

Jeffrey G. Paine

Professional Summary

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Personal

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Academic Background

Ph.D. Geological Sciences, The University of Texas at Austin, 1991
M.S. Geological Sciences, University of Washington, 1982
B.S. Geological Sciences, The University of Texas at Austin, 1980

Expertise

- A. Geophysics applied to hydrogeology and environmental and engineering geology
- B. Quaternary geology and geomorphology
- C. Computer applications in the geological sciences
- D. Coastal geology

Professional Experience

Senior Research Scientist, Bureau of Economic Geology, The University of Texas at Austin (September 2011 to present). Apply geophysical methods (electromagnetic induction, seismic reflection and refraction, and ground-penetrating radar) in near-surface hydrogeological, stratigraphic, and engineering studies; supervise remote sensing, airborne geophysics, coastal, and GIS group.

Research Associate, Bureau of Economic Geology, The University of Texas at Austin (Research Scientist September 1996 to August 2011; Research Associate July 1991 to August 1996). Apply geophysical methods (electromagnetic induction, seismic reflection and refraction, and ground-penetrating radar) in near-surface hydrogeological, stratigraphic, and engineering studies; supervise remote sensing, airborne geophysics, and GIS group.

Geophysical Consultant (2002 to present): Evaluate aeromagnetic hydrocarbon exploration methods; apply ground-penetrating radar to locate 19th century burial sites.

Lecturer, The University of Texas at Austin (Spring 2004, Fall 2011, Fall 2012). Teach GEO 391: Hydrogeophysics, a class on near-surface geophysical applications in hydrogeology and engineering geology for graduate and upper division undergraduate students.

Program Director, Bureau of Economic Geology, The University of Texas at Austin (March 1998 to May 1999). Manage Geology, Geotechnology, and GIS group. Duties include identifying funding opportunities, writing and tracking proposals, allocating staff effort on projects, coordinating project use of research resources, tracking publication progress, and summarizing monthly staff activities.

Research Scientist Associate, Bureau of Economic Geology, The University of Texas at Austin (July 1982 to June 1991). Study effects of recent and historical hurricanes on barrier islands, analyze shoreline movement from aerial photographs and topographic charts, and determine Quaternary paleogeography of the Texas coastal zone and shelf from cores and seismic data.

Geological Consultant, Prewitt and Associates, Inc., Consulting Archeologists (1986 to 1990). Determine geological context of archeological sites.

Teaching Assistant and Research Assistant, Department of Geological Sciences, University of Washington, Seattle, Washington (September 1980 to June 1982). Teach laboratory sections of Physical Geology and conduct geophysical measurements on rocks from Mt. St. Helens.

Research Assistant, Bureau of Economic Geology and Department of Geological Sciences, The University of Texas at Austin (January 1978 to August 1979). Construct geochemical maps of Texas coastal sediments and write computer programs for geological analysis.

Professional Societies

Registered Texas Geoscientist, Geophysics Specialty, License Number 3776

American Geophysical Union

Geological Society of America

Environmental and Engineering Geophysical Society

American Association of Petroleum Geologists, Division of Environmental Geosciences

Professional Service

Core Technical Advisory Committee, Texas Coastal Management Program, Texas General Land Office, 2012-present.

Short Course and Workshop Chairman, Planning and Organizing Committee, 2012 Symposium on the Application of Geophysics to Engineering and Environmental Problems, Tucson, Arizona.

Co-Convenor, Workshop W-2, Hydraulic Fracturing 101: What Is It, What Are the Issues, and How Can Geophysics Help?, 25th Symposium on the Application of Geophysics to Engineering and Environmental Problems, Environmental and Engineering Geophysical Society and Division of Environmental Geosciences, Tucson, Arizona, March 2012.

Chair, Environmental Geophysics Committee, Division of Environmental Geosciences, American Association of Petroleum Geologists, 2011-present.

Associate Editor, *FastTIMES*, 2009-present.

Proposal Reviewer, U.S. Department of Energy, Office of Science, SBIR/STTR Program, Technologies for subsurface characterization and monitoring, 2011.

Session chair, Integrated Geophysical Applications: 4th International Conference on Environmental and Engineering Geophysics, Chengdu, China, June 2010.

Review Panelist, U.S. Department of Energy, Office of Biological and Environmental Research, Midterm Review for Integrated Field Research Challenge projects at the Hanford 300, Rifle, and Oak Ridge sites, Washington, D.C., April 2010.

Advisory Board member, Division of Environmental Geosciences, American Association of Petroleum Geologists, 2010-present.

Vice President, Division of Environmental Geosciences, American Association of Petroleum Geologists, 2009-2010.

Proposal Reviewer, U.S. Department of Energy, Office of Biological and Environmental Research, Technologies for subsurface characterization and monitoring, 2010.

Co-Convenor, Workshop W-1: Airborne EM for environmental and engineering applications: Environmental and Engineering Geophysical Society, 22nd Symposium on the Application of Geophysics to Engineering and Environmental Problems, Fort Worth, Texas, April 2009.

Invited testimony on Hurricane Ike (2008) coastal impact and recovery: Texas House Select Committee on Hurricane Ike Storm Devastation to the Texas Gulf Coast and the Texas Senate Subcommittee on Flooding and Evacuations, League City, Texas, 2008.

Past President, Environmental & Engineering Geophysical Society, 2008–2009.

Editor-in-Chief, *FastTIMES*, 2006–2009; Associate Editor, 2009–present.

President, Environmental & Engineering Geophysical Society, 2007–2008.

Review Panelist, National Laboratories Science Focus Area Review Panel, U.S. Department of Energy, Environmental Remediation Sciences Division, 2008.

Session chair, Experimental Geophysics: Symposium on the Application of Geophysics to Engineering and Environmental Problems, Environmental and Engineering Geophysical Society, Philadelphia, Pennsylvania, April 2008.

President Elect, Environmental & Engineering Geophysical Society, 2006–2007.

Board of Directors, Environmental & Engineering Geophysical Society, 2005–2009.

Associate Editor for Geophysics, 1995-present, *Environmental & Engineering Geoscience*, a journal published by the Association of Engineering Geologists and the Geological Society of America.

Member, Environmental Geophysics Committee, Division of Environmental Geosciences, American Association of Petroleum Geologists, 2007-2011.

Member, Technical Program Committee, Society of Exploration Geophysicists Annual Meeting, 2007.

Session chair, Hydrologic Applications of Geophysics, Society of Exploration Geophysicists Annual Meeting, September 2007.

Session chair, Hydrogeophysics II: Symposium on the Application of Geophysics to Engineering and Environmental Problems, Environmental and Engineering Geophysical Society, Denver, Colorado, April 2007.

Session chair, Novel geophysical applications: Symposium on the Application of Geophysics to Engineering and Environmental Problems, 2005.

Session chair, Mining and landfill site investigations: Symposium on the Application of Geophysics to Engineering and Environmental Problems, 2003.

Session chair, Near-surface seismic acquisition, processing, and interpretation: Society of Exploration Geophysicists Annual Meeting, 2001.

Member, Technical Program Committee, Society of Exploration Geophysicists Annual Meeting, 2001.

Session chair, Electromagnetics and resistivity: Society of Exploration Geophysicists Annual Meeting, 2001.

Review Panelist, U.S. Department of Energy, Environmental Remediation Sciences Division, Solicitation 06-12, 2006.

Review Panelist, National Aeronautic and Space Administration Mission to Planet Earth Program, Solid Earth and Natural Hazards Panel, 1997–2000.

Proposal reviewer, Southwest Consortium for Environmental Research and Policy, January 2006.

Peer reviewer of one or more manuscripts submitted to *Australian Journal of Experimental Agriculture, Ecosystems, Environmental & Engineering Geoscience, Eos, Geology, Geophysics, Ground Water, Geoarcheology, Geophysical Journal International, Geophysical Research Letters, GCAGS Journal, GCAGS Transactions, International Journal of Greenhouse Gas Control, Journal of Applied Geophysics, Journal of Hydrology, Journal of Sedimentary Petrology, Near Surface Geophysics, Tectonophysics, Vadose Zone Journal, and Wetlands.*

Participant, Texas Coastal Management Plan, Shoreline Erosion and Dune Protection Strategy and Capstone Workshops, sponsored by Texas General Land Office.

Member, Standing Advisory Committee of the Southern Coastal Corridor Cultural Resource Planning Region, 1987–1991.

Expert Witness, State of Texas vs. Matcha, testimony on the effect of Hurricane Alicia on Texas beaches, 1984.

UT, BEG Service

Member, Appointments Committee, Jackson School of Geosciences, 2012–present.

Member, Promotions Advisory Committee, Bureau of Economic Geology, 2011–present.

Member, Rapid Response Committee, Jackson School of Geosciences, 2007–present.

Member, Earth Surface and Hydrologic Processes Search Committee, Jackson School of Geosciences, 2007–2009.

Presenter, Writing Workshop, Bureau of Economic Geology, Austin, Texas, May 21, 2009.

Member, Equipment Committee, Jackson School of Geosciences, 2006–2010.

Member, Evaluations Task Force, Bureau of Economic Geology, 2001.

Chair, Recovery Plan Committee, Bureau of Economic Geology, 2000.

Member, Technical Advisory Board, Bureau of Economic Geology, 2000–2001.

Chair, Recovery Plan Committee, Bureau of Economic Geology, 2000.

Awards

Gold Award, Environmental and Engineering Geophysical Society, 2010

Best Paper Award, “Applying airborne electromagnetic induction in groundwater salinization and resource studies, West Texas”, presented at the Symposium on the Application of Geophysics to Engineering and Environmental Problems, 2003.

Co-author of Best Oral Paper, Division of Environmental Geosciences, American Association of Petroleum Geologists Annual Meeting, 1997.

Best Presentation Award, Technical Sessions, The University of Texas at Austin, Fall 1990

Professional Development Awards (2), The University of Texas at Austin, 1990

Shell Chair Award, The University of Texas at Austin, 1990

Grant-in-Aid of Research, Sigma Xi, 1987

Gulf Coast Association of Geological Societies Financial Award, 1987

Francis L. Whitney Endowed Presidential Scholarship, The University of Texas at Austin, 1980

Grants

Determining wetlands distribution, lake depths, and topography using airborne lidar and imagery on the North Slope, Deadhorse area, Alaska: Great Bear Petroleum LLC, SRA no. 12-000752 (2012-2013, \$661,318).

Principal Investigator: Reconnaissance geophysics at the Flowers Ranch blowout: Intera, Contract No. 8768 (2011-2012, \$26,400).

Principal Investigator: Locate and acquire digital geophysical well logs and conduct data entry of attributes: Texas Water Development Board Contract Number 1100011198 (2010-2011, \$300,000).

Principal Investigator: Updating long-term change rates of the Texas Gulf shoreline: GLO Contract Number 10-041-000-3737 (2009-2011, \$147,418).

Principal Investigator: Shoreline change and beach/dune morphodynamics along the Texas Gulf coast: GLO Contract Number 09-242-000-3789 (2009-2013, \$800,000).

Principal Investigator: Examining water saturation and stratigraphic trends at the WCS facility, Andrews County, Texas using electromagnetic induction: Texas Commission on Environmental Quality (2009-2011, \$50,000).

Principal Investigator: Seismic and radar imaging of a suspected growth fault near Matagorda, Texas: U.S. Department of Energy, subcontract through Texas A&M University (2008, \$5000).

Principal Investigator: Geophysical investigation of salinization in an oilfield in Winkler County, Texas: phase two: Heritage Standard Corporation (2008-2009, \$8520).

Principal Investigator: Preliminary geophysical survey to detect significant shallow voids near Timpson, Texas: Railroad Commission of Texas (2008-2009, \$8000).

Principal Investigator: Preliminary Investigations of subsidence, collapse, and potential for continued growth of the Daisetta Sinkhole, Liberty County, Texas: Railroad Commission of Texas (2008-2009, \$10,000).

Principal Investigator: Geophysical investigation of salinization in an oilfield in Winkler County, Texas: Heritage Standard Corporation (2008, \$5,589).

Principal Investigator: Preliminary Investigations of subsidence, collapse, and potential for continued growth of the Daisetta Sinkhole, Liberty County, Texas: Jackson School of Geosciences Rapid Response Program (2008, \$40,000).

Principal Investigator: Support for Environmental and Engineering Geophysical University: geophysical instruction for non-geophysicists at SAGEEP: Department of Energy Office of Science Solicitation DE-PS02-08ER08-01 (2008, \$5,000).

Subsidence and collapse in Winkler County, Texas: minimizing threats to public safety and infrastructure through integrated, phased geoscience investigations: Joint industry gifts from ChevronTexaco, Apache, Devon, and Occidental (2008, \$215,000).

Principal Investigator: Expanding the JSG Near-Surface Observatory: surface and borehole geophysical instruments: Jackson School of Geosciences Equipment Acquisition Program (2007-2008, \$94,252).

Principal Investigator: Surface and borehole geophysical investigations in the Wendkirk Oil Field area, Coke County, Texas: TRC Environmental Corporation (2006-2007, \$29,940).

Principal Investigator: Designing a monitoring strategy for shallow groundwater around the magnesium pits, J.J. Pickle Research Campus: The University of Texas at Austin (2006-2007, ~\$5,000).

Principal Investigator: Delineating salinity sources along segments of the Colorado River and Petronila Creek, phase 2: Texas Commission on Environmental Quality (2004–2006, \$364,629).

Principal Investigator: Delineating salinity sources along segments of the Colorado River and Petronila Creek, phase 1: Texas Commission on Environmental Quality (2004, \$90,066).

Principal Investigator: Investigation of recharge-related airborne geophysical anomalies in the Seco Creek area: U. S. Geological Survey, year 2 (2003–2004, \$10,000).

Principal Investigator: Lower Rio Grande Valley geophysics: U. S. Geological Survey (2003–2004, \$10,000).

Principal Investigator: A new look at the Mustang Island Wetlands: Texas General Land Office (2003–2004, \$45,131).

Principal Investigator: Evaluating the integrity of the Ogallala fine-grained zones using airborne electromagnetic induction: BWXT Pantex (2003, \$317,185).

Principal Investigator: Ground-penetrating radar investigation of the University of Texas at Austin Charter School site, Travis County, Texas: Safety Office, The University of Texas at Austin (2003, ~\$5,000).

Principal Investigator: Investigation of recharge-related airborne geophysical anomalies in the Seco Creek area: U. S. Geological Survey (2002–2003, \$10,000).

Principal Investigator: Identifying buried utility lines on the UT Main Campus using ground-penetrating radar: Utilities Office, The University of Texas at Austin (2002, ~\$3,000).

Principal Investigator: Establishing minimum depths to bedrock for the Winedale water supply trench: Safety Office, The University of Texas at Austin (2002, ~\$3,000).

Principal Investigator: Geomorphic and geologic services in support of archeological investigations: Texas Department of Transportation (2002–2003, \$40,000).

Principal Investigator: Comparing ground motion at the TDA Metrology Laboratory and Proposed Laboratory Sites: Texas Department of Agriculture (2001, \$14,998).

Principal Investigator: Establishing acceptable ground motion at the TDA Metrology Laboratory, Austin, Texas: Texas Department of Agriculture (2001, \$8,884).

Principal Investigator: Evaluating potential ground-water resources on State Lands in El Paso County, Texas using airborne geophysics: Texas General Land Office (2001, \$165,532).

Principal Investigator: Detecting buried waste at the UT Pickle Research Campus using geophysics: Safety Office, The University of Texas at Austin (2000–2001, \$4,102).

Principal Investigator: SRBA training for the Texas Department of Transportation: Texas Department of Transportation (2001–2002, \$61,938).

Principal Investigator: Geomorphic and geologic services in support of archeological investigations: Texas Department of Transportation (2000–2001, \$40,000).

Principal Investigator: Reconnaissance TDEM survey of the perched aquifer at the Pantex Plant; Sandia National Laboratories (2000, \$20,000).

Principal Investigator: Assessing Lacy Creek salinization using airborne geophysics; Upper Colorado River Authority (2000–2002, \$45,847).

Principal Investigator: Rapid geophysical identification and assessment of ground water for the Lower Rio Grande Valley; Texas Water Development Board and U.S. Bureau of Reclamation (1999–2000, \$150,000).

Principal Investigator: Mapping near-surface salinization using long-wavelength AIRSAR; National Aeronautics and Space Administration (1998–2001, \$126,000).

Principal Investigator: Estimating depth to bedrock feasibility study; Texas Department of Transportation (1998–1999, \$78,000).

Principal Investigator: Supplementary study of inferred fault to support license application; Texas Low-Level Radioactive Waste Disposal Authority (1998–1999, \$89,169).

Principal Investigator: Ground investigation of geophysical anomalies detected by airborne survey of the Hatchel area, Runnels County, Texas; Texas Railroad Commission (1998, \$41,964).

Principal Investigator: Assessing the significance of nine archeological sites along the Houston Ship Channel in Harris County, Texas; U.S. Army Corps of Engineers (1997–1998, \$26,812).

Principal Investigator: Obtaining depth to bedrock estimates from existing pedological, geological, and geomorphological data; Texas Department of Transportation (1996–1998, \$60,000).

Principal Investigator: Geophysical screening of potential brine leakage sites using airborne and ground-based electromagnetic methods, Runnels County, Texas; Texas Railroad Commission (1995–1996, \$134,244).

Principal Investigator: Geophysical screening of potential brine leakage sites using airborne and ground-based electromagnetic methods, Runnels County, Texas, FY94-95. Funded by Texas Railroad Commission, \$23,444.

Co-Investigator: Electromagnetic delineation of saline ground-water plumes in alluvium and bedrock along the Canadian River, Ute Reservoir, New Mexico to Lake Meredith, Texas; Texas Water Development Board (\$72,000).

Co-Investigator: Assessment of the sand resources of Sabine and Heald Banks, Texas Exclusive Economic Zone; U.S. Department of the Interior, Minerals Management Service (\$34,500).

Co-Investigator: Sand Resources of Heald and Sabine Banks, Texas Exclusive Economic Zone; U.S. Bureau of Mines (\$23,500).

Co-Investigator: Geophysical Detection of Time-Critical Targets; joint project with Applied Research Labs and the Institute for Geophysics; U.S. Department of Defense.

Co-Investigator: Characterization of the proposed Texas Low Level Radioactive Waste Repository; multi-million \$ project funded by Texas Low Level Radioactive Waste Disposal Authority, 1992–1996.

Co-Investigator: Hydrogeological assessment of the Pantex Plant; multi-million \$ project funded by U.S. Department of Energy, 1991–1996.

Publications (Peer Reviewed)

Books and Chapters

Paine, J. G., and Minty, B. R. S., 2005, Airborne hydrogeophysics, *in* Rubin, Yoram, and Hubbard, S. S., editors, *Hydrogeophysics*: Dordrecht, Springer, Water Science and Technology Library, v. 50, p. 333–357.

Articles and Reports (Peer reviewed)

Paine, J. G., Buckley, S. M., Collins, E. W., and Wilson, C. R., 2012, Assessing collapse risk in evaporite sinkhole-prone areas using microgravimetry and radar interferometry: *Journal of Environmental and Engineering Geophysics*, v. 17, no. 2, p. 73-87.

- Paine, J. G., Mathew, Sojan, and Caudle, Tiffany, 2012, Historical shoreline change through 2007, Texas Gulf coast: rates, contributing causes, and Holocene context: GCAGS Journal, v. 1, p. 13-26.
- Paine, J. G., and Collins, E. W., 2010, Characterizing oil field salinization using airborne, surface, and borehole geophysics: an example from the Upper Colorado River Basin, Texas: Environmental Geosciences, v. 17, no. 4, p. 193-207.
- Paine, J. G., 2010, Geophysics for environmental investigations: Guest Editor Special Issue Introduction, Environmental Geosciences, v. 17, no. 4, p. iv.
- Paine, J. G., Collins, E. W., Nance, H. S., and Niemann, K. L., 2009, Combining airborne electromagnetic induction and hydrochemistry to quantify salinity contributions to a large-basin stream, Colorado River, Texas, USA: Near Surface Geophysics, v. 7, no. 4, p. 271-284.
- Paine, J. G., Nance, H. S., Collins, E. W., and Niemann, K. L., 2007, Quantifying contributions to stream salinity using airborne electromagnetic induction in a small coastal plain basin: Applied Geochemistry v. 22, no. 10, p. 2207-2224.
- Paine, J. G., White, W. A., Smyth, R. C., Andrews, J. R., and Gibeaut, J.C., 2004, Mapping coastal environments with lidar and EM on Mustang Island, Texas, U.S.: The Leading Edge, v. 23, no. 9, p. 894-898.
- Paine, J. G., 2003, Determining salinization extent, identifying salinity sources, and estimating chloride mass using surface, borehole, and airborne electromagnetic induction methods: Water Resources Research, v. 39, no. 3, p. 3-1-3-10.
- Morton, R. A., Paine, J. G., and Blum, Michael D., 2000, Responses of stable bay-margin and barrier-island systems to Holocene sea-level highstands, western Gulf of Mexico: Journal of Sedimentary Research, v. 70, no. 3, p. 478-490.
- Paine, J. G. and Murphy, Michael R., 2000, Pavement deflection and seismic refraction for determining bedrock type, depth, and physical properties beneath roads: The University of Texas at Austin, Bureau of Economic Geology, Report of Investigations No. 259, 53 p.
- Paine, J. G., Dutton, A. R., and Blüm, M. U., 1999, Using airborne geophysics to identify salinization in West Texas: The University of Texas at Austin, Bureau of Economic Geology, Report of Investigations No. 257, 69 p.
- Scanlon, B. R., Paine, J. G., and Goldsmith, R. S., 1999, Evaluation of electromagnetic induction as a reconnaissance technique to characterize unsaturated flow in an arid setting: Ground Water, v. 37, no. 2, p. 296-304.
- Paine, J. G., Goldsmith, R. S., and Scanlon, B. R., 1998, Electrical conductivity and gamma-ray response to clay, water, and chloride content in fissured sediments, Trans-Pecos, Texas: Environmental and Engineering Geoscience, v. 4, no. 2, p. 225-239.
- Paine, J. G., Dutton, A. R., Mayorga, J. S., and Saunders, G. P., 1997, Identifying oil-field salinity sources with airborne and ground-based geophysics: a West Texas example: The Leading Edge, v. 16, no. 11, p. 1603-1607.
- Paine, J. G., Morton, R. A., and Garner, L. E., 1997, Site dependency of shallow seismic data quality in saturated, unconsolidated coastal sediments: Journal of Coastal Research, v. 13, no. 2, p. 564-574.
- Scanlon, B. R., Goldsmith, R. S., and Paine, J. G., 1997, Analysis of focused unsaturated flow beneath fissures in the Chihuahuan Desert, Texas, USA: Journal of Hydrology, v. 203, p. 58-78.

- Paine, J. G., 1995, Shallow-seismic evidence for playa basin development by dissolution-induced subsidence on the Southern High Plains, Texas: The University of Texas at Austin, Bureau of Economic Geology Report of Investigations 233, 47 p.
- Morton, R. A., Gibeaut, J. C., and Paine, J. G., 1995, Meso-scale transfer of sand during and after storms: implications for prediction of shoreline movement: *Marine Geology*, v. 126, p. 161-179.
- Paine, J. G., 1994, Subsidence beneath a playa basin on the Southern High Plains, U.S.A.: evidence from shallow seismic data: *Geological Society of America Bulletin*, v. 106, p. 233-242.
- Paine, J. G., Avakian, A. J., Gustavson, T. C., Hovorka, S. D., and Richter, B.C., 1994, Geophysical and geochemical delineation of sites of saline water inflow to the Canadian River, New Mexico and Texas: The University of Texas at Austin, Bureau of Economic Geology Report of Investigations 225, 72 p.
- Morton, R. A., Paine, J. G., and Gibeaut, J. C., 1994, Stages and durations of post-storm beach recovery, southeastern Texas coast, U.S.A.: *Journal of Coastal Research*, v. 10, p. 884-908.
- Paine, J. G., 1993, Subsidence of the Texas coast: inferences from historical and late Pleistocene sea levels: *Tectonophysics*, v. 222, p. 445-458.
- Paine, J. G., and Morton, R. A., 1993, Historical shoreline changes in Copano, Aransas, and Redfish Bays, Texas Gulf Coast: The University of Texas at Austin, Bureau of Economic Geology Geological Circular 93-1, 66 p.
- Morton, R. A., Leach, M. P., Paine, J. G., and Cardoza, M. A., 1993, Monitoring beach changes using GPS surveying techniques: *Journal of Coastal Research*, v. 9, p. 702-720.
- Sharp, J.M., Jr., Raymond, R.H., Germiot, S.J., and Paine, J.G., 1991, Re-evaluation of the causes of subsidence along the Texas Gulf of Mexico Coast and some extrapolations of future trends: in Johnson, A. I., ed., *Land Subsidence*, Int. Assoc. Hydrological Sciences Pub. 200, p. 397-406.
- Paine, J. G., and Morton, R. A., 1989, Shoreline and vegetation-line movement, Texas Gulf Coast, 1974 to 1982: The University of Texas at Austin, Bureau of Economic Geology Geological Circular 89-1, 50 p.
- Prewitt, E. R., and Paine, J. G., 1988, The Swan Lake site (41AS16) on Copano Bay, Aransas County, Texas: settlement, subsistence, and sea level: *Texas Archeological Society Bulletin*, v. 58, p. 147-174.
- Paine, J. G., and Morton, R. A., 1986, Historical shoreline changes in Trinity, Galveston, West, and East Bays, Texas Gulf Coast: The University of Texas at Austin, Bureau of Economic Geology Geological Circular 86-3, 58 p.
- Morton, R. A., and Paine, J. G., 1985, Beach and vegetation-line changes at Galveston Island, Texas: erosion, deposition, and recovery from Hurricane Alicia: The University of Texas at Austin, Bureau of Economic Geology Geological Circular 85-5, 39 p.
- Morton, R. A., and Paine, J. G., 1984, Historical shoreline changes in Corpus Christi, Oso, and Nueces Bays, Texas Gulf Coast: The University of Texas at Austin, Bureau of Economic Geology Geological Circular 84-6, 66 p.

Publications (Non-Peer Reviewed)

Books and Chapters

- Paine, J. G., 2004, Chapter 12. Oil-field salinization screening on the Edwards Plateau using airborne geophysics, *in* Mace, R. E., Angle, E. S., and Mullican, W. F., III, *Aquifers of the Edwards Plateau: Texas Water Development Board, Report 360*, p. 235–251.
- White, W. A., and Paine, J. G., 1992, *Wetland plant communities, Galveston Bay system: The Galveston Bay National Estuary Program, Publication GBNEP-16*, 124 p.
- Paine, J. G., 1990, Late Quaternary geology of the Peggy Lake area, *in* Gadus, E. F., and Howard, M. A., *Hunter-fisher-gatherers on the upper Texas coast: archeological investigations at the Peggy Lake disposal area, Harris County, Texas: Prewitt and Associates, Inc., Austin, Texas, Reports of Investigations, No. 74*, p. 375–400.
- Paine, J. G., 1987, The Swan Lake site (41AS16) and the Holocene highstand hypothesis, *in* Prewitt, E. R., Lisk, S. V., and Howard, M. A., *National Register assessments of the Swan Lake site, 41AS16, on Copano Bay, Aransas County, Texas: Prewitt and Associates, Inc., Austin, Texas, Reports of Investigations No. 56*, p. 243–253.

Articles and Reports (Non-peer reviewed)

- Caudle, T. L., and Paine, J. G., 2012, Pre-college student involvement in Texas coastal research: *Transactions, Gulf Coast Association of Geological Societies, Austin, Texas*, p. 27-38.
- Paine, J. G., Buckley, S. M., Collins, E. W., and Wilson, C. R., 2010, Assessing collapse risk in evaporite sinkhole-prone areas using gravimetry and radar interferometry, *in* Near-surface geophysics and geohazards, volume 2, *Proceedings of the 4th International Conference on Environmental and Engineering Geophysics, June 14–19, Chengdu, China*, p. 753–763.
- Paine, J. G., 2009, Geophysics over the Texas Coast: *in* Laubach, S. E., and Tinker, S. W., editors, *Earth's Art: Bureau of Economic Geology, The University of Texas at Austin*, p. 36-37.
- Paine, J. G., Buckley, Sean, Collins, E. W., Wilson, C. R., Kress, Wade, 2009, Assessing sinkhole potential at Wink and Daisetta using gravity and radar interferometry: *in* *Proceedings, 22nd Symposium on the Application of Geophysics to Engineering and Environmental Problems, Fort Worth, Texas, March 29–April 2*, p. 480–488.
- Paine, J. G., 2008, Passive electrical monitoring of aerobic and anaerobic processes using septic systems as an analog, *in* *Proceedings, 21st Symposium on the Application of Geophysics to Engineering and Environmental Problems: new partnerships, new discoveries, Philadelphia, April 6–10*, p. 255–263.
- Paine, J. G., and Collins, E. W., 2007, After the helicopter is gone: investigating anomalies in stream-axis EM data from the Colorado River, Texas: *in* *Proceedings, Symposium on the Application of Geophysics to Engineering and Environmental Problems: Environmental and Engineering Geophysical Society*, p. 426–435 (CD-ROM).
- Paine, J. G., Collins, E. W., Nance, H. S., and Niemann, K. L., 2006, Streambed induction logs: an airborne approach to identifying salinity sources and quantifying salinity loads: *in* *Proceedings, Symposium on the Application of Geophysics to Engineering and Environmental Problems: Environmental and Engineering Geophysical Society*, p. 96–104 (CD-ROM).
- Paine, J. G., White, W. A., Smyth, R. C., Andrews, J. R., and Gibeaut, J. C., 2005, Combining EM and lidar to map coastal wetlands: an example from Mustang Island, Texas, *in*

- Proceedings, Symposium on the Application of Geophysics to Engineering and Environmental Problems: Environmental and Engineering Geophysical Society, p. 745-756 (CD-ROM).
- Collins, E. W., Tremblay, T. A., Raney, J. A., Paine, J. G., Hovorka, S. D., Gutiérrez, Roberto, Smyth, R. C., and Hepner, Tiffany, 2004, Geologic mapping and construction of digital map data sets of the Edwards aquifer region, Central Texas, in Hovorka, Sue, ed., Edwards water resources in Central Texas: retrospective and prospective: South Texas Geological Society and Austin Geological Society, CD-ROM, p. 1-15.
- Paine, J. G., Harris, S. T., and Phelan, J. M., 2004, Assessing groundwater perching horizons using synthetic, ground, and airborne TDEM data at the Pantex Plant, Texas, *in* Proceedings, Symposium on the Application of Geophysics to Engineering and Environmental Problems: Environmental and Engineering Geophysical Society, p. 874-889 (CD-ROM).
- Paine, J. G., and Collins, E. W., 2003, Applying airborne electromagnetic induction in ground-water salinization and resource studies, West Texas, *in* Mares, Stanislav, and Pospisil, Lubomil, eds., Ninth Meeting of Environmental and Engineering Geophysics: Proceedings, August 31-September 4, Prague, Czech Republic, Czech Association of Applied Geophysicists, variously paginated.
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Dissertation and Thesis

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Crustal structure of volcanic arcs based on physical properties of andesites, volcanoclastic rocks, and inclusions in the Mount St. Helens lava dome: Seattle, Washington, University of Washington, M.S. thesis, 138 p., 1982.

Teaching

Lead Instructor, GeoFORCE Texas 11th Grade Academy (Southwest), Pacific Northwest Field Trip, Houston Independent School District, July 2012.

Lead Instructor, GeoFORCE Texas 11th Grade Academy (Houston), Pacific Northwest Field Trip, Houston Independent School District, July 2012.

Co-taught Hydrogeophysics (with John M. Sharp and Jack Holt), a class on near-surface geophysical applications in hydrogeology and engineering geology for graduate and upper division undergraduate students, GEO 371/391C, The University of Texas at Austin, Fall 2011.

Lead Instructor, GeoFORCE Texas 11th Grade Academy (Southwest), Pacific Northwest Field Trip, Houston Independent School District, July 2011.

Lead Instructor, GeoFORCE Texas 11th Grade Academy (Houston), Pacific Northwest Field Trip, Houston Independent School District, July 2011.

Lead Instructor, GeoFORCE Texas 11th Grade Academy (Southwest), Pacific Northwest Field Trip, Houston Independent School District, July 2010.

Lead Instructor, GeoFORCE Texas 11th Grade Academy (Houston), Pacific Northwest Field Trip, Houston Independent School District, July 2010.

Lead Instructor, GeoFORCE Texas 11th Grade Academy (Southwest), Pacific Northwest Field Trip, Houston Independent School District, July 2009.

Lead Instructor, GeoFORCE Texas 11th Grade Academy (Houston), Pacific Northwest Field Trip, Houston Independent School District, July 2009.

Overview of near-surface geophysics in engineering and environmental studies: lecture for CE 287, Engineering Geology, Department of Civil, Architectural, and Environmental Engineering, The University of Texas at Austin, July 2008.

Lead Instructor, GeoFORCE Texas 11th Grade Academy (Southwest), Pacific Northwest Field Trip, Houston Independent School District, July 2008.

Lead Instructor, GeoFORCE Texas 11th Grade Academy (Houston), Pacific Northwest Field Trip, Houston Independent School District, June 2008.

Lead Instructor, GeoFORCE Texas 11th Grade Academy (Southwest), Pacific Northwest Field Trip, June 2007.

Hydrogeophysical field methods: lecture and field demonstration of electromagnetic methods for Hydrogeology Field Methods class, GEO376L, The University of Texas at Austin, May 2008.

Hydrogeophysical field methods: lecture and field demonstration of electromagnetic methods for Hydrogeology Field Methods class, GEO376L, The University of Texas at Austin, May 2007.

Overview of near-surface geophysics in engineering and environmental studies: lecture for CE 387G, Engineering Geology, Department of Civil, Architectural, and Environmental Engineering, The University of Texas at Austin, July 2006.

Hydrogeophysical field methods: lecture and field demonstration of electromagnetic methods for Hydrogeology Field Methods class, GEO376L, The University of Texas at Austin, May 2006.

Hydrogeophysical field methods: lecture and field demonstration of electromagnetic methods for Hydrogeology Field Methods class, GEO376L, The University of Texas at Austin, May 2005.

Co-taught Hydrogeophysics (with John M. Sharp), a class on near-surface geophysical applications in hydrogeology and engineering geology for graduate and upper division undergraduate students, GEO 391, The University of Texas at Austin, Spring 2004.

Member, Kevin Befus Ph.D. committee, Department of Geological Sciences, The University of Texas at Austin, 2011-present.

Member, Joel D. Stevens Master's. committee, Department of Geological Sciences, The University of Texas at Austin, 2006.

Member, Martin Hanzlik Master's committee, Department of Geological Sciences, The University of Texas at Austin, 2006.

Member, Joel D. Stevens Ph.D. committee, Department of Geological Sciences, The University of Texas at Austin, 2004.

Member, Nedra D. Bonal Ph.D. committee, Department of Geological Sciences, The University of Texas at Austin, 2004-2007.

Member, Marcus O. Gary Ph.D. committee, Department of Geological Sciences, The University of Texas at Austin, 2004-2009.

Member, Kaveh Khorzad Master's committee, Department of Geological Sciences, The University of Texas at Austin, 1998-1999.

Member, Georgios P. Tsoflias Ph.D. committee, Department of Geological Sciences, The University of Texas at Austin, 1996-1999.

Member, David Hill Master's committee, Department of Geological Sciences, The University of Texas at Austin, 1992-1993.

Near-surface geophysical methods in hydrogeological investigations: lecture and field demonstration of electromagnetic methods for Field Methods in Hydrogeology class, GEO376L, The University of Texas at Austin, May 2002.

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Near-surface applications of seismic reflection and electromagnetic induction methods: lecture for Exploration Geophysics class, GEO465K, The University of Texas at Austin, November 1997.

Near-surface geophysical methods in hydrogeological investigations: lecture and field demonstration of electromagnetic methods for Field Methods in Hydrogeology class, GEO376L, The University of Texas at Austin, May 1997.

Near-surface geophysical methods in hydrogeological investigations: lecture and field demonstration of seismic and electromagnetic methods for Field Methods in Hydrogeology class, GEO376L, The University of Texas at Austin, May 1996.

Shallow seismic reflection and refraction methods in hydrogeological investigations: lecture and field demonstration for Field Methods in Hydrogeology class, GEO376L, The University of Texas at Austin, May 1995.

Electromagnetic induction methods: lecture for Vadose Zone Hydrogeology class, GEO391, The University of Texas at Austin, Spring 1995

Environmental and groundwater geophysics: shallow seismic reflection surveying and electromagnetic methods: lecture for Field Methods in Hydrogeology class, GEO376L, The University of Texas at Austin, Summer 1993.

Shallow seismic methods in environmental and hydrogeological studies: lecture for Geophysics for Geology Majors class, GEO368K, The University of Texas at Austin, Spring 1993.

Teaching Assistant, Physical Geology, The University of Washington, Department of Geological Sciences, Seattle, Washington, Winter 1981.

Teaching Assistant, Physical Geology, The University of Washington, Department of Geological Sciences, Seattle, Washington, Autumn 1980.

Public Lectures and Addresses

Historical shoreline change through 2007, Texas Gulf coast: rates, contributing causes, and Holocene context: presented at Gulf Coast Association of Geological Societies Annual Meeting, Austin, Texas, October 22, 2012.

Hydrofracturing 101: What is it, what are the issues, and how can geophysics help?: invited presentation for Professional Development Course, Texas Mining and Reclamation Association Annual Meeting, Bastrop, Texas, October 21, 2012.

Historical shoreline change through 2007, Texas Gulf coast: rates, contributing causes, and Holocene context: invited presentation for Professional Development Course, Texas Mining and Reclamation Association Annual Meeting, Bastrop, Texas, October 21, 2012.

Conductivity measuring to assess brine impact: (invited presentation; K. Romanak gave presentation): 2012 IEAGHG Environmental Impacts of CO₂ Storage Workshop, Bozeman, Montana, July 18, 2012.

EM investigations to assess near-surface effects of hydrofracturing on water quality: presented at Bureau of Economic Geology Seminar, The University of Texas at Austin, Austin, Texas, April 2012.

EM investigations to assess near-surface effects of hydrofracturing on water quality: presented at Workshop W-2, Hydrofracturing 101: What is it, what are the issues, and how can geophysics help?: Symposium on the Application of Geophysics to Engineering and Environmental Problems, Tucson, Arizona, March 2012.

Integrated, student-led hydrogeophysical investigations at a suspected central Texas sinkhole: presented at Symposium on the Application of Geophysics to Engineering and Environmental Problems, Tucson, Arizona, March 2012.

Assessing collapse risk in evaporite sinkhole-prone areas using gravimetry and radar interferometry: invited presentation for Texas Commission on Environmental Quality PG Series, Austin, Texas, December 6, 2011.

The Great Wenchuan Earthquake (M 7.9), May 2008: surface rupture, landslides, lakes, and damage to infrastructure: invited presentation for Professional Development Course, Texas Mining and Reclamation Association Annual Meeting, Bastrop, Texas, October 23, 2011.

Assessing collapse risk in evaporite sinkhole-prone areas using gravimetry and radar interferometry: invited presentation for Workshop W-13: Geophysics Applied to Geohazards and Public Safety, Society of Exploration Geophysicists Annual Meeting, San Antonio, Texas, September 23, 2011.

Geophysical survey results at the Flowers Ranch blowout well, Hemphill County, Texas: Intera, Austin, Texas, July 1, 2011.

Measuring conductivity to detect brine displacement: examples from Texas oil fields (invited presentation: IEAGHG 7th Monitoring Network Meeting, Potsdam, Germany, June 8, 2011.

Lessons for data integration (invited presentation): EPA Geophysical Techniques Workshop for Shallow Groundwater, Richland College, Dallas, Texas, May 12, 2011.

Ground-based EM techniques (invited presentation): EPA Geophysical Techniques Workshop for Shallow Groundwater, Richland College, Dallas, Texas, May 11, 2011.

The Great Wenchuan Earthquake (M 7.9), May 2008: surface rupture, landslides, lakes, and damage to infrastructure: Westlake High School Career Day, Austin, Texas, April 6, 2011.

The Great Wenchuan Earthquake (M 7.9), May 2008: surface rupture, landslides, lakes, and damage to infrastructure: Undergraduate Geology Society, Jackson School of Geosciences, The University of Texas at Austin, Austin, Texas, March 23, 2011.

Assessing collapse risk in evaporite sinkhole-prone areas using gravimetry and radar interferometry: invited presentation for Professional Development Course, Texas Mining and Reclamation Association Annual Meeting, Bastrop, Texas, October 24, 2010.

Geophysics applied to environmental and geohazard issues: presented to Texas Commission on Environmental Quality, Austin, Texas, October 5, 2010.

Assessing collapse risk in evaporite sinkhole-prone areas using gravimetry and radar interferometry: invited presentation at the 4th International Conference on Environmental and Engineering Geophysics, Chengdu, China, June 14, 2010.

Assessing collapse risk in evaporite sinkhole-prone areas using gravimetry and radar interferometry: invited presentation at Geophysics and Geohazards Workshop sponsored by the 4th International Conference on Environmental and Engineering Geophysics, Wuhan, China, June 11, 2010.

Examining shallow lithologic and water-saturation trends at the WCS site, West Texas, using EM methods: presented to Texas Commission on Environmental Quality and Waste Control Specialists: Austin Texas, March 29, 2010.

Summary of geophysical studies of shallow strata and ground water at the WCS site, West Texas: presented to Texas Commission on Environmental Quality and Waste Control Specialists: Austin Texas, March 3, 2010.

Geophysics to examine stratigraphy and water saturation trends at the WCS site, West Texas: presented to Texas Commission on Environmental Quality, Phase 2: Austin Texas, December 18, 2009.

Geophysics to examine stratigraphy and water saturation trends at the WCS site, West Texas: presented to Texas Commission on Environmental Quality, Phase 1: Austin Texas, October 15, 2009.

Near-surface geophysics and geohazards: presented to Texas Commission on Environmental Quality, Austin, Texas, September 24, 2009.

Sinkholes in Texas: presented to Visiting Committee, Bureau of Economic Geology, Austin, Texas, August 6, 2009.

Assessing sinkhole potential at Wink using gravity and radar interferometry: presented at the Winkler County Courthouse, Kermit, Texas, April 3, 2009.

Assessing sinkhole potential at Wink and Daisetta using gravity and radar interferometry: presented at the 22nd Symposium on the Application of Geophysics to Engineering and Environmental Problems, Fort Worth, Texas, March 31, 2009.

Applying electrical geophysical methods (EM and resistivity) at the WCS site, Andrews County, Texas: presented to the Texas Commission on Environmental Quality, Austin, Texas, March 19, 2009.

Rapid-response gravity survey at Daisetta, Texas: presented at The Daisetta Sinkhole: Joint Meeting of the Association of Environmental and Engineering Geologists (Texas Section) and the Houston Geological Society, Daisetta, Texas, January 17, 2009.

Near-surface geophysics in engineering and environmental studies: presented at professional development course, Texas Mining and Reclamation Association, Corpus Christi, Texas, October 2008.

Preliminary microgravity results at the Daisetta sinkhole: presented to U.S., State, and local governmental officials, Austin, Texas, August 2008.

Passive electrical monitoring of aerobic and anaerobic processes using septic systems as an analog: presented at the 21st Symposium on the Application of Geophysics to Engineering and Environmental Problems, Philadelphia, Pennsylvania, April 2008.

Stream-axis EM from a helicopter: identifying salinity sources in a large river basin: presented at 14th Annual International Petroleum Environmental Conference, Houston, Texas, November 2007.

Stream-axis EM from a helicopter: identifying salinity sources in a large river basin: presented at EAGE 69th Conference & Exhibition. London, UK, June 2007.

After the helicopter is gone: investigating anomalies in stream-axis EM data from the Colorado River, Texas: presented at the Symposium on the Application of Geophysics to Engineering and Environmental Problems, Denver, Colorado, April 2007.

Flying the Colorado: finding salinity sources in stream-axis EM data from West Texas: presented at Bureau of Economic Geology, The University of Texas at Austin, Austin, Texas, March 2007.

Surface and borehole geophysical investigations in the Wendkirk Oil Field area, Coke County, Texas: presented to Railroad Commission of Texas, Austin, Texas, December 2006.

Keynote Lecture: Applying geophysics to environmental and engineering problems: A Texas sampler: presented at Association of Exploration Geophysicists Third International Seminar and Exhibition on Exploration Geophysics, Hyderabad, India, November 2006.

Geophysical investigations of salinization along the Upper Colorado River: presented at Texas Water Conservation Association Fall Meeting, San Antonio, Texas, October 2006.

Applying geophysics to environmental and engineering problems: a Texas sampler: presented at Southwest Research Institute, San Antonio, Texas, April 2006.

Streambed induction logs: an airborne approach to identifying salinity sources and quantifying salinity loads: presented at the Symposium on the Application of Geophysics to Engineering and Environmental Problems, Seattle, Washington, April 2006.

Identifying salinity sources and quantifying salinity loads along two Texas streams using stream-axis airborne EM and focused hydrochemistry: Fall Meeting, American Geophysical Union, San Francisco, California, December 2005.

Mapping coastal wetlands using EM and airborne lidar: a Texas example (invited poster): Fall Meeting, American Geophysical Union, San Francisco, California, December 2005.

Combining airborne EM and surface-water analyses to identify natural and oil-field salinity sources that degrade water quality in two Texas streams: Geological Society of America Annual Meeting, Salt Lake City, Utah, October 2005.

Applying airborne electromagnetic induction in groundwater salinization and resource studies, West Texas: presented to Society of Petroleum Engineers, Midland, Texas, September 2005.

EM applications to water-quality studies: Lecture for short course titled "Groundwater-surface water interactions focusing on water quality issues" for Texas Commission on Environmental Quality, Austin, Texas, September 2005.

Airborne geophysical investigations of salinization along Petronila Creek: Petronila Creek Stakeholders' Meeting, Robstown, Texas, July 2005.

Delineating salinity sources along the Colorado River and Petronila Creek using airborne geophysics: presented to Red River Authority, Wichita Falls, Texas, June 2005.

Airborne geophysical investigations of salinization along Petronila Creek: Petronila Creek Stakeholders' Meeting, Robstown, Texas, June 2005.

Airborne geophysical investigations of salinization along the Colorado River: Upper Colorado River Stakeholders' Meeting, Ballinger, Texas, June 2005.

Combining EM and lidar to map coastal wetlands: an example from Mustang Island: presented at the Symposium on the Application of Geophysics to Engineering and Environmental Problems, Atlanta, Georgia, April 2005.

Geophysical investigations of salinization along Petronila Creek: Petronila Creek Stakeholders' Meeting, Robstown, Texas, December 2004.

Geophysical investigations of salinization along the Colorado River: Upper Colorado River Stakeholders' Meeting, Ballinger, Texas, November 2004.

Evaluating the perched aquifer and Ogallala fine-grained zone using airborne geophysics: presented at Pantex Groundwater Public Meeting, Panhandle, Texas, June 2004.

Exploring quantitative wetlands mapping using airborne lidar and electromagnetic induction on Mustang Island, Texas: poster presented at Joint Assembly, American Geophysical Union, Montreal, Quebec, May 2004..

Assessing groundwater perching horizons using synthetic, ground, and airborne TDEM data at the Pantex Plant, Texas: presented at the Symposium on the Application of Geophysics to Engineering and Environmental Problems, Colorado Springs, Colorado, February 2004.

Oil-field salinization screening on the Edwards Plateau using airborne geophysics: presented at Aquifers of the Edwards Plateau Conference, San Angelo, Texas, February 2004.

Near-surface geophysics: instruments, platforms, and applications: presented to Daniel B. Stephens and Associates, Austin, Texas, December 2003.

Time-domain electromagnetic survey of Pantex: presented at Pantex Groundwater Public Meeting, Panhandle, Texas, December 2003.

Evaluating the integrity of the Ogallala FGZ using airborne geophysics: progress report: presented to U.S. Department of Energy and BWXT Pantex, Amarillo, Texas, September 2003.

Applying airborne electromagnetic induction in groundwater salinization and resource studies, West Texas: presented at the 9th European Meeting of Environmental and Engineering Geophysics, Prague, Czech Republic, September 2003.

GPR investigation of the UT Charter School site, Travis County, Texas: presented to The University of Texas System and The University of Texas at Austin Environmental Health and Safety Office, Austin, Texas, May 2003.

Airborne geophysics: applications and advances in environmental and engineering investigations: workshop presented for Environmental and Engineering Geophysical Society, Symposium on the Application of Geophysics to Engineering and Environmental Problems, San Antonio, Texas, April 2003.

Assessing vibration susceptibility over shallow and deep bedrock using accelerometers and walkaway surveys: presented at the Symposium on the Application of Geophysics to Engineering and Environmental Problems, San Antonio, Texas, April 2003.

Applying airborne electromagnetic induction in groundwater salinization and resource studies, West Texas: presented at the Symposium on the Application of Geophysics to Engineering and Environmental Problems, San Antonio, Texas, April 2003.

Evaluating the integrity of the Ogallala fine-grained zones using airborne electromagnetic induction: presented at U.S. Department of Energy/State of Texas Agreement in Principle Quarterly Status Meeting, Austin, Texas, January 2003.

Geophysics applied to oil field environmental assessment: instruments, platforms, and applications: presented at Gulf Coast Association of Geological Societies 52nd Annual Convention as part of short course titled "Regulation, Assessment, and Remediation of Oil Field Exploration and Production Sites, Texas and Louisiana," Austin, Texas, November 2002.

Assessing Lacy Creek salinization using airborne geophysics: presented to Railroad Commission of Texas, Upper Colorado River Authority, and Sterling County Underground Water Conservation District, Sterling City, Texas, August 2002.

Applications of airborne electromagnetic induction in identifying groundwater resources and assessing salinization: presented to International Boundary and Water Commission and Mexican Federal and State officials, El Paso, Texas, June 2002.

Hydrogeological applications of airborne electromagnetic induction imaging: presented to World Bank, Austin, Texas, May 2002.

Assessing Lacy Creek salinization using airborne geophysics: presented to Upper Colorado River Authority and Sterling County Underground Water Conservation District, Sterling City, Texas, February 2002.

Comparing ground motion at the current and proposed sites of the Metrology Laboratory: presented to General Services Commission, Austin, Texas, January 2002.

Comparing ground motion at the current and proposed sites of the Metrology Laboratory: presented to Texas Department of Agriculture, Austin, Texas, December 2001.

Hydrogeological applications of airborne electromagnetic induction imaging: presented at Technical Sessions, Department of Geological Sciences, The University of Texas at Austin, October 2001.

Establishing acceptable ground motion at the TDA Metrology Laboratory: presented to Texas Department of Agriculture, Austin, Texas, September 2001.

Near-surface geophysics for groundwater resources: Bureau of Economic Geology Advisory Committee meeting, Austin, Texas, September 2001.

Evaluating the integrity of the Ogallala fine-grained zones using airborne electromagnetic induction: presented at Innovative Technology and Remediation Demonstration, Pantex Southeast Groundwater Project Technical Advisory Group meeting, Amarillo, Texas, March 2001.

Applying airborne and ground geophysics in ground-water resource and contamination investigations: presented to Los Alamos National Laboratory, Los Alamos, New Mexico, February 2001.

Identifying and assessing ground water in the Lower Rio Grande Valley, Texas using airborne electromagnetic induction: presented at Airborne Geophysics seminar, Austin, Texas, February 2001.

Geophysical investigations of oilfield salinization in the Red River Basin, Texas: presented at Airborne Geophysics seminar, Austin, Texas, February 2001.

Identifying and assessing ground water in the Lower Rio Grande Valley, Texas using airborne electromagnetic induction: presented to LBG-Guyton Associates, Austin, Texas, February 2001.

Geophysical investigations of oilfield salinization in the Red River Basin, Texas: presented to LBG-Guyton Associates, Austin, Texas, February 2001.

Perched groundwater leakage: geophysics scoping evaluation: presented at Innovative Treatment Remediation Demonstration meeting, Pantex Southeast Groundwater Project, Amarillo, Texas, October 2000.

Perched groundwater stratigraphic control: presented at Innovative Treatment Remediation Demonstration meeting, Pantex Southeast Groundwater Project, Amarillo, Texas, July 2000.

Identifying and assessing ground water in the Lower Rio Grande Valley, Texas using airborne electromagnetic induction: presented at Rio Grande Ground Water Planning Region meeting, Harlingen, Texas, June 2000.

Identifying and assessing ground water in the Lower Rio Grande Valley, Texas using airborne electromagnetic induction: presented to Executive Administrator, Texas Water Development Board, Austin, Texas, June 2000.

Identifying and assessing ground water in the Lower Rio Grande Valley, Texas using airborne electromagnetic induction: presented to Texas Water Development Board and U.S. Bureau of Reclamation, Austin, Texas, May 2000.

Identifying and assessing ground water in the Lower Rio Grande Valley, Texas using airborne electromagnetic induction: presented at Southwest Focus Ground Water Conference, Austin, Texas, May 2000.

Imaging Cenozoic coastal-plain deposits and predicting ground-water quality using airborne 3-D EM: presented at Texas A&M University, College Station, Texas, April 2000.

Imaging Cenozoic coastal-plain deposits and predicting ground-water quality using airborne 3-D EM: presented at Bureau of Economic Geology research seminar, Austin, Texas, March 2000.

Identifying and assessing ground water in the Lower Rio Grande Valley, Texas, using airborne electromagnetic induction: presented at the Symposium on the Application of Geophysics to Engineering and Environmental Problems, Arlington, Virginia, February 2000.

Delineating Colorado River salinization sources using reconnaissance airborne EM: presented to Clean Rivers Program Steering Committee, San Angelo, Texas, May 1999; Big Spring, Texas, July 1999.

Assessing salinization sources and extent using EM methods: Hydrogeology Brown Bag Seminar, Department of Geological Sciences, The University of Texas at Austin, Austin, Texas, April 1999.

Influence of bedrock type and depth on highway deflections: presented at the 49th Highway Geology Symposium, Prescott, Arizona, September 1998.

Brine in the near-surface environment: determining salinization extent, identifying sources, and estimating chloride mass using surface, borehole, and airborne EM: presented at the Symposium

on the Application of Geophysics to Engineering and Environmental Problems, Chicago, Illinois, March 1998.

BEG investigations at the Montague County site: presented at the District Oilfield Cleanup Coordinators' Conference, Austin, Texas, February 1998.

Identifying salinity sources using airborne and ground-based electromagnetic induction methods: presented at the Fall Meeting, American Geophysical Union, San Francisco, California, December 1997.

Estimating depth to bedrock feasibility study: presented at Texas Department of Transportation Research Management Committee Meeting, Austin, Texas, November 1997.

Identifying salinity sources in West Texas using geophysical methods: presented at Board of Directors meeting, Upper Colorado River Authority, San Angelo, Texas, August 1997.

Application of research in geology, geologic processes, and geophysics to Texas transportation issues: presented at the Center for Transportation Research Symposium, Kerrville, Texas, July 1997.

Combining high resolution airborne and ground-based geophysical methods to identify salinity sources in West Texas: presented to the Center for Remote Sensing, The University of North Texas, Denton, Texas, May 1997.

Locating salinity sources in West Texas with airborne and ground-based geophysical methods and GIS: presented at the Symposium on the Application of Geophysics to Engineering and Environmental Problems, Reno, Nevada, March 1997.

Wells, springs, pits, and seeps—identifying brine sources with geophysics: presented at Society of Independent Professional Earth Scientists 34th Annual Convention, Austin, Texas, March 1997.

Combining high resolution airborne and ground-based geophysical methods to identify salinity sources in west Texas: presented at High-Resolution Geophysics Workshop, Laboratory for Advanced Subsurface Imaging, The University of Arizona, Tucson, Arizona, January 1997.

Locating salinity sources with remotely sensed geophysical data: invited presentation at EPA/NASA Remote Sensing Environmental Monitoring Conference, Washington, D.C., December 1996.

Finding salinity sources in West Texas with airborne and ground-based electromagnetic surveys: presented at Bureau of Economic Geology research seminar, Austin, Texas, October 1996.

Shallow reflection programs at DOE's Pantex Plant, Texas: different methods, different results: invited presentation at Shallow Seismic Reflection Workshop sponsored by the U.S. Department of Energy at Lawrence Berkeley National Laboratory, Berkeley, California, September 1996.

Geophysical identification of compartment boundaries: presented to Mobil Exploration & Production, Austin, Texas, September 1996.

Geophysical screening of salinity sources in West Texas: presentation for Clean Rivers Program Steering Committee meeting, Lower Colorado River Authority, Austin, Texas, August 1996.

Applying 3-D seismic data to image geologic features and identify reservoir compartments: analysis at T-C-B field, South Texas: presentation for New Oil from Old Fields short course, Houston Geological Society, Houston, Texas, June 1996.

Geophysical identification of reservoir architecture: presentation for DOE Deltas New Oil from Old Fields short course, South Texas Geological Society, San Antonio, Texas, April 1996.

Hydrogeological applications of seismic reflection and electromagnetic methods: Hydrogeology Brown Bag Seminar, Department of Geological Sciences, The University of Texas at Austin, April 1996.

Site dependency of shallow seismic data quality in beach, floodplain, and marsh environments on the Texas Coastal Plain: invited presentation for High-Resolution Analysis of Coastal Processes and Geomorphic Change Symposium, Geological Society of America South-Central Section Meeting, Austin, Texas, March 1996.

Shallow seismic evidence for playa basin development by dissolution-induced subsidence, Southern High Plains, Texas: invited presentation for Quaternary Geology and Paleoenvironments Symposium, Geological Society of America South-Central Section Meeting, Austin, Texas, March 1996.

Comparing subsidence histories of small and large playa basins on the Southern High Plains, Texas using shallow seismic reflection data: Geological Society of America Annual Meeting, Seattle, Washington, October 1994.

Geophysics in the shallow subsurface: it's not just for prospecting anymore: presented at Panhandle Geological Society monthly meeting, Amarillo, Texas, May 1994.

Determining the role of subsidence in the formation of playa basins using shallow seismic reflection methods: presented at the Playa Basin Symposium, Texas Tech University, Water Resources Center, Lubbock, Texas, May 1994.

Geophysics in the shallow subsurface: it's not just for prospecting anymore: presented at Austin Geological Society monthly meeting, Austin, Texas, May 1994.

Subsidence beneath a playa basin on the Southern High Plains, U.S.A.: evidence from shallow seismic and stratigraphic data: presented at Geological Society of America Annual Meeting, Boston, Massachusetts, October 1993.

The use of electromagnetic methods to locate potential sources of highly saline water entering the Canadian River Valley: presented at American Association of Petroleum Geologists Mid-Continent Section Meeting, Amarillo, Texas, October 1993.

Shallow seismic studies of a large playa basin near Amarillo, Texas: presented at 6th Symposium on the Application of Geophysics to Engineering and Environmental Problems, San Diego, California, April 1993.

To bedrock and beyond: rationale, methods, and results of shallow seismic studies at the Bureau of Economic Geology: presented at Bureau of Economic Geology research seminar, Austin, Texas, April 1993.

Shallow seismic methods in environmental and hydrogeological studies: presented at Hydrogeology Seminar, Department of Geological Sciences, The University of Texas at Austin, October 1992.

Sea level and vertical movement along the Texas coast: inferences from historical, Holocene, and Late Pleistocene sea levels: presented at Geological Perspectives on Global Change, Geodynamics Research Institute Symposium, Texas A&M University, April 1991.

Historical shoreline changes in the Galveston Bay system: presented at Galveston Bay Characterization Workshop, Houston, Texas, February 1991.

Late Quaternary depositional units, sea level, and vertical movement along the Central Texas Coast: presented at Technical Sessions, Department of Geological Sciences, The University of Texas at Austin, November 1990.

Coastal plain development along the Central Texas Coast during the Late Quaternary: presented at Geological Society of America annual meeting, Dallas, Texas, November 1990.

Patterns of erosion and deposition on Galveston Island during and after a major hurricane: presented at U.S. Army Corps of Engineers Coastal Engineering Research Center, Vicksburg, Mississippi, August 1990.

Recent vertical movement and sea-level changes, Texas Coastal Zone: presented at American Geophysical Union Spring Meeting, Baltimore, Maryland, May 1990.

Impact of Hurricane Gilbert on beaches of the Texas Coast: presented (with R. A. Morton) at Bureau of Economic Geology research seminar, Austin, Texas, March 1989.

Potential for non-energy mineral development in the Texas Exclusive Economic Zone: presented at Ninth Annual Information Transfer Meeting, Gulf of Mexico OCS Region, New Orleans, Louisiana, October 1988.

Late Quaternary development of the San Jacinto River valley margin at Peggy Lake, Upper Texas Coast: presented at Gulf Coast Association of Geological Societies Annual Meeting, San Antonio, Texas, October 1987.

Sea-level control of clay dune development at the Swan Lake Site, Copano Bay, Texas: evidence for a Holocene highstand?: presented at Geological Society of America South Central Section Meeting, Waco, Texas, March 1987.

Late Quaternary evolution of the Texas coast: presented at the Third Texas Coastal Bend Archeological Palaver, Corpus Christi, Texas, May 1986.

Barrier island response to major storms: erosion, deposition, and recovery at Galveston Island, Texas: presented at Geological Society of America Annual Meeting, Orlando, Florida, October 1985.

A higher Holocene sea-level highstand in Texas?: presented at Bureau of Economic Geology research seminar, Austin, Texas, October 1984.

Legal and geologic impacts of Hurricane Alicia: presented (with R. A. Morton) at Bureau of Economic Geology research seminar, March 1984.

Xenoliths at Mount St. Helens: do they represent major volcanic arc constituents?: presented to University Student Geological Society, The University of Texas at Austin, Spring 1984.

Shoreline changes in Corpus Christi and Galveston Bays: presented at Bureau of Economic Geology research seminar, October 1983.

Crustal structure in southwestern Washington: implications from wave velocities in Mount St. Helens lava inclusions: presented at American Geophysical Union Fall Meeting, San Francisco, California, December 1981.