December 8, 2017

Cancelled due to inclement weather.

November 10, 2017

Environmental High Resolution Site Characterization (HRSC) - Vertical Profiling Tools & Applications

Mr. Scott Bergeron and Mr. Bill Prochaska, Professional Technical Support Services, Inc.

Abstract: Explore the contemporary small diameter electronic borehole logging tools available for environmental soil & groundwater investigations. These tools collect large amounts of data, enabling HRSCs to be cost-effectively implemented. Typical applications, settings and drawbacks will be presented. Vertical profiles and logs will be illustrated for discussion.

Biography: Scott holds a degree in Biological & Agricultural Engineering, along with an MBA from LSU. He worked as a student intern at US Geological Survey for 2 years on the RASA Model, which was instrumental in providing a career path. He has worked in many capacities in the environmental industry for more than 30 years, always focusing on soil & groundwater. He has been a proprietor of an environmental services business for more than 25 years. He holds a number of Louisiana licenses including: PE's in Agricultural and Environmental Engineering; PG; LaDNR Licensed Drilling Contractor; and Louisiana Board of Contractors in multiple categories (including Water Wells, Hazardous Materials Site Remediation). His project work has focused on the southeast U.S., but has included most of the continental U.S. He & his wife Ruth are recent empty-nesters; a daughter is a Cardiac ICU RN in New Orleans and a son is a chemical engineer with an industrial plant in Houston. Bill is a U.S. Marine and attended LSU, pursuing Industrial Construction Technology. His work in the geotechnical and environmental industry began more than 30 years ago, working for his Father's soil engineering business. He has worked with soils in many capacities including: drilling / exploration, laboratory testing, geosynthetics, aggregates and direct imaging. He is currently Operations Manager with Scott. Bill's pursuits have also included being a proprietor of a local contract drilling operation, health & safety officer and business development. He and his wife Jenn are most proud of their children: ranging from college graduate, attending college, high school and middle school.

October 13, 2017

Solving a Geologic Puzzle: Why do Devonian plant fossils occur in late Pleistocene sediments in the Gulf of Mexico?
Barry Kohl, Ph.D., Dept. of Earth and Environmental Sciences, Tulane University

Abstract: In 1983, while on the Deep Sea Drilling Project, Leg 96, in the Gulf of Mexico (GOM), I reported Late Devonian plant microfossils (tasmanitids) in cores from the Mississippi Fan and Pigmy basin. Tasmanitids, which include the genera Tasmanites and Leiosphaeridia, are cysts of pelagic chlorophyllus algae. They appear as amber discs in foraminiferal washed-residues greater than 63 microns. After Leg

96, reworked tasmanitids were frequently seen in other slope cores and recorded by the author. These occurrences led to a twenty-year odyssey to determine the age, stratigraphic significance and source of the tasmanitids. An extensive review of the literature revealed that late Wisconsin tills and moraines in the Upper Mississippi Valley had occurrences of tasmanitids. In the 1870s, these fossils came to the attention of scientists in Illinois because they were found clogging the drinking-water screens in a water tunnel beneath Chicago. They were later found in abundance in Lake Michigan sediments. The Devonian microfossils were originally called "sporangites" then later identified as Tasmanites. Wisconsin tills contain abundant reworked tasmanitids derived from Upper Devonian black shales that outcrop in Lakes Michigan, Huron and Erie. The range of abundant tasmanitids in tills is coincidental with the age of the Last Glacial Maximum. Research of the literature and collaboration with the Illinois Geologic Survey show that abundant reworked tasmanitids occur in till and moraine cores in Illinois and Indiana. This presentation will examine the biostratigraphy and radiocarbon dates from the nine GOM cores from a 500 km area in the Central Gulf lease area that document the occurrence and age of reworked Devonian microfossils. Major sources are the late Wisconsin-age Lake Michigan and Huron-Erie glacial lobes of the Laurentide Ice Sheet. In the Gulf of Mexico, tasmanitids are useful because they are restricted to a 10,000 year interval and the last common occurrence (LO) has consistent radiocarbon dates. Based on this research, Late Wisconsin glacial history can now be linked between the midwest terrestrial record and the marine GOM using reworked, late Devonian plant microfossils as proxies verified by 14C dating.

Biography: Dr. Barry Kohl worked for Chevron USA for 26 years until his retirement in 1992, where he worked as a geophysicist, petroleum geologist and paleontologist. He has a BS from Purdue Univ., MS from Univ. of Missouri, and a Ph.D. from Tulane University. Since his retirement, he has been an adjunct professor in the Dept. of Earth and Environmental Sciences at Tulane University. His area of research is the Pleistocene stratigraphy of the deep-water Gulf of Mexico. He served as the lead paleontologist on the D/S Glomar Challenger, DSDP Leg 96. At the invitation of Dr. Harry Roberts, Coastal Studies Inst., LSU, and over a 10 year period, he dove in the Johnson Sea Link (manned submersible) to hydrate mounds, documenting the age of mud volcanoes and stratigraphic leaks of older sediments into modern strata.

September 8, 2017

Chasing the Earth's Magnetic Field - With A Drillship
Dr. Carl Richter. University of Louisiana at Lafayette

Abstract: Earth is exceptional among the terrestrial planets because it exhibits a strong magnetic field that has existed for several billion years. Much of our understanding of the behavior and history of this field is derived from paleomagnetic measurements of sedimentary sequences, which permit precise dating and the development of good records of both paleomagnetic directional and intensity variability. As the World's largest Earth Science operation, the International Ocean Discovery Program (IODP) and its predecessors have conducted >150 coring expeditions comprised of 848 individual coring sites recovering 185 miles of sea floor deposits over the last thirty years. The geomagnetic field behavior determined from paleomagnetic studies of these sites has significantly improved our understanding of

the history of the Earth's magnetic field and its relationship to paleointensity, excursions, and polarity reversals. I will present highlights of IODP Expeditions 320 and 321, which were designed to core sediments along a Pacific Equatorial Age Transect (PEAT). Each site was selected to recover a portion of the interval spanning the past 60 million years, known to geologists as the Cenozoic Era. Ultimately, the combined records from these sites will be used to study paleoclimatic, paleoceanographic, paleoproductivity, and other paleoenvironmental changes and to provide chronostratigraphic, plate tectonic, and geomagnetic constraints. For example, one of the scientific objectives was to validate and extend the astronomical calibration of the geological timescale for the Cenozoic by integrating orbitally forced variations in the sediment composition with bio-, chemo-, and magnetostratigraphy records. I will present data from these expeditions and show slides from a trip on a refitted oil drill ship that took us in two months from Hawaii into the middle of the Pacific Ocean and then back to Hawaii.

Biography: Carl Richter is the Robert Pettit Endowed Professor and Interim Director of the School of Geosciences at the University of Louisiana at Lafayette. He received his Ph.D. from the University of Tuebingen (Germany) in 1990 and spent the following three years as a post-doctoral researcher at the University of Michigan investigating magnetic anisotropy. In 1993 he joined the Ocean Drilling Program at Texas A&M University, where he was involved in a wide variety of oceanographic drilling expeditions for nine years. In 2002 Carl accepted a position at the University of Louisiana at Lafayette's Geology Department. While his main expertise is in geomagnetic methods and their application to geology he is also interested in other geophysical research methods, such as gravity, resistivity, and seismic measurements.

August 11, 2017

Channel morphology changes below the Old River Control Structure: Is there a risk for the Mississippi River switching to the Atchafalaya?
Dr. Y. Jun Xu, Louisiana State University, School of Renewable Natural Resources

Abstract: The Mississippi River Delta faces an uncertain future as sea level keeps rising while the land continues to subside. To protect the coastal landscape, communities, and economic future, the State of Louisiana developed a Master Plan in 2007 with technical tools that are used as a framework to assist implementing various restoration and protection projects. In its latest Master Plan draft of 2017, the Coastal Protection and Restoration Authority has outlined a $50 billion investment for 120 projects designed to build and maintain coastal Louisiana. These projects are well intended and are normally backed up with scientific data analysis. However, they are all developed under the assumption that the Mississippi River (MR) would remain on its current course, which is artificially maintained through a control structure built in 1963 (a.k.a. the Old River Control Structure, or ORCS) after it was realized that the river attempted to change its course back to its old river channel - the Atchafalaya River (AR). Since the ORCS is in operation of controlling only about 25% of the MR flow into the AR, little attention has been paid to the importance of possible riverbed changes downstream the avulsion node on the MR course switch. As one of the largest alluvial river in the world, the MR avulsed and created a new course

every 1,000-1,500 years in the past. From a fluvial geomorphology point of view, alluvial rivers avulse when two conditions are met: 1) a sufficient in-channel aggradation which makes the river poised for an avulsion, and 2) a major flood which triggers realization of the avulsion. In our ongoing study on sediment transport and channel morphology of the lower Mississippi River, we found that the first 30-mile reach downstream the ORCS has been experiencing rapid bed aggradation and channel narrowing in the past three decades. A mega flood could be a triggering point to overpower the man-made ORCS and allow the river finally abandon its current channel - the MR main stem. This is not a desirable path and, for that reason, the U.S. Army Corps of Engineers will do everything possible to prevent it from happening. However, nature has its own mechanism of choosing river flows, which do not bow to our expectation: the 2016 summer flood in South Louisiana and the recent Oroville Dam crisis in California are just two examples. The MR river flow has been increasing over the past century. The river is projected to further increase its flow volume as global temperature continues to rise and hydrologic cycle intensifies, i.e. evapotranspiration rates will increase and rain storms will become more intense on a warming earth. Additionally, rapid urbanization in the river basin will create conditions that foster the emergence of mega floods. It would be impractical to spend considerable resources for a river delta without assessing the future avulsion risk of the river upstream. My presentation will discuss the possibility of a Mississippi River avulsion, its consequences, as well as what assessment data we need to develop rational strategies.

Biography: Jun Xu is a hydrology/water resources professor in the School of Renewable Natural Resources, Louisiana State University. He received his B.S. degree in China, with an area of concentration in forest soils. He obtained his M.S. and Ph.D. degrees in Germany, with an area of concentration in soil science and hydrology. Over the past 30 years, he participated in 50+ research projects conducted in North America, West Europe, and East Asia across a wide range of geomorphological features from rugged terrains to fluvial floodplains, backwater swamps, and coastal estuaries and wetlands. His research focuses on hydrologic and biogeochemical processes in both natural and managed systems. In hydrology, he is mostly concerned with watershed and river basin scale modeling, riverine sediment transport, fluvial geomorphology, and RS/GIS applications in surface hydrology. In biogeochemistry, his work involves element transport, water quality, and carbon/nutrient cycling in soils, streams, lakes, and coastal waters. He is author/coauthor of more than 250 scientific publications and is a guest editor of 3 special journal issues; he has authored one book and has edited/co-edited four books. He served on the proposal review panel for many national agencies including U.S. National Science Foundation, U.S. Department of Agriculture, and the Chinese Academy of Sciences. He chaired two international scientific conferences and served on a number of conference organizing committees. Over the years, he has contributed to teaching and course development at Louisiana State University, Göttingen University in Germany, and Sichuan Agricultural University in China, and has served as a chair and a member of 54 graduate committees at LSU, including 28 Ph.D. committees.

July 14, 2017

Technology Options to Enable Low Environmental Risk Production of Natural Gas Hydrate

Art Johnson, Hydrate Energy International, LLC

Abstract: Natural Gas Hydrate (NGH) is a naturally occurring combination of water and natural gas (mainly methane) that forms under conditions of high pressure and low temperature. It is known to be widespread in permafrost regions and in deepwater sediments of outer continental margins. NGH represents a potentially vast energy resource and it is generally accepted that the amount of natural gas contained in the world's NGH accumulations greatly exceeds the volume of known conventional gas reserves. Recent drilling programs and production tests have verified that production of NGH is technically feasible. A limiting factor for development of NGH has been the estimated costs of exploration and production. These costs are commonly calculated using existing conventional drilling and production technologies, with the cost of NGH conversion added. However, the special characteristics of NGH offer new options for innovative technologies that will allow safe development of NGH at a fraction of the current estimated cost. NGH has very low environmental risk because NGH conversion and gas production in the reservoir can be quickly shut down, which results in re-stabilization of free gas as hydrate.

Biography: Art Johnson is managing member and a founding partner of Hydrate Energy International, LLC (HEI) and is engaged in geological consulting in the U.S. and throughout the world. Prior to forming HEI in 2002, Art was a geologist with Chevron for 25 years. His positions included Division Geologist for Gulf of Mexico and coordination of marine research projects. Art has advised Congress and the White House on natural gas hydrate issues since 1997, and has chaired advisory committees for several Secretaries on Energy. He has an on-going role coordinating the research efforts of industry, universities, and government agencies in the U.S. and internationally. Art served as the Gas Hydrate Lead Analyst for the "Global Energy Assessment", an international project undertaken by the International Institute for Applied Systems Analysis (IIASA) of Vienna, Austria and supported by the World Bank, UN organizations, and national governments. He is Chair of the Gas Hydrate Committee of the Energy Minerals Division of the American Association of Petroleum Geologists (AAPG), was Co-convener, 2004 AAPG Hedberg Research Conference on Gas Hydrates and Member of the JOIDES, Program Planning Group, 1998-1999. Art has published over 100 papers and articles, along with several books. These cover a diverse range of topics that include geology, geophysics, economics, and astrogeology. He is a Past-President of the New Orleans Geological Society and was General Chairman of the 2013 GCAGS Convention

June 9, 2017

Construction of Louisiana's Groundwater Systems with Very Large Well Log Dataset
Dr. Frank T. Tsai, Department of Civil & Environmental Engineering, Louisiana State University

Abstract: Using well log data to develop groundwater models is a common practice in hydrogeology. Most of cases deal with well logs less than an order of 100. This study targets three challenges in data-driven groundwater model development using thousands of well logs. The first challenge is the construction of a hydrostratigraphy using a very large number of well logs. The second challenge is to construct a model grid that represents the complex hydrostratigraphy. The third challenge is to calibrate a groundwater model with a large number of model layers. This study uses Louisiana's aquifer systems and well log data to illustrate these three challenges and present solutions. Over the past years, we have analyzed tens of thousands of electric logs and drillers' logs in Louisiana. The data are stored in the Louisiana Well Log Portal, a Google site for public consumption. We will show the construction of groundwater models for the Mississippi River alluvial aquifer, the Chicot aquifer, and the Baton Rouge aquifer system. The talk will focus on Baton Rouge groundwater model development to illustrate the three challenges.

Biography: Frank Tsai is a professor of the Department of Civil & Environmental Engineering, Louisiana State University and the Director of Louisiana Water Resources Research Institute. He has been with LSU since 2003. Frank Tsai received his BS in Agriculture Engineering and MS in Civil Engineering from Taiwan. He received his Ph.D. degree in Civil Engineering from University of California, Los Angeles in 2002 and stayed at UCLA one year as a postdoc fellow. His research interests include groundwater modeling, hydrologic modeling, uncertainty analysis, optimization, and high performance computing. He has published more than 50 refereed journal papers since joining LSU. He is currently working with 5 PhD students and two MS students on various topics of surface water and groundwater.

May 12, 2017

Faulting in Southeastern Louisiana: Misconceptions, Realities & Research Needs

Dr. Nancye H. Dawers, Department of Earth & Environmental Sciences, Tulane University

Abstract: There are a number of misconceptions about coastal fault systems in Louisiana - common ones are that all major faults strike E-W and dip gulf-ward, that the fault contribution to coastal landloss is understood, and that faults no longer interact with salt structures. Collaborative ongoing research across several Louisiana universities (UNO, ULL and Tulane) aims to provide a more scientifically accurate assessment of Late Quaternary fault activity. Overarching observations are that the main Late Pleistocene-Holocene onshore fault systems - the Baton Rouge fault zone, the Lake Pontchartrain & Lake Borgne fault zones, and the Golden Meadow fault zone - differ in that the Golden Meadow fault zone (GMFZ) is still significantly salt-involved. Salt structures segment the GMFZ with fault tips ending near or within ductile salt, resulting in highly localized fault-related subsidence separated by shallow salt structures that are inherently buoyant and virtually incompressible. Fault segments within the GMFZ include well-known marsh breaks, such as near Empire and Lake Enfermer, which are likely manifestations of transient slip events (known as slow slip phenomena in the rock mechanics, geodesy and seismology literature) in an otherwise slowly creeping fault system. Shallow fault activity occurring by slow-slip is promoted by: weak fault zone materials, high fluid pressure, low elastic stiffness in surrounding materials, and low confining pressure. As such, currently active coastal faults make

excellent analogues for gravity-driven deltaic growth faults in general. A better understanding of the structural geology and mechanics of the currently active coastal faults will provide a holistic perspective, and possibly a new paradigm, for coastal restoration efforts.

Biography: Nancye Dawers received her B.S. in Geology from University of Kentucky in 1984, an M.S. from the University of Illinois at Urbana-Champaign in 1987, and her Ph.D. from Columbia University in 1997. She is best known for her work on normal fault evolution and displacement-length scaling relationships, which began as part of her Ph.D. research. As a postdoctoral research associate at the University of Edinburgh, Scotland, she developed a love of 3d seismic data while working on continental rifting and syn-rift stratigraphy in the Brent Province. After joining the Tulane faculty in 2000, Nancye's research has focused on geomorphic expressions of active normal faults, including footwall topography in the Basin & Range, morphological response of channels to fault linkage, dike-related graben on Mars, and Late Quaternary faulting in coastal Louisiana. At Tulane, Nancye teaches Structural Geology, Tectonic Geomorphology, and Subsurface Geology, among other courses. From 2006-2008 she held the School of Science and Engineering's Ken & Ruth Arnold Endowed Professorship. She has served on the Board of the New Orleans Geological Society, the Academic Liaison Committee of the American Association of Petroleum Geologists, and the Structural Geology & Tectonics Best Paper Award Committee for the Geological Society of America. Nancye was the convention vice-chair for the 2010 AAPG Annual Convention and Exhibition, held in New Orleans. In addition, she has served on the editorial board of the journal Geology, and on proposal review panels for the National Science Foundation and the American Chemical Society's Petroleum Research Fund.

April 7, 2017

Influences on and Changes of Water Quality of the Wilcox Aquifer in Northwestern Louisiana

Dr. Douglas Carlson, Louisiana Geological Survey at Louisiana State University

Abstract: Water chemistry within the Wilcox Aquifer has been studied for over 50 years. Many of these past studies have water samples that have been collected mainly from public supply wells or industrial wells or focused on the Red River alluvial aquifer. The two large Louisiana Geological Survey (LGS) studies were focused on water quality in the Wilcox Aquifer as drawn by more wide spread domestic wells. The largest study involves collection and analytical analysis in 2010 and 2011 of water chemistry for over twenty different ions from approximately 1100 domestic water supply wells in Bossier, Caddo and De Soto Parishes. This allows for a detail spatial view of ion concentrations for a limited time interval thus avoiding combination of samples from over decades which would be the case of when considering pre-existing results noted within the USGS water quality data base of approximately 700 wells these parishes. There are a number of possible factors considered to answer the question, what influences water quality of the Wilcox Aquifer? Those influences will be discussed on Friday.

Biography: Dr. Doug Carlson is an Assistant Professor of Research with the Louisiana Geological Survey. His research has focused on aquifer characterization, stream monitoring, groundwater-surface water interactions and use of geophysical techniques in understanding aquifer systems. He has taught introductory geology, environmental geoscience and environmental science at the University of Wisconsin-Milwaukee, introductory astronomy and introductory physics at Ball State University, and introductory physics, earth physics, and statics at the University of Wisconsin-Stout over the years 1984 through 2002. Doug has both a B.S.in Geology (1981) and a B.S. in Geophysics (1981) from the University of Minnesota Institute of Technology,. a M.S in Geophysics (1983) from the New Mexico Institute of Mining and Technology, and Ph.D. in Geosciences/Hydrology (2001) from the University of Wisconsin-Milwaukee. Doug has served the BRGS as Vice President, President, and Director in previous years and is a licensed Professional Geoscientist in Louisiana.

March 10, 2017

Facies Reconstruction of a Late Pleistocene Cypress Forest Discovered on the Northern Gulf of Mexico Continental Shelf

Ms. Suyapa Gonzalez, Department of Geology and Geophysics, Louisiana State University

Abstract: A previously buried bald cypress forest (Taxodium distichum) was discovered on the continental shelf seafloor, offshore of Orange Beach, Alabama, USA, in ~20 m water depth. The forest was likely buried in the late Pleistocene, possibly exhumed by Hurricane Ivan in 2004, and is now exposed as stumps in life position. We are investigating the local stratigraphy and mode of forest preservation. In August 2015 and July 2016, submersible vibracores were collected. Sediment cores revealed, from top to bottom, a surface of Holocene transgressive sands, underlain by interbedded sand and mud (potentially Holocene or Pleistocene), overlying a swamp or delta plain facies (likely Pleistocene) containing woody debris and mud that has been provisionally dated using 14C to 41-45 ka. Cores collected in 2016 revealed a Pleistocene paleosol beneath Holocene sands in a nearby trough. We hypothesize that floodplain aggradation in the area was a key factor that might have allowed forest preservation. A temporary sea-level rise of 10-15 m occurred ca. 40 ka, which could have produced local floodplain aggradation that would have buried the swamp and forest sediments. During the subsequent lowstand, sediments that comprise the floodplain were eroded. Subsequently, paleosols were formed in other nearby areas. It is hypothesized that some swamp sediments located in paleo-topographic lows might have been preserved and buried due to the deep coverage of the eastern-trending channel infill sediments. Coastal wave erosion during transgression likely eroded high ground but enough sediment remained to keep the cypress forest blanketed and therefore allowed preservation.

Biography: Ms. Gonzalez is currently a Senior at LSU, pursuing her BS in Geology. She was born and raised in Honduras, spending her childhood and early years swimming and snorkeling the crystalline waters of the Caribbean Sea. She lived in La Ceiba, which is the third biggest city in the country and a true gem. There are beaches, rainforests, and mountains all in one place, the best of all worlds. Being surrounded by such beauty taught her to truly respect and love nature. She took a year off from high school to travel, moving to Germany for a year, where she lived with a German host family and learned how to speak the language. When she came back to Honduras, she decided to go abroad once again, but this time for college. That's when she came to LSU, almost four years ago. Ever since her first geology class at LSU, she has been mesmerized and inspired by this amazing science and how diverse it is. She says, "Up until this day, becoming a geologist has been one of the best decisions I've made in my life."

February 10, 2017

Geology, Law, and the Coast
Mr. Kelly M. Haggar

Abstract: Coastal change is unlikely to require new law but properly dealing with its effects and planning our response to them will require more than just a good understanding of present law. Statutes rest on fundamental - - but often unstated - - societal assumptions favoring some outcomes and denying others. For example, Western societies presume land should remain in commerce and always be productive. Virtually all of the major cases and controversies concerning water and/or coastal issues arising around the nation in recent years - - property damage and land loss during hurricanes due to exploration and production (E & P) canals, increased expenses to levee boards from a subset of those same E & P canals, diversions affecting oyster beds, beach front lot owners objecting to beach restoration projects, Anthropogenic Climate Change causing increasing hurricane damage - - were all resolved by applying existing law. Many of those laws are not just based upon Roman laws going back over 2000 years; some are almost word-for-word copies of them. Unfortunately, much of the general public either does not understand the basic principles of land use and tort or perhaps simply wishes for different outcomes despite existing (and well-settled) laws. Worse, there does not seem to be sufficient appreciation of the underlying geological factors driving changes in and along our coasts, marshes, and swamps.Law as an institution has never attempted to "control nature" per se but it most assuredly attempts to specify and control who gains and who loses - - and why - - when a river changes course, when new land forms at the beach, and when a dispute breaks out as to "What is a beach?" and "Who owns it?" A general overview of a few major cases and an explanation of why they turned out as they did will better enable coastal planners to find - - and stay within - - more realistic limits of what can and cannot be accomplished within the framework of our existing laws. Moreover, if American society does determine a new direction in coastal programs is needed, a fuller understanding of current law will likely allow better choices to be consciously made. However, since law can only help illuminate the choices and assign the risks to various parties, ultimately geology - - not law - - is the key to future decisions about our coastlines.

Biography: Kelly M. Haggar, B.A. Political Science, LSU (1973), entered the USAF for pilot training in 1974. While on active duty, he earned a Master's in Public Administration from the University of Oklahoma in 1987. He served in the USAF as a B-52 pilot and flight safety officer from 1974 to 1994. Retiring from the USAF, he joined Riparian, Inc., a small wetland services company in Slidell, La. Riparian had been founded by a 19 year veteran of the oil patch (Chevron and Greenhill; Master's Geology, Tulane 1978), Kathy Haggar, who earned a second MS in Biology (Ecological; Southeastern, 2000). Thus, he operated in a geology-enhanced company environment while helping to delineate and permit thousands of acres of wetlands in Texas, Louisiana, and Mississippi. In 2002, he was admitted to LSU law school, where he was selected for law review. His not-yet-published paper on a divorce problem resulted in a change in the law on the treatment of goodwill before graduation and admission to the bar in 2005. As a result of his varied experiences, the interaction between wetlands, geology, and law combined with lessons learned in flight safety and aircraft engineering to produce this briefing series on coastal change and the legal effects flowing from it.

January 13, 2017

A Geological Investigation as Evidence for an NPDES Permit Violation in Mississippi
Mr. Stephen Oivanki, PG, Gulf South Research Corp.

Abstract: A 14.6-acre subdivision lake in north Mississippi was severely impacted by sediment eroding from a new housing development, in violation of the NPDES permit issued to the developer. The Mississippi DEQ Office of Pollution Control, asked the Office of Geology (Geological Survey) for assistance to gather evidence that could be used to file suit against the developer for the violation and force cleanup of the lake. The lake was surveyed and lake sediments were sampled and compared with different sources in the 450-acre watershed using a vibracore rig. The results were plotted in GIS, and the investigation found incontrovertible evidence that the developer was at fault for the lake fill. A settlement was reached prior to trial, and the developer restored the lake and installed additional erosion control measures in the development and sediment controls in the lake.

Biography: Stephen Oivanki is a geologist with Gulf South Research Corporation (GSRC) in Baton Rouge. He has M.S. and B.S. degrees in Geology from LSU, and is an RPG in Mississippi and Louisiana. Prior to joining GSRC in 2006, he worked in the Mississippi Gulf Coast area for a private engineering firm and in Coastal Zone Management at the Department of Marine Resources in Mississippi. This presentation stems from his work with the Mississippi Geological Survey.