southeastern Spain: A Predictive Model Applicable to Heterozoan Reservoirs: Kansas Interdisciplinary Carbonate Consortium Annual Review Meeting, Program with Extended Abstracts, p. 94-97.
Knoph, K., Franseen, E. K., Tsoflias, G. P., and Goldstein, R. H., 2011, Integrating Ground-Penetrating Radar and Field Relationships to Evaluate Porosity and Stratigraphic Models in Upper Miocene Microbial-Oolitic Carbonates, SE Spain: Kansas Interdisciplinary Carbonate Consortium Annual Review Meeting, Program with Extended Abstracts, p. 29-33.
Lechtenberg, K. S., Goldstein, R. H., and Franseen, E. K., 2011, Evaluating Origin of Build-and-Fill Geometries of Pennsylvanian Carbonate Systems Exposed in the Goosenecks, Paradox Basin, Utah, USA: Kansas Interdisciplinary Carbonate Consortium Annual Review Meeting, Program with Extended Abstracts, p. 106-108.
Li, Z., Goldstein, R. H., and Franseen, E. K., 2011 Diagenetic Controls on Porosity and Permeability in Upper Miocene Carbonate, La Molata SE Spain: ExxonMobil FC^2 Conference, Delft, Netherlands, September, 2011.
Ludvigson, G. A., Paleoclimatologic Research at the Kansas Geological Survey: Haskell Indian Nations University Environmental Research Studies Institute, Kansas Geological Survey, Lawrence, Kansas, July 12, 2011.
Lyle, S.A., 2011, Geology of the Kansas Wine Growing Regions (oral presentation); Kansas Wine Growers Association Annual Meeting, Topeka, Kansas.
Lyle, S.A., 2011, Groundwater Information at the Kansas Geological Survey, (oral presentation); Kansas Rural Water Conference, Annual Meeting, March 29-31, 2011, Wichita, Kansas.
Miller, R. D., Kansas Department of Transportation Geology Section Annual Meeting, 2011.
Newell, K. D., Natural Gas In Kansas, Salina Arts Center discussion on movie "Gasland," Salina, Kansas, Jan. 23, 2011.
Newell, K. D., Recent Developments in Kansas CBM, Western Interior Coal Geologists Meeting, Mt. Magazine, Arkansas, May 17, 2011.
Newell, K. D., Fracturing Geology and Environmental Considerations, KU TORP/PTTC Seminar on Horizontal Drilling and Fracturing Technology Seminar, Wichita, Kansas, June 8, 2011.
Newell, K. D., Oil and Gas in Eastern Kansas, Eastern Kansas Royalty Owners Association, Chanute, Kansas, Oct. 6, 2011.
Newell, K. D., Is Well Fracking an Issue In Kansas? Midcontinent Petroleum Accountants Society, Wichita, Kansas, Oct. 20, 2011.
Newell, K. D., Oil and Gas in Eastern Kansas, Linn County Farmer Bureau, Mound City, Kansas, Nov. 14, 2011.
Newell, K. D., Is Well Fracking an Issue In Kansas? Kansas Water Office, Topeka, Kansas, Nov. 2, 2011.

Ortega-Ariza, D. and Franseen, E. K., 2011, Evaluating Controls on Carbonate Sequence Development: Middle to Late Miocene Ponce Limestone, Puerto Rico: Kansas Interdisciplinary Carbonate Consortium Annual Review Meeting, Program with Extended Abstracts, p. 77-82.

Sawin, R. S., Geologic Mapping in Kansas, Kansas Department of Transportation, Geology Section, Feb. 16, 2011.

Sawin, R. S., The Permian–Carboniferous Boundary, Kansas Department of Transportation, Geology Section, Feb. 16, 2011.

Smith, J. J., Coring the Ogallala: Scientific Drilling in the High Plains of Western Kansas to the Kansas Geological Survey Advisory Committee meeting, Great Bend, Kansas, Aug. 19, 2011.

Smith, J. J., Scientific Drilling in the High Plains of Western Kansas-FY2010 to the Kansas Geological Mapping Advisory Committee meeting, Lawrence, Kansas, July 19, 2011.

Sophocleous, M. A., 2011, The Evolution of Groundwater Management Practices in the Kansas High Plains Aquifer Towards Sustainability: Water and the Future of Kansas Conference Proceeding, Topeka, Kansas, Sept. 30, 2011.

Sweeney, R., Franseen, E. K., and Goldstein, R. H., 2011, Facies Distribution and Morphologies of Miocene Carbonate Platform Deposits: The Role of Paleotopography, La Rellana Platform, Southeastern Spain: Kansas Interdisciplinary Carbonate Consortium Annual Review Meeting, Program with Extended Abstracts, p. 98–101.

Wilson, B. B. — National Ground Water Association Virtual Conference.

Wilson, B. B. — Kansas House Committee on Agriculture and Natural Resources.

Wilson, B. B. — Kansas Legislature- Joint Committee on Energy and Environmental Policy.

Wilson, B. B. — GMD No. 1 Annual Meeting.

Wilson, B. B. — GMD No. 3 Annual Meetings.

Wilson, B. B. — Water and the Future of Kansas Conference (x2).

Wilson, B. B. — Kansas Environmental Leadership Program.

Wilson, B. B. — Governor's Ogallala Aquifer Summit.

Wilson, B. B. — Kansas Department of Agriculture Administrative Leadership Briefing.

Wilson, B. B. — Kansas Agriculture and Rural Leadership Program.

Young, E., Goldstein, R. H., Franseen, E. K., and Watney, W. L., 2011, Controls on Reservoir Character in Carbonate-Chert Strata, Mississippian (Osagean- Meramecian), Southeast Kansas: Kansas Interdisciplinary Carbonate Consortium Annual Review Meeting, Program with Extended Abstracts, p. 113–118.

Awards

Franseen, E. K. — SEPM Certificate of Recognition for Excellent Technical Presentation at National Meeting, 2011

Franseen, E. K. — Invited Honoree, Cartografía Geotemática en Republica Dominicana Symposium, Servicio Geologico Nacional de la Republica Dominicana, July 20, 2011

Mandel, R. D. — KU Center for Teaching Excellence Award, 2011

Miller, R. D. — Elected, SEG 2nd Vice President, Executive Committee, 2011–2012

Miller, R. D. — Richard S. Ladd Standards Development Award, ASTM, 2011

Platt, B. F. — 3rd place oral presentation, University of Kansas Geology Department G-Hawker Student Symposium

Platt, B. F. — Travel grant, Geological Society of America, South Central Section

Platt, B.F. — Honorarium, University of Arizona Center for Astronomy Education, Legacy Program Teaching Excellence Workshop, Kohala Coast, Hawaii

Internal Service

Bohling, G. C. — Courtesy Associate Professor, Dept. of Chemical & Petroleum Engineering, KU (Fall 2009-present)

Bohling, G. C. — Member of search committee for new hydrogeology faculty member, Dept. of Geology, KU, Spring 2011

Brookfield, A. E. — Courtesy Faculty, KU Department of Geology

Brookfield, A. E. — Serving on dissertation committee at KU Department of Geology (Ph.D.) Rubina Firdous and Thesis committee (M.Sc.) Carla Whisner (completed in 2011)

Brookfield, A. E. — 2011 KGS Student Awards Committee

Ludvigson, G. A. — Service on KGS Stratigraphic Nomenclature Committee

Ludvigson, G. A. — Service as STATEMAP Coordinator for the KGS

Ludvigson, G. A. — Service on KU Geology Search Committee for the Ritchie Distinguished Professorship in Sedimentary Geology
Ludvigson, G. A. — Primary mentor for NSF Earth Science Postodoctoral Fellow Dr. Brad Cramer (Ph.D. Ohio State University). Dr. Cramer began two major international scientific initiatives in the IGCP Project 591 and the Digital Integrated Stratigraphy Project funded by the German Science Foundation (DFG)
Ludvigson, G. A. — Co-chaired KU M.S. thesis committee for Mark Villarreal
Ludvigson, G. A. — Co-chaired KU M.S. thesis committee for Hunter Harlow
Ludvigson, G. A. — Co-chaired KU Ph.D. committee for Tony Layzell
Ludvigson, G. A. — Supervision and collaboration with KGS GRA and KU Ph.D. student Laura Murphy on calculation of Cretaceous pCO_2 values from pedogenic carbonates for presentation at the November 2011 GSA and December 2011 AGU meetings, and for invited paper in *Cretaceous Research*
Ludvigson, G. A. — Co-Advisor, Graduate Student Advisees:
J. Chad Lollar, M.S. with Honors, 2011, The University of Kansas
Mandel, R. D. — Chair, Kansas Geological Survey Promotion and Review Committee, 2011
Miller, R. — Thesis committee member, Bevin Bailey (Masters) 2013, University of Kansas (co-chair); Tyler Schwenk (Masters) 2012, University of Kansas (chair); Craig Hendrix (Masters) 2012, University of Kansas (chair); Benjamin Rickards (Masters) 2010, University of Kansas (co-chair)
Newell, K. D. — Search Committee Chair – Energy Research Section (Geoscientist Position)
Newell, K. D. — Search Committee Chair – Energy Research Section (Petroleum Engineer Position)
Newell, K. D. — Committee Member – KGS Promotions and Review Committee
Newell, K. D. — Committee Member – Merriam International Travel Research Award
Platt, B. F. — Graduate student member, Ritchie Distinguished Professor in Sedimentary Geology search committee
Platt, B. F. — Taught GEOL 105 summer and fall 2011 through KU Center for Online and Distance Learning
Sawin, R. — KGS Stratigraphic Nomenclature Committee (Chair)
Sawin, R. — Search committee member for KGS Director
Smith, J. J. — Committee Chair, Outstanding Student Awards, Kansas Geological Survey
Smith, J. J. — Search Committee Member - High Plains Data Manager, Kansas Geological Survey

External Service

Bohling, G. C. — Deputy Chair, Groundwater Technical Committee, Hydrology Section, American Geophysical Union, 2010-2012
Bohling, G. C. — Associate Editor, Ground Water, 2007-present
Bohling, G. C. — Editorial Board Member, Computers & Geosciences, 2004-present
Brookfield, A. E. — Newsletter Editor, Geological Society of America, Hydrogeology Division (2009 -)
Brookfield, A. E. — Associate Editor, Ground Water (2011 -)
Brookfield, A. E. — Hydrologist Mentor for Johnson County Student through K-12 Science Education for Kansas State University-Olathe (2011)
Ludvigson, G. A. — Mentoring Activities: Kansas Geological Survey & Department of Geology, University of Kansas; Department of Geoscience, The University of Iowa
Post-Doctoral Research Associates:
Randy Stotler, Kansas Geological Survey (Ph.D. 2008 University of Waterloo; S. K. Frape, advisor) July 2010-August 2011; NSF-sponsored research on the isotopic hydrogeochemistry of the Neogene Ogallala Formation of western Kansas (accepted appointment as Assistant Professor at the University of Kansas)
Bradley D. Cramer, Kansas Geological Survey/University of Kansas, (Ph.D. 2009 Ohio State University, M. R. Saltzman, advisor) February 2010-January 2012; NSF Earth Sciences Postdoctoral Fellowship (EAR-PF: *Recalibrating the Silurian System using integrated high-resolution biochemostratigraphy and geochronology: A case study for the Paleozoic Era*). Leader for IGCP Project 591 – *The Early to Middle Paleozoic Revolution*. Co-PI for *The Digital Integrated Stratigraphy Project* funded by the German Research Council (DFG)
Ludvigson, G. A. — Service as Associate Editor of the Journal of Sedimentary Research
Ludvigson, G. A. — Coordinated peer review and made AE recommendation for paper submitted to Journal of Sedimentary Research (by Korbar et al.; recommended for publication with minor revisions); June 2011
Ludvigson, G. A. — Reviewed manuscript for GSA's Geology (by White et al., recommended for publication with major revisions); paper was returned to authors for major revisions; July 2011

Ludvigson, G. A. — Reviewed manuscript for Sedimentology (by Myers et al.; recommended acceptance with minor revisions); July 2011

Ludvigson, G. A. — Reviewed manuscript for SEPM Special Publication on *Frontiers in Paleopedology and Terrestrial Paleoclimatology* (by Mongrain et al.; recommended acceptance with minor revisions); August 2011

Ludvigson, G. A. — Reviewed manuscript for GSA's Geosphere (by Sprinkel et al.; recommended acceptance with minor revisions); paper was rejected because of limited geographic scope; November 2011

Ludvigson, G. A. — Reviewed manuscript for Earth & Environmental Science Transactions of the Royal Society of Edinburgh (by Bergström et al.; recommended acceptance with minor revisions); November 2011

Ludvigson, G. A. — Coordinated peer review and made AE recommendation for paper submitted to Journal of Sedimentary Research (by Foreman et al.; recommended major revisions); December 2011

Ludvigson, G. A. — Coordinated peer review and made AE recommendation for paper submitted to Journal of Sedimentary Research (by Bojanowski et al.; recommended major revisions); December 2011

Mandel, R. D. — Chair, Awards Committee, Archaeological Geology Division, Geological Society of America, 2011

Mandel, R. D. — Associate Editor, Encyclopedia of Geoarchaeology, Springer Press, 2011

Mandel, R. D. — Associate Editor, Geoarchaeology: An International Journal, Wiley-Blackwell, 2011

Mandel, R. D. — Associate Editor, Current Research in the Pleistocene, Center for the Study of the First Americans, 2011

Mandel, R. D. — Organizer and leader of field trip, Soils and Quaternary Landscape Evolution in the Medina River Valley, South-Central Texas, Annual Meeting of the Soil Science Society of America, San Antonio, Texas, October 15, 2011

Miller, R. — SEG Executive Committee, 2011-2012. Liaison to Committee on University & Student Programs, Continuing Education Committee, Online Committee, Mining and Geothermal Committee, Near-Surface Task Force, Inter-Society Collaboration Committee, and the AGI Environmental Geoscience Advisory Committee

Miller, R. — Workshop Convener, Geophysics Applied to Geohazards, SEG Conference, San Antonio, Texas, September 23, 2011

Miller, R. — KU Faculty Senate Research Committee, 2011-2012

Miller, R. — DOE-EM30 Scientific Opportunities for Monitoring of Environmental Remediation Sites (SOMERS) Task Force, 2010-present

Miller, R. — National Advisory Team for Geophysics in Hydrology, organized by the Consortium of Universities for the Advancement of Hydrologic Sciences Inc., 2006-present

Miller, R. — ASTM Geophysics Subcommittee on Seismic Standards, 2006-present

Miller, R. — Geophysical Society of Kansas, Editor, 2005-present

Miller, R. — SEG Technical Session Chair, 2010, 2011

Miller, R. — SEG, Special Issue Editor, The Leading Edge: February 2011 (v. 30, n. 2), Near-Surface Geophysics; August 2010 (v. 29, n. 8), Shallow Hazards

Miller, R. — SEG Foundation, Projects of Special Merit Committee, 2009-2011

Miller, R. — Referee for SEG Annual Meeting Abstracts

Miller, R. — Referee for EAGE Annual Meeting Expanded Abstracts

Newell, K. D. — Midcontinent Councilor for American Association of Petroleum Geologist Energy Minerals Division

Platt, B. F. — Reviewer for PALAIOS — one manuscript

Platt, B. F. — Topical Session Co-chair, Lessons From the Living: Paleontological Investigations Using Modern Analogs, Geological Society of America Annual Meeting, October 9–12, 2011

Sawin, R. — Member, Kansas State University Geology Advisory Council (1995–present)

Sawin, R — Member, Reservoir Siting Technical Advisory Committee, Kansas Water Office

Smith, J. J. — Session Co-Chair, Lessons from the Living: Paleontological Investigations Using Modern Analogs, Annual Meeting of the Geological Society of America

Wilson, B. B. — Assisted the Kansas Water Office in updating the 2010 Kansas Water Plan's High Plains Aquifer High Priority Areas map

Wilson, B. B. — Provided support to the State's Water Banking Review Committee but running sensitive water right computations as part of identifying priority areas within the South Central Kansas Water Ground-Water Banking service area

Wilson, B. B. — Worked with the National Geographic Magazine to develop a graphic showing water right development and water level declines in Haskell County, Kansas

KGS Web Site Additions

28 KGS bulletins were added to the web site during 2011 with five older publications from other series.

28 KGS open-file reports were placed online.

Maps were scanned and added to the web site for all of the county bulletins and many of the other older publications placed online.

Around 13,000 water well completion forms were scanned in 2011. 27,000 wireline logs were scanned and added to the web site, and over 3,000 other documents for oil and gas wells were scanned.

2010

Refereed Publications

Bohling, G. C., and Butler, J. J., Jr., 2010, Inherent limitations of hydraulic tomography: Ground Water.

Buchanan, R. C., ed., 2010, Kansas geology — An introduction to landscapes, rocks, minerals, and fossils, 2nd ed., rev.: University Press of Kansas, 227 p.

Buchanan, R. C., and McCauley, J. R., 2010, Roadside Kansas — A traveler's guide to its geology and landmarks, 2nd ed., rev.: University Press of Kansas, 376 p.

Chen, B., Xia, J., Wang, Q., Chen, C., Miller, R. D., and Liang, Q., 2010, Estimating ground-water storage changes in the western Kansas using grace data: Symposium on the Application of Geophysics to Environmental and Engineering Problems (SAGEEP), Annual Meeting of the Environmental and Engineering Geophysical Society (EEGS), April 11–15, 2010, Keystone, CO, p. 264–276.

Chung, I. M., Kim, N. W., Lee, J., and Sophocleous, M. A., 2010, Assessing distributed groundwater recharge rate by using integrated surface-groundwater modeling — Application to Mihocheon watershed, Korea: Hydrogeology Journal, v. 18, no. 5, p. 1,253–1,264.

Collins, J. M., and Mandel, R. D., 2010, Archaeological and geomorphological evaluation of the west lobe of the Allen Alluvial Fan Site – 13HA385: Journal of the Iowa Archeological Society, v. 57, p. 43-63.

Cordova, C. E., Johnson, W. C., Mandel, R. D., and Palmer, M. W., in press, Late Quaternary environmental change inferred from phytoliths and other soil-related proxies — Case studies from the central and southern Great Plains, USA: Catena.

Dorale, J. A., Wozniak, L. A., Bettis III, E. A., Carpenter, S. J., Mandel, R. D., Hajic, E. R., Lopinot, N. H., and Ray, J. H., 2010, Isotopic evidence for younger dryas aridity in the North American midcontinent: Geology, v. 38, p. 519–522.

Driese, S. G., Ludvigson, G. A., Roberts, J. A., Fowle, D. A., González, L. A., Smith, J. J., Vulava, V. M., and McKay, L. D., 2010, Micromorphology and stable-isotope geochemistry of historical pedogenic siderite formed in PAH-contaminated alluvial clay soils, Tennessee, USA: Journal of Sedimentary Research, v. 80, p. 943-954.

Farlow, J. O., Richards, R. L., Garniewicz, R. C., Greenan, M., Wepler, W. R., Shunk, A. J., Ludvigson, G. A., Shaffer, N. R., and Wenning, A. L., 2010, Occurrence and features of fossiliferous sediments of the Pipe Creek Sinkhole (Late Neogene, Grant County, Indiana); *in,* Geology of the Late Neogene Pipe Creek Sinkhole (Grant County, Indiana), J. O. Farlow, J. C. Steinmetz, and D. A. DeChurch, eds.: Indiana Geological Survey, Special Report 69, Indiana University, Bloomington, p. 1-60.

Franseen, E. K., Byrnes, A. P., Cansler, J., Steinhauff, D. M., Carr, T. R., and Dubois, M. K., in press, Geologic characteristics of Arbuckle reservoirs in Kansas: Proceedings of the Fifteenth Oil Conference, Tertiary Oil Recovery Project, University of Kansas, 28 p.

Gleeson, T., VanderSteen, J., Sophocleous, M. A., Tanikuchi, M., Alley, W. M., Allen, D. M., and Zhou, Y., 2010, Groundwater sustainability strategies: Nature Geoscience, v. 3, no. 6, p. 378–379.

Hunter, J. A., Motazedian, D., Crow, H. L., Brooks, G. R., Miller, R. D., Pugin, A. J-M., Pullan, S. E., and Xia, J., 2010, Near-surface shear wave velocity measurements for soft soil earthquake hazard assessment — Some Canadian mapping examples; *in,* Advances in Near-Surface Seismology and Ground-Penetrating Radar, R. D. Miller, J. D. Bradford, and K. Holliger, eds.: Tulsa, Society of Exploration Geophysicists.

Ivanov, J., Miller, R. D., Peterie, S. L., and Dunbar, J. B., 2010, Practical focusing of surface-wave inversion to image levees in southern New Mexico: Symposium on the Application of Geophysics to Engineering and Environmental Problems (SAGEEP 2010), Keystone, Colorado, April 11-15, p. 97-102.

Ivanov, J., Miller, R. D., Xia, J., Dunbar, J. B., and Peterie, S. L., 2010, Refraction nonuniqueness studies at levee sites using the refraction-tomography and JARS methods; *in,* Advances in Near-Surface Seismology and Ground-Penetrating Radar, R. D. Miller, J. D. Bradford, and K. Holliger, eds.: Tulsa, Society of Exploration Geophysicists SEG Geophysical Developments Series No. 15, p. 327–338.

Ivanov, J., Miller, R. D., Xia, J., and Peterie, S. L., 2010, Multi-mode inversion of multi-channel analysis of surface waves (MASW) dispersion curves and high-resolution linear radon transform (HRLRT) [Exp. Abs.]: Annual Meeting of the Society of Exploration Geophysicists, Denver, Colorado, October 17-21, p. 1902-1907.

Liu, G. Zheng, C., Tick, G. R., Butler, J. J., Jr., and Gorelick, S. M., 2010, Relative importance of dispersion and rate-limited mass transfer in highly heterogeneous porous media — Analysis of a new tracer test at the MADE site: Water Resources Research, v. 46, W03524.

Ludvigson, G. A., Joeckel, R. M., González, L. A., Gulbranson, E. L., Rasbury, E. T., Hunt, G. J., Kirkland, J. I., and Madsen, S., 2010, Correlation of Aptian-Albian carbon isotope excursions in continental strata of the Cretaceous foreland basin, eastern Utah, USA: Journal of Sedimentary Research, v. 80, p. 955-974.

Ludvigson, G. A., Witzke, B. J., Joeckel, R. M., Ravn, R. L., Phillips, P. L., González, L. A., and Brenner, R. L., 2010, New insights on the sequence stratigraphic architecture of the Dakota Formation in Kansas–Nebraska–Iowa from a decade of sponsored research activity; *in*, Current Research in Earth Sciences: Kansas Geological Survey, Bulletin 258, part 2, 35 p. http://www.kgs.ku.edu/Current/2010/Ludvigson/Bull258part2.pdf

Luo, Y., and Sophocleous, M. A., 2010, Seasonal ground-water contribution to crop-water use assessed with lysimeter observations and model simulations: Journal of Hydrology, v. 389, no. 3–4, p. 325–335.

Luo, Y., Xia, J., Xu, Y., and Zeng, C., 2010, Group-velocity dispersion analysis of high-frequency Rayleigh waves: Proceedings of the 4th International Conference on Environmental and Engineering Geophysics (ICEEG), June 14–19, 2010, Chengdu, China, p. 189–194.

Luo, Y., Xia, J., Xu, Y., Zeng, C., and Liu, J., in press, Finite-difference modeling and dispersion analysis of high-frequency Love waves for near-surface applications: Pure and Applied Geophysics.

Maili, E., Habib, K. H., and Rush, J., 2010, 4C seismic anisotropy integration for fracture characterization of carbonate reservoirs applied in Idd El Shargi fields, offshore Qatar; in, Barremian–Aptian stratigraphy and hydrocarbon habitat of the eastern Arabian Plate, F. S. P. van Buchem, M. I. Al-Husseini, F. Maurer, and H. J. Droste, eds.: GeoArabia Special Publication 4, p. 605–614.

Miller, R. D., 2010, An introduction to this special section — Shallow hazards: Leading Edge, v. 29, no. 8, p. 928–929.

Miller, R. D., Bradford, J. D., and Holliger, K., eds., 2010, Advances in Near-Surface Seismology and Ground-Penetrating Radar, SEG Geophysical Developments Series No. 15: Tulsa, Society of Exploration Geophysicists.

Miller, R. D., Ivanov, J. Xia, J., Peterie, S. L., and Sloan, S. L., 2010, Seismic investigations of subsidence hazards [Exp. Abs.]: Annual Meeting of the Society of Exploration Geophysicists, Denver, Colorado, October 17-21, p. 3769-3773.

Miller, R. D., and Xia, J., in press, High-resolution seismic reflection to image hydrogeologic sequences: Near-Surface Geophysics, EAGE.

Newell, K. D., and Watney, W. L., 2010, Niobrara chalk gas fields play in northwestern Kansas; *in*, New Plays and Ways, D. F. Merriam, D.F., ed.: Kansas Geological Society (Wichita, KS), Kansas Oil and Gas Fields, v. VI, p. 85-104.

Newell, K. D., and Yoakum, R. L., 2010, Kansas coalbed methane play; *in*, New Plays and Ways, D. F. Merriam, D.F., ed.: Kansas Geological Society (Wichita, KS), Kansas Oil and Gas Fields, v. VI, p. 105-128.

Nippert, J. B., Butler, J. J., Jr., Kluitenberg, G. J., Whittemore, D. O., Arnold, D., Spal, S. E., and Ward, J. K., 2010, Patterns of Tamarix water use during a record drought: Oecologia, v. 162, no. 2, p. 283–292.

Platt, B. F., Hasiotis, S. T., and Hirmas, D. R., 2010, Use of low-cost multistripe laser triangulation (MLT) scanning technology for three-dimensional, quantitative paleoichnological and neoichnological studies: Journal of Sedimentary Research, v. 80, p. 590–610 (journal cover).

Sawin, R. S., and West, R. R., 2010, Surficial geology of Geary County, Kansas: Kansas Geological Survey, Map M-122, scale 1:50, 000. http://www.kgs.ku.edu/General/Geology/County/ghj/gearyLarge.html

Sloan, S. D., Peterie, S. L., Ivanov, J., Miller, R. D., and McKenna, J. R., 2010, Void detection using near-surface seismic methods; *in,* Advances in Near-Surface Seismology and Ground-Penetrating Radar, R. D. Miller, J. D. Bradford, and K. Holliger, eds.: Tulsa, Society of Exploration Geophysicists.

Sophocleous, M. A., 2010, Groundwater management practices, challenges, and innovations in the High Plains aquifer, USA — Lessons and recommended actions: Hydrogeology Journal, v. 18, no. 3, p. 559–575.

Sophocleous, M. A., 2010, Understanding and explaining surface tension and capillarity — An introduction to fundamental physics for water professionals: Hydrogeology Journal, v. 18, no. 4, p. 811–821.

Sophocleous, M. A., 2010, Ground-water legal framework and management practices in the High Plains aquifer, USA; *in*, Practices in Groundwater Management, A. N. Findikakis and K. Sato, eds.: IAHR Monograph, in press.

Sophocleous, M. A., 2010, Relationships between ground water and surface water in the prairie wetlands of North America (text and powerpoint presentation); *in*, "El papel del agua subterranea en el funcionamiento de los

humedales" La Alfranca–Pastriz (Zaragoza), L. J. Lamban, J. Heredia, and M. Valverde, eds.: Workshop Proceedings, International Association of Hydrogeologists–Spanish Chapter, Zaragoza, Spain, October 2009, p. 1–63.
Sophocleous, M. A., Townsend, M. A., Vocasek, F., Ma. L., and KC, A., 2010, Treated wastewater and nitrate transport beneath irrigated fields near Dodge City, Kansas; *in*, Current Research in Earth Sciences: Kansas Geological Survey, Bulletin 258, part 1, 31 p. http://www.kgs.ku.edu/Current/2010/Sophocleous/index.html
Suarez, M. B., González, L. A., and Ludvigson, G. A., 2010, Estimating the oxygen isotopic composition of equatorial precipitation during the mid-Cretaceous: Journal of Sedimentary Research, v. 80, p. 480–491.
Suarez, M. B., González, L. A., Ludvigson, G. A., Vega, F. J., and Alvarado–Ortega, J., 2009, Isotopic composition of low-latitude paleoprecipitation during the Early Cretaceous: Geological Society of America, Bulletin, v. 121, no. 11/12, p. 1,584–1,595.
West, R. R., Miller, K. B., and Watney, W. L., 2010, The Permian System in Kansas: Kansas Geological Survey, Bulletin 257, 82 p.
Xia, J., Ludvigson, G., Miller, R.D., Mayer, L., and Haj, A., 2010, Delineation of a volcanic ash body using electrical resistivity profiling: Journal of Geophysics and Engineering, v. 7, p. 267–276.
Xia, J., Ludvigson, G., Miller, R. D., Mayer, L., and Haj, A., 2010, Feasibility of delineating a volcanic ash body using electrical resistivity profiling: Journal of Geophysics and Engineering, v. 7, p. 267–276.
Xia, J., and Miller, R. D., 2010, Estimation of near-surface shear-wave velocity and quality factor by inversion of high-frequency Rayleigh waves; *in,* Advances in Near-Surface Seismology and Ground-Penetrating Radar, R. D. Miller, J. D. Bradford, and K. Holliger, eds.: Tulsa, Society of Exploration Geophysicists.
Xia, J., Miller, R. D., Cakir, R., Luo, Y., Xu, Y., and Zeng, C., 2010, Revisiting SH-wave data using love-wave analysis: Symposium on the Application of Geophysics to Environmental and Engineering Problems (SAGEEP), Annual Meeting of the Environmental and Engineering Geophysical Society (EEGS), April 11–15, 2010, Keystone, CO, p. 569–580.
Xia, J., Miller, R. D., Cakir, R., Luo, Y., Xu, Y., and Zeng, C., 2010, Estimation of near-surface shear-wave velocity using multichannel analysis of Love waves (MALW): Proceedings of the 4th International Conference on Environmental and Engineering Geophysics (ICEEG), June 14–19, 2010, Chengdu, China, p. 13–24.
Xia, J., Miller, R. D., Ivanov, J., and Peterie, S. L., 2010, Estimation of near-surface quality factors by inversion of Rayleigh-wave attenuation coefficients [Exp. Abs.]: Annual Meeting of the Society of Exploration Geophysicists, Denver, Colorado, October 17-21, p. 1908-1913.
Xia, J., Xu, Y., Miller, R. D., and Zeng, C., 2010, A trade-off solution between model resolution and covariance in surface-wave inversion: Pure and Applied Geophysics.
Zhang, K., Luo, Y., Xia, J., and Chen, C., 2010, Pseudospectral modeling and dispersion analysis of Rayleigh waves in viscoelastic media: Proceedings of the 4th International Conference on Environmental and Engineering Geophysics (ICEEG), June 14–19, 2010, Chengdu, China, p. 298–302.

Nonrefereed/Unpublished Papers

Brady, L. L., 2010, "Kansas" section — 2010 Keystone Coal Industry Manual: Mining Media International, Jacksonville, Florida, p. 480-483.
Buddemeier, R. W., Stotler, R., Butler, J. J., Jr., Jin, W., Beeler, K., Reboulet, E., Macfarlane, P. A., Kreitzer, S., Whittemore, D. O., Bohling, G., and Wilson, B. B., 2010, High Plains aquifer calibration monitoring well program — Third year progress report: Kansas Geological Survey, Open-File Report 2010–3, 109 p.
Dunham, John, 2010. The topography and major rivers of the Kansas Flint Hills (map). *Symphony in the Flint Hills – Field Journal 2010, Vol. II*., p. 90. Strong City, Kansas: Symphony in the Flint Hills Press. 186 p.
Dunham, J., West, R., Sawin, R., Brady, L., Ramirez, I., Bieker, C., and Haag, D., 2010, Surficial geology of Crawford County, Kansas; *in*, ESRI Map Book, v. 25, p. 84-85: ESRI Press, Redlands, CA http://www.esri.com/mapmuseum/mapbook_gallery/volume25/mining-earth/mining-earth-2.html
Evans, C. S., 2010, Playas in Kansas and the High Plains: Kansas Geological Survey, Public Information Circular 30, 6 p.
Lyle, S. A., Evans, C. S., Sawin, R. S., and Buchanan, R. C, eds., 2010, Flint Hills, Cross Timbers, and Verdigris River Valley, 2010 Kansas Field Conference, field guide: Kansas Geological Survey, Open-File Report 2010–8, 73 p.
Miller, R. D., 2010, Seismic reflection survey; Health and Safety Plan, Savannah River National Laboratory: Kansas Geological Survey, Open-File Report 2010-12.

Miller, R. D., Peterie, S. L., Ivanov, J., Bennett, B. C., Wedel, A. R., Metheny, O. M., Kearns, J. D., and Rickards, B. T., 2010, Seismic detection of San Luis, Arizona, cross-border tunnel: Kansas Geological Survey, Open-File Report 2010-4.
Newell, K. D., 2010, Fall may be imminent for Kansas Cherokee basin coalbed gas output: Oil and Gas Journal, v. 105, no. 5 (Feb. 8th), p. 33–40.
Newell, K. D., 2010, Communications from individuals regarding their role in the history of the coalbed natural gas play in eastern Kansas, circa 1990 to 2010: Kansas Geological Survey, Open-File Report 2010-15, 15 p.
Newell, K. D., and Carr, T. R., 2010, Investigation of integrated subsurface processing of landfill gas and carbon sequestration potential, Johnson County, Kansas: Kansas Geological Survey, Open-File Report 2010-17, 113 p.
Sawin, R. S., and West, R. R., 2010, Data control points used to construct the surficial geology map (M-122) of Geary County, Kansas: Kansas Geological Survey, Open-File Report 2010-13, 218 p. http://www.kgs.ku.edu/Publications/OFR/2010/OFR10_13/
Sawin, R. S., and West, R. R., 2010, Field geology maps, Morris County, Kansas (1:24,000 quadrangles — Delavan, Herington, and Wilsey quadrangles): Kansas Geological Survey, Open-File Report 2010–5, 40 p., 1 map.
Sophocleous, M.A., 2010, Relationships between ground water and surface water in the prairie wetlands of North America. (text and Powerpoint presentation); *in*, "El papel del agua subterranea en el funcionamiento de los humedales," L. J. Lamban, J. Heredia, and M. Valverde, eds.: La Alfranca-Pastriz (Zaragoza) Workshop Proceedings, International Association of Hydrogeologists-Spanish Chapter, Zaragoza, Spain, October 2009, p. 1-63.
Sophocleous, M.A., 2010. Ground-water sustainability and its pursuit in the flatlands of Kansas, USA; *in*, Hacia la gestión integral de los recursos hídricos en zonas de llanura, M. Varni, I. Entraigas, and L. Vives, eds.: Tomo I, 1° Congreso Internacional de Hidrología de Llanuras, Azul, Buenos Aires, Argentina, 21-24 Sept. 2010, p. 45-56.
Suchy, D. R., 2010, The Mineral Industry of Kansas; *in*, U.S. Geological Survey, Area Reports — Domestic: U.S. Geological Survey Minerals Yearbook 2008, v. II, 398 p. http://minerals.usgs.gov/minerals/pubs/state/ks.html#myb

Computer Software

Killion, M. — Application development and maintenance, including improvement of the oil and gas map viewer through the addition of new tools and functions; converting existing internet map viewers to the new technology and format used by the oil and gas map viewer; developing a test application and tools for the next generation of map viewers; and maintaining data currency through regular updates of the oil and gas wells and fields datasets. Web applications for DOE CO_2 sequestration project map viewer, KCC abandoned wells map viewer, and KCC gas gathering lines map viewer. Ground-water level viewing application for Exploration Place museum.

Wilson, B. — Assist with work on the Southwest Kansas Groundwater Management District #3 Numerical Model; provide extensive data analysis, creation, processing, and scripting.

Wilson, B. — South-central Kansas bedrock enhancement; joined completed GIS data sets with previous Ogallala work to create seamless enhanced bedrock estimates across the entire aquifer

Abstracts

Gottsfield, A., and Mandel, R. D., 2010, Modeling the geologic potential for buried cultural resources in the upper Neosho River basin, east-central Kansas: Society for American Archaeology, 75th Annual Meeting, St. Louis, Missouri, April.
Hirmas, D. R., Hasiotis, S. T., and Platt, B. F., 2010, Field application of multistripe laser triangulation (MLT) scanning to enhance and quantify descriptions of soil and exogenic trace morphology: Geological Society of America Abstracts with Programs, v. 42, no. 5.
Holliday, V. T., and Mandel, R. D., 2010, Alluvial and lacustrine stratigraphy across the Pleistocene–Holocene boundary in the Great Plains and Southwest: American Quaternary Association, 21st Biennial Meeting, University of Wyoming, Laramie, August.
Kessler, N., and Mandel, R. D., 2010, Landscape evolution and late-Quaternary environmental change in upper Driftwood Creek basin, south-central Kansas: American Quaternary Association, 21st Biennial Meeting, University of Wyoming, Laramie, August, poster.

Kessler, N., and Mandel, R. D., 2010, Late-Quaternary landscape evolution and environmental change in the Red Hills of south-central Kansas — Implications for archaeological research: Society for American Archaeology, 75th Annual Meeting, St. Louis, Missouri, April.

Lollar, J. C., Ludvigson, G. A., and González, L. A., 2010, Probing a climate model-data misfit regarding the oxygen isotopic composition of Arctic precipitation in the Cretaceous greenhouse world: Geological Society of America, Abstracts with Programs, v. 42, no. 5, p. 130.

Ludvigson, G. A., González, L. A., Gulbranson, E., Rasbury, T., Hunt, G., Joeckel, M., Murphy, L, and Kirkland, J., 2010, Marine-terrestrial linkages associated with Early Cretaceous (Aptian–Albian) global change: Geochimica et Cosmochimica Acta, v. 73, no. 13, Supplement 1, p. A640 (invited presentation at Goldschmidt 2010 Conference, Knoxville, TN.).

Ludvigson, G. A., González, L. A., Lollar, J. C., and McCarthy, P. J., 2010, What was the oxygen isotopic composition of Arctic precipitation?: American Geophysical Union, Fall Meeting Program, PP11B-1445.

Ludvigson, G. A., González, L. A., Roberts, J. A., Fowle, D. A., and Driese, S. G., 2010, The current status of the sphaerosiderite paleoclimate proxy: Program Volume for SEPM-NSF Workshop on Paleosols and Soil Surface Analog Systems, Petrified Forest National Park, Arizona, Sept. 21–25, p. 21 (invited presentation).

Ludvigson, G. A., Joeckel, R. M., González, L. A., Kirkland, J. I., Murphy, L., Suarez, C. A., Gulbranson, E. L., Rasbury, T., and Hunt, G., 2010, The terrestrial paleoclimatic record of the Aptian–Albian C9-C11 carbon isotope excursion in the Cretaceous North American foreland basin of eastern Utah, USA: Geological Society of America, Abstracts with Programs, v. 42, no. 5, p. 540.

Mandel, R. D., Hofman, J. L., and Holen, S. R., 2010, Geoarchaeology of stratified Early Paleoindian cultural deposits at the Kanorado Locality, northwestern Kansas: Society for American Archaeology, 75th Annual Meeting, St. Louis, Missouri, April.

Miller, R. D., Ivanov, J. Xia, J., Peterie, S. L., and Sloan, S. L., 2010, Seismic investigations of subsidence hazards [Exp. Abs.]: Annual Meeting of the Soc. of Expl. Geophys., Denver, Colorado, October 17-21, p. 3769-3773

Mintz, J. S., Driese, S. G., Ludvigson, G. A., and Breecker, D. O., 2010, Influence of changing hydrology on pedogenic calcite precipitation in vertisols, Dance Bayou, Brazoria County, TX — Implications for estimating paleoatmospheric pCO2: American Geophysical Union, Fall Meeting Program, PP11B-1434.

Newell, K. D., and Doveton, J. H., 2010, Gas production from the Chattanooga Shale in southern Kansas — First tries and initial data for possible future reconnaissance studies (abs.): Geological Society of America, Regional Meeting, Abstracts with Programs, v. 42, no. 2, p. 42.

Platt, B. F., Hasiotis, S. T., and González, L. A., 2010, Correlation between climate change and biodiversity in the continental Upper Jurassic Morrison Formation: Geological Society of America Abstracts with Programs, v. 42, no. 5.

Smith, J. J., Ludvigson, G. A., Doveton, J. H., and Petronis, M., 2010, Inauguration of a scientific drilling program investigating the lithology and stratigraphy of Neogene strata of the Central High Plains aquifer in western Kansas: Geological Society of America, Abstracts with Programs, v. 42, no. 5, p. 431.

Smith, J. J., Platt, B. F., Ludvigson, G. A., and Thomasson, J. R., 2010, Paleoenvironmental implications of ant nest trace fossils in calcic paleosols of the Neogene Ogallala Formation, Scott County, Kansas: Association of American Geographers, Great Plains/Rocky Mountain Division Annual Meeting, Program and Abstracts, p. 62.

Sophocleous, M. A., 2010. Groundwater Management Challenges and Innovations in the High Plains Aquifer: 2010 North-Central/South-Central GSA Joint Meeting, GSA Abstracts with Program, Paper No. 39-3, Branson, MO, April 11-13, 2010.

Sophocleous, M. A., 2010, Groundwater Management Innovations in Kansas: 27th Annual Water and the Future of Kansas Conference "Sustainable Water Resources Management: Assuring the Future," Topeka, KS, October 26, 2010.

Sophocleous, M. A., 2010, Groundwater Management Innovations in the Kansas High Plains Aquifer: 2010 GSA Annual Meeting, GSA Abstracts with Programs, vol. 42, no. 5, p. 432, Denver, CO, Oct. 31-Nov. 3, 2010.

Suarez, M. B., González, L. A., and Ludvigson, G. A., 2010, The global hydrologic cycle contribution to polar warmth during the mid-Cretaceous revealed by oxygen isotopic compositions of pedogenic carbonates: American Geophysical Union, Fall Meeting Program, PP14A-04.

Suarez, M. B., Gonzalez, L. A., and Ludvigson, G. A., 2010, Utilization of stable oxygen isotopes for quantification of the mid-Cretaceous greenhouse in the Americas: American Association of Petroleum Geology, Annual Convention and Exhibition, New Orleans, Louisiana, Abstracts Volume, v. 19, p. 249.

Suarez, C. A., González, L. A., Ludvigson, G. A., Kirkland, J. I., and Cifelli, R., 2010, Oxygen isotopic composition of vertebrate phosphate from the Cedar Mountain Formation, UT — A tool for deciphering both global and small-scale climate change and ecologic partitioning: Journal of Vertebrate Paleontology, v. 30, no. 3, p. 172A.

Suarez, C. A., Ludvigson, G. A., González, L. A., Lollar, J. C., Fiorillo, A. R., and McCarthy, P. J., 2010, Constraining Late Cretaceous terrestrial high-latitude water using oxygen isotopic compositions of pedogenic siderite and dinosaur tooth enamel — A multi-proxy approach: American Geophysical Union, Fall Meeting Program, PP14A-08.

Presentations

Brookfield, A. E. — Fully integrated surface/subsurface flow and transport modeling to Kansas Water Office, Brownbag Seminar Series, Topeka, Kansas, May 4.

Brookfield, A. E. — Simulating flow and thermal energy transport in a fully integrated surface/subsurface hydrologic framework to KU Department of Geology Colloquium, Lawrence, Kansas, January 28.

Butler, J. J., Jr., Hydrogeological site investigations — Recent trends, Keynote presentation at the 2010 FH-DGG Biennial Conference and General Assembly, Tuebingen, Germany, May 13.

Butler, J. J., Jr., High-resolution characterization of spatial variations in hydraulic conductivity with direct-push technology, Clemson Hydrogeology Symposium, Clemson, South Carolina, April 1.

Doveton, J. — Taught (with G. Bohling) workshop W6: Geoscience Education — Introducing Students to Subsurface Characterization Using Fictional Small County, April 11 at GSA Regional Meeting, Branson, Missouri.

Doveton, J., Bohling, G. C., and Victorine, J., Subsurface Java Day: Geological Visualization and Virtual Exploration, University of Kansas, October 15, 2010.

Ludvigson — Stable Isotope Proxies for Arctic Paleoprecipitation in the Cretaceous Greenhouse World Revisited: New Data from the Colville Basin: Workshop on Reconstructing Cretaceous Arctic and Beringian Ecosystems and Environments as Proxies for Understanding Recent High-Latitude Climate Change, International Arctic Research Center, University of Alaska Fairbanks, May 4.

Ludvigson — Kansas Participation in the National Cooperative Geologic Mapping Program: Kansas Department of Health & Environment, Topeka, Kansas, February 22.

Ludvigson, G. A., Development of the STATEMAP Program in Kansas: Kansas Geological Survey Advisory Council, Lawrence, KS, December 2, 2010.

Ludvigson, G. A., Glimpses of the Greenhouse World Through a Glass Darkly: Deep-Time Paleoclimotology & the Hindcasting-Forecasting Dilemma: University of Kansas NSF IGERT Program, C-Change Colloquium Series, The Commons, Spooner Hall, University of Kansas, November 15, 2010.

Ludvigson, G. A., The Current Status of the Sphaerosiderite Paleoclimate Proxy: SEPM-NSF Workshop on Paleosols and Soil Surface Analog Systems, Petrified Forest National Park, Holbrook, Arizona, September 23, 2010.

Mandel, R. — The Peopling of the Great Plains — A Geoarchaeological Perspective at the The Robert L. Harness Lecture Series, Hopewell Culture National Historical Park, Chillicothe, Ohio, July 22.

Miller, R. D. — 6th Annual Border Summit, Arlington, Virginia, 2010.

Miller, R. D. — AEG Kansas City Section Meeting, 2010.

Miller, R. D., Anderson, J. M., Wedel, A. R., Metheny, O. M., and Schwarzer, J. C., 2010, Sonic sampling system at the Kansas Geological Survey: Geological Survey Advisory Council, Lawrence, Kansas, April 16.

Miller, R. D., Xia, J., Peterie, S. L., and Ivanov, J., 2010, Seismic reflection characteristics of subsidence features resulting from dissolution: Kansas Geophysics in the 21st Century, Wichita, Kansas, October 28.

Newell, K. D. — "Eastern Kansas Coalbed Methane," to Environmental Geology class, Emporia State University, November 23, 2010.

Sophocleous, M. — Invited keynote speaker at the Workshop on Impacts of Climate Change on Water Cycling in the Arid Area of West China, Urumqi, Xinjiang, China, July 16.

Sophocleous, M. — Invited presentation on Communicating in International Scientific Journals, Xinjiang Institute of Ecology and Geography, Chinese Academy of Science, Urumqi, July 20.

Sophocleous, M. — Invited presentation on ground-water sustainability and management in Kansas, Institute of Geographical Sciences and Natural Resources Research, Chinese Academy of Science, Beijing, July 22.

Sophocleous, M. — Invited keynote speaker at the 1st International Congress of Flandlands Hydrology, Azul, Buenos Aires, Argentina, September 21–24.

Suchy, D. R., Stewart, D. L., Adkins-Heljeson, D., Wilson, B., and Look, K., 2010, Ground-water information essential to sustainability (abs.): 27th Annual Water and the Future of Kansas Conference, Topeka, Kansas.
Watney, W. L. — Presentation on progress for DOE CO_2 contract to Kansas House Energy and Utilities Committee, January.
Watney, W. L. — Presentation on progress for DOE CO_2 contract to DOE National Energy Techology Lab, February.
Watney, W. L. — Presentation on progress for DOE CO_2 contract to Field Trip to Observe 3-D Seismic Acquisition, March.
Watney, W. L. — Presentation on progress for DOE CO_2 contract to Kansas Independent Oil and Gas Association & Southwest Kansas Royalty Owners Association, April.
Watney, W. L. — Presentation on progress for DOE CO_2 contract to Kansas Water Authority & EPA Region 7 UIC Meeting, May.
Watney, W. L. — Presentation on progress for DOE CO_2 contract to Kansas Next Step Conference, August.
Whittemore, D. O. — Advanced chemical characterization of Arkansas River water for TMDL development (uranium and selenium) to the U.S. Environmental Protection Agency, Impaired Waters and Watersheds Conference, Kansas City, Missouri, May 2010.

Awards

Deputy, J. — KU Employee of the Month Award, June
Franseen, E. K. — Councilor of Sedimentology Journal (2009–2012)
Mandel — 2010 Geological Society of America's Kirk Bryant Award for Excellence, given in recognition of the following publication: Mandel, R. D., 2008, Buried Paleoindian-age landscapes in stream valleys of the Central Plains, USA: Geomorphology, v. 101, p. 342–361
Platt, B. F. — Travel grant, Geological Society of America, South Central Section
Xia, J. — Merriam Research Award, Kansas Geological Survey

Internal Service

Brookfield, A. — Courtesy Faculty, KU Department of Geology
Brookfield, A. — Serving on dissertation committee at KU for Department of Geology (Ph.D.) — Rubina Firdous
Buchanan, R. — Member of editorial board of KGS online journal Current Research in Earth Sciences, 1992–present
Buchanan, R. — Member of University of Kansas Unclassified Academic Staff Task Force, Science Communication Training, Self Graduate Fellow program
Butler, J. — University of Kansas - Student Advising - Postdoctorate Fellows: Wei Jin (2007-)
Butler, J. — Member, KGS Evaluation System Review Committee (2003-)
Butler — Co-Chair, KGS Director Search Committee (2010-)
Butler — Member, University of Kansas Office of the Vice Provost for Research and Graduate Studies Promotion Committee (2009-)
Doveton, J. — Taught Geology 791, Carbonate Petrophysics, Spring; CPE 528, Well Logging, Spring; GEOL 536, Log Analysis of Subsurface Geology, Fall; and CPE 825, Saturation, Fall 2010 at University of Kansas
Doveton, J. — KGS Workshop "The Crash Course in Log Analysis: An Excel Spreadsheet Workshop," March 20
Doveton, J. — Member of editorial board of KGS online journal Current Research in Earth Sciences, 1992–present
Dunham, J. — Adjunct professor, KU Department of Geography
Dunham, J. — Currently serving on thesis committee of Amber Reynolds, an advisee of Dr. Xingong Li, KU Department of Geography
Franseen, E. — Member of editorial board of KGS online journal Current Research in Earth Sciences, 1993–present
Franseen, E. — Instructor for KU course Geology 101
Franseen, E. — Supervised graduate student theses for KU students Zhaoqi Li, Anya Hess, Nicholas Welsh, Erin Young, Lindsay Walters Chris Lipinski, Justin Fairchild, and Rachel Dvoretsky
Ivanov, J. — Taught course on "Multi-channel Analysis of Surface Waves (MASW)," at KGS, February 25–26 and March 4-5
Killion, M. — Chair, KGS Student Awards Committee
Ludvigson, G. — Mentoring National Science Foundation Earth Sciences Postdoctoral Fellow — Bradley D. Cramer, Kansas Geological Survey/University of Kansas, (Ph.D. 2009 Ohio State University, M.R.

Saltzman, advisor) February 2010-January 2012; NSF Earth Sciences Postdoctoral Fellowship (EAR-PF: Recalibrating the Silurian System using integrated high-resolution biochemostratigraphy and geochronology — A case study for the Paleozoic Era)

Ludvigson, G.A. — Graduate Student Advisees (service on graduate committees):

Julie Retrum, Ph.D. 2010, The University of Kansas, A Paleoclimatic and Paleohydrologic Reconstruction of Pleistocene Fossil Lake, Oregon (awarded an NSF Earth Sciences Postdoctoral Fellowship at the University of Minnesota)

Ludvigson, G. A., Host and coordinator, KGS Stratigraphic Research Seminar on *Updating the Cretaceous Time Scale: New Results from the Western Interior* (by Brad Sageman, Northwestern University), Fall 2010

Ludvigson, G. — Mentored/advised two May 2010 Ph.D. graduates at University of Kansas — Marina B. Suarez, Ph.D. 2009, The University of Kansas, Perspectives on Global Climate Change in the mid-Cretaceous (Barremian-Albian), (American Geological Institute Graduate Minority Scholar; accepted Blaustein Postdoctoral Fellowship at Johns Hopkins University in 2009; accepted appointment as Assistant Professor at University of Texas San Antonio in 2010); Celina Suarez, Ph.D. 2010, The University of Kansas, Geochemical Approaches to the Study of Life and Death of Dinosaurs of the Early Cretaceous Cedar Mountain Formation, Utah (American Geological Institute Graduate Minority Scholar)

Ludvigson, G. — Co-Chairing Graduate Thesis Committees for three M.S. students at University of Kansas — Russell Hunter Harlow, pending, The University of Kansas, Paleoclimate Record of the Ogallala Formation in western Kansas; Mark A.Villareal, M.S. pending, The University of Kansas, Actualistic Calibration of the Sphaerosiderite Paleoclimate Proxy; J. Chad Lollar, M.S. pending, The University of Kansas, Probing a Paleoclimate Model-Data Misfit in Arctic Alaska from the Cretaceous Greenhouse World

Ludvigson, G. — Supervised M.S. candidate Emily Tremain, M.S. pending, The University of Kansas, Multiproxy paleoenvironmental and paleohydrologic reconstructions of the Albian Mussentuchit Member of the Cedar Mountain Formation, Utah

Ludvigson, G. — Sessions co-convener, Sessions PP11B & PP14A: Cretaceous Arctic Environments: Proxies for Understanding Climate Change from the "Other" Greenhouse Interval, Annual Meeting of the American Geophysical Union, San Franscisco, CA. Dec. 13-17

Ludvigson, G. — Associate editor, Journal of Sedimentary Research; published by Society for Sedimentary Geology, 2010-2011

Mandel, R. — Member of faculty search committee, archaeology position, Department of Anthropology, 2009–2010

Mandel, R. — Member of the Kansas Geological Survey's Promotion and Review Committee, 2010

Mandel, R. — Currently serving on thesis and dissertation committees at the University of Kansas for the following students: Committee Member for Brendon Asher, Department of Anthropology (M.A.); Kale Bruner, Department of Anthropology (M.A.); Janice McLean, Department of Anthropology (M.A.); Ryan Johnson, Department of Anthropology (M.A.); David Unruh, Department of Anthropology (M.A.); Shannon Ryan, Department of Anthropology (Ph.D.); Emily Williams, Department of Anthropology (Ph.D.); Justin Gramarye, Biological Sciences (Ph.D.); and Lillian Rebellato, Department of Geography (Ph.D.). Advisor/Thesis Chair for Andrew Gottsfield, Department of Anthropology (M.A.); Laura Murphy, Department of Anthropology (M.A.); Arlo McKee, Department of Anthropology (M.A.); Patrick Green, Department of Anthropology (M.A.); Kristopher West, Department of Anthropology (M.A.); Nicholas Kessler, Department of Anthropology (M.A.); Daniel Keating, Department of Anthropology (M.A.). Advisor/Dissertation Chair for Ashley Zung, Department of Geography (Ph.D.) and Tim Griffith, Department of Anthropology (Ph.D.)

Miller, R. — Member of advisory board of KGS online journal Current Research in Earth Sciences, 1992–present.

Miller, R. — KU thesis committees: Daniel Rice (M.S.) (chair); Lindsay Mayer (M.S.) (chair); Benjamin Rickards (co-chair); Craig Hendrix (chair); Tyler Schwenk (chair); and Zhen Li (chair)

Platt, B. F. — Graduate student member, Ritchie distinguished professor in sedimentary geology search committee

Sawin, R. — KGS Stratigraphic Nomenclature Committee (Chair)

Sawin, R. — Search committee member for KGS Director

Smith, J. J. — Outstanding Student Awards Committee Member, 2010, Kansas Geological Survey

Sophocleous, M. — Member of advisory board of KGS online journal Current Research in Earth Sciences, September 1992–present

Sophocleous, M. — Member of KGS Promotion and Review Committee

Suchy, D. — Helped run KGS booth at Lawrence Water Festival, Earth Day, including a poster on water data on the internet

Suchy, D. — Spearheaded KGS efforts with KDHE to develop and maintain online system for submitting water well completion forms (WWC-5 forms)

Suchy, D. — Served as KGS member of international "LAS Committee," which develops worldwide standards for LAS files (i.e., digital e-logs)

External Service

Brookfield, A. — Newsletter Editor, Geological Society of America, Hydrogeology Division (2009–)

Buchanan, R. — Geological Society of America, Geology and Public Policy Committee, Chair 2009–10; Public Service Award Committee member, 2009–present; Congressional Science Fellowship Selection Committee, Chair

Buchanan, R. — Member, Midwestern Governors Association Carbon Capture and Storage Task Force

Butler, J. — Associate Editor, Hydrogeology Journal (2006–)

Butler, J. — Advances in Aquifer Testing for Improved Site Characterization: New Concepts, Field Methods and Data Analysis Procedures (taught half of course), Melbourne, Australia, March 3–5

Butler, J. — Aquifer Testing for Improved Hydrogeologic Site Characterization Featuring Aqtesolv and the In-Situ LevelTroll (taught half of course), Calgary, Alberta, June 1-2

Butler, J. — Elected Member, Board of Directors, Scientists and Engineers Division, National Ground Water Association (2010-)

Butler, J. — Appointed Member, Chair (2010), Darcy Task Force, National Ground Water Association (2008-2010)

Butler, J. — Faculty Opponent for Doctoral Thesis, Lund University, Sweden (2010)

Butler, J. — Promotion and Tenure Evaluator, College of Earth Sciences, National Central University, Taiwan (2010)

Doveton, J. — PEICE "Introduction to Log Analysis," London, February 25–27

Franseen, E. — SEPM Council member

Franseen, E. — Associate Editor, Palaios (Journal of the Society for Sedimentary Research, SEPM), 2002–present

Franseen, E. — Session Chairman for session on Origin of Carbonate Breccia Systems — Multiphase Systems, Multitime Events and Reservoir Quality, AAPG/SEPM Meeting, Denver, CO

Ivanov, J. — Taught course "Surface Waves are for Everyone" at SAGEEP (sponsored by EEGS), April 10

Killion, M. — Member of Technical Advisory Committee of the Kansas GIS Policy Board

Ludvigson, G. — Associate Editor, Journal of Sedimentary Research; published by Society for Sedimentary Geology

Ludvigson, G. — Member of dissertation committee for Peter J. Rose, Ph.D. pending. Department of Geology and Geophysics, University of Minnesota, Minneapolis, MN

Ludvigson, G. — Session Co-convener, Sessions PP11B & PP14A: Cretaceous Arctic Environments: Proxies for Understanding Climate Change from the "Other" Greenhouse Interval, Annual Meeting of the American Geophysical Union, San Franscisco, CA. Dec. 13-17, 2010

Ludvigson, G. — Associate Editor, Journal of Sedimentary Research, published by Society for Sedimentary Geology, 2010-2011

Ludvigson, G. — Host and coordinator, KU Geology Colloquium presentation on Volcanic Trigger for Cretaceous Ocean Anoxic Events? (by Brad Sageman, Northwestern University), Fall 2010

Macfarlane, P. A. — Advisory Board member for the Museum of the Earth's Teacher Friendly Guide to the Geology of the South-Central Region of the United States

Mandel, R. — Member of the U.S. National Committee for the International Union for Quaternary Research (INQUA), National Academies of Science

Mandel, R. — Served as an instructor at the Cutting Edge Workshop — Teaching Climate Change from the Geologic Record, co-sponsored by the U.S. National Committee for the International Union for Quaternary Research and the American Quaternary Association, University of Wyoming, Laramie, Wyoming, August 11

Mandel, R. — Co-chair (with David Meltzer), Science Program Committee, 21st Biennial Meeting of the American Quaternary Association, University of Wyoming, Laramie, Wyoming, August 13–15

Mandel, R. — President of the American Quaternary Association (AMQUA), a 900-member organization, 2009–2010

Mandel, R. — Associate Editor, Encyclopedia of Geoarchaeology, Springer Press, 2009–2010

Mandel, R. — Liaison between the Geological Society of America and the Society for American Archaeology, 2009–2010
Mandel, R. — Chair, Awards Committee, Geological Society of America's Archaeological Geology Division, 2009–2010
Miller, R. — SEG, online technical content board, 2010
Miller, R. — SEG, special issue editor, The Leading Edge, October 2009, August
Miller, R. — SEG Foundation, Projects of Special Merit Committee, 2009–2011
Miller, R. — National Advisory Team for Geophysics in Hydrology, organized by the Consortium of Universities for the Advancement of Hydrologic Sciences Inc., 2006-present
Miller, R. — ASTM Geophysics Subcommittee on Seismic Standards, 2006-present
Miller, R. — Highway Geophysics Steering Committee, 2005-present
Miller, R. — Geophysical Society of Kansas, Editor, 2005-present
Miller, R. — DOE-EM30 Scientific Opportunities for Monitoring of Environmental Remediation Sites (SOMERS) Task Force, 2010-present
Miller, R. — SEG Near Surface Task Force, 2010-present
Miller, R. — SEG, Intersociety Task Force, 2010-present
Miller, R. — SEG/NSG EEGS Collaboration Committee, Chair, 2010-present
Miller, R. — SEG, Annual Meeting Technical Committee, 2010
Miller, R. — SEG, Online Technical Content Board, 2010-2011
Newell, K. D. — Member of KCC Oil and Gas Advisory Subcomittee
Sawin, R. — Member of Kansas State University Geology Advisory Council (1995–present)
Sawin, R. — Liaison between Kansas Earth Science Teachers Association and Kansas Geological Survey (1993–present)
Sophocleous, M. — Editorial Advisor, Computers & Geosciences, January 1993–present
Sophocleous, M. — Assistant Editor, Natural Resources Research, January 1999–present
Sophocleous, M. — Associate editor-in-chief of Journal of Arid Land, July 2010–present
Sophocleous, M. — Invited International Panel Reviewer of the Alberta Environment Groundwater Management Framework — Athabaska Oils Sands Region, 2009–2010
Sophocleous, M. — Invited reviewer of upcoming publication "Groundwater Resources in Canada," a joint publication by GSA and GSC, edited by A. Rivera, August 2010
Sophocleous, M. — Member of the Blue Ribbon Central Kansas Water Bank Evaluation Committee, 2010
Sophocleous, M. — Member of the Kansas Watershed Restoration and Protection Strategy Work Group (WRAPS Work Group), 2010 to present
Suchy, D. — Created new WWC5 form for KDHE, and helped develop fillable PDF version for their website
Suchy, D. — Served as Exhibits and Sponsors Co-Chair and on organizing committee for joint meeting of South Central and North Central Sections of GSA held in Branson, Missouri, April 11–13
Suchy, D. — Served as Vice-Chairman on Board of Directors, Douglas County Rural Water District #5
Suchy, D. — Served as alternate member of Board of Directors, Public Wholesale Water District #25
Suchy, D. — Helped review Kansas Response Plan for Kansas Division of Emergency Management; served as first contact at KGS for state emergency management
Suchy, D. — Served as judge for 4-H geology exhibits, Douglas County Fair, August 3
Watney, W. L. — President, Kansas Geological Society and Library
Wilson, B. — Kansas Technical Advisory Committee and the DASC Sub-committee to the Kansas GIS Policy Board
Xia, J. — Reviewer for Geophysics, SEG publication–two manuscripts; Journal of Applied Geophysics–one manuscript; SEG Annual Meeting — three manuscripts; SEG/China Petroleum Society Meeting–four manuscripts
Xia, J. — Guest Editor, Journal of Earth Science, June Issue

2009

Refereed Publications

Baker, R. G., Bettis, E. A., III, Mandel, R. D., Dorale, J. A., and Fredlund, G. G., 2009, Mid-Wisconsinan environments on the eastern Great Plains: Quaternary Science Reviews, v. 28, p. 873–889.

Bohling, G. C., 2009, Sensitivity and resolution of tomographic pumping tests in an alluvial aquifer: Water Resources Research, v. 45, no. 10.

Bovolo, C. I., Parkin, G., and Sophocleous, M. A., 2009, Groundwater resources, climate and vulnerability: Environmental Research Letters, v. 4, no. 3, p. 1–4.

Bowen, M. W., Johnson, W. C., Klopfenstein, S. T., and Dunham, J. W., 2009. Developing a geospatial database of playas within the High Plains of Kansas: *Current Research in the Pleistocene*, v. 26, p. 191-193.

Butler, J. J., Jr., 2009, Pumping tests for aquifer evaluation — Time for a change?: Ground Water, v. 47, no. 5, p. 615–617.

Doveton, J. H., and Bohling, G. C., 2009, Compositional data analysis of shaly sandstones from petrophysical logs in oil and gas reservoirs: IAMG 09, Proceedings, 8 p.

Fils, D., Cervato, C., Reed, J., Diver, P., Tang, X, Bohling, G., and Greer, D., 2009, CHRONOS architecture, experiences with an open-source services-oriented architecture for geoinformatics: Computers and Geosciences, v. 35, no. 4, p. 774–782.

Ivanov, J., Miller, R. D., Johnson, C. D., Lane, J. W., and Clemens, D., 2009, Near-surface evaluation of Ball Mountain Dam, Vermont, using multi-channel analysis of surface waves (MASW) and refraction tomography seismic methods on landstreamer data [exp. abs.]: Annual Meeting of the Society of Exploration Geophysicists, Houston, TX, October 25–30, p. 1,454–1,458.

Ivanov, J., Tsoflias, G., Miller, R. D., and Xia, J., 2009, Practical aspects of MASW inversion using varying density: Symposium on the Application of Geophysics to Engineering and Environmental Problems (SAGEEP 2009), Fort Worth, TX, March 29–April 2, 2009, p. 171–177.

Liu, G., Butler, J. J., Jr., Bohling, G. C., Reboulet, E., Knobbe, S., and Hyndman, D. W., 2009, A new method for high-resolution characterization of hydraulic conductivity: Water Resources Research, v. 45, W08202.

Liu, J., Zeng, X., Xia, J., and Charles, S., 2009, The separation of P-wave and S-wave from crosswell seismic data and application: Technical Program with Biographies, SEG, 79th Annual Meeting, Houston, TX, p. 1,320–1,324.

Ludvigson, G. A., Sawin, R. S., Franseen, E. K., Watney, W. L., West, R. R., and Smith, J. J., 2009, A review of the stratigraphy of the Ogallala Formation and revision of Neogene ("Tertiary") nomenclature in Kansas: Kansas Geological Survey, Bulletin 256, part 2, 9 p. http://www.kgs.ku.edu/Current/2009/Ludvigson/index.html

Luo, Y., Xia, J., Liu, J., Xu, Y., and Liu, Q., 2009, Research on the middle-of-receiver-spread assumption of the MASW method: Soil Dynamics and Earthquake Engineering, v. 29, no. 1, p. 71–79.

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Computer Software

Killion, M. — Application development and maintenance, including improvement of the oil and gas map viewer through the addition of new tools and functions; converting existing internet map viewers to the new technology and format used by the oil and gas map viewer; developing a test application and tools for the next generation of map viewers; and maintaining data currency through regular updates of the oil and gas wells and fields datasets. Web applications for DOE CO_2 sequestration project map viewer, KCC abandoned wells map viewer, and KCC gas gathering lines map viewer. Ground-water level viewing application for Exploration Place museum.

Wilson, B. — Assist with work on the Southwest Kansas Groundwater Management District #3 Numerical Model; provide extensive data analysis, creation, processing, and scripting.

Wilson, B. — South-central Kansas bedrock enhancement; joined completed GIS data sets with previous Ogallala work to create seamless enhanced bedrock estimates across the entire aquifer

Abstracts

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Newell, K. D., and Carr, T. R., 2009, Coalbed natural gas production and desorption characteristics of Pennsylvanian coals in eastern Kansas (abs.): American Association of Petroleum Geologists, Mid-Continent Meeting, Tulsa, OK, Official Program, p. 23.
Newell, K. D., and Carr, T. R., 2009, Coalbed natural gas production and gas content of Pennsylvanian coal units in eastern Kansas (abs.): Program and Abstracts of 29th Annual GCSSEPM Foundation Bob F. Perkins Research Conference, December 6-8, Houston, Texas, p. 19.
Ray, J. H., and Mandel, R. D., 2009, Late Paleoindian occupations at the Alley Mill site, Shannon County, Missouri: Missouri Archaeological Society, Fall Symposium, Thousand Hills State Park, Kirksville, Missouri, October.
Rice, D., Miller, R. D., Xia, J., and Ivanov, J., 2009, Use of ultra quiet, high output accelerometers to process high frequency vibrator data [abs.]: Symposium on the Application of Geophysics to Engineering and Environmental Problems (SAGEEP 2009), Fort Worth, Texas, March 29–April 2.
Smith, J. J., Ludvigson, G. A., Mandel, R., Macfarlane, P. A., Haj, A., Murphy, L., and McKee, A., 2009, A record of carbon- and oxygen-isotope excursions from pedogenic carbonates of the Neogene High Plains succession in western Kansas: Geological Society of America, Abstracts with Program, v. 41, no. 7, p. 125–126.
Smith, J. J., Platt, B. F., Ludvigson, G. A., and Thomasson, J. R., 2009, Description and paleohydrological implications of exceptionally well preserved fossil ant nests in calcic paleosols of the Ogallala Formation (Miocene), Scott County, Kansas, USA: 9th North American Paleontological Convention Abstracts, Cincinnati Museum Center Scientific Contributions No. 3, p. 444.
Smith, J. J., Platt, B. F., Ludvigson, G. A., and Thomasson, J. R., 2009, Exceptionally well-preserved ant nest fossils in calcic paleosols of the Ogallala Formation (Miocene), Scott County, Kansas, USA: Geological Society of America, Abstracts with Program, v. 41, no. 7, p. 161–162.
Sophocleous, M. A., 2009, Groundwater management innovations in the High Plains aquifer, USA — A possible path towards sustainability?: Eos, v. 90, no. 52, 29 December 2009, Fall Meet. Suppl., Abstract 700516.
Sophocleous, M. A., 2009, The impacts of ground-water over-abstraction on the environment: Eos, v. 90, no. 52, 29 December, Fall Meet. Supplement, Abstract 701736.
Suarez, M. B., González, L. A., and Ludvigson, G. A., 2009, The mid-Cretaceous water-bearer revisited — Quantification of a greenhouse hydrologic cycle in the Americas: American Geophysical Union, Fall Meeting Program, PP31B-1312, Wednesday Session Program.
Suarez, M. B., González, L. A., Ludvigson, G. A., and You, H., 2009, Depositional environment and stable carbon isotope chemostratigraphy of the Early Cretaceous Xiagou Formation in Changma Basin, Gansu Province, China: American Association of Petroleum Geologists, Annual Convention & Exhibition, Denver, Colorado, June 7–10, Abstracts Volume, p. 207.
Suchy, D. R., 2009, Kansas Geological Survey Geoscience Information on the Internet: Geological Society of America, Abstracts with Programs, v. 41, no. 7, p. 98.
Thoma, M., Malama, B., Barrash, W., Bohling, G. C., and Butler, J. J., Jr., 2009, Modeling slug tests in unconfined aquifers with both oscillatory and overdamped responses, and with low-K and high-K skin effects (abs.): Eos, v. 90, no. 52, Fall Meeting Supplement, Abstract H43C–1055.

Walters, S. L., Miller, R. D., Steeples, D. W., Xia, J., and Zeng, C., 2009, Detecting tunnels and underground facilities using diffracted P-waves [abs.]: Symposium on the Application of Geophysics to Engineering and Environmental Problems (SAGEEP 2009), Fort Worth, Texas, March 29–April 2.

Watney, W. L., Boardman, D. R., Doveton, J. H., Newell, K. D., Cruse, A., Thompson, T. L., Puckette, J. O., Victorine, J. R., Stalder, K., Walton, R., and Franseen, E., 2009, High-resolution stratigraphic, biostratigraphic, petrophysical, and geochemical analysis of the Lower Carboniferous Caney and Late Devonian to Early Carboniferous Woodford and Chattanooga Shales in Oklahoma and Kansas: American Association of Petroleum Geologists, Annual Convention and Exhibition, Denver, Colorado, June 7–10, Article #90090©2009.

Whittemore, D. O., 2009, Selenium loss in the Arkansas River across the High Plains, USA: Geological Society of America, Abstracts with Program, v. 41, no. 7, p. 201.

Whittemore, D. O., Liu, G., Wilson, B. B., and Butler, J. J., Jr., 2009, Enhanced estimation of recharge, tributary inflow, and pumping for a stream-aquifer interaction model: Program with Abstracts, 54th Annual Midwest Ground Water Conference, St. Louis.

Xia, J., Cakir, R., Miller, R. D., Zeng, C., and Luo, Y., 2009, Estimation of near-surface shear-wave velocity by inversion of Love waves; *in*, Technical Program with Biographies: Society of Exploration Geophysicists, 79th Annual Meeting, Houston, Texas.

Xia, J., Xu, Y., Miller, R. D., and Zeng, C., 2009, A trade-off solution of regularized geophysical inversion using model resolution and covariance matrices: Symposium on the Application of Geophysics to Environmental and Engineering Problems (SAGEEP), Annual Meeting of the Environmental and Engineering Geophysical Society (EEGS), March 29–April 2, Fort Worth, Texas, p. 30–40.

Zeng, C., Xia, J., and Miller, R. D., 2009, Estimation of absorbing boundary parameters for near surface seismic modeling: Symposium on the Application of Geophysics to Environmental and Engineering Problems (SAGEEP), Annual Meeting of the Environmental and Engineering Geophysical Society (EEGS), March 29–April 2, Fort Worth, Texas, p. 603–608.

Zeng, C., Xia, J., Miller, R. D., and George, P. T., 2009, Modeling results on detectability of shallow tunnels using Rayleigh-wave diffraction: Society of Exploration Geophysicists, Technical Program with Biographies, 79th Annual Meeting, Houston, Texas.

Presentations

Bhattacharya, S., Nissen, S., and Watney, W. L. — Presented invited talk to SIPES Denver Chapter, Volumetric curvature analysis — A technique to visualize reservoir compartments, September 9.

Buchanan, R. C. — Mapping the Kansas Economy — Natural Environment, at Kansas Economic Policy Conference, Institute for Policy and Social Research, University of Kansas, Lawrence, October.

Butler, J. J. — Subsurface characterization — Past, present, and future, Pioneers in Groundwater Award Lecture, World Environmental and Water Resources Congress 2009, American Society of Civil Engineers — Environmental and Water Resources Institute, May 19.

Butler, J. J. — The development of field methods and tools for subsurface characterization, invited presentation to the Institute of Applied Geology, National Central University, Taiwan, April 10.

Butler, J. J., Jr., New approaches for exploiting water-level responses to fluctuations in barometric pressure, Solinst 2009 Symposium on Recent Advances in Watershed and High Resolution Monitoring, Georgetown, Ontario, Canada, October 23.

Butler, J. J., Jr. — Invited presentation - "Field methods and tools for ground water hydrologists: Recent developments at the KGS", Brownbag Professional Development Lecture of the Kansas Water Office, January 7.

Butler, J. J., Jr. — Presentations to Geohydrology Seminar Series, February and April.

Butler, J. J., Jr. — Co-presenter of presentation on Index Well Program at the Kansas Water Office, March 3.

Butler, J. J., Jr. — Panel moderator for session entitled "Impacts of Biofuels Production on Water" at the 26th Annual Water and the Future of Kansas Conference, Topeka, March 26.

Butler, J. J., Jr. — Invited presentation on phreatophytes for the 2009 KGS Field Conference, June 3.

Butler, J. J., Jr. — Direct-push demonstration, along with Ed Reboulet and Steve Knobbe, for students in KU Department of Geology introductory hydrogeology class, September 16.

Butler, J. J., Jr. — Invited presentation on Tamarisk Water Use to the Cimarron Basin and Upper Arkansas Sub-Basin Committees, Garden City, September 30.

Butler, J. J., Jr. — Invited presentation on phreatophyte research to the DWR Fall Conference in Topeka, October 27.

Butler, J. J., Jr., P. Dietrich, S. Knobbe, G. Liu, G. C. Bohling, and E. C. Reboulet, Direct-push methods for high-resolution characterization of hydraulic conductivity, Fall Meeting of the American Geophysical Union, December 18.

Butler, J. J., Jr., Jin, W., Mohammed, G. A., Kluitenberg, G. J., D.O. Whittemore, and E.C. Reboulet, Site characterization using well responses to natural stimuli, invited presentation at the Workshop on Field Characterization and Modeling of Aquifer Heterogeneity, National Central University, Taiwan, April 6.

Dealy, M. — Presentation on "Preserving oil and gas well samples at the Wichita Well Sample Library," to the Kansas Geological Society.

Dunham, J. — Surficial Geology of Crawford County, Kansas. Map Gallery (poster) presentation, ESRI International User Conference, San Diego, CA, July 13. (NOTE: I was unable to attend the conference, but the map was still displayed in the Map Gallery Exhibit).

Killion, M. — Spoke to Mid America GIS Consortium conference on "ArcGIS Server Solutions for the Kansas Oil and Gas Database."

Kluitenberg, G. J., Butler, J. J., Jr., Whittemore, D. O., Jin, W., Arnold, D., and Reboulet, E. C., 2009, Quantifying ground-water savings achieved by salt cedar control — A demonstration project in the riparian zone of the Cimarron River, Kansas: Proceedings 26th Annual Water and Future of Kansas Conference, Topeka.

Franseen, E. K. — Invited session chair, Origin of Carbonate Breccia Systems - Multiphase Systems, Multi-time Events & Reservoir Quality, 2009 AAPG/SEPM Meeting, Denver, Colorado.

Look, K. — SOLAR Project – Using the Internet for KCC Filing and KDOR Severance Tax Reporting, at 17th Annual Mid-Year Meeting, Pratt Community College, Pratt, Kansas, April 23.

Ludvigson, G. — Glimpses of the greenhouse world through a glass darkly — Deep-time paleoclimotology and the hindcasting-forecasting dilemma: University of Kansas, NSF IGERT Program, C-Change Colloquium Series, Kansas Union, April 20.

Mandel, R. — Soils and landscape evolution in the Great Plains during the past 12,000 years — An environmental perspective: Dyck Arboretum Lecture Series, Dyck Arboretum of the Plains, Hesston, Kansas, February 28.

Mandel, R. — The peopling of the central Great Plains — A geoarchaeological perspective: Missouri Archaeological Society 2009 Koch Lecture, Lake of the Ozarks Conference Center, April 4.

Newell, K. D. — Kansas coalbed methane comes of age: Talk given at luncheon meeting of the Society of Independent Professional Earth Scientists, Oklahoma City.

Smith, J. J. — Soil biota — Their role in pedogenesis and use in paleoenvironmental interpretation at the University of Kansas, Department of Geography, Guest Lecturer, November 2.

Sophocleous, M. — Invited presentation on the Lower Republican River valley and its prospects for aquifer storage and recovery: Lower Republican River Stakeholder Advisory Committee Meeting, Clay Center, Kansas, May 12.

Sophocleous, M. — Invited keynote speaker at the Workshop "El papel del agua subterranea en el funcionamiento de los humedales" International Association of Hydrogeologists — Spanish Chapter, Zaragoza, Spain, October 22–23.

Sophocleous, M. A., Townsend, M. A., Vocasek, F., Ma. L., and KC, A., 2009, Impact of treated wastewater for irrigation on nitrate accumulation and transport — Field monitoring and numerical simulations: 26th Annual Water and the Future of Kansas Conference, March 26, Topeka, Kansas.

Suchy, D. R. — Presented poster at national GSA meeting, October.

Suchy, D. R., Stewart, D. L., Adkins–Heljeson, D., and Wilson, B., 2009, Water well information as an impact assessment and management tool (abs.): 26th Annual Water and the Future of Kansas Conference, Topeka.

Watney, W. L. — Recent geological modeling at Hall–Gurney field, Russell, Kansas: TORP Enhanced Oil Recovery Conference, Wichita, April 1–2.

Watney, W. L. — Presented invited talk "Evaluating Structural Controls on Phanerozoic Strata in the Central U.S." to West Texas Geological Society, June 16.

Watney, W. L. — Presented invited talk "Evaluating Structural Controls on Phanerozoic Strata in the Central U.S.," at NextStep Oil and Gas Seminar, August 5–6, Hays, Kansas.

Watney, W. L. — Presented invited talk on "Geologic Carbon Sequestration Criteria and Potential in Kansas" in seminar for annual KIOGA meeting, August 17, Wichita.

Watney, W. L. — Presented invited talk on "Salt Deposit Dissolution in Kansas and Implications" to KDHE Annual Environmental Symposium, Proceedings, September 2, Wichita.

Watney, W. L. — Presented invited talk on "Evaluating Structural Controls on Phanerozoic Strata in the Central U.S.," to Tulsa Geological Society, October 27.

Watney, W. L., and Bhattacharya, S. — Made invited presentation "Review of CO_2 Sequestration Issues — New Research in Kansas" to Joint Session Energy Environmental Policy Committees, Kansas Legislature, October 28. Presentation distributed to committee.

Watney, W. L. — Made three invited presentations on "Structural geology of Kansas, Lansing-Kansas City, and the Mississippian," PTTC–Kansas Geological Society Seminar on the Petroleum Geology of Kansas, proceedings with full presentations, December 2–3.

Whittemore, D. O. — Water-quality effects of storm runoff into sand pits in Sedgwick County, Kansas at University of Kansas 59th Annual Environmental Engineering Conference, Lawrence.

Whittemore, D. O. — Ground-water models for water-resources planning and management in Kansas at Kansas State University, Department of Geology Seminar Series, November.

Wilson, B. — Presentations at Kansas Geological Mapping Advisory Committee, Kansas City Civic Council, Southwest Kansas GMD #1 Annual Meeting, Southwest Kansas GMD #3 Annual Meeting, Kansas Water Authority, Southwest Kansas GMD #3 Board Meeting, Kansas Rural Water Association Conference, and Water and the Future of Kansas Conference.

Wilson, B. B., Liu, G., Whittemore, D. O., and Butler, Jr., J. J., 2009, Ground-water model of the Smoky Hill River valley below Kanopolis Reservoir: Proceedings 26th Annual Water and Future of Kansas Conference, Topeka.

Xia, J., 2009, 1. High-frequency Rayleigh-wave method and 2. New developments in image of Rayleigh-wave dispersion energy and mode separation: The National Taiwan University of Science and Technology Department of Civil Engineering and Taiwan Geotechnical Society.

Xia, J., 2009, New developments in image of Rayleigh-wave dispersion energy and mode separation: Harbin Institute of Technology Shenzhen Graduate School.

Awards

Buchanan, R. C. — John K. Strickler Award for Excellence in Conservation and Environmental Education, Kansas Association for Conservation and Environmental Education, 2009

Butler, J. J. — Pioneers in Groundwater Award, American Society of Civil Engineers - Environmental and Water Resources Institute, 2009

Deputy, J. — KU Employee of the Month Award, June

Franseen, E. K. — Councilor of Sedimentology journal (2009–2012)

Mandel, R. — University of Kansas College of Liberal Arts and Sciences 2009 John C. Wright Graduate Mentor Award

Walters, S. — Best Paper at SAGEEP 2009, one of four authors selected

Xia, J. — Merriam Research Award, Kansas Geological Survey

Internal Service

Brookfield, A. — Courtesy Faculty, KU Department of Geology

Brookfield, A. — Serving on dissertation committee at KU for Department of Geology (Ph.D.) — Rubina Firdous

Buchanan, R. — Member of editorial board of KGS online journal Current Research in Earth Sciences, 1992–present

Butler, J. — University of Kansas - Student Advising - Postdoctorate Fellows: Wei Jin (2007-)

Butler, J. — Member, KGS Evaluation System Review Committee (2003-)

Butler, J. — Co-Chair, KGS Geohydrology Scientist Search Committees (2009)

Butler, J. — Member, University of Kansas Office of the Vice Provost for Research and Graduate Studies Promotion Committee (2009-)

Butler, J. — Member, University of Kansas Internal Review Committee, National Science Foundation Major Research Instrumentation Program Competition (2009)

Doveton, J. — KGS Workshop "The Crash Course in Log Analysis: An Excel Spreadsheet Workshop," March 20, Lawrence

Doveton, J. — Taught CPE 940 Data Analysis in Engineering and the Natural Sciences (with Geoff Bohling), Fall, at University of Kansas

Doveton, J. — Taught GEOL 536 Log Analysis of Subsurface Geology, Fall, at University of Kansas

Doveton, J. — Member of editorial board of KGS online journal Current Research in Earth Sciences, 1992–present
Dunham, J. — Adjunct professor, KU Department of Geography
Dunham, J. — Currently serving on thesis committee of Amber Reynolds, an advisee of Dr. Xingong Li, KU Department of Geography
Franseen, E. — Member of editorial board of KGS online journal Current Research in Earth Sciences, 1993–present
Franseen, E. — Instructor for KU course Geology 101
Franseen, E. — Supervised graduate student theses for KU students Zhaoqi Li, Anya Hess, Nicholas Welsh, Erin Young, Lindsay Walters Chris Lipinski, Justin Fairchild, and Rachel Dvoretsky
Killion, M. — Member of Student Awards Committee
Ludvigson, G. — Mentoring National Science Foundation Earth Sciences Postdoctoral Fellow — Bradley D. Cramer, Kansas Geological Survey/University of Kansas, (Ph.D. 2009 Ohio State University, M.R. Saltzman, advisor)
Ludvigson, G. — Mentored/advised two May 2010 Ph.D. graduates at University of Kansas — Marina B. Suarez, Ph.D. 2009, The University of Kansas, Perspectives on Global Climate Change in the mid-Cretaceous (Barremian-Albian), (American Geological Institute Graduate Minority Scholar; accepted Blaustein Postdoctoral Fellowship at Johns Hopkins University in 2009; accepted appointment as Assistant Professor at University of Texas San Antonio in 2010); Celina Suarez, Ph.D. 2010, The University of Kansas, Geochemical Approaches to the Study of Life and Death of Dinosaurs of the Early Cretaceous Cedar Mountain Formation, Utah (American Geological Institute Graduate Minority Scholar)
Ludvigson, G. — Co-Chairing Graduate Thesis Committees for three M.S. students at University of Kansas — Russell Hunter Harlow, pending, The University of Kansas, Paleoclimate Record of the Ogallala Formation in western Kansas; Mark A.Villareal, M.S. pending, The University of Kansas, Actualistic Calibration of the Sphaerosiderite Paleoclimate Proxy; J. Chad Lollar, M.S. pending, The University of Kansas, Probing a Paleoclimate Model-Data Misfit in Arctic Alaska from the Cretaceous Greenhouse World
Ludvigson, G. — Supervised M.S. candidate Emily Tremain, M.S. pending, The University of Kansas, Multiproxy paleoenvironmental and paleohydrologic reconstructions of the Albian Mussentuchit Member of the Cedar Mountain Formation, Utah
Mandel, R. — Member of faculty search committee, archaeology position, Department of Anthropology, 2009–2010
Mandel, R. — Currently serving on thesis and dissertation committees at the University of Kansas for the following students: Committee Member for Brendon Asher, Department of Anthropology (M.A.); Kale Bruner, Department of Anthropology (M.A.); Janice McLean, Department of Anthropology (M.A.); Ryan Johnson, Department of Anthropology (M.A.); David Unruh, Department of Anthropology (M.A.); Shannon Ryan, Department of Anthropology (Ph.D.); Emily Williams, Department of Anthropology (Ph.D.); Justin Gramarye, Biological Sciences (Ph.D.); and Lillian Rebellato, Department of Geography (Ph.D.). Advisor/Thesis Chair for Andrew Gottsfield, Department of Anthropology (M.A.); Laura Murphy, Department of Anthropology (M.A.); Arlo McKee, Department of Anthropology (M.A.); Patrick Green, Department of Anthropology (M.A.); Kristopher West, Department of Anthropology (M.A.); Nicholas Kessler, Department of Anthropology (M.A.); Daniel Keating, Department of Anthropology (M.A.). Advisor/Dissertation Chair for Ashley Zung, Department of Geography (Ph.D.) and Tim Griffith, Department of Anthropology (Ph.D.)
Miller, R. — Taught KU course: Geology 775, Near-surface Seismology
Miller, R. — Member of advisory board of KGS online journal Current Research in Earth Sciences, 1992–present
Miller, R. — KU thesis committees: Daniel Rice (M.S.) (chair); Lindsay Mayer (M.S.) (chair); Benjamin Rickards (co-chair); Craig Hendrix (chair); Tyler Schwenk (chair); and Zhen Li (chair)
Sawin, R. — KGS Stratigraphic Nomenclature Committee (Chair)
Smith, J. J. — Geologic Assistant Search Committee Member, 2009, Kansas Geological Survey
Sophocleous, M. — Member of advisory board of KGS online journal Current Research in Earth Sciences, September 1992–present
Sophocleous, M. — Geology 754, Contaminant Transport, Spring 2002–2009 (guest lecturer)

External Service

Brookfield, A. — Newsletter Editor, Geological Society of America, Hydrogeology Division (2009–)
Buchanan, R. — Geological Society of America, Geology and Public Policy Committee, Chair 2009–10; Public Service Award Committee, 2009–present
Butler, J. — Associate Editor, Hydrogeology Journal (2006–)

Butler, J. — Aquifer Testing for Improved Hydrogeologic Site Characterization Featuring Aqtesolv and the In-Situ LevelTroll (taught half of course), Fort Collins, CO, Sept. 22-23, 2009; Vancouver, British Columbia, March 10-11, 2009

Butler, J. — Advanced Aquifer Testing Analysis Featuring AQTESOLV: New Concepts, Field Methods, and Data Analysis Procedures (taught half of course), Boston, MA, April 28–30

Butler, J. — Novel Methods for Subsurface Characterization and Monitoring: From Theory to Practice - NovCare 2009**,** Leipzig, Germany, May, organizing committee member

Butler, J. — Slug Testing: Practical Guidelines for Improving Efficiency and Accuracy (sole instructor – Internet seminar), Midwest Geosciences Group, Nov. 18, 2009

Butler, J. — Appointed Member, Chair (2010), Darcy Task Force, National Ground Water Association (2008-2010)

Doveton, J. — PEICE "Introduction to Log Analysis," London, February 25–27

Doveton, J. — AAPG Midcontinent Meeting Short Course "Basic Log Analysis", October 11, Tulsa, Oklahoma

Franseen, E. — SEPM Council member

Franseen, E. — Associate Editor, Palaios (Journal of the Society for Sedimentary Research, SEPM), 2002–present

Franseen, E. — Session Chairman for session on Origin of Carbonate Breccia Systems — Multiphase Systems, Multi-time Events and Reservoir Quality, AAPG/SEPM Meeting, Denver, CO

Ivanov, J. — Taught course "Surface Waves are for Everyone" at SAGEEP (sponsored by EEGS), March 28, 2009

Killion, M. — Member of Technical Advisory Committee of the Kansas GIS Policy Board

Ludvigson, G. — Panelist for Fall Funding Cycle, U.S. National Science Foundation, EAR – Sedimentary Geology and Paleobiology Program, 2009

Ludvigson, G. — Associate Editor, Journal of Sedimentary Research; published by Society for Sedimentary Geology

Ludvigson, G. — Host & coordinator, KU Geology Colloquium presentation on Global Climate & Atmospheric Carbon Dioxide for the Past 65 Million Years (by Mark Pagani, Yale University), 2009

Ludvigson, G. — Member of dissertation committee for Peter J. Rose, Ph.D. pending. Department of Geology and Geophysics, University of Minnesota, Minneapolis

Macfarlane, P. A. — Advisory Board member for the Museum of the Earth's Teacher Friendly Guide to the Geology of the South-Central Region of the United States

Mandel, R. — Editorial board member for the Encyclopedia of Geoarchaeology. Springer Press, 2007–09

Mandel, R. — Associate Editor, Encyclopedia of Geoarchaeology*,* Springer Press, 2009–2010

Mandel, R. — Liaison between Geological Society of America and Society for American Archaeology, 1994–2009

Mandel, R. — Member of the U.S. National Committee for the International Union for Quaternary Research (INQUA), National Academies of Science

Mandel, R. — President of the American Quaternary Association (AMQUA), a 900-member organization, 2009–2010

Mandel, R. — Chair, Awards Committee, Geological Society of America's Archaeological Geology Division, 2009–2010

Miller, R. — SEG, special issue editor, The Leading Edge, October 2009, August 2010

Miller, R. — Co-convenor og workshop on Near-surface Seismology and GPR at SEG conference, Houston, TX, 2009

Miller, R. — SEG Foundation, Projects of Special Merit Committee, 2009–2011

Miller, R. — SEG Near-Surface Geophysics Section Publications Committee, Chairman, 2008-2009; Committee on Nominations, 2007-2009

Miller, R. — National Advisory Team for Geophysics in Hydrology, organized by the Consortium of Universities for the Advancement of Hydrologic Sciences Inc., 2006-present

Miller, R. — ASTM Geophysics Subcommittee on Seismic Standards, 2006-present

Miller, R. — Highway Geophysics Steering Committee, 2005-present

Miller, R. — Geophysical Society of Kansas, Editor, 2005-present

Miller, R. — SAGEEP EEGS Technical Session Chair, 2009

Miller, R. — SEG Editorial Board for The Leading Edge, 2004–2009; chairman, 2008–2009

Newell, K. D. — Member of KCC Oil and Gas Advisory Subcomittee

Sawin, R. — Member of Kansas State University Geology Advisory Council (1995–present)

Sawin, R. — Liaison between Kansas Earth Science Teachers Association and Kansas Geological Survey (1993–present)

Sophocleous, M. — Invited International Panel Reviewer of the Alberta Environment Groundwater Management Framework — Athabaska Oils Sands Region, 2009–2010

Sophocleous, M. — Editorial Advisor, Computers & Geosciences, January 1993–present
Sophocleous, M. — Assistant Editor, Natural Resources Research, January 1999–present
Suchy, D. — Created new WWC5 form for KDHE, and helped develop fillable PDF version for their website
Watney, W. L. — President, Kansas Geological Society and Library
Watney, W. L. — Member, Research Advisory Group for RPSEA (Research Partnership to Secure Energy for America)
Whittemore, D. O. — Geochemical identification of saltwater sources contaminating Kansas water resources for the Kansas Corporation Commission and the Kansas Department of Health and Environment for five sites in Barber, Dickinson, Harvey, McPherson, and Pawnee counties
Wilson, B. — Kansas Technical Advisory Committee and the DASC Sub-committee to the Kansas GIS Policy Board
Xia, J. — Reviewer for Geophysics, SEG publication–two manuscripts; Journal of Applied Geophysics–one manuscript; SEG Annual Meeting — three manuscripts; SEG/China Petroleum Society Meeting–four manuscripts
Xia, J. — Guest Editor, Journal of Earth Science, June Issue

2008

Refereed Publications

Bhattacharya, S., Byrnes, A. P., Watney, W. L., and Doveton, J. H., 2008, Flow-unit modeling and fine-scale predicted permeability validation in Atokan sandstones — Norcan East field, Kansas: American Association of Petroleum Geologists, Bulletin, v. 92, no. 6, p. 725–748.

Bhattacharya, S., Newell, K. D., Watney, W. L., and Sigel, M., 2008, A new micro-scale, low-cost nitrogen rejection plant can now upgrade low-BTU gas and improve marginal fields: E&P, v. 81, no. 8, p. 102–103.

Bohling, G. C., 2008, Information fusion in regularized inversion of tomographic pumping tests; *in*, Quantitative Information Fusion for Hydrological Sciences, X. Cai and T.-C. J. Yeh, eds.: Springer–Verlag, Berlin, p. 137–162.

Bohling, G. C., 2008, Review of "Petroleum Geostatistics" by Jef Caers: Computers & Geosciences, v. 34, no. 3, p. 299–300.

Buddemeier, R. W., Jokiel, P. L., Zimmerman, K. M., Lane, D. R., Carey, J. M., Bohling, G. C., and Martinich, J. A., 2008, A modeling tool to evaluate regional coral reef responses to changes in climate and ocean chemistry: Limnology and Oceanography–Methods, v. 6, p. 395–411.

Buddemeier, R. W., Smith, S. V., Swaney, D. P., Crossland, C. J., and Maxwell, B. A., 2008, Coastal typology: An integrative "neutral" technique for coastal zone characterization and analysis: Estuarine Coastal and Shelf Science, v. 77, issue 2, p. 197–205.

Butler, J. J., Jr., Zhan, X., and Zlotnik, V. A., 2008, Reply to Comment on “Pumping-induced drawdown and stream depletion in a leaky aquifer system”: Ground Water, v. 46, no. 4, p. 530–531.

Cooper, M. R., and Miller, R. D., 2008, Introduction to this special section — Near-surface geophysics: The Leading Edge, v. 27, no. 11, p. 1,423.

Cooper, M. R., and Miller, R. D., 2008, Introduction to this special section — Resolution: The Leading Edge, v. 27, no. 5, p. 635.

Dietrich, P., Butler, J. J., Jr., and K. Faiss, D., 2008, A rapid method for hydraulic profiling in unconsolidated formations: Ground Water, v. 46, no. 2, p. 323–328.

Doveton, J. H., 2008, Application of Markov mean first-passage time statistics to sedimentary successions — A Pennsylvanian case-study from the Illinois basin; *in*, Progress in Geomathematics, G. Bonham–Carter and Q. Cheng, eds.: Springer, p. 435–443.

Doveton, J. H., 2008, Enhanced formation evaluation based on forward-modelling of resistivity and porosity logs from flow-unit architecture simulations of carbonate and clastic reservoirs: SPWLA 49th Annual Logging Symposium Transactions, Paper NNN, 5 p.

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Young, D. P., Buddemeier, R. W., Butler, J. J., Jr., Jin, W., Whittemore, D. O., Reboulet, E., and Wilson, B. B., 2008, High Plains aquifer calibration monitoring well program — Year 2 progress report: Kansas Geological Survey, Open-File Report 2008–29, 54 p. http://www.kgs.ku.edu/Hydro/Publications/2008/OFR08_29/index.html

Computer Software

Bohling, G., and Doveton, J. — Small County–An Interactive Exercise in the Geological Exploration for Petroleum Reservoirs for students. www.kgs.ku.edu/Hydro/SmallCounty/

Gagnon, G. — A legal description to geographic coordinate conversion program for Kansas. http://www.kgs.ku.edu/software/LEO/

Killion, M. — Research New Map Viewer Technologies; Kansas Oil and Gas Map Viewer; Oil and Gas Wells Layer; Kansas Historical Resources Inventory Project (KHRI — completed on the DASC grant)

Wilson, B. — South-central Kansas Bedrock Enhancement (KAN44980)

Wilson, B. — Assist with the High Plains Aquifer Calibration Monitoring Well Program

Wilson, B. — Assist with work on the Southwest Kansas Groundwater Management District #3 Numerical Model

Wilson, B. — Customized ArcGIS tool set for water-right prioritization, allocation reductions, and safe yield targets for GMD#3

Wilson, B. — Matched and integrated data linkage between WIZARD and the KDA-DWR well network over the Ozark aquifer in south-east Kansas

Abstracts

Banz, B., Bohling, G. C., and Doveton, J. H., 2008, Small County — Development of a virtual environment for instruction in geological characterization of petroleum reservoirs: EOS Transactions of the American Geophysical Union, Fall Meeting Supplement, Abstract ED53A–0579.

Bhattacharya, S., Newell, K. D., and Carr, T. R., 2008, The economic interplay between CO_2 sequestration and enhanced CH_4 production from coal beds — Two scenarios from eastern Kansas (abs.): American Association of Petroleum Geologists, 2008 Annual Convention & Exhibition, San Antonio, TX, Abstracts Volume, p. 17.

Boardman, D. R., Puckette, J., and Watney, W. L., 2008, High resolution stratigraphy of the Upper Mississippian Caney Shale and biostratigraphic correlation with the Barnett Shale of the Fort Worth basin and Fayetteville Shale of Arkansas: Oklahoma Geological Survey, Oklahoma Gas Shales Conference, October 22, Oklahoma City, OK.

Bohling, G. C., Liu, G., and Butler, J. J., Jr., The direct-push permeameter for high-resolution characterization of spatial variations in hydraulic conductivity — Optimal zonation analysis (abs.): Eos, Transactions of the American Geophysical Union, v. 89, no. 53, Fall Meeting Supplement, Abstract H33H–08.

Brady, L. L., 2008, Industrial minerals — mines, quarries, and general resources in Kansas [abs.]: 44th Forum on the Geology of Industrial Minerals, Midwest City, OK, May 12, 2008, p. 4.

Buddemeier, R. W., 2008, Coral reef response to climate change — Addressing complex problems with a simple model (abs.): 11th International Coral Reef Symposium, Fort Lauderdale, FL; online abstract at http://www.nova.edu/ncri/11icrs/abstract_files/icrs2008-001681.pdf#zoom=100.

Butler, J. J., Jr., Jin, W., Mohammed, G. A., Kluitenberg, G. J., Whittemore, D. O., and Reboulet, E. C., 2008, Site characterization using well responses to natural stimuli — Examples from the Larned Research Site (abs.):

Eos, Transactions of the American Geophysical Union, v. 89, no. 53, Fall Meeting Supplement, Abstract H32A–01.
Butler, J. J., Jr., Kluitenberg, G. J., and Whittemore, D. O., 2008, What the heck is a phreatophyte? A field investigation of ecohydrologic processes in stream-aquifer systems (abs.): XXXVI International Association of Hydrogeologists Congress, Abstracts with Program, p. 313.
Dvoretsky, R. A., Franseen, E. K., Goldstein, R. H., and Byrnes, A. P., 2008, 3-D reservoir-analog characterization of focused-flow, deepwater carbonate deposits, Upper Miocene Agua Amarga basin, SE Spain: American Association of Petroleum Geologists, 2008 Annual Convention and Exhibition, Abstracts Volume, p. 51.
Fairchild, J. M., Franseen, E. K., and Goldstein, R. H., 2008, Subtle sea-level and paleotopographic controls on heterogeneity of an oolite-bearing system: American Association of Petroleum Geologists, 2008 Annual Convention and Exhibition, Abstracts Volume, p. 57.
Goldberg, P., and Mandel, R. D., 2008, Paleopedology of a multi-component Paleoindian site (Big Eddy) in southwest Missouri, USA: Joint Annual Meeting of the Geological Society of America and Soil Science Society of America, Houston, TX, October 2008.
González, L. A., and Ludvigson, G. A., 2008, Pedogenic siderite as a tool for reconstructing paleoprecipitation — A decade of research on ancient hydrologic cycles and a new research frontier for hydromorphic soil systems: Invited presentation for Pardee Keynote Symposium 2, Geological Society of America, Abstracts with Programs, v. 40, no. 6, p. 277.
Hasiotis, S. T., Counts, J. W., Kraus, M. J., and Smith, J. J., 2008, Revised ichnopedofabric indices that semiquantitatively analyzes the degree of pedogenic modification — Recognizing the effects of subaerial exposure on continental and marine deposits: Joint Meeting of The Geological Society of America, Soil Science Society of America, American Society of Agronomy, Crop Science Society of America, Gulf Coast Association of Geological Societies with the Gulf Coast Section of SEPM, Abstracts with Programs, v. 40, no. 6, p. 285.
Hasiotis, S. T., Fairchild, J., Wallace, T., Counts, J. W., Devlin, J. F., Hembree, D. I., and Smith, J. J., 2008, Field and laboratory studies on the effects of bioturbation on porosity and permeability in the vadose zone in continental settings — How ichnopedologic fabric shapes and modifies aquitards, aquicludes, aquifers, and tomorrow's reservoirs and seals: Joint Meeting of The Geological Society of America, Soil Science Society of America, American Society of Agronomy, Crop Science Society of America, Gulf Coast Association of Geological Societies with the Gulf Coast Section of SEPM, Abstracts with Programs, v. 40, no. 6, p. 440.
Hasiotis, S. T., Kraus, M. J., Smith, J. J., Platt, B. F., and Counts, J. W., 2008, Ichnopedologic fabric analysis — Developing a new method that incorporates ichnofabrics and pedofabrics in sedimentologic and stratigraphic analyses: American Association of Petroleum Geologists, Annual Convention, Abstracts Volume 17.
Ivanov, J., Miller, R. D., and Tsoflias, G. P., 2008, Some practical aspects of MASW analysis and processing [abs.]: Symposium on the Application of Geophysics to Engineering and Environmental Problems (SAGEEP 2008), Philadelphia, PA, April 6–10.
Ivanov, J., Tsoflias, G., Miller, R. D., and Xia, J., 2008, Practical aspects of MASW inversion using varying density: Symposium on the Application of Geophysics to Environmental and Engineering Problems (SAGEEP), Annual Meeting of the Environmental and Engineering Geophysical Society (EEGS), March 29–April 2, 2009, Fort Worth, TX, 1 p.
Kluitenberg, G. J., Jin, W., and Butler, J. J., Jr., 2008, Spatial variations in evapotranspiration-driven fluctuations in the water table in and near vegetated riparian zones (abs.): Abstract Interactive Index, Annual Meeting, Ecological Society of America [CD-ROM].
Kraus, M. J., Woody, D. T., Smith, J. J., and Hasiotis, S. T., 2008, Rapid paleoenvironmental change during the Paleocene–Eocene Thermal Maximum (PETM), Bighorn basin, WY: American Association of Petroleum Geologists, Annual Convention, Abstracts Volume 17.
Lane, J.W. Jr., Ivanov, J., Day–Lewis, F. D., Clemens, D., Patev, R., and Miller, R. D., 2008, Levee evaluation using MASW — Preliminary findings from the Citrus Lakefront Levee, New Orleans, Louisiana [abs.]: Symposium on the Application of Geophysics to Engineering and Environmental Problems (SAGEEP 2008), Philadelphia, Pennsylvania, April 6–10.
Lipinski, C. J., Goldstein, R. H., and Franseen, E. K., 2008, Paleotopographic controls on geometries and facies distribution in oolite-microbialite-reef sequences, Upper Miocene, SE Spain: American Association of Petroeum Geologists, 2008 Annual Convention and Exhibition Abstracts Volume, p. 122.

Liu, G., Bohling, G., Butler, J. J., Jr., and Dietrich, P., 2008, The direct-push permeameter for high-resolution characterization of spatial variations in hydraulic conductivity — Tool design (abs.): CUAHSI, Biennial Colloquium on Hydrologic Science and Engineering Abstracts and Program.

Liu, G., Bohling, G., Butler, J. J., Jr., Reboulet, E. C., and Dietrich, P., 2008, Modeling assessment of the direct-push permeameter for high-resolution characterization of spatial variations in hydraulic conductivity (abs.): 2008 North American Environmental Field Conference & Exposition, January 14–16, Tampa, FL.

Ludvigson, G. A., González, L. A., and Pagani, M., 2008, Stable isotope proxies for polar paleoprecipitation in ancient greenhouse worlds: Invited keynote presentation for Topical Session 10, Geological Society of America, Abstracts with Programs, v. 40, no. 6, p. 192.

Ludvigson, G. A., Smith, J. J., Macfarlane, P. A., Mandel, R. Haj, A. E., Murphy, L., and McKee, A., 2008, Evidence for a regionally persistent carbon isotopic chemostratigraphy in the Neogene High Plains succession of western Kansas: Geological Society of America, Abstracts with Programs, v. 40, no. 5, p. 24.

Luo, Y., Xia, J., Liu, J., Xu, Y., and Liu, Q., 2008, High resolution dispersive energy imaging by sparse radon transform: Symposium on the Application of Geophysics to Environmental and Engineering Problems (SAGEEP), Annual Meeting of the Environmental and Engineering Geophysical Society (EEGS), April 6–10, Philadelphia, PA, 1 p.

Luo, Y., Xia, J., Miller, R. D., Liu, J., Xu, Y., Liu, Q., 2008, Rayleigh-wave dispersive energy imaging by high-resolution linear Radon transform [abs.]: Symposium on the Application of Geophysics to Engineering and Environmental Problems (SAGEEP 2008), Philadelphia, PA, April 6–10.

Macfarlane, P. A., 2008, Helping students make the transition from novice learner of ground-water concepts to expert using the expanded Plume Busters software: Geological Society of America, Abstracts with Programs, v. 40, no. 5, p. 10.

Mandel, R. D., 2008, Alluvial paleosols and the Pleistocene-Holocene transition in the Central Great Plains, U.S.A.: Poster presented at the 20th Biennial Meeting of the American Quaternary Association, Penn State University, University Park, PA, June.

Mandel, R. D., 2008, Buried Paleoindian-age landscapes in stream valleys of the Central Plains, USA: 39th Binghamton Geomorphology Symposium, University of Texas at Austin, October.

Mandel, R. D., 2008, Paleoenvironments of buried alluvial soils representing Paleoindian-age landscapes in draws on the High Plains of western Kansas: Joint Annual Meeting of the Geological Society of America and Soil Science Society of America, Houston, TX, October.

Mayer, L. M., Miller, R. D., Ivanov, J., Weis, T., and Anderson, B., 2008, Near-surface seismic methods to enhance reflection events in high desert region [abs.]: Symposium on the Application of Geophysics to Engineering and Environmental Problems (SAGEEP 2008), Philadelphia, PA, April 6–10.

Miller, R. D., and Xia, J., 2008, High-resolution seismic reflection to image hydrogeologic sequences [exp. abs.]: Society of Exploration Geophysicists.

Miller, R. D., Xia, J., Henthorne, R., and Croxton, N., 2008, Seismic reflection characteristics of subsidence affecting transportation [abs.]: Fifth Highway Geophysics–NDE Conference Program, December 1–4, p. 67.

Miller, R. D., Walters, S. L., Xia, J., Luo, Y., Ivanov, J., and McKenna, J. R., 2008, Seismic tunnel detection using the full wavefield [abs.]: 2008 Meeting of the MSS Specialty Group on Battlefield Acoustic and Seismic Sensing, August 19–21.

Newell, K. D., and Merriam, D. F., 2008, The case of the barren basin — the Salina basin of Kansas (abs.): American Association of Petroleum Geologists, 2008 Annual Convention & Exhibition, San Antonio, TX, Abstracts Volume, p. 149.

Nissen, S. E., Doveton, J. H., and Watney, W. L., 2008, Petrophysical and geophysical characterization of karst in a Permian San Andres reservoir, Waddell field, West Texas (abs.): American Association of Petroleum Geologists, Convention Abstracts.

Salcedo, G. A., and Carr, T. R., 2008, Regional sequence stratigraphy and depositional environments of the Lower Pennsylvanian in southwest Kansas, (abs.); *in*, Morrow and Springer in the southern midcontinent, 2005 Symposium, R. D. Andrews, ed.: Oklahoma Geological Survey, Circular 111, p. 149.

Smith, J. J., Ludvigson, G. A., Macfarlane, P. A., Mandel, R., Haj, A., Murphy, L, and McKee, A., 2008, Carbon isotopic chemostratigraphy of Neogene strata in the High Plains succession of Kansas: Geological Society of America, Abstracts with Programs, v. 40, no. 6, p. 257–258.

Sophocleous, M. A., Townsend, M. A., Vocasek, F., and Ma, L., 2008, Treated wastewater and nitrate transport beneath irrigated fields — A Kansas water reuse project: 2008 Joint GSA-SSSA Annual Meeting, Abstracts with Programs, v. 40, no. 6, p. 50.

Suarez, M. B., González, L. A., Ludvigson, G. A., and You, H., 2008, Evidence of an intensified global hydrologic cycle during the Cretaceous from freshwater and pedogenic carbonates of Gansu Province, China: Society for the Advancement of Chicanos and Native Americans in Science, National Conference Abstracts, v. 5, p. XX.

Suarez, M. B., González, L. A., Ludvigson, G. A., and You, H., 2008, Stable carbon isotope chemostratigraphy of the fossil bird-bearing Early Cretaceous Xiagou Formation in Changma Basin, Gansu Province, China: Journal of Vertebrate Paleontology, v. 28, no. 3, p. 149A.

Tsoflias, G. P., Ivanov, J., Anandakrishnan, S., and Miller, R. D., 2007, Use of active source seismic surface waves in glaciology [abs.]: Symposium on the Application of Geophysics to Engineering and Environmental Problems (SAGEEP 2008), Philadelphia, PA, April 6–10.

Victorine, J., Doveton, J. H., Franseen, E. K., and Watney, W. L., 2008, Regional virtual subsurface geology — Development of subsurface information system (SIS) web-based tools for geological imaging and problem-solving in the U.S. midcontinent (abs.): American Association of Petroleum Geologists, Convention Abstracts, p. 206.

Watney, W. L., Boardman, D., Suneson, N., Puckette, J., Thompson, T., Franseen, E. K., Doveton, J., Victorine, J., Stalder, K., and Walton, R., 2008, Preliminary high-resolution stratigraphic analysis of the Caney and Woodford Shales in a continuous shallow corehole (Current #1) from the Lawrence uplift in Pontotoc County, Oklahoma: Oklahoma Gas Shales Conference, Oklahoma Geological Survey, October.

Watney, W. L., Franseen, E. K., Doveton, J. H., Thompson, T. L., Boardman, D. R., Rasbury, T., Newell, K. D., Victorine, J., Suneson, N., and Starbuck, E., 2008, High-resolution sequence stratigraphic and chronostratigraphic investigations of the lower shelf and basinal lithofacies of the Mississippian subsystem in the southern midcontinent, U.S.A. (abs.): American Association of Petroleum Geologists, 2008 Annual Convention & Exhibition, San Antonio, TX, Abstracts Volume, p. 212.

Whittemore, D. O., 2008, Effects of stormwater runoff into sand pits on ground-water quality in Sedgwick County, Kansas: Proceedings 17th Annual Kansas Hydrology Seminar, AIH & AEG, Topeka, KS.

Whittemore, D. O., 2008, Trace contaminants in surface water in sand pits and impact on ground-water quality of a midwest U.S. city: Geological Society of America, Abstracts with Program, v. 40, no. 6, p. 32.

Xia, J., Miller, R. D., and Xu, Y., 2008, Data resolution matrix and model resolution matrix of Rayleigh-wave inversion using a damped least-square method [abs.]: Symposium on the Application of Geophysics to Engineering and Environmental Problems (SAGEEP 2008), Philadelphia, PA, April 6–10.

Presentations

Adkins–Heljeson, M. — Presentation on KGS open-file and publication program to students of Dr. A. Walton (KU).

Battles, E. — Represented DASC at our public display booth and attended and made presentations at the following conferences: 2008 MAGIC Conference; Presentation: Importance of Administrative Boundaries; 2008 Kansas Association of Counties (KAC) Conference; Presentation: DASC Data Backup Initiative; 2008 Kansas Association of Mappers (KAM) Conference; Presentation: DASC Update; Presentation: Homeland Security.

Bohling, G. C., and Wilson, B. B., 2008, Preliminary analysis of 2008 western Kansas High Plains aquifer water levels: Proceedings 25th Annual Water and the Future of Kansas Conference, March 25, Topeka.

Brady, L. L., 2008, Industrial minerals — mines, quarries, and general resources in Kansas: 44th Forum on the Geology of Industrial Minerals, Midwest City, Oklahoma.

Buddemeier, R. W., Young, D. P., Whittemore, D. O., Wilson, B. B., and Reboulet, E. C., 2008, Index well monitoring for the High Plains aquifer in Kansas: 53rd Annual Midwest Ground Water Conference, Program with Abstracts, Iowa Geological and Water Survey, p. 65.

Buddemeier, R. W., Young, D. P., Wilson, B. B., Reboulet, E. C., and Whittemore, D. O., 2008, Enhanced water-level monitoring for enhanced Ogallala aquifer management: Proceedings 25th Annual Water and Future of Kansas Conference, Topeka.

Butler, J. J., Jr., 2008, What the heck is a phreatophyte — A field investigation of ecohydrologic processes in stream-aquifer systems, an invited presentation to the Department of Geological Sciences, University of South Carolina, Columbia, South Carolina, April 17.

Butler, J. J., Jr., Jin, W., Mohammed, G. A., Kluitenberg, G. J., Whittemore, D. O., and Reboulet, E. C., 2008, Site characterization using well responses to natural stimuli — Examples from the Larned Research Site: American Geophysical Union, December 17, invited presentation.

Charlton, J. — Program presenter at Second Annual Smoky Hill Trail Association, Salina, October.

Dealy, M. — Presentation on "Development of the Sumner Shallow Group Aquifer" to Division of Water Resources, Stafford Office.
Dealy, M. — Presentation on "Development of the Sumner Shallow Group Aquifer" to Kansas Department of Health and Environment, Fall technical session.
Dealy, M. — Presentation on "Kansas Groundwater Supplies and Groundwater Levels" to Regional Economic Area Partnership annual conference.
Dealy, M. — Presentation on "Groundwater Monitoring Needs In the Arkansas Valley Alluvial Aquifer" to Regional Economcic Area Partnership - Water Resources Committee.
Dunham, J. — GIS conversion of Kansas historical county geology maps (co-author Darren J. Haag.), ESRI International User Conference, San Diego, California, August 7.
Dunham, J. — A new surficial geology map of Kansas. Poster presentation, 11th Biennial MidAmerica GIS Symposium, MidAmerica GIS Consortium (MAGIC), Kansas City, Missouri, April 22.
Dunham, J. — Surficial geology of the Tallgrass Prairie National Preserve, Chase County, Kansas. Map Gallery (poster) presentation, ESRI International User Conference, San Diego, California, August 4.
Franseen, E. — Miocene–Pliocene Carbonate Complexes in SE Spain Research Program, Shell Oil Company, Houston, Texas, November 18.
Franseen, E. — Invited session chair, Carbonate-dominated Deep-water Depositional Systems, 2008 AAPG/SEPM Meeting, San Antonio, Texas.
Franseen, E. — Invited co-convener, NSF Workshop — Community Sedimentary Model Science Plan for Carbonate Systems, February 2008, Golden, Colorado.
Look, K. K., Watney, L., and Radford, R., 2008, The Kansas model — From the KCC to the Survey to the Society: 4th Annual Energy Resource Libraries Conference and Workshop in Wichita, Kansas.
Ludvigson, G. A., Geologic studies in the High Plains of western Kansas: School Assembly at Rock Hills Middle School, Burr Oak, Kansas, February 20.
Ludvigson, G. A., Kansas participation in the Statemap program: Kansas Geological Survey Advisory Council, Lawrence, Kansas, November 13.
Ludvigson, G. A., Stratigraphic Research program on sediments of the High Plains qquifer in Kansas: Brownbag Professional Development Lecture, Kansas Water Office, Topeka, Kansas, July 22.
Macfarlane, P. A., Assessment of seasonal, pumping-induced water quality changes in the Ozark Plateaus aquifer system: 53rd Annual Midwest Ground Water Conference, Program with Abstracts, p. 44.
Mandel, R., Geoarchaeology of *Ais Yorkes*, a pre-Pottery Neolithic village in southern Cyprus: Explorations in Archaeology Lecture Series, University of Kansas, Lawrence, November 21.
Mandel, R., Geology, geomorphology, and Late Quaternary paleoenvironments of the Kansas Flint Hills: U.S. Department of Agriculture, Natural Resources Conservation Service, 2008 North Central Regional Work Planning Conference, Kansas State University, Manhattan, June 23.
Mandel, R., Stratigraphy, paleoenvironments, and Paleoindian geoarchaeology of Late Quaternary valley fills in the Central Plains of North America: National Science Foundation, IGERT Lecture Series in Archaeological Sciences, University of Arizona, Tucson, April 25.
Miller, R. D., 4th Annual Border Management Summit, Bethesda, Maryland, October.
Miller, R. D., Military Sensing Symposium (MSS), Battlespace Acoustic & Seismic, Magnetic & Electric Fields, August.
Miller, R. D., University of Oklahoma, College of Earth and Energy, GeoSeminar, September.
Miller, R. D., University of Kansas, Department of Geology Seminar, September.
Miller, R. D., Walters, S. L., Xia, J., Ivanov, J., and McKenna, J. R., 2008, Seismic tunnel detection using the full wavefield: Proceedings of the 2008 Meeting of the MSS Specialty Group on Battlefield Acoustic and Seismic Sensing, August 19–21, Laurel, Maryland, 17 p. Published on CD.
Miller, R. D., Xia, J., Henthorne, R., and Croxton, N., 2008, Seismic reflection characteristics of subsidence affecting transportation: Fifth Highway Geophysics–NDE Conference, December 1–4, Program, p. 67.
Newell, K. D., 2008, Case studies on feasibility of carbon sequestration in Kansas coal beds: talk presented at UIC State Representatives Meeting, Kansas City, Kansas, April 10.
Newell, K. D., 2008, Kansas coalbed methane: talk given to legislature interiim committee on energy production, Topeka, Kansas, August 20.
Newell, K. D., 2008, Kansas coalbed methane comes of age: talk given at annual meeting of the Eastern Kansas Oil and Gas Association, Chanute, Kansas, September 11.
Newell, K. D., 2008, Kansas coalbed methane: talk given to Kansas Geological Society, Wichita, Kansas, October 28.

Newell, K. D., 2008, Coalbed gas in eastern Kansas: lecture presented at Emporia State University environmental geology class, Emporia, Kansas, November 10.

Smith, J., Chemostratigraphic, paleopedologic, and paleobiologic response to climate change — Two case studies in terrestrial Cenozoic deposits, Kansas Geological Survey, November 4.

Sophocleous, M. A., Invited keynote speaker at the Workshop on Quantifying Aquifer-River Fluxes — Modelling for Processes and Management, University of Sheffield, Sheffield, United Kingdom, March 12–13.

Sophocleous, M. A., Invited keynote speaker at the "Capacity Building of a China Groundwater Information Center" Final Project Conference, China Institute for Geo-Environmental Monitoring, Beijing, China, October 27–29.

Sophocleous, M. A., Invited keynote speaker at the XV Brazilian Groundwater Congress, Natal, Brazil, November 10–14.

Sophocleous, M. A., Invited "California Water Colloquium" speaker, University of California–Berkeley, November 18.

Sophocleous, M. A., Environmental flows — A call to action for hydrogeologists as well. NERC Hyporheic Network & Groundwater Modellers' Forum Workshop, March 12–13. http://www.hyporheic.net/Sophocleous_Sheffield-EFs_2008slides.pdf

Sophocleous, M. A., 2008, Groundwater sustainability and its application in Kansas. California Colloquium on Water, University of California–Berkeley, November 18. Streaming video of this lecture as well as Powerpoint slides are available from the University of California–Berkeley Water Resources Center Archives at http://www.lib.berkeley.edu/WRCA/ccow.html

Sophocleous, M. A., Townsend, M. A., and Vocasek, F., Minimizing the adverse effects of water reuse for crop irrigation near Dodge City, Kansas: 25th Annual Water and the Future of Kansas Conference, March 25, Topeka, Kansas, p. 14.

Sophocleous, M. A., Townsend, M. A., Vocasek, F., Ma, L., and KC, A., Field testing and modeling the effects of treated wastewater for crop irrigation near Dodge City, KS — Minimizing the nitrogen adverse effects: North Central Regional Work Planning Conference, NRCS, Manhattan, KS, June 23–26. ftp://ftp-fc.sc.egov.usda.gov/NSSC/NCSS/Conferences/regional/2008/North_Central/sophocleus.pdf

Townsend, M. A., Sophocleous, M. A., Macko, S. A., Ghijsen, R., and Schuette, D., Effects of macropore flow and seasonal variability on water quality at a wastewater-recharge site: 25th Annual Water and the Future of Kansas Conference, March 25, Topeka, Kansas, p. 15.

Townsend, M. A., Sophocleous, M. A., Macko, S. A., Ghijsen, R., and Schuette, D., 2008, Use of nitrogen-15 and boron, bromide, and chloride concentrations as tracers to identify mixing and seasonal variability of water quality at a wastewater-recharge site, Dodge City, Kansas: 53rd Annual Midwest Ground Water Conference, Dubuque, Iowa, September 29–October 2.

Wilson, B. B., Presentations at Winfield Solutions Fall Conference**,** Kansas Water Congress Summer Conference**,** Governor's Natural Resources Subcabinet**,** Southwest Kansas GMD #1 Board Meeting**,** KU GEOG 558 Intermediate Geographic Information Systems Class**,** Kansas GMD Association Annual Meeting**,** Smoky Hill River Valley's Irrigators and Water Users Information Meeting, Smoky Hill–Saline Basin Advisory Committee, KGS Legislative Field Conference, Kansas Rural Water Association Conference, and Water and the Future of Kansas Conference.

Xia, J. — High-frequency Rayleigh-wave method: Kansas State University Department of Geology, December 4.

Xia, J. — EAGE Near Surface 2008, Krakow, Poland, September 15.

Awards

Bohling, G. — Editors' Citation for Excellence in Refereeing for Water Resources Research

Buchanan, R. — Fellow, Geological Society of America

Butler, J. — Appointed Member, Darcy Task Force, National Ground Water Association (2008–)

Butler, J. — Editors' Citation for Excellence in Refereeing for Water Resources Research

Miller, R. — Merriam Research Award, KGS

Miller, R. — Project of Merit Award, SEG Foundation, 2008

Miller, R. — Research Achievement Award, University of Kansas

Walters, S. — Gerhard Field Excellence Award, KGS student award

Wilson, B. — KU Unclassified Employee of the Month (July)

Xia, J. — The Harold Mooney Award, Near-Surface Geophysics Section of the Society of Exploration Geophysicists, 2008

Xia, J. — Selected Best Paper at SAGEEP, the Environmental and Engineering Geophysical Society Annual Meeting, 2008

Internal Service

Adkins–Heljeson, M. — Member of KGS search committee for Exploration Services research assistant
Battles, E. — Created a series of custom maps for week long annual tour sponsored by the University of Kansas Chancellor's office. The maps were titled “Wheat State Whirlwind: A Tour of the Heartland for KU Faculty”
Buchanan, R. — University of Kansas, Strategic Planning Committee, 2008; Unclassified Academic Staff Representative, Task Force on the Handbook for Faculty and Other Unclassified Staff, 2008–
Butler, J. — University of Kansas - Student Advising, Postdoctorate Fellow — Wei Jin (2007–)
Butler, J. — Chair, KGS Geohydrology Scientist Search Committee
Butler, J. — Chair, KGS Promotion and Review Committee
Butler, J. — Member, KGS Stratigraphic Research Assistant Scientist Search Committee
Butler, J. — Member, KGS Promotion and Review Committee
Doveton, J. — KGS Workshop “The Crash Course in Log Analysis — An Excel Spreadsheet Workshop,” April 18, Lawrence
Doveton, J. — C&PE 528 Well Logging workshop
Franseen, E. — Member, Five-year Review Committee for Tertiary Oil Recovery Program, KU
Franseen, E. — Instructor for KU course Geology 791; co-instructor of KU course Geology 761
Franseen, E. — Co-leader of a 10-day field trip for University of Kansas and University of Puerto Rico–Mayaguez geology graduate and undergraduate students to Miocene–Pliocene carbonate complexes, Spain
Killion, M. — Search committee member for an open position in Cartographic Services
Ludvigson, G. — StateMap Program Coordinator
Mandel, R. — Advisor and committee chair for the senior honors thesis for Kyle Gorynski, KU Department of Geology
Mandel, R. — Advisor and committee chair for the Master’s thesis for Laura R. Murphy, KU Department of Anthropology
Mandel, R. — Served on dissertation committee for Mark Zlojutro, KU Department of Anthropology
Mandel, R. — Member of KU faculty search committee, archaeology position
Mandel, R. — Departmental Representative, KU’s 2008 United Way Campaign
Mandel, R. — Member of KU faculty committee for selecting speakers, Carroll Clark Lecture Series
Mandel, R. — Member of search committee for hiring geologic sample Research Technician, a joint position shared by the Kansas Geological Survey and the KU Department of Geology
Miller, R. — KU RGS Research Achievement Award Selection Committee
Miller, R. — KU RGS TORP Five-year Review Committee
Miller, R. — Taught KU course GEOL 775, Near-surface Seismology
Miller, R. — Chair of KU thesis committee for M.S. student Shelby Walters
Nelson, K. — University of Kansas Geography & Atmospheric Science Alumni Board, 2008–present
Newell, K. D. — Merriam International Travel Awards Committee member
Newell, K. D. — Member of search committee for Analytical Chemist, KGS
Newell, K. D. — Member of search committee for Energy Research geoscientist
Newell, K. D. — Chair of Students Awards Committee
Sophocleous, M. — Co-chair of KGS search committee for Water Cycle Geohydrology position (2008–)
Sophocleous, M. — Taught KU course Geology 754, Contaminant Transport, Spring 2004, 2005, 2006, 2007, 2008 (guest lecturer)
Sophocleous, M. — Supervised M.S. thesis for Ashok, KC, Department of Civil, Environmental, and Architectural Engineering, KU
Suchy, D. — Chaired committee to promote KGS proposal to KDHE to develop and maintain online process for submitting water well completion forms; chaired meeting between KDHE representatives and KGS staff; served as KGS contact with KDHE and as term negotiator
Xia, J. — Member, KGS Research Advisory Group, 2008–09

External Service

Battles, E. — Created series of statewide Initiatives status maps for the KAC conference
Battles, E. — *FGDC/USGS/MAGIC Metadata Creation and Updating Workshop Grant*
Report Kansas (DASC) metadata status for regional analysis
Helped design and present curriculum for full day metadata workshop presentations and materials
Presentations: Metadata triage – Columbia, MO & Manhattan, KS
Battles, E. — *Homeland Security/Local Government Data Coordinator/DASC Initiatives*
DASC off-site GIS data backup & Kansas GIS Inventory Initiative
Visit numerous local government offices to promote Homeland Security grants
Presentation: Regional Homeland Security & DASC Data Backup
Participate in MVP (Most Valuable Professional) sub-regional meetings
Presentation: GAP Analysis
Buchanan, R. — Association of American State Geologists, Governmental Affairs and Liaison Committee, 2008–09
Buchanan, R. — Midwestern Governors Association, Renewable Electricity, Advanced Coal with Carbon Capture and Storage Advisory Group, 2008–present
Butler, J. — Taught half of course 'Advanced Aquifer Testing Analysis Featuring AQTESOLV: New Concepts, Field Methods, and Data Analysis Procedures', St. Johns River Water Management District, FL, June 23–25; University of Texas at San Antonio, Texas, February 27–29
Butler, J. — Analysis of Pumping Tests with AQTESOLV (sole instructor), Division of Water Resources, Kansas Department of Agriculture, Topeka, Kansas, June 20
Butler, J. — Aquifer Testing for Improved Hydrogeologic Site Characterization Featuring AQTESOLV and the In-Situ LevelTroll (taught half of course), Fort Collins, Colorado, Oct. 21–22; Waterloo, Ontario, February 19–20.
Butler, J. — Associate Editor–Hydrogeology Journal (2006–)
Butler, J. — John Keller doctoral dissertation, Department of Geology, Southern Illinois University (2007–)
Butler, J. — Promotion and Tenure Evaluator — Department of Earth Sciences, University of Memphis
Doveton, J. — EREX Short Course on 'Petrophysical Log Analysis,' February 24–28; Cairo and Hurghada, Egypt
Doveton, J. — PEICE 'Introduction to Log Analysis,' October 14 –16, Calgary, Canada: October 29–31; Houston: November 10–12
Doveton, J. — P.T. Geoservices 'Reservoir Petrophysical Log Analysis,' June 16–20, Bali, Indonesia
Doveton, J. — Rocky Mountain PTTC Short Course 'Crash Course in Log Analysis — An Excel Spreadsheet Workshop,' April 4, Colorado School of Mines, Golden, Colorado
Doveton, J. — Schlumberger NexT 'Applied Formation Evaluation,' July 2–August 1, ELC, Melun, France
Doveton, J. — Tulsa Geological Society E-Cubed Second Annual Education Week: 'The Crash Course in Log Analysis — An Excel Spreadsheet Workshop,' February 20, Tulsa, Oklahoma
Dunham, J. — 'New statewide geology map,' Geological Survey Advisory Council semiannual meeting, Lawrence, KS, March 4
Franseen, E. — Chair, SEPM Headquarters and Business Committee, 2008–present
Franseen, E. — Session Chairman for Session on Carbonate-dominated Deep-water Depositional Systems, AAPG/SEPM Annual Meeting, San Antonio, Texas
Franseen, E. — Instructor and field trip leader, ExxonMobil, Fundamental Controls on Flow in Carbonates Course, Almeria, Spain
Franseen, E. — Co-instructor for AAPG Education Program: 'Controls on Porosity Types and Distribution in Carbonate Reservoirs,' Almeria, Spain
Franseen, E. — Co-field trip leader, StatoilHydro, Miocene–Pliocene Carbonate Complexes of Southeastern Spain
Franseen, E. — Co-field trip leader, SaudiAramco, Miocene–Pliocene Carbonate Complexes of Southeastern Spain
Franseen, E. — Co-convener and organizer, NSF Workshop–Community Sedimentary Model Science Plan for Carbonate Systems, Golden, Colorado
Killion, M. — Served on the Technical Advisory Committee of the Kansas GIS Policy Board
Ludvigson, G. — Associate Editor, Journal of Sedimentary Research; published by Society for Sedimentary Geology
Macfarlane, A., Townsend, M. A., and Schulmeister, M., Inquiry-based ground-water science instructional materials for middle and high school science teachers, workshop (October 28). http://kats.org/uploads/resources/SMARTT_2008_program_final_28_October.pdf
Macfarlane, A. — Fun Hands-on Plate Tectonics Activities for Middle-school and Junior-high Science, at Kansas Association of Teachers of Science Camp, Rock Springs Ranch, April

Macfarlane, A. — KU Environmental Science Academy, Schlagle Library, Wyandotte County Park, Kansas City, Kansas, 2008–09

Macfarlane, A. — Vice President, Central Section, National Association of Geoscience Teachers, 2008–09

Mandel, R. — Chair, Awards Committee, Geological Society of America's Archaeological Geology Division, 2008–2009

Mandel, R. — Co-organizer and co-chair of a topical session, "Soils as Components of Archaeological Landscapes," Annual Meeting of the Geological Society of America, Houston, Texas, October 6

Mandel, R. — Co-organizer and co-chair of a topical session, "The Application of Geologic and Pedologic Methods and Theories in Determining the Origin of Mima Mounds and Similar Anomalies," Annual Meeting of the Geological Society of America, Houston, Texas, October 5

Mandel, R. — Elected President of the American Quaternary Association (AMQUA), a 900-member organization, 2008–2010

Mandel, R. — Guest speaker, "Geology, Geomorphology, and Late-Quaternary Paleoenvironments of the Flint Hills." North Central Region Work Planning Conference, U.S. Department of Agriculture, Natural Resources Conservation Service, Kansas State University, Manhattan, Kansas, June 23

Mandel, R. — Organizer and trip leader, "Geoarchaeology of the Claussen Site (14WB322)," 64th Annual Plains Anthropological Conference, November 8

Mandel, R. — Organizer and co-leader of field trip, "The Origin of the Sandy Mantle and Mima Mounds of the East Texas Gulf Coastal Plain: Geomorphological, Pedological, and Geoarchaeological Perspectives," Annual Meeting of the Geological Society of America, Houston, Texas, October 4

Mandel, R. — Reviewer for the National Science Foundation's Paleo Perspectives on Climate Change Program

Mandel, R. — Taught a two-day geoarchaeology class for the Kansas Anthropological Association's Training Program, Pawnee Indian Village State Historic Site, Kansas, June 12–13

Miller, R. — Highway Geophysics Session Moderator

Miller, R. — SEG Near-Surface Geophysics Section Publications Committee, Chairman, 2008–09

Miller, R. — SEG, Publications Policy Board

Miller, R. — SEG, Special Issue Editor, The Leading Edge: January (v. 27, no. 1), mining geophysics; May (v. 27, no. 5), resolution limits; November (v. 27, no. 11), near surface

Miller, R. — SEG, Kansas Representative at General Assembly

Nelson, K. — Member of National States Geographic Information Council (NSGIC) Parcel Work Group, 2008–present

Newell, K. — Energy Minerals Division Midcontinent Section Advisor, American Association of Petroleum Geologists, 2008–10

Smith, J. — Co-chaired theme session on "Neontological Solutions to Paleontological Problems: Actualistic Studies of the Morphology, Behavior, and Ecology of Modern Analogs for Ancient Organisms" with Daniel Hembree and Brian Platt for the Annual Meeting of the Geological Society of America

Sophocleous, M. — Invited Reviewer of Expert Panel Report on sustainable management of Canada's groundwater resources, Council of Canadian Academies

Suchy, D. — Invited to advise KDHE on makeup of new WWC5 forms, especially in regard to the section on GPS coordinates; coordinated efforts between KGS and KDHE to further their utilization of and reliance on our online WWC5 water well database; coordinated improvements of specialized search pages for KDHE

Suchy, D. — Accepted responsibility as KGS member of international "LAS Committee," which develops worldwide standards for LAS files (i.e., digital e-logs); negotiated acquisition of "LAS Certify" program source code from LAS Committee

Suchy, D. — Helped review Kansas Response Plan for Kansas Division of Emergency Management; served as first contact at KGS for State emergency management

Suchy, D. — Served at Osage County Multi-Hazard Mitigation Plan kick-off meeting and advised on final plan; also advised on Kiowa County Multi-Hazard Plan

Watney, L. — President-elect, Kansas Geological Society and Library

Walters, S. — Publications reviewer for the Journal of the University of China Geosciences, Geophysical Prospecting, and Transactions on Geoscience and Remote Sensing

Wilson, B. — Member of Kansas Technical Advisory Committee and the DASC Sub-committee to the Kansas GIS Policy Board

Xia, J. — Associate Editor, Near Surface Geophysics (an EAGE Journal), 2008-2009

Xia, J. — Guest Editor, Near Surface Geophysics (EAGE), 2008

Xia, J. — Co-Chair, The 1st , 2nd and 3rd International Conference on Environmental and Engineering Geophysics (ICEEG), Wuhan, China, 2004, 2006, and 2008

Xia, J. — Session Chairman, Symposium on the Application of Geophysics to Environmental and Engineering Problems (SAGEEP), Annual Meeting of the Environmental and Engineering Geophysical Society (EEGS), April 6-10, 2008, Philadelphia, Pennsylvania

Xia, J. — Editor (Xu, Y., Xia, J., and Chen, C.), Near-Surface Geophysics and Human Activity: Proceedings of the 3rd International Conference on Environmental and Engineering Geophysics (ICEEG), June 15–20, Wuhan, China, Science Press USA Inc. 653 p.

2007

Refereed Publications

Bohling, G. C., 2007, Review of "Parameter Estimation and Inverse Problems" by Aster, Borchers, and Thurber: Computers & Geosciences, v. 33, no. 7, p. 987–988.

Bohling, G. C., Butler, J. J., Jr., Zhan, X., and M. D. Knoll, M. D., 2007, A field assessment of the value of steady-shape hydraulic tomography for characterization of aquifer heterogeneities: Water Resources Research, v. 43, W05430, p. 1–23.

Buchanan, R. C., Geology; *in*, The American Midwest — An Interpretive Encyclopedia, R. Sisson et al., eds.: Indiana University Press, 2007, p. 133–135.

Butler, J. J., Jr., Dietrich, P., Wittig, V., and Christy, T., 2007, Characterizing hydraulic conductivity with the direct-push permeameter: Ground Water, v. 45, no. 4, p. 409–419.

Butler, J. J., Jr., Kluitenberg, G. J., Whittemore, D. O., Loheide, S. P., II, Jin, W., Billinger, M. A., and Zhan, X., 2007, A field investigation of phreatophyte-induced fluctuations in the water table: Water Resources Research, v. 43.

Butler, J. J., Jr., Zhan, X., and Zlotnik, V. A., 2007, Pumping-induced drawdown and stream depletion in a leaky aquifer system: Ground Water, v. 45, no. 2, p. 178–186.

Butler, J. J., Jr., Zlotnik, V. A., and M-S. Tsou, M-S., 2007, Reply to Comment on "Drawdown and stream depletion produced by pumping in the vicinity of a partially penetrating stream": Ground Water, v. 44, no. 2, p. 143.

Carr, T. R., Rich, P. M., and Bartley, J. D., 2007, The NatCarb Geoportal — Linking distributed data from the carbon sequestration regional partnerships: Journal of Map and Geography Libraries (Geoscapes), Special Issue on Department of Energy (DOE) Geospatial Science Innovations.

Doveton, J. H., 2007, Borehole petrophysical geology in a university curriculum: SPWLA 48th Annual Logging Symposium Transactions, Paper NN, 5 p. Reprinted in CWLS Insight Magazine, v. 26, no. 3, p. 10–15.

Dubois, M. K., Bohling, G. C., and Chakrabarti, S., 2007, Comparison of four approaches to a rock facies classification problem: Computers & Geosciences, v. 33, no. 5, p. 599–617.

Franseen, E. K., Byrnes, A. P., Xia, J., and Miller, R. D., 2007, Improving resolution and understanding controls on GPR response in carbonate strata — Implications for attribute analysis: The Leading Edge, v. 26, no. 8, p. 984–993.

Hajic, E. R., Mandel, R. D., Ray, J. H., and Lopinot, N. H., 2007, Geoarchaeology of stratified Paleoindian deposits at the Big Eddy site, southwestern Missouri: Geoarchaeology: An International Journal, v. 22, p. 891–934.

Harbaugh, J. W., Merriam, D. F., and Howard, H. H., 2007, Reconstructing Late Cenozoic stream gradients from high-level chert gravels in central eastern Kansas; in, Current Research in Earth Sciences: Kansas Geological Survey, Bulletin 253, pt. 2. http://www.kgs.ku.edu/Current/2007/Harbaugh/index.html

Hock, S., Ivanov, J., and Miller, R. D., 2007, Test for detecting an impermeable water barrier in an earth-fill dam in Austria using MASW method: Symposium on the Application of Geophysics to Engineering and Environmental Problems (SAGEEP 2007), Denver, Colorado, April 1–5, p. 621–628.

Hoth, P., Carr, T. R., Wilke, N. A., and Bau, M., 2007, Geochemical signatures of exposure surfaces and paleowater tables in a shallow marine Paleozoic carbonate sequence; midcontinent region, USA: Sedimentology.

Ivanov, J., and Corwin, R. F., 2007, Condition assessment of levees, U.S. Section of the International Boundary and Water Commission, Report 5, Flood simulation study of Retamal Levee, lower Rio Grande valley, Texas, using seismic and electrical geophysical methods: U.S. Army Corps of Engineers, Engineer Research and Development Center Report ERDC TR–03–4, 100 p. + 7 appendices.

Ivanov, J., Miller, R. D., Dunbar, J. B., Lane, J. W., and Ballard, R. F., 2007, Interrogating levees in Texas, New Mexico, and New Orleans using various seismic methods: Symposium on the Application of Geophysics to Engineering and Environmental Problems (SAGEEP 2007), Denver, Colorado, April 1–5, p. 69–81.

Ivanov, J., Miller, R. D., Xia, J., and Dunbar, J. B., 2007, Applications of the JARS method to study levee sites in southern Texas and southern New Mexico [exp. abs.]: Annual Meeting of the Society of Exploration Geophysicists, San Francisco, California, September 23–28, p. 1,725–1,729.

Liu, G., Lu, Z., and Zhang, D., 2007, Stochastic uncertainty analysis for solute transport in randomly heterogeneous media using a Karhuen–Loeve-based moment equation approach: Water Resources Research, v. 43, no. 7.

Liu, G., Zheng, C. M., and Gorelick, S. M., 2007, Evaluation of the appliciability of the dual-domain mass transfer model in porous media containing connectedhigh-conductivity channels: Water Resources Research, v. 43, no. 12, p. 10.

Liu, J., Xia, J., Luo, Y., Chen, C., Li, X., and Huang, Y., 2007, Wave field features of shallow vertical discontinuity and their application in non-destructive detection: Journal of Applied Geophysics, v. 62, no. 3, p. 270–280.
Luo, Y., Xia, J., Liu, J., Liu, Q., and Xu, S., 2007, Joint inversion of high-frequency surface waves with fundamental and higher modes: Journal of Applied Geophysics, v. 62, no. 4, p. 375–384.
Macfarlane, P. A., and Wilson, B. B., 2006, Enhancement of the bedrock-surface-elevation map beneath the High Plains aquifer, western Kansas: Kansas Geological Survey, Technical Series 20, 28 p.
Mandel, R. D., 2007, Review of 'Geoarchaeology: The Earth Science Approach to Archaeological Interpretation,' by George (Rip) Rapp and C. L. Hill, 2006, Yale University Press, New Haven: Plains Anthropologist, v. 52, no. 202, p. 248–249.
Mandel, R. D., 2007, Review of 'Soils in Archaeological Research,' by V. T. Holliday, 2004, Oxford University Press, New York: Great Plains Research, v. 17, p. 119.
Mandel, R. D., Jacob, J. S., and Nordt, L. C., 2007, Geoarchaeology of the Richard Beene site; *in*, Archaeological and Paleoecological Investigations at the Richard Beene Site (41BX831), South Central Texas, A. V. Thoms and R. D. Mandel, eds.: Center for Ecological Archaeology, Texas A&M University, College Station, Texas, p. 27–60.
McCauley, J. R., 2007, Geologic map of Barber County, Kansas: Kansas Geological Survey, Map M–106, 1:50,000.
Merriam, D. F., Newell, K. D., Doveton, J. H., Magnuson, L. M., Lollar, B. S., and Waggoner, W. M., 2007, Northeast Kansas well tests oil, gas possibilities in Precambrian rocks: Oil & Gas Journal, September 17, p. 54–58.
Miller, R. D., and Hill, S., 2007, Introduction to this special section — The lower 48: The Leading Edge, v. 26, no. 2, p. 159.
Miller, R. D., and Liner, C., 2007, Introduction to this special section — Near surface/seismic to radar: The Leading Edge, v. 26, no. 8, p. 983.
Miller, R. D., Markiewicz, R. D., Rademacker, T. R., Hopkins, R., Rawcliffe, R. J., and Paquin, J., 2007, Advantages of wet work for near-surface seismic reflection [exp. abs.]: Annual Meeting of the Society of Exploration Geophysicists, San Francisco, California, September 23–28, p. 1,147–1,151.
Miller, R. D., Markiewicz, R. D., Block, L. A., Hartung, S., Hancock, W. E., Ivanov, J., and Xia, J., 2007, Seismic reflection — Upstream, downstream, and on earthen dams and dikes: Symposium on the Application of Geophysics to Engineering and Environmental Problems (SAGEEP 2007), Denver, Colorado, April 1–5, p. 861–870. [Selected Top 10 paper at SAGEEP 2007.]
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Park, C. B., Miller, R. D., Xia, J., and Ivanov, J., 2007, Multichannel analysis of surface waves (MASW) — active and passive methods: The Leading Edge, v. 26, no. 1, p. 60–64.
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Phillips, P. L., Ludvigson, G. A., Joeckel, R. M., González, L.A., Brenner, R.L., and Witzke, B.J., 2007, Sequence stratigraphic controls on synsedimentary cementation and preservation of dinosaur tracks: Example from the lower Cretaceous, (Upper Albian) Dakota Formation, southeastern Nebraska: Palaeogeography, Palaeoclimatology, Palaeoecology, v. 246, p. 367-389.
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Scanlon, B. R., I. Jolly, M. Sophocleous, and L. Zhang, 2007. Global impacts of conversions from natural to agricultural ecosystems on water resources: Quantity versus quality, Water Resources Research, v. 43, no. 3, p. W03437.
Sihuang, X., and Watney, W. L., 2007, Dominant factors in controlling marine gas pools in South China: Frontiers of Earth Science in China, v. 1, no. 4, p. 1673-7385.
Simmons, A. H., and Mandel, R. D., 2007, Promoting science and technology from the top: Science, v. 317, no. 5845, p. 1,678–1,679.
Simmons, A. H., and Mandel, R. D., 2007, Not such a new light — A response to Ammerman and Noller: World Archaeology, v. 39, no. 4, p. 475–482.
Sophocleous, M. A., 2007, Ecological impacts of conjunctive use — The role of environmental flows: Ground Water News & Views, v. 4, no. 2, p. 6–7.
Sophocleous, M. A., 2007, The science and practice of environmental flows and the role of hydrogeologists: Ground Water, v. 45, no. 4, p. 393–401.
Steeples, D. W., and Miller, R. D., 2007, Two decades of near-surface seismology progress: Symposium on the Application of Geophysics to Engineering and Environmental Problems (SAGEEP 2007), Denver, Colorado, April 1–5, p. 299–309.
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Thoms, A. V., and Mandel, R. D., 2007, Ecological setting — The lower Medina River valley and surrounding inner Gulf coastal plain: Center for Ecological Archaeology, Texas A&M University, College Station, Texas, p. 15–26.
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Townsend, M. A., Rule, A. C., Meyer, M. A., and Dockstader, C. J., 2007, Teaching the nitrogen cycle and human health interactions: Journal of Geoscience Education, v. 55, no. 2, p. 158–168.
Townsend, M. A., and Sleezer, R. O., 2007, Factors affecting spatial patterns of vadose-zone nitrate in south-central Kansas; *in*, Concepts and Applications in Environmental Geochemistry, Developments in Environmental Science 5, D. Sakar, R. Datta, and R. Hannigan, eds.: Elsevier, p. 381–406.
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Xia, J., Miller, R. D., and Xu, Y., 2007, Data resolution matrix of high-frequency Rayleigh-wave phase velocities: Symposium on the Application of Geophysics to Engineering and Environmental Problems (SAGEEP 2007), Denver, Colorado, April 1–5, p. 941–951.

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Nonrefereed/Unpublished Papers

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Bhattacharya, S., 2007, Reservoir simulation studies in Smoky Creek field, Cheyenne County, Colorado: Kansas Geological Survey, Open-File Report 2007–31, 22 p.
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Bohling, G., and Wilson, B. B., 2007, Statistical and geostatistical analysis of the Kansas High Plains water table evaluations, 2007 measurement campaign: Kansas Geological Survey, Open-File Report 2007–32, 47 p.
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Dealy, M. T., 2007, Land subsidence Kiowa County, Kansas, May 2, 2007: Kansas Geological Survey, Open-File Report 2007–22, 11 p.
Dillett, P., Goldstein, R. H., and Franseen, E. K., 2007, Paleotopographic and sea-level controls on the sequence stratigraphic architecture of a heterozoan carbonate succession — Pliocene, Carboneras basin; *in,* Controls on Porosity Types and Distribution in Carbonate Reservoirs — A Guidebook for the Miocene Carbonate Complexes of the Cabo de Gata Area, SE Spain, E. K. Franseen, R. H. Goldstein, and M. Esteban, eds.: American Association of Petroleum Geologists, Education Program, p. 139–149.
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Watney, W. L, Doveton, J. H., Dubois, M. K., Victorine, J. R., and Rasbury, E. T., 2007, Modeling midcontinent Permo–Carboniferous stratigraphy (abs.): Geological Society of America, Midwest Regional Conference, Lawrence, KS.

Watney, W. L., and Miller, R. D., 2007, Characterization and geologic significance of evaporite karst in Kansas: American Association of Petroleum Geologists, Midcontinent Section Meeting, Wichita, Kansas.

Whittemore, D. O., Butler, J. J., Jr., and Kluitenberg, G. J., 2007, Impact of channel entrenchment on stream-aquifer interactions and the riparian zone in the Arkansas River valley of south-central Kansas (abs.): Geological Society of America, Abstracts with Program v. 39, no. 3, p. 63.

Whittemore, D. O., Butler, J. J., Jr., Kluitenberg, G. J., and Loheide, S. P., II, 2007, Climatic and water-use variability impacts on riparian phreatophytes in the Great Plains: Geological Society of America, Abstracts with Program, v. 39, no. 6, p. 266.

Whittemore, D. O., Butler, J. J., Jr., Kluitenberg, G. J., and Loheide, S. P., II, 2007, Climatic and water-use variability impacts on riparian phreatophytes in the Great Plains (abs.): Geological Society of America, Abstracts with Program v. 39, no. 6, p. 266.

Whittemore, D. O., Young, D. P., and Buddemeier, R. W., 2007, Calibration monitoring well program for the High Plains aquifer: Proceedings 16th Annual Kansas Hydrology Seminar, AIH & AEG, Topeka, Kansas.

Woodburn, T. L., Johnson, W. C., Dunham, J. W., and Bieker, C. R., 2007, Kansas geologic mapping — more than just paper maps (poster): Geological Society of America, Annual Meeting, Denver, Colorado, October 28.
Woody, D. T., Kraus, M. J., Smith, J. J., and Hasiotis, S. T., 2007, Abrupt paleoenvironmental change during the Paleocene–Eocene thermal maximum in the Bighorn basin, Wyoming: Geological Society of America, Annual Meeting Program, v. 39, no. 6, p. 192.
Xia, J., Miller, R. D., and Xu, Y., 2007, Data resolution matrix of high-frequency Rayleigh-wave phase velocities [abs.]: Symposium on the Application of Geophysics to Environmental and Engineering Problems (SAGEEP), Annual Meeting of the Environmental and Engineering Geophysical Society (EEGS), April 1–5, Denver, Colorado, 1 p.

Presentations

Battles, E. — Made two presentations at the 2007 Kansas Association of Mappers (KAM) Conference. The presentations were titled "The Kansas GIS Inventory" and "DASC Initiatives."

Battles, E. — Presented session on DASC history and current projects/initiatives at the 2007 Kansas Rural Water Association (KRWA) Conference.

Battles, E. — Presented session on DASC initiatives focusing on the DASC Off Site Data Backup initiative at the 2007 Kansas Emergency Management Association (KEMA) Conference.

Battles, E. — Gave the DASC presentation and demonstrated the DASC web site to a beginning GIS class for Kansas counties.

Bohling, G. C., Butler, J. J., Jr., and Liu, G., 2007, High resolution aquifer characterization with hydraulic tomography and the direct-push permeameter, invited presentation to the Annual Meeting of the Association of Environmental and Engineering Geologists, Los Angeles, California, September 27.

Butler, J. J., Jr., 2007 Henry Darcy Distinguished Lectureship Invited Presentations (in temporal order)– Univ. of Kansas, Emporia State Univ., Univ. of Missouri Kansas City, Kansas State Univ., San Diego State Univ., Univ. of Northern Arizona, Univ. of Arizona, Texas A&M Univ., Southwest Research Institute, Oklahoma State Univ., Univ. of Hawaii, Peking Univ., Chinese University of Geosciences, National Central Univ. (Taiwan), National Ground Water Assoc. Ground Water Summit, Los Alamos National Lab., Free Univ. of Brussels, Delft Univ. of Technology (The Netherlands), Univ. of Neuchatel (Switzerland), Univ. of Tübingen (Germany), Univ. of Göttingen (Germany), Univ. of Graz (Austria), Technical Univ. of Dresden, Helmholtz Centre for Environmental Research-UFZ (Leipzig, Germany), Polytechnic Univ. of Valencia, Polytechnic Univ. of Barcelona, Geological Society of London, Boise State Univ., Montana Tech, Univ. of Montana, Michigan State Univ., Western Michigan Univ., Univ. of Maryland Baltimore County, Penn State Univ., Univ. of Memphis, Univ. of Mississippi, Univ. of Alabama, Univ. of Illinois, Wright State Univ., Univ. of Colorado, Furman Univ., College of William and Mary, Colorado School of Mines, Canadian Geotechnical Soc. Conference, Geological Society of America Conf., Univ. at Buffalo, Univ. of Toronto, Stanford Univ., USGS-Menlo Park, Beloit College, Univ. of Wisconsin-Madison, New Mexico Inst. of Mining and Technology, Univ. of New Mexico, National Ground Water Assoc. Ground Water Exposition, and International Assoc. of Hydrogeologists XXXVI Congress (Toyama, Japan – given in 2008).

Butler, J. J., Jr., 2007, Slug tests for hydrogeologic site characterization — Some practical guidelines: Invited teleconference presentation to the Earth Tech Site Investigation Technical Practice Group, July 31.

Dealy, M. — Presentation on "Equus Beds Aquifer" at Wichita Gem and Mineral Society.

Dealy, M. — Presentation on "Earthquakes" at Butler County History Center.

Dealy, M. — Presentation on ,"Kansas Aquifers and Groundwater Basics" at Kansas Department of Health and Environment , Fall technical session.

Dealy, M. — Presentation on "Wind Energy in Kansas" at Society of Manufacturing Engineers.

Franseen, E. K., Invited presentation, "Miocene–Pliocene carbonate complexes in SE Spain research program,"at ExxonMobil Research Lab, Houston, Texas, September 27.

Franseen, E. K., Invited presentation, "Update on Construction Aggregate Projects at the KGS," Kansas Aggregate Producers Association 40th Annual Joint Convention, January 10–12, Kansas City.

Kluitenberg, G. J., Butler, J. J., Jr., Nippert, J. B., Whittemore, D. O., Arnold, D., and Jin, W., 2007, Salt-cedar water use in the presence of a falling water table: Proceedings 24th Annual Water and Future of Kansas Conference, Topeka, Kansas, p. 17.

Liu, G., Bohling, G., Butler, J. J., Jr., and Dietrich, P., Theoretical investigation of the direct-push permeameter for characterizing vertical variations in hydraulic conductivity: invited presentation at the Ninth International In Situ and On-Site Bioremediation Symposium, Baltimore, Maryland, May 7.

Ludvigson, G. A., Developing approaches for understanding the hydrostratigraphic architecture of the Dakota Formation in Kansas: Kansas Geological Survey, Advisory Council, Lawrence, Kansas, May 17.

Ludvigson, G. A., Investigation of soil-formed siderite and its contribution to global change research: Kansas Geological Survey, Advisory Council, Lawrence, Kansas, May 17.

Ludvigson, G. A., Metrics of subtropical evaporation rates encoded in Mesozoic terrestrial carbonates — Some examples: Colorado Plateau Coring Project Workshop, co-sponsored by Drilling Observation & Sampling of the Earth's Continental Crust, Inc. (DOSECC), and National Science Foundation, St. George, Utah, November 14.

Macfarlane, P. A., and Ghijsen, R., 2007, Assessment of seasonal, pumping-induced water-quality changes in the Ozark Plateaus aquifer system: Water and the Future of Kansas Conference Program, p. 19.

Mandel, R. D., "Buried Paleo-Indian landscapes in draws on the High Plains," Technical Session, Geofest, Kansas Geological Survey, Lawrence, November 15.

Mandel, R. D., "Holocene alluvial stratigraphy and soils," U.S. Soil Geomorphology Institute Training Program, National Soil Survey Center, Lincoln, Nebraska, March 5.

Mandel, R. D., "The peopling of the Great Plains — A geoarchaeological perspective," Annual Kansas Earth Science Teachers Association (KESTA) Conference, Kansas Geological Survey, Lawrence, September 28.

Mandel, R. D., "Soil geomorphology and archaeology," U.S. Soil Geomorphology Institute Training Program, National Soil Survey Center, Lincoln, Nebraska, March 5.

Miller, R. D. — Presentation at Geological Society of London Bicentenary Conference, September.

Miller, R. D., 2007, Seismic search for caverns, caves, and voids: Kansas Department of Health and Environment, Geology Section Fall Seminar, Wichita, Kansas, October 23 (invited).

Miller, R. D., 2007, Seismic to characterize the near surface: Proceedings of the Geological Society of London Bicentenary Conference, September 10 (invited).

Miller, R. D., 2007, High-resolution seismic investigation of subsidence from dissolution: University of Leoben, Austria, November 13.

Miller, R. D., 2007, Progress report on time-lapse high-resolution 3-D seismic imaging to monitor a CO_2 flood in a thin carbonate reservoir in the Hall–Gurney field, Kansas: Department of Energy, Tulsa, Oklahoma, February 21.

Miller, R. D., Ivanov, J., Hock, S., Markiewicz, R., Dunbar, J., and Lane, J., 2007, Seismic investigations for dam safety: Kansas Dam Safety Conference, Topeka, Kansas, March 13 (invited).

Miller, R. D., Markiewicz, R. D., Rademacker, T. R., Hopkins, R., Rawcliffe, R. J., and Paquin, J., 2007, Advantages of wet work for near-surface seismic reflection [exp. abs.]: Society of Exploration Geophysicists, p. 1,147–1,151.

Newell, K. D., 2007, Techniques for determining gas content of well cuttings: Kansas Geological Society, Wichita Kansas, February 26.

Newell, K. D., 2007, Coalbed gas resources in eastern Kansas: Emporia State University, Emporia, Kansas, October 25.

Newell, K. D., 2007, What are the geologic and geochemical controls on eastern Kansas coal bed gas production?: University of Missouri–Kansas City, Kansas City, Missouri, Novermber 1.

Smith, J., 2007, Ichnology and paleopedology of the Willwood Formation, Bighorn basin, Wyoming through the Paleocene–Eocene thermal maximum — Response of soil ecosystems to a transient global warming event: Kansas Geological Survey, September 13.

Smith, J., 2007, The occurrence and distribution of ichnofossils across the Paleocene–Eocene thermal maximum (PETM), Willwood Formation, Wyoming — The response of ancient soil biota to global warming: University of Kansas, Natural History Museum and Biodiversity Research Center, May 9.

Sophocleous, M. A., Invited keynote speaker at the 2007 Pre-Forum of the 36th Congress of IAH in Toyama, Japan, August 10–11.

Sophocleous, M. A., Invited presentation on the ecological impacts of conjunctive use, Theis Conference on Conjunctive Management of Ground Water and Surface Water — Application of Science to Policy, Park City, Utah, September 28–October 1.

Sophocleous, M. A., Invited presentation at the Kansas Geological Society annual meeting on ground water sustainability and its application in Kansas, Kansas Geological Survey, Lawrence, Kansas, November 15.

Sophocleous, M. A., Townsend, M., and Vocasek, F., 2007, Treated wastewater and nitrate transport beneath irrigated fields near Dodge City, Kansas: Water & the Future of Kansas Conference, March 15, Topeka, Kansas.

Suchy, D. R., Gave talk on Kansas Geological Survey website resources at KDHE Geology Seminar, Wichita, KS.

Suchy, D. R., Adkins–Heljeson, D., and Stewart, D. L., 2007, Seeking a source of ground water or managing a ground-water resource? Get the information you need (abs.): 24th Annual Water and the Future of Kansas Conference, Topeka, Kansas.

Townsend, M. A., Macko, S. A., Sophocleous, M. A., Vocasek, F., Schutte, D., and Ghijsen, R., 2007, Variations in water chemistry and plant uptake of nitrogen at a wastewater irrigation site: Water & the Future of Kansas Conference, March 15, Topeka, Kansas.

Whittemore, D. O., Sophocleous, M. A., Butler, J. J., Jr., Wilson, B. B., and Tsou, M-S., 2007, Ground-water flow model of the Middle Arkansas subbasin: 24th Annual Water and Future of Kansas Conference, Topeka, Kansas, p. 10.

Wilson, B. B., Presentations to Ogallala Water Issue and Strategic Plan (WISP) Meeting Group, Kansas Geological Survey's Geofest, Kansas House Agriculture and Natural Resources Committee, Winfield Solutions Fall Conference, Kansas Water Congress Summer Conference, Kansas Water Authority, Poster at Kansas Rural Water Association Conference, and poster at Water and the Future of Kansas Conference.

Xia, J. — High-frequency Rayleigh-wave method: Iowa State University Department of Geological and Atmospheric Sciences, August 31, 2007.

Xia, J. — Surface-wave diffraction, slant stacking, and data resolution: Chengdu University of Technology, China, April 24, 2007.

Xia, J. — Surface-wave diffraction, slant stacking, and data resolution: Southwest Jiaotong University, China, April 23, 2007.

Awards

Brady, L. L. — Honorary Member–Energy Minerals Division, American Association of Petroleum Geologists

Buchanan, R. C. — Kansas Association of Broadcasters, Editorial/Commentary for Non-Commercial Radio (third place), 2007

Butler, J. J., Jr. — Henry Darcy Distinguished Lecturer, National Ground Water Association (2007)

Franseen, E. K. — Nominated for Best Paper Award in The Leading Edge

Miller, R. D. — Project of Merit Award, SEG Foundation

Miller, R. D. — Selected Top 10 paper at SAGEEP EEGS annual meeting, 2007

Smith, J. — Erasmus S. Haworth Distinguished Graduate Award, Ph.D., University of Kansas Department of Geology (2007)

Sophocleous, M. A. — Elected Fellow, Geological Society of America

Walters, S. L. — William W. Hambleton Student Research Award, KGS

Xia, J. — Merriam Research Award, KGS

Internal Service

Adkins–Heljeson, M. — Chaired search committee for KGS publications assistant

Adkins–Heljeson, M. — Produced maps and pdf's for KU School of Pharmacy and administration to present to the Kansas Board of Regents proposing expansion of KU School of Pharmacy

Battles, E. — Created a series of custom maps for week long annual tour sponsored by the University of Kansas Chancellor's office. The maps were titled "Wheat State Whirlwind: A Tour of the Heartland for KU Faculty"

Battles, E. — Began development of Kansas base maps to be used in ArcServer map cache environment

Butler, J. J. — University of Kansas–Student Advising–Postdoctorate Fellows: Wei Jin (2007–), Jesse Nippert (2007)

Carr, T. R. — University of Kansas, taught Graduate Seminar in Applied Subsurface Petroleum Geology, Geology 791, Chemical and Petroleum Engineering 628 (2001–2007)

Carr, T. R. — Supervised KU students Benjamin Rocke (M.S., 2007); Galo Sacedo (Ph.D., expected spring 2007) [Poster based on dissertation research received 2nd best student poster award at 2004 AAPG Annual Meeting in Dallas, Texas]; Nathan Winters (M.S., expected 2007); and Benjamin Ramaker (M.S., expected 2008)

Doveton, J. — KU courses taught: GEOL 536, Log Analysis of Subsurface Geology
Franseen, E. K. — Supervised KU graduate student thesis for Jessica Poteet
Killion, M. — Served on the search committee for the Web Developer position at the Data Access and Support Center
Ludvigson, G. — Jon J. Smith, Kansas Geological Survey, (Ph.D. 2007 University of Kansas, S.T. Hasiotis, advisor) September 2007–May 2009; KGS-sponsored research on Holocene and Neogene stratigraphy and paleoclimatology of the High Plains in western Kansas; NSF-sponsored research on neoformation of pedogenic siderite in water-saturated soils
Ludvigson, G. — Adel Haj, Kansas Geological Survey, (Ph.D. 2007 University of Iowa, E. A. Bettis, advisor) October 2006–August 2007; KGS-sponsored research on Holocene and Neogene stratigraphy and paleoclimatology of the High Plains in western Kansas (accepted appointment as Assistant Professor at Central Missouri State University)
Ludvigson, G. — Aisha Al-Suwaidi, M.S. 2007, The University of Kansas, A Ped's Story: Weathering Out Climatic Change During the Mid-Cretaceous (Distinguished Graduate Scholar, United Arab Emirates; currently working on doctorate at Oxford University, United Kingdom)
Macfarlane, A. — Search Committee member for the KGS Analytical Services Lab Manager Position, 2007
Mandel, R. — Advisor and committee chair for the dissertation at the University of Kansas, Jared Beeton, Department of Geography
Mandel, R. — Member of KGS search committee for hiring a Post-Doctoral Research Associate specializing in Neogene stratigraphy and modern pedogenic processes in the Stratigraphic Research Section
Mandel, R. — Committee member, KU Social Sciences General Research Fund
Newell, K. D. — Merriam International Travel Awards Committee (Member, 2007)
Newell, K. D. — Search Committee for Analytical Chemist (Member, 2007–08)
Newell, K. D. — Search Committee for student petrophysical assistant (Member, 2007)
Newell, K. D. — Search Committee for Energy Research Section Chief, and geoscientist (Member, 2007–08)
Sorensen, J. — Member, Search Committee, Publication Sales, 2007
Sorensen, J. — Member, Search Committee, Exploration Services, 2007
Sorensen, J. — Member, Promotion & Review Committee, 2007 to present
Suchy, D. — Helped run KGS booth at Lawrence Water Festival, Earth Day, April 21, including a poster on water data on the internet prepared for the event
Xia, J. — Member, KGS Promotion and Review Committee, 2007-2009

External Service

Battles, E. — Updated Kansas Legislative Districts maps
Battles, E. — Created county tax unit boundary reference maps for Administrative Boundaries/Tax Units data project
Battles, E. — Created series of statewide Initiatives status maps for the KAC conference
Battles, E. — Served as Chairperson for the Technical Advisory Committee (TAC) Land Use/Geology/Soils data committee
Battles, E. — Served on the Kansas GIS Strike Force – this group visited several counties and made presentations to promote the Kansas GIS Inventory
Buchanan, R. — Geological Society of America, Geology and Public Policy Committee, Geology and Society Division Representative, 2007–present; Nominations Committee, History of Geology Division, 2007–09
Buchanan, R. — Kansas Energy Council, State Geologist's Designee, 2007–08
Buchanan, R. — Association of American State Geologists, Associates' Representative to the Executive Committee, 2007–08; Outreach Committee, 2007–present
Butler, J. — Associate Editor–Hydrogeology Journal (2006–)
Butler, J. — John Keller doctoral dissertation, Department of Geology, Southern Illinois University (2007–)
Butler, J. — Promotion and Tenure Evaluator–Department of Geological Sciences, University of Hawaii (2007); Department of Environmental Engineering and Earth Science, Clemson University (2007)
Butler, J. — Aquifer Testing for Improved Hydrogeologic Site Characterization Featuring AQTESOLV and the In-Situ LevelTroll (taught half of course), Fort Collins, Colorado, October 16–17; Calgary, Alberta, August 16–17
Butler, J. — Advanced Aquifer Testing Analysis Featuring AQTESOLV: New Concepts, Field Methods, and Data Analysis Procedures (taught half of course), University of San Diego, California, February 27–March 1

Carr, T. — Testimony before the Kansas House Energy and Utilities Committee on Energy, January 18; testimony before the Kansas Senate Energy Committee on Heavy Oil, January 30

Doveton, J. — PTTC Workshop "The PfEFFER Workshop," October 12, Lawrence, Kansas

Doveton, J. — PEMEX "Prediction of permeability from logs," August 20–25, Villahermosa, Mexico

Doveton, J. — ONGC Short Course on "Advances in Well Log Applications," January 15–19, Dehradun, India

Doveton, J. — PTTC Short Course on "Reading the Rocks from Wireline Logs," March 9, Lawrence, Kansas

Doveton, J. — PDVSA "Prediction of permeability from logs," February 5–9, Maracaibo, Venezuela

Doveton, J. — SMU Geology Department "Crash Course on Log Analysis," February 24, Dallas, Texas

Doveton, J. — QGSI "Geological Log Analysis," March 14, Houston, Texas

Doveton, J. — QGSI "Permeability Predictors from Logs, " March 15, Houston, Texas

Doveton, J. — P. T. Geoservices "Reservoir Petrophysical Log Analysis," April 23–27, Bandung, Indonesia

Doveton, J. — American Association of Petroleum Geologists, Midcontinent Meeting Short Course "Introduction to Well Logging in Kansas," Wichita, Kansas, September 9

Doveton, J. — CSPG Education Week "Petroleum Log Analysis and Petrophysical Geology," October 30–31, Calgary, Canada

Dunham, J. — "Geologic mapping at the Kansas Geological Survey," Kansas GIS Policy Board bimonthly meeting, Topeka, KS, September 22; Kansas Geological Survey Advisory Council semiannual meeting, Lawrence, Kansas, February 9

Dunham, J. — A/V and Computer Chair, Geological Society of America South-Central Section and North-Central Section Meeting, University of Kansas, Lawrence, Kansas, April 11–13

Franseen, E. — Field trip leader for University of Kentucky geologists to Lansing–Kansas City Group (Pennsylvanian) cyclothemic strata in NE Kansas

Franseen, E. — Instructor and field trip leader, ExxonMobil Carbonate Intern Training Course, Almeria, Spain

Franseen, E. — Co-instructor for American Association of Petroleum Geologists Education Program, "Controls on porosity types and distribution in carbonate reservoirs," Almeria, Spain

Killion, M. — Served on the Technical Advisory Committee of the Kansas GIS Policy Board

Ludvigson, G. — StateMap Program Coordinator

Ludvigson, G. — General Chair, Combined Geological Society of America SC–NC Section Meeting, Lawrence, Kansas, April 11–13

Macfarlane, A. — Second Vice President, Central Section, National Association of Geoscience Teachers, 2007–08

Mandel, R. — Served as an external member of a dissertation or master's committee for DeAnn Presley, Department of Agronomy, Kansas State University, Ph.D.

Mandel, R. — Associate Editor, Geoarchaeology: An International Journal*,* John Wiley & Sons, January, May 2007–present

Mandel, R. — Guest speaker, "The peopling of the Great Plains: A geoarchaeological perspective," annual Kansas Earth Science Teachers Association (KESTA) Conference, Kansas Geological Survey, Lawrence, September 28

Mandel, R. — Field trip leader to the Claussen site in northeastern Kansas, for the Kansas Earth Science Teachers Association (KESTA) Conference, Kansas Geological Survey, September 29

Mandel, R. — Co-organizer and co-chair of a symposium, "Geoarchaeological and geomorphological explorations in the midcontinent: In honor of Wakefield Dort, Jr.," 41st Annual Meeting of the South-Central Section/North-Central Section of the Geological Society of America, Lawrence, Kansas, April

Mandel, R. — Co-organizer and co-chair of a symposium, "Late Pleistocene and Holocene paleoecology and archaeology at the Richard Beene site, coastal plain, south-central North America," 72nd Annual Meeting of the Society for American Archaeology, Austin, Texas, April

Mandel, R. — Reviewer for the National Science Foundation's Paleo Perspectives on Climate Change Program

Mandel, R. — Reviewer for the National Geographic Society's Funded Research Program

Miller, R. — Society of Exploration Geophysicists, Committee on Nominations, 2007–09

Miller, R. — Society of Exploration Geophysicists, Special Issue Editor, The Leading Edge: February (v. 26, no. 2), lower 48; August (v. 26, no. 8), near-surface/seismic to radar

Newell, D. — Session co-chair for Oil and Gas Resources of the Midcontinent, American Association of Petroleum Geologists 2007 Midcontinent Section Meeting, Wichita, Kansas, September 10

Smith, J. — Co-chaired theme session (Fossils and modern analogs: Using modern organisms to improve paleontological interpretations with Daniel Hembree and Brian Platt) for Geological Society of America, South- and North-Central Joint Section Meeting

Sophocleous, M. — Editor in Chief, Journal of Hydrology, April 1999–December 2007

Sophocleous, M. — Technical Program co-chair for 2007 Joint South-Central and North-Central Sections Annual Meeting to be held in Lawrence, Kansas, April 11–13 April

Sophocleous, M. — Member of the O. E. Meinzer award selection committee for the Geological Society of America, Hydrogeology Division (2007–09)

Sophocleous, M. — Co-convener of the 2007 Theis Conference "Conjunctive Management of Ground Water and Surface Water: Application of Science to Policy," Park City, Utah, September 28–October 1

Sophocleous, M. — Invited reviewer for the Legislative–Citizen Commission on Minnesota Resources

Sophocleous, M. — Invited reviewer for the Canada Research Chairs Program

Sophocleous, M. — Member of the Advising Committee for the Department of Environmental Management of the Cyprus University of Technology (2007–Present)

Suchy, D. — Served as Exhibits and Sponsors Chair and on organizing committee for joint meeting of South-Central and North Central Sections of Geological Society of America held at KU

Suchy, D. — Helped review Kansas Response Plan for Kansas Division of Emergency Management

Suchy, D. — Helped run Kansas Geological Survey booth at Lawrence Water Festival, Earth Day, including a poster on water data on the internet prepared for the event

Suchy, D. — Helped run rock and fossil identification booth at KU Natural History Museum event, entitled "What on Earth? Fossils, Rocks, and Meteorites"

Watney, L. — Co-chair, Technical Program, Midcontinent American Association of Petroleum Geologists meeting, Wichita, Kansas, September

Watney, L. — PfEFFER Log Analysis and Web Tools Workshop, Wichita, Kansas, November

Wilson, B. — Kansas Technical Advisory Committee and the DASC Sub-committee to the Kansas GIS Policy Board

Xia, J. — Session Chairman, The Society of Exploration Geophysicists, 77th Annual Meeting, September 23-28, 2007, San Antonio, Texas

2006

Refereed Publications

Arabi, M., Govindaraju, R. S., Sophocleous, M., and Koelliker, J. K., 2006, Use of distributed models for watershed management — Case studies; *in*, Watershed Models, V. P. Singh and D. K. Frevert, eds.: CRC Press, Taylor & Francis Books, Inc., New York, p. 503–526.

Baker, R. G., Fredlund, G. G., Towne, G., Mandel, R. D., and Johnson, W. C., 2006, Late Quaternary biogeography and paleoecology along the prairie-forest border, USA; *in*, Guidebook of the 18th Biennial Meeting of the American Quaternary Association, R. D. Mandel, ed.: Kansas Geological Survey, Technical Series 21, p. 2-1–2-27.

Bohling, G. C., and Doveton, J. H., 2006, The Oz machine — A Java applet for interactive instruction in geological log interpretation: Geosphere: v. 2, no. 5, p. 269–274.

Brosius, L., 2006, Windows to the past — A guidebook to common invertebrate fossils of Kansas: Kansas Geological Survey, Educational Series 16, 56 p.

Butler, J. J., Jr., Zlotnik, V. A., and Tsou, M. S., 2006, Drawdown and stream depletion produced by pumping in the vicinity of a partially penetrating strea, by James J. Butler, Jr., Vitaly A. Zlotnik, and Min-Shu Tsou, September–October 2001 issue, v. 39, no. 5, p. 651-659; authors' reply: Ground Water, v. 44, no. 2, p. 143.

Byrnes, A. P., and Bhattacharya, S., 2006, Influence of initial and residual oil saturation and relative permeability on recovery from transition zone reservoirs in shallow shelf carbonates: SPE/DOE Symposium on Improved Oil Recovery, Tulsa, April 22–26, SPE 99736, 11 p.

Chen, C., Liu, J., Xia, J., and Li, Z., 2006, Integrated geophysical techniques in detecting hidden dangers in river embankments**:** Journal of Environmental and Engineering Geophysics, v. 11, no. 2, p. 83–94.

Chen, C., Xia, J., Liu, J., and Feng, G., 2006, Nonlinear inversion of potential-field data using a hybrid-encoding genetic algorithm: Computers & Geosciences, v. 32, no. 2, p. 230–239.

Cruz, F. E., Eberli, G. P., and Byrnes, A. P., 2006, Petrophysical heterogeneity of a Pleistocene oolitic shoal — Lessons for ancient reservoirs; *in*, Reservoir Characterization — Integrating Technology and Business Practices, R. M. Slatt et al., eds: Bob F. Perkins Research Conference, 26th Annual Gulf Coast Section SEPM Foundation.

Davis, J. C., Chung, C.-J., and Ohlmacher, G. C., 2006, Two models for evaluating landslide hazards: Computers and Geoscience, v. 32, p. 1,120–1,127.

Devlin, J. F. and Sophocleous, M. A., 2006. Reply to comment on "The persistence of the water budget myth and its relationship to sustainability" by J. F. Devlin and M. Sophocleous, Hydrogeology Journal, v. 13, no. 4, p. 549–554: Hydrogeology Journal, v. 14, no. 7, p. 1,386.

Doveton, J. H., 2006, Markov chain petrophysical simulation of flow-unit architecture in carbonate and clastic subsurface formations: Proceedings, IAMG–06, S12 — Stochastic Modeling of Subsurface Formations, 4 p.

Doveton, J. H., 2006, Methods and applications of hierarchical zonation of petrophysical logs using polynomial filters: Proceedings, IAMG–06, S11 — Innovative Techniques in Geomathematics, 4 p.

Dubois, M. K., Bohling, G. C., and Chakrabarti, S., 2006, Comparison of four approaches to a rock facies classification problem: Computers and Geosciences, v. 33, no. 3, p. 599–617.

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Computer Software

Wilson, B. — Assist with work on the Middle Arkansas River Basin Model; provided extensive data analysis, creation, processing, and scripting; work with model Technical Advisory Committee.

Wilson, B. — Provided code development and data assistance to a PL/SQL Oracle-based version of the LEO PLSS legal to geographic conversion process.

Wilson, B. — Creation and hands-on instructions of customized ArcReader GIS data sets.

Wilson, B. — Assisted with development of water budget for local township irrigation coalition and GMD #4.

Wilson, B. — Updated well locations with GPS coordinates for GMD #2 and #5 well networks.

Wilson, B. — Creation and hands-on instructions of customized ArcReader GIS data sets for GMD#1.

Abstracts

Bhattacharya, S., Dubois, M. K., Byrnes, A. P., Bohling, G. C., and Doveton, J. H., 2006, Integrated characterization and simulation of multi-section areas in Hugoton and Panoma gas fields (abs): American Association of Petroleum Geologists, Convention Abstracts, p. A57.

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Sophocleous, M. A., 2006, Combining field characterization, statistical analysis, and GIS to regionalize localized recharge estimates in the subhumid plains of central Kansas: Geological Society of America, Philadelphia, Pennsylvania, Abstracts with Program, v. 38, no. 7, p. 468.

Sophocleous, M. A., Townsend, M. A., Willson, T., and Vocasek, F., 2006, Preferential flow and transport of nitrate beneath fields irrigated with treated wastewater in Ford County, Kansas (abs.): Philadelphia Geological Society of American, Philadelphia, Pennsylvania, Abstracts with Program, v. 38, no. 7, p. 40.

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Ufnar, D. F., Ludvigson, G. A., González, L. A., and Gröcke, D., 2006, Precipitation rates and atmospheric heat transport during the Cenomanian greenhouse warming in North America: Geological Society of America, Abstracts with Programs, v. 38, no. 7, p. 202.

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Watney, W. L., West, R. R., Franseen, E. K., and Sawin, R. S., 2006, Nature of Depositional Sequences associated with the Carboniferous-Permian Boundary and Adjacent Units in the Midcontinent (abst.): Geological Society of America, South-central Section Meeting, March 6-7, 2006, Abstracts with Programs, v. 38, no. 1, p. 4–5.

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Woody, D. T., Smith, J. J., and Kraus, M. J., 2006, Preservation of a vegetated landscape in the earliest Eocene, Polecat Bench, Bighorn basin, Wyoming: Geological Society of America, Annual Meeting Program, v. 38, no. 7, p. 144.

Xia, J., and Miller, R. D., 2006, Applications of integrated geophysical survey in defining subsidence features on a golf course [abs.]: Symposium on the Application of Geophysics to Engineering and Environmental Problems (SAGEEP 2006), Seattle, Washington, April 2–6.

Xia, J., Nyquist, J. E., Xu, Y., Miller, R. D., and Roth, M. J. S., 2006, Rayleigh-wave diffractions due to near-surface features (invited presentation): Geological Society of America, Annual Meeting, Philadelphia, Pennsylvania, Abstracts with Programs, v. 38, no. 7, p. 525.

Xia, J., Nyquist, J. E., Xu, Y., and Roth, M. J., 2005, Feasibility of detecting voids with Rayleigh-wave diffraction: Symposium on the Application of Geophysics to Environmental and Engineering Problems (SAGEEP) Annual Meeting of the Environmental and Engineering Geophysical Society (EEGS), April 2–6, Seattle, Washington, 1 p.

Zheng, C., Butler, J. J., Jr., Hyndman, D. W., and Tick, G. R., 2006, Characterizing small-scale heterogeneities at the MADE site using sedimentological, hydraulic, and tracer data (abs.): Geological Society of America, Philadelphia, Pennsylvania, Abstracts with Program, v. 38, no. 7, p. 110.

Presentations

Battles, E. — Presented session about Kansas Geospatial Community Commons (KGCC) at the 2006 KAM Conference.

Battles, E. — Presented session explaining the DASC web site at the 2006 Infinitec Conference.

Brady, L. L., Coal and coalbed methane in Kansas and its place in the nation: Energy Series, East Wichita Shepherd's Center, Wichita, Kansas, February 14.

Butler, J. J., Jr., An ecohydrologic investigation of groundwater consumption by phreatophytes, an invited presentation to the Environmental Resources and Policies Program, Southern Illinois University, Carbondale, Illinois, March 8.

Butler, J. J., Jr., Hydrogeological methods for estimation of spatial variations in hydraulic conductivity, an invited presentation at the High Resolution Site Characterization and Monitoring Symposium of the Groundwater Resources Association of California, Long Beach, California, November 14.

Butler, J. J., Jr., New methods and scales for estimation of spatial variations in hydraulic conductivity, an invited presentation to the Department of Geology, Southern Illinois University, Carbondale, Illinois, March 9.

Butler, J. J., Jr., New methods and scales for estimation of spatial variations in hydraulic conductivity, an invited presentation to the Department of Geosciences, University of Missouri at Kansas City, Kansas City, Missouri, February 16.

Butler, J. J., Jr., Kluitenberg, G. J., Whittemore, D. O., and Arnold, D., 2006, An investigation of ground-water savings achieved through salt-cedar control activities (abs.): Proceedings 23rd Annual Water and Future of Kansas Conference, Topeka, Kansas.

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Carr, T. — Presentation on "Energy and the Future — Models for Environmentally Sound and Economically Viable Opportunities" at Energy and Environmental Impact Related to Sustainability, Kansas State University Intersession Course, Manhattan, Kansas, January 4.

Carr, T. — Testimony to Senate Utility Committee of Kansas Legislature on coalbed methane (with Dave Newell), January 5.

Carr, T. — Presentation on "Coalbed Methane and Gas Shale in the Southern Midcontinent," Oklahoma City, OK, March 21.

Carr, T. — Presentation to Eastern Kansas Royalty Owners Association Meeting, Chanute, Kansas, October 19.

Dealy, M. — Presentation on "What's so important about the Equus Beds" to Kansas Geological Society.

Franseen, E. K., Introduction to the Stratigraphic Research Section, Kansas Geological Survey Advisory Committee Meeting, invited presentation, March 31.

Franseen, E. K., Contrasting styles and common controls on Middle Mississippian and Upper Pennsylvanian carbonate platforms in the upper midcontinent, U.S.A., to Denver chapter of SIPES, January 26.

Franseen, E. K., Evaluating structural controls and their role in forecasting properties of Phanerozoic rocks in the northern midcontinent, USA — Ancient examples and modern analogs, to Kansas Geological Society Technical Meeting, Wichita, May, 4.

Franseen, E. K., Construction aggregate research and materials inventory projects, to Kansas Geological Society Geofest Meeting, October 30.

Franseen, E. K., Update on aggregate-related research, to Kansas Aggregate Producers Association 39th Annual Joint Convention, January 12–14, Kansas City.

Jokiel, P. L., vanBeukering, P., and Buddemeier, R. W., 2006, Effects of climate change on ecosystem services provided by Hawaiian coral reefs: U.S. EPA, STAR workshop, Washington, D.C.

Kluitenberg, G. J., Butler, J. J., Jr., Whittemore, D. O., Jin, W., Zhan, X., Loheide, S. P., II, and Arnold, D., 2006, A field investigation of major controls on phreatophyte-induced fluctuations in the water table (abs.): 23rd Annual Water and Future of Kansas Conference.

Ludvigson, G. A., Exploring the role of the hydrologic cycle in climate model simulations of past greenhouse worlds: Department of Geology, University of Kansas, Lawrence, Kansas, February 16.

Ludvigson, G. A., Exploring the role of the hydrologic cycle in climate model simulations of past greenhouse worlds: Department of Geology, University of Nebraska, Lincoln, Nebraska, January 27.

Ludvigson, G. A., Isotopic analysis of carbonates in paleosols: Kansas Association of Professional Soil Classifiers, Kansas Geological Survey, April 27.

Macfarlane, P. A., 2006, Resources and management issues associated with bedrock aquifers in Kansas: Proceedings of the 15th Annual Kansas Hydrology Seminar, Topeka, Kansas.

Mandel, R. D., The effects of temporal and spatial patterns of landscape evolution on the archaeological record of the central Great Plains, Department of Anthropology Lecture Series, University of Oklahoma, Norman, Oklahoma, October 13.

Mandel, R. D., Geoarchaeology of early Paleoindian and possible pre-Clovis cultural deposits at the Kanorado locality, northwestern Kansas, Sam Noble Oklahoma Museum of Natural History Lecture Series, University of Oklahoma, Norman, Oklahoma, October 13.

Mandel, R. D., Kanorado revisited — Paleoindian geoarchaeology in northwestern Kansas, Kansas Geological Society Lecture Series, Wichita, Kansas, December 13.

Mandel, R. D., Stratigraphy and paleopedology of the Kanorado locality, northwestern Kansas, to Kansas Association of Professional Soil Classifiers Annual Meeting, Banquet Lecture, University of Kansas, Lawrence, April 27.

Miller, R. D., Two papers presented at American Geophysical Union Joint Assembly, Baltimore, Maryland, May.

Miller, R. D., Presentation on EAGE–Near Surface 2006 Helsinki, September.

Miller, R. D., Keynote, International Conference on Environmental and Engineering Miller — Geophysics, Wuhan, China, June.

Miller, R. D., PTTC CO_2 EOR/IOR, Houston, Texas, February.

Miller, R. D., Presentation at CEA Dam Safety Conference, Toronto, Canada, January.

Miller, R. D., Presentation on "Dams and levees," to Kansas Geological Survey Advisory Committee meeting, Lawrence, March 31.

Miller, R. D., Seismic detection of CO_2 flood, at KGS/KGS Geofest meeting, Lawrence, October 30.

Miller, R. D., Subsidence in Sedgwick County, to KGS Advisory Committee, Wichita, October 6.

Miller, R. D., Seismic detection of CO_2 flood, to Kansas Geological Survey Advisory Committee, Lawrence, July 14.

Miller, R. D., 2006, Guest lecturer, Zhejiang University, Hongzhou, China, June 4, invited presentation.

Miller, R. D., 2006, Seismic investigation of dams, dikes, and levees — Clearwater Dam, south central Missouri, to Dam Safety Interest Group, CEA Technologies, Inc., Toronto, Ontario, Canada, January 26–27.

Miller, R. D., 2006, Subsidence and salt, to Sedgwick County Commissioners, Wichita, January 24, invited presentation.

Miller, R. D., 2006, Lake geophysics, at Sediment Workshop, Kansas Water Research Institute, Topeka, March 15.

Miller, R. D., U.S. Department of Defense, Geophysical Detection of Clandestine Tunnels, University of Mississippi, Oxford, Mississippi, February.

Miller, R. D., Park, C. B., Xia, J., Ivanov, J., Steeples, D., Ryden, N., Ballard, R. F., Llopis, J. L., Anderson, T. S., and Moran, M. L.m 2006, Experiences searching for voids using seismic: Workshop on the Real-Time Detection of Clandestine Shallow Tunnels, National Center for Physical Acoustics, University of Mississippi, February 14.

Miller, R. D., Raef, A. E., and Byrnes, A. P., 2006, Time-lapse high-resolution 3-D seismic imaging to monitor a miscible CO_2 flood in a thin carbonate reservoir — Hall–Gurney field, Russell County, Kansas: Meeting with Los Alamos on Drilling Microholes for Seismic Monitoring of Enhanced Oil Recovering Using CO_2 Injection, Lawrence, Kansas, January 10.

Miller, R. D., Raef, A. E., Byrnes, A. P., and Harrison, W. E., 2006, Time-lapse 3-D seismic imaging to monitor miscible CO_2 floods — Case study in a thin carbonate reservoir, Hall–Gurney field, Russell County, Kansas: Department of Energy, CO_2 Enhanced Oil Recovery Pre-proposal Workshop, Houston, Texas, February 22.

Newell, K. D., Coalbed gas in Kansas, talk presented at Eastern Kansas Royalty Owners Association Meeting, Chanute, Kansas, October 19.

Newell, K. D., and Carr, T. R., 2006, Geologic controls on coalbed batural gas production in eastern Kansas coals: Symposium on Coalbed Methane and Gas Shales in the Southern Midcontinent, Oklahoma Geological Survey, Oklahoma City, Oklahoma, March 21.

Sophocleous, M. A., Townsend, M. A., Willson, T., and Vocasek, F., 2006, Fate of nitrate beneath fields irrigated with treated wastewater in Ford County, Kansas: 23rd Annual Water and the Future of Kansas Conference, Topeka, Kansas, March 16.

Sophocleous, M. A., Invited presentation on Preferential flow and transport of nitrate beneath treated wastewater-irrigated fields near Dodge City, Kansas, at Kansas Geological Survey Advisory Council, Lawrence, Kansas, March 31.

Sophocleous, M. A., Invited presentation on spatial and temporal variability of recharge, at 2006 GSA Annual Meeting, Philadelphia, Pennsylvania, October 25.

Sophocleous, M. A., Invited presentation on water resources sustainability and its application in Kansas to a group of visiting Asian scientists; visit sponsored by IWMI and KU International Studies Program, University of Kansas, Lawrence, November 27.

Suchy, D. R., Adkins–Heljeson, D., and Stewart, D. L., 2006, KGS geohydrologic data on the internet (abs.): 23rd Annual Water and the Future of Kansas Conference, Topeka, Kansas.

Watney, W. L., 1.5-hr. videotaped interview/story on alternative energy and KU Energy Research Center: https://tv.ku.edu/news/2006/12/07/university-looks-wind/.

Watney, W. L. organizer/compiler, Bohling, G., Bhattacharya, S., Doveton, J., Guy, B., 2006, PfEFFER Pro overview and web tools, PTTC/ERC sponsored day-long workshop held on March 30 in Wichita and on Nov. 17 in Lawrence (workbook and coordinated CD).

Watney, W. L., and Byrnes, A. P., 2006, Geological overview of the Niobrara Chalk natural gas play–Microhole drilling with coiled tubing — It's here and growing: Denver Section Society of Petroleum Engineers, Continuing Education Short Course (half-day) in association with PTTC, May 19, Denver Athletic Club, Denver, Colorado.

Watney, W. L. Callaghan, N., Bartley, J., and Xu, S., 2006, Applying visual techniques on geological formations using modeling techniques and 3-D visualization: 2006 ESRI Petroleum User Group Conference, April 3–5, Houston, Texas.

Watney, W. L., Franseen, E. K., Byrnes, A. P., Nissen, S. E., and Sihuang, X., 2006, Evaluating structural controls and their role in forecasting properties of Phanerozoic rocks in the northern midcontinent, U.S.A. — Ancient examples and modern analogs: Presented to Denver chapter of SIPES, Denver, Colorado, January 26; Kansas Geological Society, Wichita, Kansas, May 4; and KGS, Lawrence, Kansas, July 18, 25.

Whittemore, D. O., Sophocleous, M. A., and Butler, J. J., Jr., 2006, Downstream extension of dry river bed conditions for the Arkansas River, Kansas: 51st Annual Midwest Ground Water Conference, Program with Abstracts, School of Natural Resources, University of Nebraska, Lincoln, Nebraska, p. 15.

Wilson, B. B., Talk to Kansas Rural Water Association Conference.

Wilson, B. B., Talk to Water and the Future of Kansas Conference.

Xia, J. — Feasibility of detecting near-surface feature with Rayleigh-wave diffraction: The Geological Society of America Annual Meeting, Philadelphia, Pennsylvania, October 22–25, 2006.

Xia, J. — New developments in analysis of high-frequency Rayleigh waves: Southwest Jiaotong University, China, June 26, 2006.

Xia, J. — New developments in analysis of high-frequency Rayleigh waves: Zhejiang University, China, June 4, 2006.

Awards

Carr, T. — Best Poster, American Association of Petroleum Geologists, Annual Meeting, Energy Minerals Division, Houston, Texas, April

Miller, R. — Selected best paper at SAGEEP EEGS annual meeting, 2006

Newell, D. — Energy Minerals Division Award for Best Poster Presentation (co-author); 2006 American Association of Petroleum Geologists National Convention, Houston, Texas

Smith, J. — Raymond and Lillian Moore Graduate Scholarship, Geology Department, University of Kansas, 2006

Smith, J. — Eugene Dehner Award, Kansas Academy of Science (2006), 2nd place Ph.D. oral presentation

Watney, L. — John V. Atanasoff Research and Discovery Award, 2006, Iowa State University

Whittemore, D. — Elected Fellow of the Geological Society of America

Xia, J. — The Golden Bridge Award, The 2nd International Conference on Environmental and Engineering Geophysics, 2006

Internal Service

Battles, E. — Created a series of custom maps for week-long annual tour sponsored by the University of Kansas Chancellor's office. The maps were titled "Wheat State Whirlwind: A Tour of the Heartland for KU Faculty"

Butler, J. — University of Kansas, Student Advising, Postdoctorate Fellow: Xiaoyong Zhan (2002–06)

Butler, J. — Member, KGS Stratigraphic Research Assistant Scientist Search Committee

Butler, J. — Member, KGS Exploration Services Research Assistant Search Committee
Butler, J. — Member, KGS Geohydrology Field Hydrogeologist Search Committee
Butler, J. — Member, KGS Promotion and Review Committee
Butler, J. — Member, KGS Deputy Director Search Committees
Carr, T. — Taught course at University of Kansas, Geology 536, Log Analysis of Subsurface Geology, assisted John Doveton
Carr, T. — Supervised KU graduate students — Stephen Schurger (M.S., 2006); Alan P. Byrnes (Ph.D., expected 2006); and Martin K. Dubois (Ph.D. expected 2006)
Doveton, J. — KU courses taught: GEOL 536, Log Analysis of Subsurface Geology; C&PE 528, Well Logging
Franseen, E. — Co-chair, KGS search committee for Deputy Director, 2006–07
Franseen, E. — Co-leader of a 10-day field trip for University of Kansas and University of Puerto Rico–Mayaguez geology graduate and undergraduate students to Paleozoic strata in the Sacramento and Guadalupe Mountains, New Mexico and Texas, March 17–March 26
Franseen, E. — Co-instructor for Geology 761, Regional Field Geology, Spring Semester, Geology Department, University of Kansas
Ludvigson, G. — July–August 2006 — Co-instructor, Advanced Topics in Geology: Mid-Cretaceous Geology of China, with Luis A González, The University of Kansas
Ludvigson, G. — July 2006–present: Courtesy Associate Professor, Department of Geology, University of Kansas
Mandel, R. — Served on dissertation committees at the University of Kansas for Virginia Hatfield, Department of Anthropology, and Chris Widga, Department of Anthropology
Mandel, R. — Chair of KGS search committee for hiring a Post-Doctoral Research Associate specializing in Neogene stratigraphy and modern pedogenic processes, Stratigraphic Research Section
Mandel, R. — Committee member, KU Social Sciences General Research Fund
Miller, R. — Chair of KU thesis committees: Theresa Rademacker (Masters); Jamie Lambrecht (Masters)
Newell, D. — Merriam International Travel Awards Committee (member)
Newell, D. — Search Committee for technical field assistant (member)
Suchy, D. — Helped to judge student research paper presentations for Sigma Xi Student Research Competition
Suchy, D. — Served as peer reviewer of paper on chaetetid bioconstructions in Sonora, Mexico, for the Geological Society of London Special Publication, Palaeozoic Reefs and Bioaccumulations — Climatic and Evolutionary Controls

External Service

Battles, E. — Served as Chairperson for the Technical Advisory Committee (TAC) Land Use/Geology/Soils data committee
Battles, E. — Created a map titled “Know Your Watershed” for the Kansas Water Office
Battles, E. — Created a map for the “Teacher of the Year” award for the Kansas Water Office
Brady, L. — Co-Leader, Field trip –“Overview of coal and coalbed methane in the Cherokee basin, northeast Oklahoma” for the Midcontinent Coalbed Methane and Gas Shale Symposium II, October, 24
Buchanan, R. — Association of Earth Science Editors, Chair, Long-range Planning Committee, 2002–06
Butler, J. — Chair (7/04–6/06), Groundwater Technical Committee, American Geophysical Union
Butler, J. — Associate Editor–Hydrogeology Journal (2006–)
Butler, J. — Panelist, AAAS Research Competitiveness Service, Panel for Review of New Mexico NSF EPSCoR Program, April
Butler, J. — Promotion and Tenure Evaluator for Department of Geological Sciences, University of Colorado, and Department of Geology and Geophysics, Texas A&M University.
Butler, J. — Aquifer Testing for Improved Hydrogeologic Site Characterization Featuring AQTESOLV and the In-Situ LevelTroll (taught half of course), Fort Collins, Colorado, October 17–18
Butler, J. — Advanced Aquifer Testing Analysis Featuring AQTESOLV: New Concepts, Field Methods, and Data Analysis Procedures (taught half of course), GES Inc., Exton, Pennsylvania, May 2–3; University of Miami, February 28–March 2
Butler, J. — Design and Analysis of Pumping Tests with AQTESOLV (sole instructor), Division of Water Resources, Kansas Department of Agriculture, Topeka, Kansas, October 11
Butler, J. — Linked Hydrologic Processes Across Surface Water, Vadose Zone Water, and Groundwater, Fall Meeting of the American Geophysical Union, San Francisco, California, December

Carr, T. — Session chair, "Oil sands/shales — Thermal/non-thermal methods leading us to new giants?" American Association of Petroleum Geologists, Annual Meeting, Houston, Texas, April 9–12

Carr, T. — Second Midcontinent Coalbed Methane Symposium, Petroleum Technology Transfer Council, Midcontinent CBM Forum and the OIPA, Tulsa, Oklahoma, October 22–24

Doveton, J. — QGSI "Log Analysis for Reservoir Characterization," February 6–7, Houston, Texas

Doveton, J. — PTTC Workshop "The PfEFFER Workshop," March 30, Wichita, KS, November 16, Lawrence, Kansas

Doveton, J. — PEMEX "Prediction of permeability from logs," August 21–25, Villahermosa, Mexico

Doveton, J. — KCC "Basic Log Course," October 5, Wichita, Kansas

Doveton, J. — EREX Short Course on "Petrophysical Log Analysis," November 5–9, Cairo and Hurghada, Egypt

Franseen, E. — SEPM Foundation Board, 2006–present

Franseen, E. — SEPM Student Assistance Grants Committee, 2006–present

Franseen, E. — Co-instructor for AAPG Education Program "Controls on Porosity Types and Distribution in Carbonate Reservoirs," Almeria, Spain, May–June

Ludvigson, G. — StateMap Program Coordinator

Mandel, R. — Elected to the Council of the American Quaternary Association (AMQUA), 2002–06 (representing archaeology and geoarchaeology)

Mandel, R. — Served as an external member of a dissertation or master's committee for Elizabeth Robertson, Department of Archaeology, University of Calgary, M.S.; Adel E. Haj, Jr., Department of Geology, University of Iowa, Ph.D.; Cynthia Wambsgans, Department of Geosciences, University of Iowa, M.S.

Mandel, R. — Organizer and chair of a theme session "Geoarchaeology of Prehistoric Earthworks," Annual Meeting of the Geological Society of America, Philadelphia, Pennsylvania, October 24

Mandel, R. — Chair, Committee for the Douglas C. Kellogg Fund for Geoarchaeological Research, Society for American Archaeology, 2002–06

Mandel, R. — Representative, Geological Society of America Joint Technical Program Committee, 2005–06

Miller, R. — Michigan Department of Transportation, Ontario Ministry of Transportation, Geotechnical Oversight Panel; Detroit River International Crossing, 2006–08

Miller, R. — SEG, Special Issue Editor, The Leading Edge, March (v. 25, no. 3), geophysics and public safety; June (v. 25, no. 6), hydrogeophysics; October (v. 25, no. 10), carbon sequestration/EOR

Miller, R. — National Advisory Team for Geophysics in Hydrology, organized by the Consortium of Universities for the Advancement of Hydrologic Sciences Inc., 2006–present

Miller, R. — ASTM Geophysics Subcommittee on Seismic Standards, 2006–present

Sophocleous, M. — Associate Editor, Hydrogeology Journal, January 2002–December 2006

Sophocleous, M. — Examiner for dissertation: S. A. Pierce, 2006, Jackson School of Geosciences, University of Texas@Austin, Austin, Texas

Suchy, D. — Manned a booth and poster at City of Lawrence Water Festival, Earth Day, in South Park

Suchy, D. — Coordinated efforts between KGS and KDHE to further their utilization of and reliance on our online WWC5 water well database

Suchy, D. — Began duties as Exhibits and Sponsors Chair for joint meeting of South-Central and North Central Sections of GSA to be held at KU in April 2007

Watney, L. — Chair, Headquarters and Business Committee, Society of Sedimentary Geology (SEPM), 2006

White, S. — Board member, Kansas Natural Resource Council, Lawrence, Kansas, August 2006–07

White, S. — Task Force Member, Senator Pat Roberts energy task force, 2006

Wilson, B. — Kansas Technical Advisory Committee and the DASC Sub-committee to the Kansas GIS Policy Board

Wilson, B. — Sandia National Laboratory, Invited participant for the Energy and Water Roadmap — GAPs Analysis Workshop

2005

Refereed Publications

Bhattacharya, S, Doveton, J. H., Carr, T. R., Guy, W. R., and Gerlach, P. M., 2005, Integrated core-log petrofacies in the construction of a reservoir geomodel — A case study of a mature Misissippian carbonate reservoir using limited data: American Association of Petroleum Geologists, Bulletin, v. 89, no. 10, p. 1,257–1,274.

Bohling, G. C., 2005, CHRONOS age-depth plot — A Java application for stratigraphic data analysis: Geosphere, v. 1, no. 2, p. 78–84.

Buchanan, R., 2005, Five things I've learned in 25 years of popularizing geology: Palaios, v. 20, no. 1, February, p. 1–2.

Burbridge, P., Buddemeier, R. W., Le Tissier, M. D. A., and Costanza, R., 2005, Synthesis of main findings and conclusions; *in*, Coastal Fluxes in the Anthropocene, C. J. Crossland, H. H. Kremer, H. J. Lindeobom, J. I. Marshall Crossland, and M. D. A. Le Tissier, eds.: Springer, Berlin Heidelberg New York, p. 201–217.

Butler, J. J., Jr., 2005, Hydrogeological methods for estimation of hydraulic conductivity; *in*, Hydrogeophysics, Y. Rubin and S. Hubbard, eds.: Springer, The Netherlands, Water Science and Technology Library, v. 50, p. 23–58.

Carr, T. R., Merriam, D. F., and Bartley, J. D., 2005, Use of relational databases to evaluate regional petroleum accumulation, groundwater flow, and CO_2 sequestration in Kansas: American Association of Petroleum Geologists, Bulletin, v. 89, p. 1,607–1627. http://membernet.petris.com/data/2005/12dec/1607/1607.HTM

Carr, T. R., Newell, K. D., Johnson, T. A., Brown. W. M., and Lange, J. P., 2005, Coalbed-methane development in Kansas; in, Unconventional Energy Resources in the Southern Midcontinent, 2004 Symposium, B. J. Cardott, ed.: Oklahoma Geological Survey, Circular 110, p. 63–65.

Castle, J. W., and Byrnes, A. P., 2005, Petrophysics of Lower Silurian sandstones and integration with the tectonic-stratigraphic framework, Appalachian basin, United States: American Association of Petroleum Geologists, Bulletin, v. 89, no. 1, p. 41-60.

Castle, J. W., Rudolph, L., and Byrnes, A. P., 2005, Lower Silurian incised-valley fills of the Appalachian foreland basin and application to petroleum exploration; *in*, Incised Valleys, R. W. Dalrymple, ed.: SEPM Special Publication.

Chopra, S., Chemingui, N., and Miller, R. D., 2005, Introduction to this special section — Carbonates: The Leading Edge, v. 24, no. 5, p. 488–489.

Devlin, J. F., and Sophocleous, M. A., 2005, The persistence of the water budget myth and its relationship to sustainability: Hydrogeology Journal, v. 13, no. 4, p. 549–554.

Doveton, J. H., 2005, Latent class analysis — An algebra of probability for binary data: Proceedings, IAMG 05 — GIS and Spatial Analysis, v. 2, p. 1,278–1,283.

Doveton, J. H., 2005, Polynomial stratigraphy — Moment mapping of subsurface lithofacies in three dimensions: Proceedings, IAMG 05 — GIS and Spatial Analysis, v. 2, p. 1,296–1,301.

Feldman, H. R., Franseen, E. K., Joeckle, R. M., and Heckel, P. H., 2005, Impact of longer-term modest climate shifts on architecture of high-frequency sequences (cyclothems), Pennsylvanian of midcontinent, USA: Journal of Sedimentary Research, v. 75, p. 350–368.

Franseen, E. K., 2005, Paleozoic carbonates of the Commonwealth of Independent States (CIS); *in*, Subsurface Reservoirs and Outcrop Analogs, W. G. Zempolich and H. E. Cook, eds.: SEPM Special Publication 74 (2002), 245 p.; Palaios, v. 20, p. 313–314.

Hayes, D. E., and Nissen, S. E., 2005, The South China Sea margins — Implications for rifting contrasts: Earth and Planetary Science Letters, v. 237, p. 601–616.

Hunter, J. A., Pullan, S. E., Good, R. L., Burns, R. A., Douma, M., Miller, R. D., Park, C. B., and Xia, J., 2005, Measuring sub-seabottom seismic velocities — Some unusual experiments: Proceedings of the Symposium on the Application of Geophysics to Engineering and Environmental Problems (SAGEEP 2005), Atlanta, Georgia, April 3–7, p. 370–386.

Ivanov, J., Miller, R. D., Ballard, R. F., Dunbar, J. B., and Smullen, S., 2005, Time-lapse seismic study of levees in southern Texas [exp. abs.]: Society of Exploration Geophysicists, Houston, Texas, November 6–11, p. 1,121–1,124.

Ivanov, J., Miller, R. D., Xia, J., and Steeples, D. W., 2005, The inverse problem of refraction traveltimes, part II — Quantifying refraction nonuniqueness using a three-layer model: Pure and Applied Geophysics, v. 162, no. 3, p. 461–477.

Ivanov, J., Miller, R. D., Xia, J., Steeples, D. W., and Park, C. B., 2005, The inverse problem of refraction traveltimes, part I — Types of geophysical nonuniqueness through minimization: Pure and Applied Geophysics, v. 162, no. 3, p. 447–459.

Ivanov, J., Park, C. B., Miller, R. D., and Xia, J., 2005, Analyzing and filtering surface-wave energy by muting shot gathers: Journal of Environmental & Engineering Geophysics, v. 10, no. 3, p. 307–322.

Joeckel, R. M., Ludvigson, G. A., Witzke, B. J., Kvale, E. P., Phillips, P. L., Brenner, R. L., Thomas, S. G., and Howard, L. M., 2005, Paleogeography and fluvial to estuarine architecture of the Dakota Formation (Cretaceous, Albian), eastern Nebraska, USA.; *in*, Fluvial Sedimentology VII, M. D. Blum, S. Marriott, and S. Leclair, eds.: International Association of Sedimentologists, Special Publication No. 35, Blackwell Publishing, Oxford, p. 453–480.

Johnson, C. L., Franseen, E. K., and Goldstein, R. H., 2005, The effects of relative sea level and paleotopography on lithofacies distribution and geometries in heterozoan carbonates, southeastern Spain: Sedimentology, v. 52, p. 513–536.

Kaufmann, R. D., Xia, J., Benson, R., Yuhr, L. B., Casto, D. W., and Park, C. B., 2005, Evaluation of MASW data acquired with a hydrophone streamer in a shallow marine environment: Journal of Environmental and Engineering Geophysics, v. 10, no. 2, p. 87–98.

Kleypas, J. A., Buddemeier, R. W., Eakin, C. M., Gattuso, J. P., Hoegh–Guldberg, O., Iglesias–Prieto, R., Jokiel, P. L., Langdon, C., Skirving, W., and Strong, A. E., 2005, Comment on "Coral reef calcification and climate change: The effect of ocean warming": Geophysical Research Letters, v. 32, issue 8, article number L08601.

Lambrecht, J. L., Miller, R. D., and Durrant, S., 2005, Time-lapse high resolution seismic imaging of a catastrophic salt dissolution sinkhole in central Kansas: Proceedings of the Symposium on the Application of Geophysics to Engineering and Environmental Problems (SAGEEP 2005), Atlanta, Georgia, April 3–7, p. 943–951.

Liu, J., Xia, J., Chen, C., and Zhang, G., 2005, Accurate elevation and normal moveout corrections of seismic reflection data on rugged topography: New Zealand Journal of Geology and Geophysics, Royal Society of New Zealand, v. 48, no. 4, p. 707–716.

Loheide, S. P., II, Butler, J. J., Jr., and Gorelick, S. M., 2005, Estimation of groundwater consumption by phreatophytes using diurnal water table fluctuations — A saturated-unsaturated flow assessment, Water Resources Research, v. 41, no. 7.

Ludvigson, G. A., and Witzke, B. J., 2005, The emerging record of Late Ordovician global change: Iowa DNR Geological Survey, Guidebook Series No. 24, p. 66–71.

Mandel, R. D., 2005, Geomorphology and site stratigraphy; *in*, The Cowan Site — A Great Oasis Community in Northwest Iowa*,* S. C. Lensink and J. A. Tiffany, eds.: Office of the State Archeologist, University of Iowa, Iowa City, IA, p. 11–21.

Mandel, R. D., Holen, S., and Hofman, J. L. 2005, Geoarchaeology of Clovis and potential pre-Clovis cultural deposits at the Kanorado locality, northwestern Kansas: Current Research in the Pleistocene, v. 22, p. 56–57.

McLaughlin, C. J., Smith, C. A., Buddemeier, R. W., Bartle,y J. D., and Maxwell, B. A., 2005, Reply to the comments of Macdonald et al. on "Rivers, runoff and reefs" [Global and Planetary Change 39 (2003) 191-199]: Global and Planetary Change, v. 45, issue 4, p. 339–341.

Miller, R. D., Hunter, J. A., Doll, W. E., Carr, B. J., and Collett, T. S., 2005, High-resolution seismic imaging of the gas hydrate stability zone at the Mallik L–38 research site; *in*, Scientific Results from the Mallik 2002 Gas Hydrate Production Research Well Program, Mackenzie Delta, Northwest Territories, Canada, S. R. Dallimore and T. S. Collett, eds.: Geological Survey of Canada, Bulletin 585, 14 p.

Miller, R. D., Ivanov, J., Markiewicz, R. D., and O'Connell, D., 2005, Estimating vibration response of East Canyon Dam, Utah, from P-, S-, and surface-wave measurements: Symposium on the Application of Geophysics to Engineering and Environmental Problems (SAGEEP 2005), Atlanta, Georgia, April 3–7, p. 1,025–1,032.

Miller, R. D., Ivanov, J., Markiewicz, R. D., and O'Connell, D., 2005, Standard guide for using the seismic-reflection method for shallow subsurface investigation: ASTM International, D 7128–05, 25 p.

Miller, R. D., Ivanov, J., Steeples, D. W., Watney, W. L., and Rademacker, T. R., 2005, Unique near-surface seismic-reflection characteristics within an abandoned salt-mine well field, Hutchinson, Kansas [exp. abs.]: Society of Exploration Geophysicists, Houston, Texas, November 6–11, p. 1,041–1,044.

Miller, R. D., Villella, A., Xia, J., and Steeples, D. W., 2005, Seismic investigation of a salt dissolution feature in Kansas; in, Near-Surface Geophysics, D. K. Butler, ed.: Society of Exploration Geophysicists, Investigations in Geophysics No. 13, p. 681–694.

Miller, R. D., Xia, J., and Park, C. B., 2005, Seismic techniques to delineate dissolution features (karst) at a proposed power plant site; in, Near-Surface Geophysics, D. K. Butler, ed.: Society of Exploration Geophysicists, Investigations in Geophysics No. 13, p. 663–679.
Miller, R. D., Xia, J., Steeples, D., Black, R., and Tsoflias, G., 2005, Applied research in high-resolution seismic reflection at KU: EEGS Publication, Fast Times, v. 10, no. 1, p. 26–27.
Ohlmacher, G. C., 2005, Landslide-inventory map of the McLouth and Jarbalo 7.5-minute quadrangles, Jefferson and Leavenworth counties, Kansas: Kansas Geological Survey, Map M–117A, 1:36,000 scale.
Ohlmacher, G. C., and Berendsen, P., 2005, Kinematics, mechanics, and potential earthquake hazards for faults in Pottawatomie County, Kansas, USA: Tectonophysics, v. 396, p. 227–244.
Ohlmacher, G. C. and Davis, J. C., 2005, Landslide-hazard map of the McLouth and Jarbalo 7.5-minute quadrangles, Jefferson and Leavenworth counties, Kansas: Kansas Geological Survey, Map M–117B, 1:36,000 scale.
Park, C. B., 2005, Multichannel analysis of surface waves (MASW) — An overview: Journal of the Korean Geophysical Society, v. 6, no. 2, p. 99–105.
Park, C. B., and Miller, R. D., 2005, Passive MASW — data acquisition [abs.]: Symposium on the Application of Geophysics to Engineering and Environmental Problems (SAGEEP 2005), Atlanta, Georgia, April 3–7.
Park, C. B., and Miller, R. D., 2005, MASW for quantifying change in shear wave velocity after deep dynamic compaction at a soil site: Journal of the Korean Geophysical Society, v. 6, no. 4, p. 245–259.
Park, C. B., Miller, R. D., Ryden, N., Xia, J., and Ivanov, J., 2005, Combined use of active and passive surface waves: Journal of Environmental & Engineering Geophysics, v. 10, no. 3, p. 323–334.
Park, C. B., Miller, R. D., Xia, J., and Ivanov, J., 2005, Multichannel analysis of passive surface waves — Modeling and processing schemes: Proceedings of the Geo-Frontiers Conference, Austin, Texas, January 23–26.
Park, C. B., Miller, R. D., Xia, J., Ivanov, J., Sonnichsen, G. V., Hunter, J. A., Good, R. L., Burns, R. A., and Christian, H., 2005, Underwater MASW to evaluate stiffness of water-bottom sediments: The Leading Edge, v. 24, p. 724–728.
Qi, L., and Carr, T. R., 2005, Prediction of carbonate lithofacies from digital well logs using neural network, Big Bow and Sand Arroyo Creek field, southwest Kansas: Computers and Geosciences, v. 32 p. 947–964 (Student Publication).
Qi, L., Carr, T. R., Goldstein, R. H., 2005, An integrated geostatistical approach — Constructing 3D models and simulation of St. Louis carbonate reservoir systems; *in*, Reservoir Characterization — Integrating Technology and Business Practices, R. M. Slatt, org.: 26th Annual GCSSEPM Foundation, Bob F. Perkins Research Conference, p. 1,041–1,088 (Student Publication).
Rademacker, T. R., Miller, R. D., Xia, J., Black, R., and Tsoflias, G., 2005, Enhancing the vibroseis technique through equipment noise reduction and optimizing the weighted sum signal [exp. abs.]: Society of Exploration Geophysicists, Houston, Texas, November 6–11, p. 33–36.
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Computer Software

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Bartley, J. — Developing an XML based web-mapping tool for mapping distributed international geochemistry databases (NAVDAT, PETDB, GEOROCK).
Bartley, J. — Developing robust online project management tools to manage enterprise level database (Oracle) and GIs software (SDE). Remote and dynamic management of ArcIMS, ArcSDE, & web services.
Bartley, J. — Creating applications and datasets that help to integrate and visualize Kansas energy production.
Bartley, J. — Spatially enabling tabular oil and gas databases for use in GIS analysis, cleanup, and visualization.
Bartley, J. — Developing and coordinating projects that communicate GIS and tabular data within an open standards framework (Web Services, XML, GML, OGC, WMS, WFS).
Bartley, J. — Developing Enterprise level web based GIS and RDBMS applications that enable users to visualize and analyze spatial-temporal and subsurface multi-dimensional datasets (Flash interface + backend database)
Bartley, J. — Providing dynamic online mapping tools for distributed biogeographic databases; www.iobis.org & www.fishbase.org & www.cephbase.org
Bartley, J. — GIS Data in Google Earth. Built an application that allows us to deliver image based data layers to Google Earth. http://www.mapdex.org/blog/index.cfm?mode=cat&category_id=0974E29F-CB79-1B91-496009E394525A70.
Bartley, J. — GIS Data in Google Maps (2005). Developed several tools that allow users to add ArcIMS data to Google Maps. http://geoportal.kgs.ku.edu/googlemaps/.

Bartley, J. — LEOWeb. Directed student in building the web-based version of the Township-Section-Range conversion tool. http://geoportal.kgs.ku.edu/leoweb/.

Bartley, J. — DASC Mapserver. Developed the DASC Mapserver. Mapserver allows easy access to DASC spatial data for developers and analysts. DASC was able to use Mapserver for the new catalog data viewer. http://geoportal.kgs.ku.edu/mapserver/.

Bartley, J. — KGS Web Services. A web-based application interface that allows programmatic access to geospatial data via XML based requests.

Bartley, J. — Database Explorer. A web-based tool written in Coldfusion that allows any survey member, who has an account in Oracle, to log and view all of the oracle tables and views and ESRI SDE layers stored in Oracle for that particular user. http://hercules.kgs.ku.edu/website/sdemanager/manage.cfm.

Bartley, J. — ArcIMS Manager. A web-based tool written in ColdFusion that allows Survey Arcims developers to manage mapservices on six different mapserviers

Bartley, J. — ArcIMS Server Stability Check. A tool that every 10 minutes checks each ArcIMS server to see if it is responding. If it does not respond then an email is sent to me giving the name of the server, time, and error reported.

Bartley, J. — Server Management Tool. A web based tool that allows certain survey staff to remotely start and stop services and to reboot the server (if needed). The web page is accessible on a secure site and every action is monitored and logged into an Oracle table.

Bartley, J. — Current ArcIMS Server Status. A web-based tool that allows us to monitor current ArcIMS usage. ArcIMS MapServer Refresh. Assisted in developing an automated procedure to refresh ArcIMS connections to Oracle. ArcIMS Cold Fusion Web Services Connector. Working to develop replacement ColdFusion tags that submit request and process responses to ArcIMS written in XML through a CFMX webservice.

Wilson, B. — Assisted with development of water budget for local township irrigation coalition and GMD #4.

Wilson, B. — Developed prototype web page for direct volunteer/public entry of water-level measurements into WIZARD.

Wilson, B. — Worked with the KDA–DWR to automate water-level data sharing and seamless data integration between Oracle RDBMS's.

Wilson, B. — Worked with the GMD #3 Board in developing protocol for aquifer-subunit delineation.

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of Petroleum Geologists, Midcontinent Section Meeting, Oklahoma City, Oklahoma, September 8–13, p. 30. (Student Publication). http://www.ocgs.org/2005Midcon/Technical%20Presentations%20-%20Oral%20-%20Reduced%20.pdf

Woody, D. T., Smith, J. J., Kraus, M. J., and Hasiotis, S. T., 2005, Absence of preserved manganiferous rhizoliths within the PETM interval and its climatic implications: Geological Society of America, Annual Meeting Program, v. 37, no. 7, p. 414.

Xia, J., and Xu, Y., 2005, Discussion on four practical equations of high-frequency surface-wave techniques: Symposium on the Application of Geophysics to Environmental and Engineering Problems (SAGEEP) Annual Meeting of the Environmental and Engineering Geophysical Society (EEGS), April 3–7, Atlanta, Georgia, 1 p.

Xia, J., Xu, Y., and Miller, R. D., 2005, Current development of estimation of near-surface elastic moduli by analysis of Rayleigh waves [abs.]: 2005 Joint Assembly, The American Geophysical Union, New Orleans, Louisiana, May 23–27, published on CD.

Xu, Y., and Xia, J., 2005, Investigation of water leakage in Qiu Jia Wan main dam of the Yangtze River using a multi-channel electrical method: Symposium on the Application of Geophysics to Environmental and Engineering Problems (SAGEEP), Annual Meeting of the Environmental and Engineering Geophysical Society (EEGS), April 3–7, Atlanta, Georgia, 1 p.

Presentations

Allison, M. L. — Presentation on "Kansas Energy" to Wichita Lions Club, Wichita, Kansas, January 12.

Allison, M. L. — Presentation on "2005 Kansas Energy Report" to Joint hearing, Senate & House Utilities Committees, January 13, Topeka, Kansas.

Allison, M. L. — Presentation on "Wind & Prairie Policy" to Kansas Energy Council, January 19, Topeka, Kansas.

Allison, M. L. — Presentation on "Governor's Wind & Prairie Policy" to House Utilities Committee, January 21, Topeka, Kansas.

Allison, M. L. — Presentation on "Kansas Energy" to 55th Annual Environmental Engineering Conference, February 2, University of Kansas, Lawrence, Kansas.

Allison, M. L. — Presentation on "Wind & Prairie Policy" to Kansas Association of Counties, Day at the Capitol, Topeka, Kansas, February 15.

Allison, M. L. — Presentation on "Kansas Energy Developments" to Kansas Geological Society, Wichita, Kansas, February 16.

Allison, M. L. — Presentation on "Kansas Energy Opportunities and Challenges for Rural Kansas" to Rural Life Task Force, Salina, Kansas, February 17 (presentation and discussion).

Allison, M. L. — Presentation on "Wind Energy in Kansas" to League of Women Voters, Johnson County, Kansas, April 2.

Arnold D., and Butler, J. J., Jr., Salt-cedar control activities and water-table monitoring on the Arnold Ranch, Clark County, Kansas, an invited presentation to the CPR for Wetlands and Streams II Conference, Wichita, Kansas, September 28.

Bartley, J. D., and Iqbal, A., Two guest lectures for Geography 758 at University of Kansas, Lawrence, Kansas, http://hercules.kgs.ku.edu/jdb/GEOG_758_XML_ARCIMS.ppt .

Bartley, J. D., Carr, T., and Iqbal, A., NatCarb — Publishing spatial data within a geoportal framework, at Regional Carbon Sequestration 2005 Meeting, Pittsburgh, Pennsylvania. http://hercules.kgs.ku.edu/kgs/oilgas/powerpoints/natcarb_regcarbSEQ_2005.ppt.

Bartley, J. D., MAPDEX + Google Earth — GIS data discovery and visualization, at KU GIS Day Symposium. http://hercules.kgs.ku.edu/jdb/Mapdex_GE_GISDAY_2005_public.ppt.

Bartley, J. D., MAPDEX — A global index of distributed web map services, at ESRI Users Conference, Kansas City ArcInfo Users Group. http://hercules.kgs.ku.edu/kgs/oilgas/powerpoints/kcaiug_mapdex.ppt.

Bartley, J. D., MAPDEX — A global index of distributed web map services, at ESRI Users Conference, San Diego, California.

Bartley, J. D., 3D visualization of Kansas oil and gas fields, at KGS GSAC meeting, June.

Bartley, J. D., MAPDEX — A global index of distributed web map services, at FGDC Interagency Coordination Meeting, National Archives, Washington D.C. http://www.fgdc.gov/fgdc/coorwg/2005/may/fgdc_mapdex.ppt.

Bartley, J. D., NATCARB — Publishing spatial data within a geoportal framework, at FGDC Interagency Coordination Meeting, National Archives, Washington D.C. http://www/fgdc.gov/fgdc/coorwg/2005/may/fgdc_natcarb.ppt.

Bartley, J. D., and Carr, T. R., NATCARB — Publishing spatial data within a geoportal framework, at ESRI Petroleum Users Group Conference, Houston, Texas. http://hercules.kgs.ku.edu/kgs/oilgas/powerpoints/Netl_2005mtg.ppt.

Butler, J. J., Jr., Diurnal water-table fluctuations — An underutilized indicator of groundwater consumption by plants, an invited presentation given as part of the Environmental Seminar Series at the Desert Research Institute, Reno, Nevada, November 4.

Butler, J. J., Jr., Whittemore, D. O., and Kluitenberg, G. J., Studies of ground-water consumption by phreatophytes in river valleys of Kansas: Transactions, Kansas Academy of Science, v. 108, no. 3/4, p. 165–166.

Butler, J. J., Jr., Whittemore, D. O., and Kluitenberg, G. J., 2005, A field investigation of ground-water consumption by phreatophytes in river valleys of Kansas: 50th Annual Midwest Ground Water Conference, Program with Abstracts, Illinois State Geological Survey, Open-File Series 2005–13, p. 18.

Carr, T. R., with S. E. Nissen and R. Brownrigg, 3D visualization of geology, geophysics and petroleum engineering, keynote presentation for the 16th Oil Recovery Conference, Wichita, Kansas, April 6.

Carr, T. R. — Kansas coalbed and shale gas, at Bundesanstalt fuer Geowissenschaften und Rohstoffe, Berlin, Germany, June 13.

Carr, T. R. — Kansas coalbed and shale gas, at Brandenburg Landesamt fur Bergbau Geologie und Rohstoffe, Kleinmachnow, Germany, June 14.

Carr, T. R. — Kansas coalbed and shale gas, at Institut fur Bohrtechnik und Fluidbergbau, Technische Universitat Bergakademie, Freiberg, Germany, June 15.

Carr, T. R. — Enhanced oil recovery — A green market for $C0_2$ from ethanol production, with Martin Dubois and Alan Byrnes, at International Fuel Ethanol Workshop and Expo, Kansas City, Missouri, June 29.

Carr, T. R. — Simplified Online Automated Reporting (SOLAR) for the Kansas oil and gas industry, at the Kansas Independent Oil and Gas Association (KIOGA) Annual Meeting, Wichita, Kansas, August 22.

Carr, T. R. — Online oil and gas information for Kansas, at the Eastern Kansas Oil and Gas Association (EKOGA) Annual Meeting, Chanute, Kansas, September 16.

Carr, T. R. — CO_2 sequestration, at Kansas Renewable Energy and Energy Efficiency 2005 Conference, Topeka, Kansas, September 21.

Carr, T. R. — Energy and the Future, at West Virginia University, Department of Geology and Geography, Morgantown, West Virginia, October 6.

Carr, T. R. — Linking carbon capture and storage to enhanced oil recovery, invited presentation at Weathering Climate Change — How Evolving Markets will Affect Your Business, an invitation-only corporate seminar for the clients of Ecology and Environment, Inc., www.ene.com., October 21.

Carr, T. R. — Mississippian reservoirs in Kansas — New techniques–old targets, with S. Nissen and L. Qi, Kansas Geological Society Technical Meeting, Wichita, Kansas, November 3.

Carr, T. R. — Ongoing and future carbon sequestration demonstration projects in the United States — A Kansas perspective, at 2nd Carbon Management Workshop and 11th Annual CO2 Flooding Conference, Midland, Texas, December 3.

Carr, T. R., Bartley, J. D, and Look, K., NatCarb carbon cyberinfrastructure — A federation of distributed resources and distributed multidisciplinary expertise, at NETL Invited Meeting. http://hercules.kgs.ku.edu/kgs/oilgas/powerpoints/Netl_2005mtg.ppt.

Franseen, E. K. — "Spectral gamma ray scintillometer as a 1st cut tool for aggregate quality," at Transportation Research Board Symposium and 56th Annual Highway Symposium, May 3–6, Wilmington, North Carolina.

Franseen, E. K. — "Spectral gamma ray scintillometer as a 1st cut tool for aggregate quality," at Kansas Aggregate Producers Association 38th Annual Joint Convention, January 13–15, Kansas City.

Keller, J., Shea, J., Bauer, J., Butler, J. J., Jr., Kluitenberg, G. J., and Whittemore, D. O., 2005, A field investigation of ground-water consumption by phreatophytes in river valleys of Kansas: 50th Annual Midwest Ground Water Conference, Program with Abstracts, Illinois State Geological Survey, Open-File Series 2005–13, p. 19.

Ludvigson, G. A., Tracking the footprints of ancient groundwater's — Dinosaurian track beds as paleorecords of the critical zone, at Department of Geology, University of Kansas, Lawrence, Kansas, November 10.

Ludvigson, G. A., Tracking the footprints of ancient groundwater's — Dinosaurian track beds as paleorecords of the critical zone, at Indiana University–Purdue University Fort Wayne, Fort Wayne, Indiana, March 15.

Ludvigson, G. A., What will global warming mean for Iowa? at Cornell College, Mount Vernon, Iowa, February 15.

Macfarlane, P. A., Townsend, M. A., and Wilson, B. B., 2005, Kansas karst map and the Kansas karst on-line database (abs.): Water and the Future of Kansas Conference, Program with Abstracts, no. 22, p. 9.

Macfarlane, P. A., Wilson, B B., and Bohling, G. C., 2005, Practical saturated thickness of the Ogallala in two small areas of Southwest Kansas Groundwater Management District 3: Proceedings of the 14th Annual Kansas Hydrology Seminar, Topeka, Kansas.

Mandel, R. D. — "Temporal and spatial patterns of Late Quaternary landscape evolution in the central Great Plains of North America," at Baylor University Geoscience Lecture Series, Waco, Texas, April 29.

Mandel, R. D. — "The search for pre-Clovis archaeological sites in the midcontinent — A geoarchaeological approach," at Kansas Geological Society Lecture Series, Wichita, Kansas, May 4.

Mandel, R. D. — Presentation at Department of Geosciences Lecture Series, University of Iowa, Iowa City, Iowa, September 2.

Mandel, R. D. — "The peopling of the new world — A geoarchaeological perspective," at University of Kansas Evolutionists, Lawrence, Kansas, December 13.

Miller, R. D. — Presentation at Sixteenth Oil Recovery Conference, TORP–PTTC, April.

Miller, R. D. — Presentation at Iowa State University Geology Seminar, Ames, Iowa, April.

Miller, R. D. — Presentation at American Geophysical Union Joint Assembly, April.

Miller, R. D., 2005, High-resolution seismic reflection for investigating unconventional energy resources in the Arctic: Iowa State University Geology Seminar, September 28.

Miller, R. D., 2005, Progress report on time-lapse high-resolution 3-D seismic imaging to monitor a CO_2 flood in a thin carbonate reservoir in the Hall–Gurney field, Kansas: Department of Energy Offices, Tulsa, Oklahoma, September 21.

Miller, R. D., 2005, Time-lapse high-resolution 3-D seismic imaging to monitor a CO_2 flood in a thin carbonate reservoir, Hall–Gurney field, Kansas: Sixteenth Oil Recovery Conference, Wichita, Kansas, April 6.

Newell, K. D., General overview of low-BTU gas resources in Kansas, presented at the Petroleum Technology Transfer Conference on Unconventional Gas Resources, Wichita, Kansas, January 20.

Newell, K. D., Carr, T. R., and Brown, W. M., 2005, Kansas coalbed and shale gas; what was, what is, and what may be, talk presented at the Tertiary Oil Recovery Conference, Wichita, Kansas, April 7.

Newell, K. D., 2005, Coalbed methane in eastern Kansas, presented to Environmental Geology class, Emporia State University, Department of Earth Sciences, Emporia, Kansas, November 7.

Sophocleous, M. A. — Invited keynote speaker at the combined Minnesota Ground Water Association and North-Central GSA-sponsored Symposium on Groundwater Sustainability presenting "Groundwater sustainability and its application in Kansas," Minneapolis, Minnesota, May 19.

Sophocleous, M. A. — Invited presentation on "Global water availability and demand," Brownbag Lecture Series, Kansas Water Office, Topeka, Kansas, January 12.

Sophocleous, M. A. — Invited presentation on "Water resources sustainability, groundwater recharge, and surface water/groundwater interactions," Kansas Geological Survey, Advisory Council, Lawrence, Kansas, June 24.

Suchy, D. R., Adkins-Heljeson, D., and Stewart, D. L., 2005, KGS geohydrologic data on the internet (abs.): 22nd Annual Water and the Future of Kansas Conference, Topeka, Kansas.

Suchy, D. R. — Presentation on "KGS website, databases, and public well records," at Kansas Department of Health and Environment geologic workshop on hydrocarbon storage and underground injection wells.

Townsend, M. A., 2005, Geology and human health — a new partnership in the making: 22nd Annual Water and the Future of Kansas Conference, Political Science of Water: Integrating Science into Policy, March.

White, S. W., Poster "Energy payback and lifecycle CO_2 emissions from three Midwestern utility-scale wind systems," at WINDPOWER 2005 conference, Denver, Colorado, May 15–18.

Whittemore, D. O., Butler, J. J., Jr., Healey, J. M., McKay, S. E., Aufman, M. S., and Brauchler, R., 2005, The impact of stream-aquifer interactions on ground-water quality in the alluvial aquifer of the middle Arkansas River: Proceedings 22nd Annual Water and Future of Kansas Conference, Topeka, Kansas, p. 37.

Wilson, B. B. — Presented poster at Kansas Rural Water Association Conference.

Wilson, B. B. — Presented poster at Water and the Future of Kansas Conference.

Wilson, B. B. — Presentation at Agriculture and Rural Leadership Program.

Wilson, B. B. — Presentation at Kansas Environmental Leadership Program.

Wilson, B. B. — Presentation at Kansas GIS Policy Board.

Wilson, B. B. — Presentation at South Central Kansas Water Conference.

Wilson, B. B. — Presentation at Southwest Kansas GMD #3 Board Meeting.

Wilson, B. B. — Developed map series of current saturated thickness, change in water levels and estimated usable lifetimes for the KWO display booth at the Garden City 3i Show.

Young, D. P., Briggeman, S., and Townsend, M. A., 2005, The new and improved High Plains Aquifer Information Network (HIPLAIN) website (abs.): Water and the Future of Kansas Conference, Program With Abstracts, no. 22, p. 37.

Xia, J. — High-frequency Rayleigh wave and its applications in near-surface geology: North China Institute of Water Conservancy and Hydroelectric Power, Zhengzhou, China, April 29, 2005.

Awards

Brady, L. L. — Distinguished Service Award, Energy Minerals Division, American Association of Petroleum Geologists, June

Buddemeier, R. W. — G. K. Gilbert Award, presented for excellence in geomorphological research by the Geomorphology Specialty Group of the Association of American Geographers (for Renwick paper)

Carr, T. R. — Best Paper, International Freiberg Conference on IGCC & XtL Technologies, Freiberg, Germany

Franseen, E. K. — Finalist for Best Paper Award in Journal of Sedimentary Research

Park, C. B. — Merriam International Research Award, Kansas Geological Survey

Internal Service

Adkins–Heljeson, M. — Member of KU search committee for KGS Director, 2005–06

Adkins–Heljeson, M. — Member of KGS search committee for Public Outreach geology extension coordinator, 2005–06

Bartley, J. — Continuing to develop a grassroots GIS working group and an informatics working group with other Survey members

Bartley, J. — Sat on four search committees: Cartographic Services Manager — Dunham (co-chair); GIS Specialist — Saving (co-chair); Information Specialist — Hunsinger (member); and Information Specialist — Ash (member)

Battles, E. — Created a series of custom maps for week long annual tour sponsored by the University of Kansas Chancellor's office. The maps were titled “Wheat State Whirlwind — A Tour of the Heartland for KU Faculty”

Butler, J. — Chair, KGS Geohydrology Scientist Search Committees

Butler, J. — Co-Chair, KGS Strategic Planning Committee (2004–05)

Butler, J. — Member, KGS Evaluation System Review Committee (2003–)

Carr, T. — Supervised Qi Lianshuang (Ph.D., 2005) — Poster based on dissertation research received 3rd best student poster award at 2004 AAPG Annual Meeting in Dallas, Texas; W. Mathew Brown (M.S., 2005) — Thesis contributed to 2004 poster that received President's Certificate for Excellence in Presentation for Best Poster AAPG Energy Mineral Division

Doveton, J. — KU courses taught: C&PE 940, Data Analysis in Engineering and Natural Sciences; GEOL 536, Log Analysis of Subsurface Geology; GEOL 391, TORIS database analysis (Special Studies Geology); C&PE 825, Wireline petrofacies analysis (Graduate Problem); GEOL791, Petroleum Log Analysis (Advanced Topics)

Franseen, E. — Member of Management Team, KGS, 2005–present

Franseen, E. — Member of KGS Promotion and Review Committee

Franseen, E. — KGS representative to Kansas Geologic Mapping Advisory Committee, 2005–present

Franseen, E. — Member of KGS Research Advisory Group, 2005–2008

Franseen, E. — Member of KU search committee for KGS Director, 2005–2006

Franseen, E. — Supervised KU graduate student thesis for Juli Emry

Mandel, R. — Member of KGS search committee for hiring Field Research Assistant in Exploration Services

Newell, D. — Merriam International Travel Awards Committee (Member)

Newell, D. — Search Committee for Analytical Chemist (Member)

Newell, D. — Search Committee for student petrophysical assistant (Member)

Park, C. — Taught Symposium on the Application of Geophysics to Engineering and Environmental Problems at KGS, January 13–14

Sorensen, J. — Member, Search Committee, Hydrogeologist, Geohydrology Section, 2005–2006

External Service

Adkins–Heljeson, M. — Member of finance committee, Association of Earth Science Editors

Allison, M. L. — American Association of Petroleum Geologists, Annual Meeting Convenor, "Sedimentation on Mars," June 20, Calgary, Alberta

Bartley, J. — Started the Geoinformatics Network, a partnership of geoinformatics activities with KGS staff Nelson, Walker, and Buddemeier

Battles, E. — Served on Kansas Association of Mappers (KAM) Executive Board

Battles, E. — Moderated several sessions at the KAM 2005 conference

Battles, E. — Served as Secretary for the Kansas Association of Mappers (KAM) Executive Board

Battles, E. — Created several custom 1:10,000-scale tile maps of the Kansas River for the Kansas Water Office

Brady, L. — Co-Leader, field trip for the 29th Forum of Coal Geologists of the Western Interior Coal Basin. Trip to the Phoenix Coal Company Garland mine in southeast Bourbon County, and to the coalbed methane operations of Dart Cherokee Basin Operating Co. LLC. in Montgomery County, Kansas, May 25

Butler, J. — Chair (2004–06), Groundwater Technical Committee, American Geophysical Union

Butler, J. — Associate Editor, Journal of Hydrology (2000–05)

Butler, J. — Panelist, AAAS Research Competitiveness Service, Panel for review of New Mexico NSF EPSCoR Program (2004, 2006)

Butler, J. — National Science Foundation, Water Cycle Proposal Panel, November

Butler, J. — Promotion and Tenure Evaluator, Department of Geology and Geological Engineering, University of Mississippi

Butler, J. — Presentation on "Beyond Theis and Hantush — New Advances in Aquifer and Aquitard Characterization," Fall Meeting of the American Geophysical Union, San Francisco, California, December

Carr, T. — Member and co-chair task force formed by Kansas Statute HR 6024 to evaluate improvements to the existing oil and gas royalty payment check stub law (2005–2007)

Carr, T. — Member, Kansas Energy Council (2005–07)

Carr, T. — Testimony before the Kansas Senate Utilities and House Environment committees (March 11)

Doveton, J. — NExT Short Course on Basic Statistics for Petrophysicists, November 28–29; NExT Short Course on "Basic Log Analysis of Fluid Volumetrics and Productivity," NExT Short Course on "Permeability Estimation from Logs," November 30–December 2, Tulsa, Oklahoma

Doveton, J. — PTTC Workshop "The Crash Course on Log Analysis — An Excel Spreadsheet Workshop," October 6

Doveton, J. — PTTC Short Course on "Reading the Rocks from Wireline Logs," April 27

Doveton, J. — Midland College, "The Crash Course in Log Analysis — An Excel Spreadsheet Workshop," February 24

Doveton, J. — Tulsa Geological Society, "Reading the Rocks from Wireline Logs," March 10, Tulsa, Oklahoma

Doveton, J. — EREX Short Course on "Geological/ Petrophysical Log Analysis," April 17–21, Cairo and El Sokhna, Egypt

Doveton, J. — Indonesian Petroleum Association, "Reservoir Petrophysical Log Analysis," May 30–June 3, Yogyakarta, Indonesia

Doveton, J. — Southern Midcontinent PTTC Workshop, "The Crash Course in Log Analysis — An Excel Spreadsheet Workshop," September 21, Norman, Oklahoma

Franseen, E. — Co-instructor for AAPG Education Program "Controls on Porosity Types and Distribution in Carbonate Reservoirs," Almeria, Spain

Franseen, E. — External reviewer for promotion consideration of Dr. Roger Young to Full Professor, University of Oklahoma, Norman, Oklahoma

Ludvigson, G. — Session Chair, Paleoclimatology/Paleoceanography I; Annual meeting of the Geological Society of America, Salt Lake City, Utah

Ludvigson, G. — Theme Session on "Developing Approaches to Terrestrial Paleoclimatology," North-Central Section meeting, Geological Society of America, Minneapolis, Minnesota, May 19–20

Macfarlane, A. — Inquiry-based Ground-water Science Instructional Materials and Curricula, 2005 Annual Meeting of the Geological Society of America, Salt Lake City, Utah

Miller, R. — SEG, Special Issue Editor, The Leading Edge, May 2005 (v. 24, no. 5), carbonates

Miller, R. — Highway Geophysics Steering Committee, 2005–present

Miller, R. — U.S./Canada CEA Dam Safety Advisory Board, 2005–07

Miller, R. — DOT Geophysics Executive/Technical Committee, 2005-2006

Miller, R. — Geophysical Society of Kansas, Editor, 2005–present

Nelson, K. — Member of TAC Transportation Data Committee, 2005–present
Nelson, K. — Member of TAC Imagery & Elevation Data Committee, 2005–present
Newell, D. — Energy Minerals Division Treasurer, American Association of Petroleum Geologists, 2005–07
Park, C. — Taught Symposium on the Application of Geophysics to Engineering and Environmental Problems (SAGEEP), Atlanta, Georgia, April 3–7
Sorensen, J. — Member, Geoscience Information Society, Distinguished Service Award Committee, 2005–2008
Suchy, D. — Helped to man the KGS booth at the Kansas State Historical Society's Kansas Day in Topeka, Kansas
Townsend, M. — Led workshop on "Inquiry-Based Ground-water Science Instructional Materials and Curricula", 2005 Annual Meeting of the Geological Society of America, Salt Lake City, Utah
Watney, L. — PfEFFER Log Analysis and Web Tools Workshop, Wichita, KS, March 30
Wilson, B. — Worked with the GMD #3 Board in developing protocol for aquifer subunit delineation
Wilson, B. — Assisted with development of water budget for local township irrigation coalition and GMD #4

2004

Refereed Publications

Buddemeier, R. W., 2004, Uncertain science, uncertain world: PALAIOS, v. 19, no. 2, p. 188–189.

Buddemeier, R. W., Baker, A. C., Fautin, D. G., and Jacobs, J. R., 2004, The adaptive hypothesis of bleaching; *in,* Coral Health and Disease, E. Rosenberg and Y. Loya, eds.: Berlin, Springer, p. 427–444.

Buddemeier, R. W., and Gattuso, J.-P., 2004, Les coraux hissent le drapeau blanc: Les Dossiers de la Recherche, no. 17, p. 62–67.

Buddemeier, R. W., Kleypas, J. A., and Aronson, R. B., 2004, Coral reefs & global climate change — Potential contributions of climate change to the stresses on coral reef ecosystems: Pew Center on Global Climate Change, Arlington, Virginia, 42 p.

Butler, J. J., Jr., and Zhan, X., 2004, Hydraulic tests in highly permeable aquifers: Water Resources Research, v. 40, W12402.

Cain, S., III, Davis, G. A., Loheide, S. P., II, and Butler, J. J., Jr., 2004, Noise in pressure transducer readings produced by variations in solar radiation: Ground Water, v. 42, no. 6, p. 939–944.

Carr, T. R., Newell, K. D., Johnson, T. A., Brown, W. M., and Lange, J. P., 2004, Coalbed-methane development in Kansas; *in*, Unconventional Energy Resources in the Southern Midcontinent, 2004 Symposium, Brian J. Cardott, ed.: Oklahoma Geological Survey, Circular 110, p. 63–65.

Cha, H. R., Buddemeier, R. W., Fautin, D. G., and Sandhei, P., 2004, Distribution of sea anemones (Cnidaria, Actiniaria) in Korea analyzed by environmental clustering: Hydrobiologia, v. 530, special issue , p. 497–502.

Chen, C., Liu, J., Xia, J., Chen, J., and Lin, W., 2004, Detection of potential leak sites in embankments using surface-wave method and electrical method: Technical Program with Biographies, Society of Exploration Geophysicists, 74th Annual Meeting, Denver, Colorado, p. 1,377–1,380.

Chen, C., Liu, J., Xu, S., and Xia, J., 2004, Geophysical techniques in detection to river embankments, a case study — To locate sites of potential leaks using surface-wave and electrical methods; *in*, Progress in Environmental and Engineering Geophysics, C. Chen and J. Xia, eds.: Proceedings of the 2004 International Conference on Environmental and Engineering Geophysics (ICEEG), June 6–9, Wuhan, China; Science Press USA Inc., p. 465–469.

Chen, C., and Xia, J., eds., 2004, Progress in environmental and engineering geophysics: Proceedings of the 2004 International Conference on Environmental and Engineering Geophysics (ICEEG), June 6–9, Wuhan, China; Science Press USA Inc., 614 p.

Chen, C., Xia, J., Xia, S., Laflen, D., and William, S., 2004, Applications of high-resolution magnetic method and gradient method in locating abandoned brine wells in Hutchinson, Kansas, USA: Chinese Journal of Engineering Geophysics, v. 1, no. 1, p. 17–25.

Cheng, S., Tian, G., Xia, J., He, H., and Shi, Z., 2004, Investigation of the low-depression velocity layer in desert area by multichannel analysis of surface-wave method; *in*, Progress in Environmental and Engineering Geophysics, C. Chen and J. Xia, eds.: Proceedings of the 2004 International Conference on Environmental and Engineering Geophysics (ICEEG), June 6–9, Wuhan, China; Science Press USA Inc., p. 166-171.

Dillett, P., Goldstein, R. H., and Franseen, E. K., 2004, Paleotopographic and sea-level controls on the sequence stratigraphic character of a heterozoan carbonate succession — Pliocene Carboneras basin, southeast Spain: SEPM Carbonate Research Meeting, AAPG Annual Convention, Dallas, Texas.

Doveton, J. H., 2004, Geological log interpretation: SEPM Short Course 29, 2nd Edition, CD.

Doveton, J. H., and Merriam, D. F., 2004, Borehole petrophysical chemostratigraphy of Pennsylvanian black shales in the Kansas subsurface: Chemical Geology, v. 206, issues 3–4 , p. 249–258.

Enos, P., Franseen, E. K., Goldstein, R. H., Gonzalez, L., and Rogers, J., 2004, Carbonates — Highlights in the earth sciences: Geotimes, v. 49, p. 27. http://www.agiweb.org/geotimes/current/high_carbonates.html

Fautin, D. G., and Buddemeier, R. W., 2004, Adaptive bleaching — a general phenomenon: Hydrobiolobia, v. 530, Special Issue, p. 459–467.

Feazel, C. T., Byrnes, A. P., Honefinger, J. W., Leibrecht, R. J., Loucks, R. G., McCants, S., and Saller, A. H., 2004, Carbonate reservoir characterization and simulation — From facies to flow units; report from the March Hedberg Research Symposium: American Association of Petroleum Geologists, Bulletin, v. 88, no. 11, p. 1,467–1470.

Franseen, E. K., Byrnes, A. P., Cansler, J., Steinhauff, D. M., and Carr, T. R., 2004, The geology of Kansas — Arbuckle Group; *in*, Current Research in Earth Sciences: Kansas Geological Survey, Bulletin 250, part 2, 43 p. http://www.kgs.ku.edu/Current/2004/franseen/franseen1.html

Gerhard, L. C., 2004, Climate change, conflict of observational science, theory, and politics: American Association of Petroleum Geologists, Bulletin, v. 88, no. 9, p. 1,211–1,220.

Gerhard, L. C., 2004, A new look at an old petroleum province; in, Current Research in Earth Sciences: Kansas Geological Survey, Bulletin, no. 250, pt. 1. http://www.kgs.ku.edu/Current/2004/Gerhard/index.html

Gosselin, D. C., Harvey, F. E., Frost, C., Stotler, R., and Macfarlane, P. A., 2004, Strontium isotope geochemistry of groundwater in the central part of the Dakota (Great Plains) aquifer, USA: Applied Geochemistry, v. 19, no. 3, p. 359–377.

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Presentations

Adkins–Heljeson, M. — Presentation on "Review process of open-file reports at KGS," at Association of Earth Science Editors, Estes Park, Colorado.

Allison, M. L. — Presentation on "The 2004 Kansas Energy Plan" to the Kansas House Utilities Committee, January 15 (invited testimony).

Allison, M. L. — Presentation on "Economic opportunities for Kansas energy" to the Kansas Inc. Board Meeting, Topeka, Kansas, January 15.

Allison, M. L — Presentation on "The 2004 State Energy Plan" to the Kansas Senate Utilities Committee, January 21, (invited testimony).

Allison, M. L. — Presentation on "High Plains aquifer — The challenge of sustainable yield" to the Audubon Society, Flint Hills chapter, Manhattan, Kansas, January 21.

Allison, M. L. — Presentation on "Wind and the Kansas Energy Plan" to Wind & Prairie Task Force, Topeka, Kansas, January 23.

Allison, M. L. — Presentation on "Hutchinson gas explosions — Unraveling a geologic mystery" to American Society of Civil Engineers/Association of Engineering Geologists, Kansas City, Missouri, February 4.

Allison, M. L. — Presentation on "Kansas Energy Plan" to Desk & Derrick Club, Great Bend, Kansas, February 5.

Allison, M. L. — Presentation on "Natural gas in Kansas" to 18th Annual Corrosion Control Seminar, National Association of Corrosion Engineers, Great Bend, Kansas, February 6.

Allison, M. L. — Presentation on "Hutchinson gas explosions — Unraveling a geologic mystery" to University of Utah Dept of Geology and Geophysics, Distinguished Lecture Series, Salt Lake City, Utah, March 25.

Allison, M. L. — Presentation on "Geoinformatics — Cyberinfrastructure for the earth sciences" University of Utah, Department of Geology and Geophysics, Salt Lake City, Utah, March 26.

Allison, M. L. — Presentation on "The Hutchinson incident" to Solution Mining Research Institute, Mid-year meeting, Wichita, Kansas, April 20.

Allison, M. L. — Presentation on "The Kansas State Energy Plan — Wind energy, transmission, FutureGen, and more," to Kansas Municipal Utilities Annual Meeting, Wichita, Kansas, May 13.

Allison, M. L. — Presentation on "Hitchhikers guide to geoinformatics — Life, the universe, and everything" to Marine and Terrestrial Sedimentary Data Workshop (NSF sponsored), Joint Oceanographic Institutions, Washington, D.C., June 3.

Allison, M. L. — Presentation on "Kansas Energy" to Rotary Club, Lawrence, Kansas, June 7.

Allison, M. L. — Presentation on "Coalbed methane in the US" to National Association of Gas Consumers, Branson, Missouri, October 21.

Allison, M. L. — Presentation on "Kansas energy" to Kansas Renewable Energy and Efficiency Conference, Topeka, Kansas, October 26, keynote address.

Allison, M. L. — Presentation on "Geoinfomatics and the role of cyberinfrastructure in geosciences research," to Geological Society of America, Pardee Symposium, Co-convenor, Denver, Colorado, November 9.

Allison, M. L. — Presentation on "50 years of Quaternary geology studies at the KGS" to American Quaternary Association annual meeting, June 26, Lawrence, Kansas, welcoming address.

Allison, M. L. — Presentation on "Variations of in situ stresses as indicators of active fractures and faults" (with published abs) to American Association of Petroleum Geologists, Annual Meeting, 2004.

Allison, M. L. — Presentation on "Current challenges in Kansas energy" to KSU Geology Alumni Annual Meeting, Manhattan, Kansas, October 14.

Allison, M. L. — Presentation on "Coalbed methane in the U.S." to National Association of Gas Consumers, Branson, Missouri, October 21.

Allison, M. L. — Presentation on "Kansas energy developments" to Kansas Renewable Energy and Efficiency Conference, Topeka, Kansas, October 26, keynote speech.

Bartley, J. D., and Carr, T. R., 2004, Creating a distributed national database for carbon sequestration: ESRI Users Conference, San Diego, California. http://hercules.kgs.ku.edu/kgs/oilgas/powerpoints/UC2004_BARTLEY_NATCARB.ppt.

Bartley, J. D., and Look, K., 2004, Taking advantage of your enterprise GIS system: ESRI Users Conference, San Diego, CA. http://hercules.kgs.ku.edu/kgs/oilgas/powerpoints/UC2004_BARTLEY_ENTERPRISEGIS.ppt.

Bartley, J. D., 2004, Taking control of your enterprise ArcIMS system: MidAmerica GIS Consortium, Kansas City, Missouri. http://hercules.kgs.ku.edu/kgs/oilgas/powerpoints/magic/arcims_manage_new.ppt.

Bartley, J. D., and Allison, M. L., 2004, Geoinformatics at the Kansas Geological Survey: Conference on Higher Education Computing in Kansas (CHECK 2004), Lawrence, Kansas. http://hercules.kgs.ku.edu/kgs/oilgas/powerpoints/check2004.ppt.

Bartley, J. D., and Carr, T. R., 2004, Creating a distributed national database for carbon sequestration: MidAmerica GIS Consortium, Kansas City, Missouri. http://hercules.kgs.ku.edu/kgs/oilgas/powerpoints/magic/magic_natcarb.ppt.

Bartley, J. D., and Look, K., 2004, Taking advantage of your enterprise GIS system: MidAmerica GIS Consortium, Kansas City, Missouri. http://hercules.kgs.ku.edu/kgs/oilgas/powerpoints/magic/magic_database.ppt.

Bartley, J. D., and Carr, T. R., 2004, Creating a distributed national database for carbon sequestration: ESRI Petroleum Users Group Conference, Houston, Texas. http://hercules.kgs.ku.edu/kgs/oilgas/powerpoints/pugtalk_update.ppt.

Battles, E. — Gave a presentation about Federal Geographic Data Committee (FGDC) metadata and available tools at KAM conference.

Bohling, G. C., and Wilson, B. B., 2004, Statistical and geostatistical analyses of year 2004 water levels in the Kansas High Plains aquifer: 49th Annual Midwest Ground Water Conference, Bloomington, Indiana, October 27–29, Program with Abstracts.

Brady, L. — Presentation on "Coalbed methane in eastern Kansas," to annual meeting of the Geology Section of the Kansas Department of Transportation, Chanute, Kansas, January 21.

Brady, L. — Presentation on "Kansas coal and coalbed methane in northeast Kansas," to a citizen audience from Jackson County and surrounding areas, sponsored by the Jackson County Farm Bureau, Holton, Kansas, March 16.

Brady, L. — Presentation on "Kansas coal and coalbed methane in southeast Kansas," to a citizen audience from Montgomery County and surrounding areas, sponsored by the Montgomery County Farm Bureau, Independence, Kansas, January 27.

Brady, L. — Presentation on "Kansas coal and coalbed methane in eastern Kansas," to a citizen audience from Franklin County and surrounding areas, sponsored by the Franklin County Farm Bureau, Ottawa, Kansas, January 27.

Buddemeier, R. W., Sleezer, R. O., Young, D. P., Egbert, S., deNoyelles, F. J., Zhan, X., Renwick, W. H., and Smith, S. V., 2004, Small artificial water bodies — A neglected but important factor in water supply and environmental quality: 21st Annual Water and the Future of Kansas Conference, no. 33, March.

Butler, J. J., Jr., 2004, New methods for high-resolution characterization of spatial variations in hydraulic conductivity, an invited presentation at the International Symposium on Hydrogeological Investigation and Remedial Technology, National Central University, Jhongli, Taiwan, November 15.

Butler, J. J., Jr., 2004, Direct-push methods for characterization of spatial variations in hydraulic conductivity, an invited presentation at the Fall 2004 Conference of the Association of Engineering Geologists, Kansas City/Omaha Section, Kansas City, Missouri, October 23.

Butler, J. J., Jr., 2004, Groundwater flow in interconnected stream-aquifer systems — From models to the field, an invited presentation to the Department of Geological and Atmospheric Sciences, Iowa State University, Ames, Iowa, March 12.

Butler, J. J., Jr., Kluitenberg, G. J., and Whittemore, D. O., 2004, A field method for estimation of ground-water consumption by phreatophytes — year one (abs.): Proceedings of the 21st Annual Water and the Future of Kansas Conference, p. 27.

Carr, T. R. — Invited lecture, "Linked Energy Systems," University of Arkansas, Fayetteville, Arkansas, February 20.

Carr, T. R. — Invited testimony before the Kansas Senate Utilities Committee, "Coalbed methane in Kansas, March 4; also Kansas Geological Survey, Open-File Report 2004–9. http://www.kgs.ku.edu/PRS/publication/ofr2004-9/Testimony.pdf

Carr, T. R. — Invited testimony before the House Environment Committee, "Geologic $C0_2$ sequestration in Kansas," March 9; also Kansas Geological Survey Open-File Report 2004–10. http://www.kgs.ku.edu/PRS/publication/ofr2004-10/Testimony.pdf and http://www.kgs.ku.edu/PRS/publication/ofr2004-10/House_Environment_Testimony.pdf

Carr, T. R. — Invited Lecture, "Linked energy systems," at Michigan Technological University, Houghton, Michigan, March 22.

Carr, T. R. — Invited facilitator and speaker, "Role of GIS in Carbon Sequestration," at U.S. Department of Energy Conference on Developing Carbon Sequestration Partnerships, Alexandria, Virginia, April 6.

Carr, T. R. — Invited field conference presenter for Kansas Field Conference, "The Kansas Flint Hills — Energy, Prairie, and Preservation," at Emporia, Kansas, June 9.

Carr, T. R. — Invited talk, "Energy and the Future," to Lawrence Kansas Rotary, Lawrence, Kansas, June 14.

Carr, T. R. — Invited talk, "Coalbed Methane in Kansas," to Wichita Section of the Society of Petroleum Engineers, Wichita, Kansas, October 13. http://www.kgs.ku.edu/CBM/reports/SPE_CBM.pdf

Carr, T. R. — Invited talk, "Creating a distributed national carbon sequestration database and geographic information system (NatCarb)," to U.S. Department of Energy, Annual Program Review for Regional Carbon Sequestration Partnerships, Pittsburgh, Pennsylvania, November 16.

Carr, T. R. — Invited talk, "State CO_2 driven EOR and sequestration initiatives in Kansas," EOR Carbon Management Workshop, December 7–8, Midland, Texas. http://www.spepb.org/images/pdf/EORCarbonMgtWorkshop/WednesdayPDFFiles/8-Carr.pdf

Charlton, J. C. — Computer-simulated panorama of the Flint Hills in the traveling exhibit, "Homage to the Flint Hills — A Gathering of Art Inspired by the Tallgrass Prairie of Kansas, 2004–2006". After traveling in Kansas the exhibit was shown at the Senate Office Building in Washington, D.C. in June 2006. The exhibit traveled with a full color catalogue.

Dunham, J. — Presentation on "Metadata toolbox," at the MidAmerica GIS Symposium (MAGIC) Biennial Conference, Kansas City, Miissouri, April 21.

Franseen, E. K. — Invited paper for Geotimes, "2004 Highlights in Carbonate Research", Highlights in the Earth Sciences Issue.

Franseen E. K. — Invited presentation, "Build-and-fill — A stratigraphic pattern induced in cyclic sequences by sea level and paleotopography, at the Geological Society of America Annual Meeting.

Franseen, E. K. — Invited presentation, "Build-and-fill sequences — Predictable patterns of creation and destruction of paleotopography in small-scale sequences," at American Association of Petroleum Geologists Annual Convention.

Franseen, E. K. — Invited presentation, "Evaluation of some geologic factors affecting the quality of limestone construction aggregate" at the 55th Highway Geology Symposium, September 7–10, Kansas City, Missouri.

Guinotte, J. M., Bartley, J. D., Iqbal, A., Fautin, D. G., and Buddemeier, R. W., 2004, Predicting and understanding biogeographic ranges from occurrence records and correlated environmental data — A method-development study using clownfishes and their sea anemone hosts: OBI Conference, Hamburg, Germany. http://www.vliz.be/obi/presentations/Bartley&Fautin.pps.

Houts, M., deNoyelles, J., Sleezer, R. O., and Young, D. P., 2004, Using multispectral airborne imagery to inventory and assess rural water bodies (abs.): Water and the Future of Kansas Conference, Proceedings, no. 21, p. 60.

Ludvigson, G. A., 2004, Facets of the Ordovician geology of the Upper Mississippi Valley region, presented at Kansas Geological Survey, Lawrence, Kansas, November 30.

Macfarlane, P. A., and Wilson, B. B., 2004, Enhancement of the bedrock surface elevation map beneath the Ogallala aquifer in western Kansas: Proceedings of the 13th Annual Kansas Hydrology Seminar, Topeka, p. 11–12.

Macfarlane, P. A., and Wilson, B. B., 2004, A preliminary updated bedrock surface elevation map of the Ogallala region, western Kansas; *in*, Competing priorities — Resolving conflicts, P. A. Macfarlane and M. A. Townsend: 21st Water and the Future of Kansas Program and Abstracts, March 11, Lawrence, Kansas, p. 46.

Macfarlane, P. A., Townsend, M. A., and Wilson, B. B., 2004, Kansas karst map and the Kansas on-line database: Proceedings of the 22nd Annual Water and the Future of Kansas Conference, March 17.

Mandel, R. D. — Presentation on "Geoarchaeology of Archaic earthworks in northeastern Louisiana," at Washington University, Department of Anthropology Lecture Series, St. Louis, Missouri, March 5.

Mandel, R. D. — Presentation on "Late Quaternary landscape evolution in the Central Great Plains of North America," at Washington University, Department of Earth and Planetary Sciences Lecture Series, March 4.

Mandel, R. D. — Presentation on "Paleoindian and pre-Clovis sites in Kansas — A geoarchaeological perspective," at Washburn University, Department of Sociology and Anthropology Lecture Series, Topeka, Kansas, October 14.

Miller, R. D., 2004, Identifying areas with subsidence potential beneath US 50 in Reno County: Operations meeting of the Kansas Department of Transportation, Great Bend, Kansas, October 5.

Miller, R. D., 2004, High-resolution seismic reflection investigation of a subsidence feature on U.S. highway 50 near Hutchinson, Kansas: Solution Mining Research Institute, April 21.

Miller, R. D., 2004, High-resolution seismic reflection to delineate structures at the northern extreme of the Nemaha Ridge/Humboldt fault in east-central Nebraska: Seminar at Ash Grove Cement Company, April 20.

Miller, R. D., 2004, Seismic survey of U.S. 50 at Hutchinson, Kansas: Shallow Exploration Drillers Clinic, Topeka, Kansas, March 30.

Miller, R. D., and Henthorne, R., 2004, High-resolution seismic reflection to identify areas with subsidence potential beneath U.S. 50 highway in eastern Reno County, Kansas: Proceedings of the 55th Highway Geology Symposium, September 8–10, Kansas City, Missouri, p. 29–48.

G. Misgna, Zhan, X., and Tsou, M., 2004, Integrated GIs-AnnAGNPS modelling system for nonpoint source watershed analyses: ESRI International User Conference, Paper 2046, San Diego, California, August.

Newell, K. D., 2004, Coalbed gas and water issues in Kansas, presented at the Kansas Water Board, Topeka, Kansas, January 21.

Newell, K. D., 2004, Coalbed gas in Kansas, presented to the Lawrence Cosmopolitan Club, Lawrence, Kansas, March 19.

Park, C. B. — Conference co-chair and session chair, Society of Exploration Geophysicists Japan (SEG–J), 7th International Symposium, November, Sendai, Japan.

Park, C. B. — Invited presentation, Korea Institute of Geology, Mining, and Materials (KIGAM), August, Daejeon, Korea.

Park, C. B. — Invited speaker, Korean Society of Engineering Geology (KSEG) Annual Meeting, April, Kangwon National University, Chuncheon, Korea.

Park, C. B. — Presentation at Society of Exploration Geophysicists (SEG) 14th Annual Meeting, Denver, Colorado, October 10–15.

Sleezer, R. O., Young, D. P., Vopata, J., Wilson, E., and Andereck, Z., 2004, Assessing temporal changes in ponds and pond numbers using historical air photos, a comparison between the Midland and Allen SE quadrangles (abs.): Water and the Future of Kansas Conference, Proceedings, no. 21, p. 57.

Smith, J. J., Hasiotis, S. T., Kraus, M. J., and Woody, D., 2004, The occurrence and diversity of trace fossils in paleosols of the lower Eocene Willwood Formation — Preliminary results: G-Hawk Student Symposium, Geology Department, University of Kansas, Program and Abstract Volume.

Sophocleous, M., 2004, Environmental consequences of ground-water overexploitation (abs.): Water and the Future of Kansas Conference, Proceedings, no. 21, p. 11.

Sophocleous, M. — Invited lecturer at the University of California–Davis Distinguished Speaker Series 2003–04, "The role of the subsurface environment in water resource management" February 5.

Sophocleous, M. — Invited keynote speaker at the Canadian Society of Petroleum Geologists' W.C. Gussow Geoscience Conference on Water and Energy Development, March 19, Canmore, Alberta.

Sophocleous, M. — Invited keynote speaker at 2004 GeoQuebec joint Conference of the Canadian National Chapter of IAH and Canadian Geotechnical Conference on water resources sustainability and its application in Kansas, Quebec City, Canada, October 25.

Suchy, D. R., and Adkins–Heljeson, D., 2004, KGS geohydrologic data on the internet (abs.): 21st Annual Water and the Future of Kansas Conference, Lawrence, Kansas.

Suchy, D. — Gave presentation to local boyscout leaders on educational resources of KGS and information about projects and geologic field trips suitable for boy scouts; gave presentation on geology, careers in geology, rocks, minerals, and fossils to Mrs. Montgomery's 3rd Grade science class at Wakarusa Valley Elementary School, Lawrence, Kansas.

Suchy, D. — Kansas Ground Water Association Convention, Great Bend, KS; presented paper on "KGS website, databases, and water well forms."

Townsend, M. — The 2004 ground-water workshop for secondary teachers of earth and environmental science, at Kansas Geological Survey, July.

Townsend, M. A., Clark, G. A., Young, D. P., and Briggeman, S., 2004, HIPLAIN — The High Plains Aquifer Information Network, www.hiplain.org (abs.): Water and the Future of Kansas Conference, Proceedings, no. 21, p. 18.

Watney, W. L., Bhattacharya, S., Byrnes, A., Doveton, J., Victorine, J., and Brownrigg, R., 2004, PTTC workshop — Practical petroleum reservoir characterization and modeling using free web-based software tools and data, Lawrence, KS, November 16. http://www.kgs.ku.edu/Gemini/gemini-reports.html

Whittemore, D. O., 2004, Spatial and temporal changes in flow and water quality in the Cimarron River, southwestern Kansas: Proceedings 21st Annual Water and Future of Kansas Conference, Lawrence, Kansas, p. 35.

Wilson, B. — Poster display at Kansas Rural Water Association Conference

Wilson, B. B., 2004, Water-right development in Kansas (abs.): Water and the Future of Kansas Conference, Proceedings, no. 21, p. 64.

Wilson, B. — Presentation at Kansas High Plains Ag-Expo and Farm Show.

Wilson, B. — Presentation at KWO Brown Bag Seminars.

Wilson, B. — Presentation at International ESRI User Conference.

Wilson, B. — KSNT Topeka TV interview (water levels and droughts).

Wilson, B. — Presentation at KDA-DWR Fall Conference.

Wilson, B. — Presentation at MidAmerica GIS Symposium.

Wilson, B. — Presentation at Kansas Geological Survey Advisory Council.

Wilson, B. — Presentation at Kansas Agriculture and Rural Leadership Program.

Wilson, B. — Presentation at Kansas Environmental Leadership Program.

Young, D. P., Briggeman, S., Townsend, M. A. and Clark, G., 2004, High Plains aquifer information network (HIPLAIN) — year 2: 21st Annual Water and the Future of Kansas Conference, March, Lawrence, Kansas, Program and Abstracts, no. 21, p. 45.

Young, D. P., Sleezer, R. D., Zhan, X., and Buddemeier, R. W., 2004, Watershed parameterization using geospatial modeling and preliminary assessment of the effects of small impoundments (ponds) (abs.): Water and the Future of Kansas Conference, Proceedings, no. 21, p. 58.

Xia, J. — High-frequency Rayleigh wave and its applications in near-surface geophysics: Jilin University, China, June 2004.

Xia, J. — High-resolution magnetic method and magnetic gradient method in locating abandoned brine wells in Hutchinson, Kansas: Kansas State University Department of Geology, February 10, 2004.

Awards

Allison, M. L. — Elected Honorary Member, Association of American State Geologists

Byrnes, A. — Canadian Well Logging Society President's Award

Carr, T. R. — Best Poster, Energy Mineral Division, Annual American Association of Petroleum Geologists, National Convention, Dallas, Texas

Newell, K. D. — Energy Minerals Division President's Award for Excellence in Presentation (poster); American Association of Petroleum Geologists National Convention, Dallas, Texas

Sawin, R. S. — KU Unclassified Non-teaching Employee of the Month, November

Internal Service

Adkins–Heljeson, M. — Member, University of Kansas Review Panel of KGS Director

Adkins–Heljeson, M. — Compiled booklet about KGS art collection

Adkins–Heljeson, M. — Chair of subcommittee on unclassified evaluation and promotion for KGS strategic planning, 2004–06

Allison, M. L. — Chaired annual gathering of chairs of Regents universities geology departments

Allison, M. L. — Facilitated KU–KSU–WSU Auger Observatory proposal with State officials

Battles, E. — Created series of custom maps for the University of Kansas Chancellor's office, titled "Wheat State Whirlwind: A Tour of the Heartland for KU Faculty"

Brady, L. L. — Member, The Geology Associates Advisory Board, Department of Geology, University of Kansas, 2004–; Co-Chair, Alumni Relations Committee

Buchanan, R. C. — Advisory Board, Osher Lifelong Learning Institute, University of Kansas Office of Continuing Education, 2004–07

Buchanan, R. C. — University of Kansas, Integrated Marketing Committee, 2004
Butler, J. J. — Co-Chair, KGS Strategic Planning Committee (2004–05)
Butler, J. J. — Member, University of Kansas Review Panel of KGS Director (2004)
Butler, J. J. — Member, KGS Evaluation System Review Committee (2003–)
Carr, T. R. — Supervised Troy A. Johnson (M.S., 2004); Thesis contributed to 2004 poster that received President's Certificate for Excellence in Presentation for Best Poster AAPG Energy Mineral Division
Doveton, J. — Taught KU course GEOL 536, Log Analysis of Subsurface Geology; C&PE 528, Well Logging; C&PE 825, Wireline petrofacies analysis (Graduate Problem)
Franseen, E. K. — Chair, KGS Promotion and Review Committee, 2004–05
Franseen, E. K. — Member of KGS Strategic Planning Committee
Franseen, E. K. — Supervised KU graduate student thesis research for Edward Washburn and Peter Dillet
Mandel, R. — Member of KU faculty search committee, biological anthropology position
Newell, K. D. — Member of KGS Stratigraphic Nomenclature Committee
Park, C. B. — Taught symposium on the Application of Geophysics to Engineering and Environmental Problems at KGS, September 28–29, October 7–8
Sophocleous, M. — Member of the KGS Promotion and Review Committee, 2004, 2005, 2006
Sorensen, J. — Member, Search Committee, Energy Research Section, Geologist, Hugoton Project
Sorensen, J. — Member, Search Committee, Public Outreach, Sr. Administrative Assistant, 2004
Watney, W. L. — Chair, KU Research Sector Promotion and Tenure Committee (2003–05)
Xia, J. — Taught short course on Inversion Theory and Applications of High-frequency Surface-wave Techniques, KGS (2004, 2005, 2006, 2007, and 2008)

External Service

Allison, M. L. — Director, Governor's Office of Science and Energy Policy
Allison, M. L. — State Board on Earth Sciences and Resources
Allison, M. L. — Assumed chair of national earth science cyberinfiastructure forum for NSF
Allison, M. L. — Led State's Wind & Prairie initiative; serving as Governor's spokesperson
Allison, M. L. — Member, Governor's Senior Policy Council
Allison, M. L. — Member, Governor's Natural Resources Sub-cabinet
Allison, M. L. — Convenor, NSF workshop "Planning and coordinating environmental cyberinfrastructure activities in the earth sciences," Los Angeles, California, February 9–10
Allison, M. L. — Co-convenor, Geological Society of America Pardee Symposium, "Geoinformatics and the role of cyberinfrastructure in geosciences research," Denver, Colorado, November
Allison, M. L. — Member of National Research Council, Board on Earth Sciences and Resources, April 2004–December 31, 2006
Allison, M. L. — Chair, Kansas Energy Council (appointed by the Governor, June 2004)
Allison, M. L. — Kansas Citizens for Science, 1999–present; Board of Directors, 2004–
Battles, E. — Served on Kansas Association of Mappers (KAM) Executive Board
Battles, E. — Nominated, elected, and began serving as Secretary for the Kansas Association of Mappers (KAM) Executive Board
Battles, E. — Moderated several sessions at the Mid-America GIS Symposium (MAGIC) Conference
Battles, E. — Taught half-day short course at MAGIC on preparing and maintaining Federal Geographic Data Committee (FGDC) metadata
Battles, E. — Gave a presentation to the Kansas State University Geology Club about DASC and IMS services
Brady, L. L. — American Association of Petroleum Geologists, Energy Minerals Division, Honors and Awards Committee
Brady, L. L. — Co-Leader, Field trip "Overview of coal and coalbed methane in the Cherokee basin, northeast Oklahoma" as part of the First Midcontinent Coalbed Methane Symposium, November 9
Buchanan, R. C. — Groundwater Quality Task Force, Wichita Home Builders Assn./Equus Beds Groundwater Management District #2, 2003–
Buchanan, R. C. — Leadership Lawrence, Curriculum Committee, 2004
Buchanan, R. C. — Kansas Association for Conservation and Environmental Education, Secretary, 2000–08
Butler, J. J. — Deputy Chair (5/02–7/04), Chair (7/04–6/06), Groundwater Technical Committee, American Geophysical Union

Butler, J. J. — Panelist–AAAS Research Competitiveness Service, Panel for Review of New Mexico NSF EPSCoR Program, April

Butler, J. J. — National Science Foundation — Water Cycle Proposal Panel, November

Butler, J. J. — Taught workshop on "Advances in pumping and slug testing for improved site characterization — New concepts, field methods, and data analysis techniques," sole instructor, Hudson–Mohawk Valley Professional Geologists Association, Albany, New York, April 19

Carr, T. R. — Member and Kansas Representative to Interstate Oil and Gas Commission Committee on Regulation of Geologic Sequestration (2003–07)

Carr, T. R. — Testimony before the Kansas Senate Utilities and House Environment committees

Carr, T. R. — First Midcontinent Coalbed Methane Symposium, Petroleum Technology Transfer Council, Midcontinent CBM Forum and the OIPA, Tulsa, Oklahoma, November 7–9

Doveton, J. — Associate Editor, AAPG Bulletin, 2001–present

Doveton, J. — Assistant Editor, Mathematical Geology, 1995–2007

Doveton, J. — IAMG Councilor 2000–2004

Doveton, J. — Assistant Editor, Natural Resources Research, 2000–present

Doveton, J. — NExT Short Course on Basic Statistics for Petrophysicists, June 14–15; NExT Short Course on "Basic Log Analysis of Fluid Volumetrics and Productivity," June 16–17; NExT Short Course on "Rock Composition Log Analysis," June 18, Tulsa, Oklahoma

Doveton, J. — PTTC Workshop "The Crash Course on Log Analysis: An Excel Spreadsheet Workshop," October 14

Doveton, J. — HOT Short Course on "Geological Log Analysis," Vienna, Austria, October 4–8

Doveton, J. — PTTC Short Course on "Reading the Rocks from Wireline Logs," March 12

Doveton, J. — Tulsa Geological Society, Geophysical Society of Tulsa "Crash Course in Log Analysis — An Excel Spreadsheet Workshop," April 14

Doveton, J. — Indonesian Petroleum Association "Geological and Petrophysical Log Analysis," September 6–10, Bali, Indonesia

Doveton, J. — SPE Chapter workshop "The Crash Course in Log Analysis — An Excel Spreadsheet Workshop," October 27, Oklahoma City, Oklahoma

Doveton, J. — Midwest PTTC Workshop "The Crash Course in Log Analysis — An Excel Spreadsheet Workshop," December 9, Grayville, Illinois

Dunham, J. — "Flint Hills mapping," given as part of Kansas Energy Council's public discussion of Gov. Sebelius' Flint Hills wind-energy proposals. This presentation illustrated DASC's support role in disseminating information necessary in the wind energy debate, including hard-copy and internet map creation, Nichols Hall, University of Kansas, Lawrence, Kansas, November 16

Dunham, J. — KGS representative at USGS EROS Data Center AASG remote sensing workshop for state geological surveys in which NASA representatives provided an introduction to remote sensing concepts and applications. The workshop introduced material relevant to an RFP later sent to state surveys regarding pilot projects involving the use of remotely sensed data, Sioux Falls, South Dakota, May 15–16

Dunham, J. — Session moderator, "Data warehousing — Legal issues and liabilities," MidAmerica GIS Symposium (MAGIC) Biennial Conference, Kansas City, Missouri, April 20

Franseen, E. K. — Member, SEPM Headquarters and Business Committee, 2004–08

Franseen, E. K. — Member of SEPM Ad-hoc Committee on E-publishing, 2004–06

Franseen, E. K. — Editorial Board, Geology (Journal of the Geological Society of America), 2004–07

Franseen, E. K. — Co-instructor for AAPG Education Program "Controls on Porosity Types and Distribution in Carbonate Reservoirs," Almeria, Spain

Macfarlane, P. A. — The Interactive Ground-water Tutor Experience, Kansas Association of Teachers of Science Camp, Rock Springs Ranch, April

Macfarlane, P. A. — 2004 Ground-water Workshop for Secondary Teachers of Earth and Environmental Science, Kansas Geological Survey, July

Mandel, R. — Editor-in-Chief, Geoarchaeology:An International Journal, John Wiley & Sons, July 1999–January 2004

Mandel, R. — Co-Editor-in-Chief, Geoarchaeology:An International Journal, John Wiley & Sons, January 2004–May 2007

Mandel, R. — Chair, Geological Society of America's Archaeological Geology Division's Awards Committee, 2004

Mandel, R. — Chair, 18th Biennial Meeting of the American Quaternary Association, University of Kansas, June 26–28

Mandel, R. — Organizer and trip leader, "Late Quaternary Alluvial Stratigraphy and Geoarchaeology in the Central Great Plains," 18th Biennial Meeting of the American Quaternary Association, Lawrence, Kansas, June 28–30

Mandel, R. — Organizer and trip leader, "Buried Paleo-Indian Landscapes and Sites on the High Plains of Northwestern Kansas," Annual Meeting of the Geological Society of America, Denver, Colorado, November 6

Mandel, R. — Reviewer for the Grants Program of the Social Sciences and Humanities Research Council of Canada

Nelson, K. — Member of MidAmerica GIS Consortium (MAGIC), 1998–present

Nelson, K. — Member of Kansas GIS Technical Advisory Committee (TAC), 1997–present

Park, C. B. — Taught Symposium on the Application of Geophysics to Engineering and Environmental Problems at Symposium on the Application of Geophysics to Engineering and Environmental Problems (SAGEEP), Colorado Springs, Colorado, February 22–26; and at Korean Society of Engineering Geology (KSEG) Annual Meeting, April, Kangwon National University, Chuncheon, Korea

Sophocleous, M. — Invited co-organizer of GSA Topical Session "Sustainable Management of Water Resources" Denver, Colorado, November 9, sponsored by IAH/US National Chapter and GSA Geology and Public Policy Committee

Sophocleous, M. — Invited NGWA Groundwater Availability Interest Group Session Moderator on "Water Management Principles" and Panel Open-Forum Discussion invited panelist, 2004 Ground Water Expo, December 12–13, Las Vegas, Nevada

Sophocleous, M. — Member, Instream Flow Inter-Agency Team, 2003–06

Sophocleous, M. — Consulting Member, Groundwater Marketing Technical Advisory Committee, 2003–06

Sorensen, J. — Member, Geoscience Information Society, Best Website Award Committee, 2002-2006

Watney, W. L. — Member, Advisory Council, College of Liberal Arts and Sciences, Iowa State University, 2004–08

Watney, W. L. — Member, Kansas State University Geology Advisory Council, 2003–

Watney, W. L. — Treasurer, Society of Sedimentary Geology (SEPM) Foundation, 2003–07

Watney, W. L. — NSF (National Science Foundation — Sedimentary Geology and Paleobiology Division) review panel member (term 2003–05)

Wilson, B. B. — Worked extensively with the GMD #1 Board in developing aquifer subunits

Wilson, B. B. — Developed a water quality monitoring network map for GMD#3

Wilson, B. B. — Provided on-site technical support, data and computer consulting for GMD#4

Wilson, B. B. — Updated an interim priority/targeting map for the KWO and NRCS EQUIP program; consulted and processed data for the KDA-DWR in aquifer subunit delineation

Wilson, B. B. — Kansas Technical Advisory Committee and the DASC Sub-committee to the Kansas GIS Policy Board (2004–present)

Xia, J. — Editor (Chen, C., and Xia, J.), Progress in Environmental and Engineering Geophysics: Proceedings of the 1st International Conference on Environmental and Engineering Geophysics (ICEEG), June 6–9, 2004, Wuhan, China, Science Press USA Inc., 614 p.

2004–2010 KGS Web Site — www.kgs.ku.edu

During the period 2004–09, 43 KGS county bulletins (extensive studies of geology and ground-water resources of a county) and 122 other KGS bulletins were added to the KGS web site.

During 2004–09, the KGS has scanned 124,000 water well forms out of the 208,000 available (146,000 scanned since beginning of program) and added them to the web site.

During 2004-09, the KGS scanned 39,000 oil and gas completion forms and 29,000 wireline logs and added them to the web site.

During the period mid-2009 to mid-2010, 27 additional publications have been placed online; 17 additional open-file reports have been placed online; an additional 11,000 water well forms have been scanned; and an additional 8,600 wireline logs and 5,000 other oil and gas forms have been scanned.

Service

KGS staff members have served on editorial boards of various professional journals, taught short courses, reviewed proposals for national and international agencies, and reviewed manuscripts for various book publishers and the following journals, professional societies, and grant-funding agencies:

Computers and Geosciences
The Leading Edge
KGS Current Research in Earth Sciences
Journal of Geophysical Research
NSF–Division of Earth Sciences
–Geotechnical and Geohazard Program
–Career Program
DOE, BES Fundamental Research
Bulletin of Seismological Society of America
Geological Survey of Canada Bulletin
Proposals, NSF Division of Earth Science — Earth Scope
ASTM Standard for Shallow Seismic Reflection
EAGE Annual Meeting Expanded Abstracts
Journal of Applied Geophysics
Journal of Environmental and Engineering Geophysics
AAPG/SEG 3-D Seismic Interpretation Atlas
Geophysics, SEG publication
Canadian Journal of Earth Sciences
Computer Applications in Geosciences
Kansas Seismic Atlas
Expanded Abstracts, SEG Annual Meeting
Symposium on Geophysics in Kansas
SEG's Environmental Geophysics volumes
U.S. Geological Survey
Geoscience Journal
Geology
SAGEEP EEGS National Meeting
EAGE Geophysical Prospecting
Geoarchaeology: An International Journal
Quaternary Research
Quaternary Science Reviews
Quaternary International
Journal of Archaeological Science
Journal of Human Evolution
American Antiquity
Bulletin of the Geological Society of America
Journal of Field Archaeology
Plains Anthropologist
Soil Science Society of America Journal
Catena
Geoderma
National Geographic Society
Social Sciences and Humanities Research Council of Canada
American Chemical Society - Petroleum Research Fund
Journal of Sedimentary Petrology
Journal of Sedimentary Research
SEPM Concepts in Sedimentology and Paleontology
SEPM Special Publication
AAPG Bulletin
AAPG Memoir
Proceedings of the Ocean Drilling Program
Journal of Paleontology
Palaios
Marine Geology
Oklahoma Geological Survey Special Publication
SEPM Rocky Mountain Section Special Publication
The Journal of Geology
Géologie Méditerranéenne
Comptes Rendus de l'Academie des Sciences
Geological Society of London
Natural Resources Research