DECEMBER 2018

Volume 59, Number 6



DECEMBER 3 - NOGS/SGS LUNCHEON PRESENTATION

Evolution of the Salina del Bravo, Mexico:
The Bravo Trough, Sigsbee Canopy and Perdido Fold Belt
Guest Speaker: Dr. Michael R. Hudec
The University of Texas at Austin • Austin, Texas





69th Annual Gulf Coast Association of Geological Societies 2019 GCAGS Convention

October 23-25, Marriott Westchase, Houston
Hosted by the Houston Geological Society and the GCSSEPM
General Chair: Mike Erpenbeck, Vice Chair: Larry Bartell, GCAGS President: Deborah Sacrey

Submit an Oral or Poster Abstract by March 4, 2019

Convention Themes

1. Unconventional GOM Mudrocks and Shale Plays

Austin Chalk, Eagle Ford, Haynesville, Eaglebine and other plays

2. Onshore GOM Conventional Plays, Discoveries, and Case Studies

Louisiana and Texas Wilcox, Miocene, Yegua, and other trends

3. Offshore GOM Exploration and Production Studies

Cretaceous, Miocene, Deepwater Wilcox Plays, Risking, and Dry Hole Evaluation

4. Over the Border: Mexico Geology and Exploration, and Caribbean Exploration

Mexico, Cuba, Belize, Trinidad, Offshore Central America, Regional Studies

5. Structural Geology, Gravity, and Magnetic Case Studies

Ground Penetrating Radar Imaging, Use of Drones, and Lidar Imaging

6. Gulf Coast Environmental Geology

Subsidence & Flooding Impact, Groundwater Quality, Public Education Outreach, Environmental Studies, and Professional Licensing

7. Petroleum Engineers and Geologists Working Together for a Better Answer

Estimating Reserves, GeoModeling, Economics, Waterflooding, and Permeability Enhancement

8. Seismic Technology and Salt Tectonics

Depth Migration, Subsalt Processing, AVO, Seismic Attributes, and Shallow Hazards

9. Understanding Big Data and Computer Aided Interpretation

Machine Learning, Visualization, Augmented Intelligence, and Pattern Recognition

10. The Road to Business Success

Deals, Financing, Starting Own Company, Young Professional Careers, and Consulting

2019 Convention Oral and Poster abstracts of up to 300 words must be submitted to the Technical Chair, Linda Sternbach, by March 4, 2019. Send abstract and contact info in a Word document to linda.sternbach@gcagshouston.com. Authors will receive notification of acceptance by March 25, 2019

If you'd like to publish in the *GCAGS Journal*, the peer-reviewed journal of Gulf Coast geoscience, submit an extended abstract of at least 600 words, including 1–2 representative figures, to the *GCAGS Journal* Editor, Robert Merrill (rmerrill@catheart.com) by December 15, 2018.

www.gcagshouston.com

Information for Call for Papers for the GCAGS Journal is on page 13 of this issue.



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Interested in contributing to the NOGS LOG? Please submit items by the 1st Friday of the month to nogseditor@gmail.com. Advertising requests should contact NOGS at admin@nogs.org.

on the cover

Cover photo courtesy of Storyblocks

The North Pole, Arctic Ocean

The North Pole is the northern end of Earth's axis, lying in the Arctic Ocean, about 450 miles (725 km) north of Greenland. The geographic North Pole does not coincide with the magnetic North Pole—to which magnetic compasses point and which in the early 21st century lay north of the Queen Elizabeth Islands of extreme northern Canada at approximately 82°15′ N 112°30′ W. The geographic pole, located at a point where the ocean depth is about 13,400 feet (4,080 meters) deep and covered with drifting pack ice, experiences six months of complete sunlight and six months of total darkness each year.

Polar bears live in the general vicinity of the north pole but are believed to travel rarely beyond about 82° North owing to the scarcity of food. Although tracks have been seen in the vicinity of the North Pole, and a 2006 expedition reported sighting a polar bear just 1 mi (1.6 km) from the Pole.

Chunks of plastic have been found on remote frozen ice

floes just 1,000 miles from the North Pole, the first such find in an area previously inaccessible because of sea ice. Maybe the elves use the plastic in the manufacture of toys.

Info from Wikipedia, Ocean Conservancy, and Encyclopedia Britannica Photo Insert from Daily Mail



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From the Editor

The Holiday Season is here. Lots of us will be celebrating and having fun. On Christmas Day at our house we share an enormous dinner with family and friends. We sing Happy Birthday to Jesus and exchange presents. I know that everyone is different, and we celebrate according to own beliefs and customs. But we all share love, charity, and kindness during this season. Let us not forget those in need either monetarily or emotionally.

Possibly most people on the planet celebrate New Year's Eve and New Year's Day. Whether it is football, fireworks, parties or a quiet evening, the new year is recognized. Of course, the Chinese New Year is not the same date, but they have the firecracker dragon dance, which is really cool.

I have some big wishes for the new year – peace, kindness, compassion, and respect for our environment. Happy New Year!



PRESIDENT

ALEX JANEVSKI

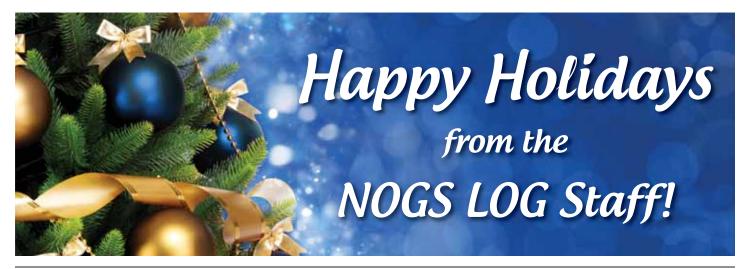
As the year winds down and we find ourselves in the holiday season I believe it is good to give thanks for all the reasons we are lucky and the good things that came this year. NOGS has had a successful year, from our charitable aims like the Memorial Foundation supporting our annual scholarship recipients, and our annual golf tournament contributing to the new Louisiana Children's Museums, to our support of the science of geology with the Deepwater and Louisiana Coastal Geology Symposia. We have made successful transitions with our office closure and hiring Christy Himel as our administrator. Christy and NOGS Treasurer Dave Culpepper have put in considerable effort to simplify our finances so that we can more clearly deal with our present fiscal challenges. The Board of Directors has settled in and continues to generate good ideas for NOGS to improve the Society's operations for the future.

The city of New Orleans continues growing stronger around us with each passing day, celebrating 300 years since the city's founding. We were lucky to avoid much in the way of natural disasters in the city this year, although we did set some records for cold, and probably for burst pipes, back in January. The U.S. economy has remained strong, and the oil and gas industry continues its slow recovery, which bodes well for the economy of Louisiana, and hopefully for many NOGS members. We lost some stalwart members this

year but have also gained many new and returning members to our rolls. I hope we can continue to bring in new members, support our many volunteer events, and the charitable giving to NOGS and the Memorial Foundation that supports all the activities that we do. I am thankful to all our members that make all this possible. I am also thankful to the NOGS Board that works so hard to achieve the goals that we set for the Society.

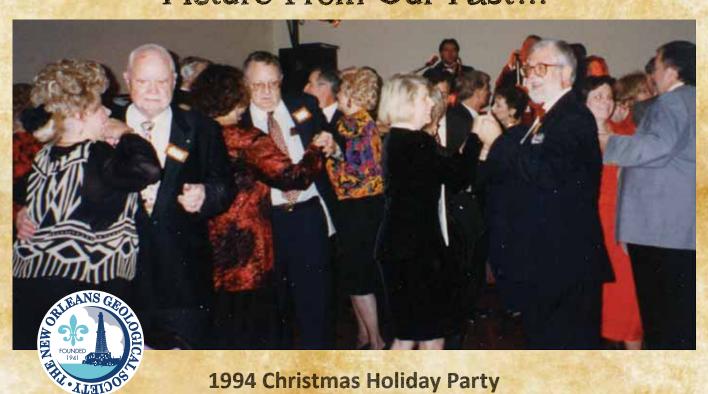
And NOGS is looking to finish the year strong. On Saturday, December 1st we will take a field trip to see the Lower Mississippi River Physical Model at the LSU Center for River Studies, a trip which I have been looking forward to for a long time as soon as I heard about the river display. Dr. Clint Willson, Director of the Center, will be our host. We closed out our speaker series with an exciting talk in November on the Chicxulub impact crater, observations from the Yucatan to northern Louisiana by Dr. Gary Kinsland, and with a talk presented by Dr. Michael Hudec on Monday, December 3rd, on both the North and South Shores. The latter talk will also be a joint event with the Southeastern Geophysical Society.

On Saturday, December 8th we will close the year of NOGS events at Filmore in the Oaks at City Park for our annual Holiday/Christmas Party. President-elect Robert Rooney has planned the soiree at the same facility that hosted our golf tournament this year, which is new, nicely appointed, and conveniently located. The menu looks exciting, and we may have a live band this year. Please join us for what will certainly be a nice event. A generous senior NOGS member has offered to sponsor attendance for the first twelve students to show up, and I hope that all our members, young and old, are able to make the event. If you are unable to attend, then I wish you well as 2018 ends, and I hope you and your loved ones enjoy the holiday season.





Picture From Our Past...



NOGS members having a great time dancing and celebrating the holidays.



Member-at-Large

Trudy Corona

NOGS Contact Information

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amamentanan	Amia Dumap	304-131-2018		

504-737-6101



December 3 • NOGS/SGS Luncheon

Holiday Inn Downtown Superdome

\$3.00 validated parking in hotel garage

Presentation:

Evolution of the Salina del Bravo, Mexico: The Bravo Trough, Sigsbee Canopy and Perdido Fold Belt

Guest Speaker:

Dr. Michael R. Hudec

Bureau of Economic Geology • The University of Texas at Austin • Austin, Texas See page 8 for Abstract and Biography

HOLIDAY INN DOWNTOWN SUPERDOME

Check with concierge or front desk for location. Lunch served at 11:30 am

ADMISSION:

December 1 NOGS Field Trip

Lower Mississippi River Physical Model
UNO Lakefront Campus to Baton Rouge, LA • 8:30 am - 2:30 pm
For more info, see calendar on page 10.

December 8

NOGS Holiday Christmas Party

Filmore in the Oaks • New Orleans, LA • 7:00 pm - 10:30 pm NOGS Members & Guests: \$65 per person • Students: \$25 per person Reservations Required - www.nogs.org

December 3

NOGS/SGS Northshore Meeting

Zea Covington • 110 Lake Drive • Covington, LA 5:30 p.m.

January 7

NOGS Luncheon Presentation

Speaker: Katherine J. Whidden, Ph.D.
"Regional Overview of the Austin Chalk Play"
Holiday Inn Superdome • New Orleans, Louisiana

NOGS CONTACT LIST

Continued from previous page

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2018-2019 Trustee	William M. Whiting	Consultant	504-947-8495	bootscon@aol.com
2019-2020 Trustee	David Reiter		504-593-3623	dreiter124@yahoo.com
2019-2020 Trustee	TBD			
2020-2021 Trustee	TBD			

AAPG DELEGATES

TBD

2020-2021 Trustee

Corm End

Term Enus				
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2020(a)	G. Alex Janevski	Shell	504-425-6214	gregory.janevski@shell.com

December 3 NOGS/SGS Luncheon Presentation

☆ ☆ ☆ at the Holiday Inn Superdome ☆ ☆ ☆

Evolution of the Salina del Bravo, Mexico: The Bravo Trough, Sigsbee Canopy and Perdido Fold Belt

Presented by

Dr. Michael R. Hudec

Bureau of Economic Geology • The University of Texas at Austin • Austin, Texas

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ABSTRACT

The Salina del Bravo region, on the continental slope just south of the Texas border, is dominated by four structures. From landward to seaward: the Bravo trough, Sigsbee Canopy, Perdido fold belt, and BAHA high. The Bravo trough lies beneath the updip part of the slope, and is characterized by a thick, intensely folded Tertiary section beneath which the Mesozoic section is thin or absent. The Bravo trough runs for roughly 400 km along strike, and is at least 40 km wide. with the west edge lying beyond the limits of our dataset. The downdip end of the Bravo trough is connected to the Sigsbee canopy by a feeder or weld. The Sigsbee canopy lies almost entirely seaward of the Bravo trough, and in most places overlies the Perdido fold belt. In many places the Perdido fold belt folds the base of the Sigsbee canopy. Elsewhere, Perdido folds are truncated beneath an unconformity on which the canopy is emplaced. At the seaward end of the system is the BAHA high, named for the first well drilled in it. The BAHA high is a structural high in the base of salt, with 1-2 km of relief in most places. Like the Bravo trough, it runs over 400 km along strike. The Perdido fold belt lies on top of or updip of the BAHA high.

We interpret the Bravo trough as a former salt wall (the Bravo diapir) that was loaded by sediments during a major depositional phase in the early Cenozoic. These sediments expelled salt from the Bravo diapir into the Sigsbee canopy. This depositional phase also destabilized the margin, leading to extension beneath the present onshore (Burgos basin) detached near the top of the Cretaceous. This extension was accommodated partly in the Bravo trough, where the detachment ramped down to the base of salt, and in the Perdido fold belt. The Perdido

fold belt was buttressed against the BAHA high, which formed the downdip end of the system. We constructed a physical model to test the viability of our hypothesis. This model was able to reproduce all of the major features of the Salina del Bravo region.

BIOGRAPHY

Dr. Michael Hudec is a Senior Research Scientist at the Bureau of Economic Geology and directs the Applied Geodynamics Laboratory (AGL), an industry-sponsored research consortium studying salt tectonics. He received his Ph.D. from the University of Wyoming in 1990, and spent the next eight years at Exxon Production

Research, where he specialized in salt tectonics, extensional tectonics, and seismic interpretation. His current research interests include palinspastic restoration of salt structures, deepwater structural styles, and evolution of the Gulf of Mexico Basin.



THE DECEMBER LUNCHEON RESERVATION DEADLINE IS NOVEMBER 30.

"And Looking Ahead . . . "

The next luncheon will be held on January 7. Our guest speaker will be Katherine J. Whidden, Ph.D. Reservations online at www.nogs.org or by email at admin@nogs.org or call 504-348-3500.



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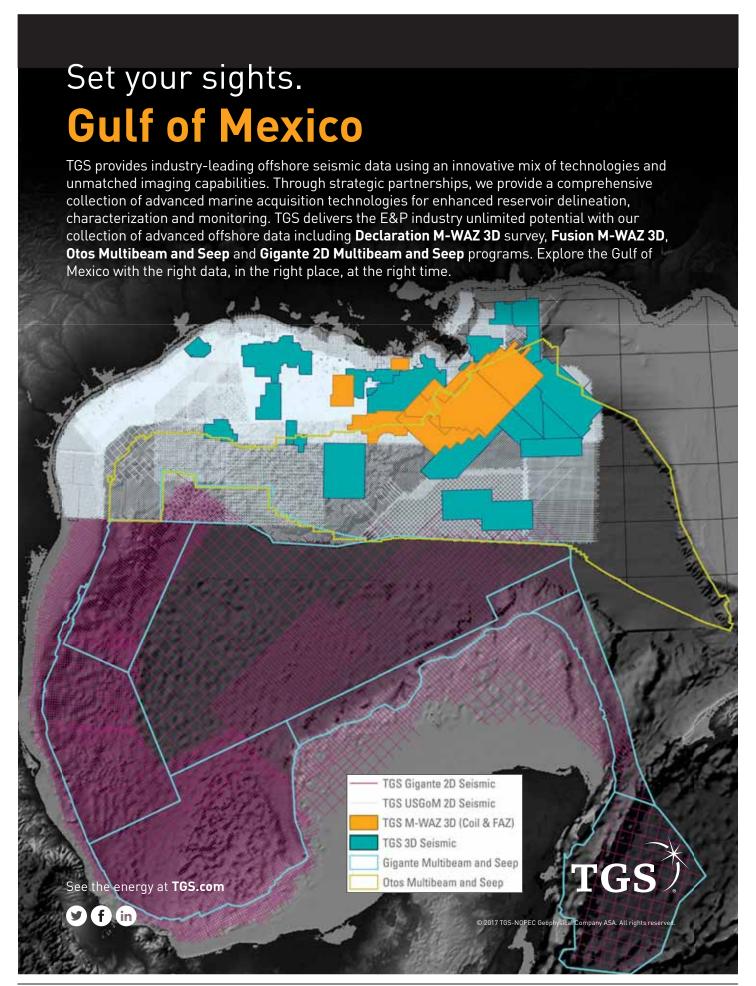
CALENDAR OF EVENTS: DECEMBER 2018 - APRIL 2019

If you know of upcoming seminars or academic events that may be of interest to our members, please email the event details to Fran Wiseman at nogseditor@gmail.com to be included in the monthly calendar.

2018	EVENT	LOCATION	CONTACT / INFO
1 Dec	NOGS Field Trip Lower Mississippi River Physical Model 8:30 am - 2:30 pm	UNO Lakefront Campus to Baton Rouge, LA	Reservations required. www.nogs.org Email: admin@nogs.org Call: 504-348-3500
3 Dec	NOGS Luncheon Presentation "Evolution of the Salina del Bravo, Mexico: The Bravo Trough, Sigsbee Canopy and Perdido Fold Belt" Speaker: Dr. Michael Hudec The University of Texas at Austin • Austin, Texas	Holiday Inn Superdome	Reservations: www.nogs.org Email: admin@nogs.org Call: 504-348-3500
3 Dec	After Hours Northshore 5:30 pm • Members: \$30 • Guests: \$35	Zea Covington 110 Lake Dr, Covington	admin@nogs.org or 504-561-8980
8 Dec	NOGS Holiday Christmas Party 7:00 pm - 10:30 pm Reservations Required	Filmore in the Oaks 1040 Filmore Ave New Orleans, LA	Reservations required: www.nogs.org 504-561-8980 or admin@nogs.org See ad this issue for more info.
15 Dec	CALL FOR PAPERS GCAGS Journal		Bob Merrill at rmerrill@catheart.com See page 13 this issue
7 Jan	NOGS Luncheon Presentation "Regional Overview of the Austin Chalk Play" Speaker: Dr. Katherine J. Whidden	Holiday Inn Superdome	Reservations: www.nogs.org Email: admin@nogs.org Call: 504-348-3500
7 Feb	NOGA "Day at the Races"	New Orleans Fairgrounds	Contact Sue Baker
4 Mar	CALL FOR PAPERS OR POSTERS GCAGS Convention Oral or Poster Abstract by March 4th		See page 2 this issue
15-16 Apr	13th Annual Louisiana Water Conference See page 17 for more information	Dalton Woods Auditorium LSU • Baton Rouge, LA	https://easychair.org/conferences/ ?conf=lawater2019
15 Apr	CALL FOR PAPERS Petroleum History Institute		Dr. William Brice wbrice@pitt.edu Marilyn Black 814-677-3152 mblack@oilregion.org

NOGS NOVEMBER LUNCHEON MEETING





New Orleans Geological Auxiliary News

"The objective of the Auxiliary is to promote fellowship among the wives of the members of the New Orleans Geological Society and to render assistance to NOGS upon request."

NOGA's November Luncheon

On Wednesday, November 7, the ladies of the Auxiliary met for a luncheon at II Tony's Restaurant on Pontchartrain Blvd. Several spouses joined their wives. Enjoying the conversations were Charlie Corona, John Skinner, Roy Walther and Jim Yeldell. Peggy Rogers' daughter, Roseanne Guerra, visiting from Atlanta, was able to join us as well.

Linda Peirce and Pat Williamson chaired the luncheon. Pat had baskets with chrysanthemum plants as table decorations and they were given away as door prizes. Jim and Camille were still enjoying being on the winning side of the recent LSU vs Alabama game.



Trudy and Charlie Corona, Pat Williamson, Margie Conatser



Mary and Roy Walther with Camille and Jim Yeldell

It was good to see Mary Ellis Hasseltine, back from her long summer in Vermont and also visiting family around the country.

The next event for the Auxiliary will be a Day at the Races. For this event we will meet on Thursday, February 7 at the New Orleans Fairgrounds and spouses and guests are welcome. Susie Baker will be in charge of the day.

Mary Walther



Peggy Rogers, Alma Dunlap, Roseanne Guerra



Linda Peirce and Pat Williamson



Ann Duffy and John Skinner

New Orleans Geological Auxiliary Membership Application		
Name	Spouse's Name	
Address	Home Phone	
City, State, Zip	Cell Phone	
Spouse's Company	Email	

Dues: \$25 payable to New Orleans Geological Auxiliary
Please mail to Mary Walther, 2421 Prancer St., New Orleans, LA 70131



GULF COAST ASSOCIATION OF GEOLOGICAL SOCIETIES

for the GCAGS JOURNAL



The peer-reviewed journal for Gulf Coast geoscience.

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The GCAGS Journal, the Journal of the Gulf Coast Association of Geological Societies, is soliciting manuscripts for the 2019 edition (our 8th volume). This peer-reviewed journal is focused on publishing studies of the geology of the onshore and offshore Gulf of Mexico. For the 2019 Journal, we are soliciting manuscripts particularly focused on the following themes, although other themes are welcome: Deepwater Gulf, Modern Technologies, Shale Play Assessment, Oil and Gas Field Studies, and the Mexico portion of Gulf of Mexico Basin.

Please submit an extended abstract of at least 600 words, including 1–2 representative figures, to the GCAGS Journal Editor, Bob Merrill, at rmerrill@catheart.com by December 15, 2018. Once topic is approved, a full manuscript must be submitted by April 2, 2019. GCAGS Convention presentations of Journal submissions are encouraged but not required. The 2019 Convention is scheduled for Houston, Texas.

Please visit www.gcags.org for open access to our seven previous volumes.

INTERESTED IN SERVING AS AN ASSOCIATE EDITOR?

The GCAGS Journal, a peer-reviewed Journal published yearly by the Gulf Coast Association of Geological Societies, is soliciting member societies for associate editors. You would be involved with managing the peer-review process for 1 to 3 manuscripts that are submitted for publication in the GCAGS Journal. Ideally associate editors will contribute their local knowledge and expertise to the editorial process. If you are interested in being an Associate Editor for the GCAGS Journal, please contact Bob Merrill at rmerrill@catheart.com.

For information on submitting an Oral or Poster Abstract for the 2019 GCAGS Convention, see inside cover (page 2) of this issue.

South Louisiana and Offshore Gulf of Mexico Exploration and Production Activities

LAFAYETTE DISTRICT, ONSHORE AREA By Carlo C. Christina and Kevin J. Trosclair

Within the past 3 weeks, the prices of crude oil and natural gas have changed considerably, (drastically, lowest since 2015). Crude Oil has decreased approximately \$10.00 a barrel, and Natural Gas has INCREASED 82 cents per million BTU.

		Sept 19, 2018	NOV 13, 2018
Crude Oil (\$/barrel)	West Texas Intermediate	\$69.25	\$59.85
	Brent – (Sweet)	\$79.25	\$69.81
	Louisiana (Light)	\$77.57	\$67.81
Natural Gas (\$/million BTU)	Spot price Louisiana	\$2.93	\$3.7

During the month of October, the Louisiana Department of Conservation issued 13 permits to drill for oil and gas in South Louisiana. Of these 13 permits, 9 were for relatively shallow wells, and the remaining 4 are reported below:

NEW LOCATIONS

In Jefferson Davis Parish, Lake Arthur Field, (A), Zachary Exploration will drill the #1 Adonis Martin, SN 251332, to a depth of 13,500 feet to test Hackberry sands. It will be drilled in Sec. 17, 10S-4W, located 1½ miles northwest of nearest production, which is from shallow Cib haz sands at 10,800 feet.

LLOX has permitted its #1 Eymard, SN 251384, in **Northwest Leeville Field**, (**B**), Lafourche Parish. It will be drilled to a total depth of 15,504 feet in Sec. 33, 20S-22 E, approximately 1 mile from nearest production.

Pennington Operating Company will drill an interesting well in **Morganza Field**, **(C)**, Pointe Coupee Parish. The #1 Fontaine Farms, SN 251396, will be drilled to a total depth of **13,900 feet to test Wilcox sands** at that depth. Morganza Field produces from **Lower Tuscaloosa sands at depths of 19,000 feet, and deeper.**

The well is located in Sec. 37, 4S-9E, with the proposed bottom hole location 928 feet west of the Pennington #1 Lacour which was completed as a gas well in 2001. It was plugged in 2015, after producing more than 8.3 billion cubic feet of gas and 68,000 barrels of condensate from Lower Tuscaloosa sands between 18,200 feet and 19,100 feet.

In Terrebonne Parish, Caillou Island Field, (D), Hilcorp Energy is drilling below

7200 feet in its #31 SL 1247, SN 251363, located in T 23 S, R 19 E. It will be drilled to a total depth of 15,826 feet.

COMPLETIONS

Fort Apache Energy has completed an oil well in **North Bivins Field**, **(E)**, Beauregard Parish. The #1 Mapco, SN 250870, was completed flowing 176 BOPD from perforations 8964 to 9045 in a Wilcox sand. The well was drilled to a total depth of 9703, located in Sec. 36, 4S-12W.

In **Northwest Oakley Field, (F),** Assumption Parish, Miss-Lou Operating has completed the #1 Clement, SN, 250900, flowing 45 BOPD through perforations 10,462 to 10,466. The well was drilled in Sec. 78, 14S-14E, to a total depth of 10,625 feet.

Hilcorp Energy has completed an oil well in **Burrwood Field, (G)**, Plaquemines Parish. The #1 SL 21729, SN 250967, was completed flowing 472 BOPD through perforations 13,850 to 13,888 and 13,904 to 13,915. The well was drilled to a total depth of 14,295, located in Sec. 2, 25S-30E.

In Saint James Parish, **Hester Field**, **(H)**, AX Operating has plugged and abandoned the #1 Gregoire, SN 250831, at a depth of 9125 feet after sticking drill pipe at that depth. The well was drilled in Sec. 57, 11S-4E.

Onshore & Offshore Activity Map for South Louisiana DECEMBER 2018 ONSHORE LOCATIONS COMPLETIONS WELL SONRIS S/N FIELD WELL SONRIS S/N FIELD 250870 **NORTH BIVENS** 251232 LAKE ARTHUR 250900 NORTHWEST OAKLEY 251384 NORTHWEST LEEVILLE G 250967 BURRWOOD 251396 MORGANZA H 250831 HESTER 251363 CAILLOU ISLAND (8) MO MP D HI 2 55 EI HI 5M EW MC 6 Elm 1 WC SM HI **OFFSHORE LOCATIONS** LOCATION AREA / BLOCK WELL **EUGENE ISLAND 341** # A-19 GC SHIP SHOAL 127 #1 MISSISSIPPI CANYON 257 #2 MISSISSIPPI CANYON 391 # IW-2 MISSISSIPPI CANYON 302 # IE-4 MISSISSIPPI CANYON 720 111

OFFSHORE GULF OF MEXICO SHELF AND DEEPWATER ACTIVITIES

by Al Baker

During October 2018, the BSEE approved 89 Gulf of Mexico drilling permits. Twenty-two of these were for shelf wells, and 77 were for deepwater wells. Of the total number of permits, there were 6 new well permits; 2 were issued on the shelf and 4 in deepwater.

Castex Offshore received a permit to drill an exploration well on the shelf, the Ship Shoal 127 #1. The other shelf new well permit was for a development well. It was issued to Arena Offshore for their Eugene Island 341 #A-19 well.

The 4 deepwater new well permits were for exploration wells. Shell Offshore received 3 permits for their Mississippi Canyon 720 #1, Mississippi Canyon 391 #IW-2, and Mississippi Canyon 392 #IE-4 well. LLOG Exploration Offshore obtained the other permit for their Mississippi Canyon 257 #2 well.

On October 26th, **IHS-Petrodata** reported that the Gulf of Mexico mobile offshore rig supply stood at **74**, which is **2** less than last month. The marketed rig supply consisted of **43** rigs, of which **33** were under contract. The marketed rig supply number and the contracted rig supply were each **2** less than the previous month. The

marketed contracted versus total rig supply utilization rate stood at **55.1%**, and the marketed contracted versus marketed supply utilization rate stood at **76.5%**. By comparison, the October 2017 total fleet utilization rate stood at 38.3% (**versus 44.6% today**) with 36 out of the 94 rigs under contract.

As of October 26th, **BakerHughes** indicated that there were **18** active mobile offshore rigs in the Gulf of Mexico, which is **54.5%** of the rigs under contract mentioned above. This active rig number is the **same** as reported last month. Of the 18 rigs, **5** are located on the **shelf**, and **13** are situated in **deepwater**. At the same time last year, there were 20 mobile offshore rigs operating in the Gulf of Mexico representing a **10% decline**.

As of October 26th, the **BakerHughes** total U.S. rig count stood at **1068** rigs, which is **14 more** than reported at the end of September 2018. Of the 1068 rigs, **875** (**81.9%**) are **oil rigs** and **193** (**18.1%**) are **gas rigs**. A year ago, there were 909 rigs working in the U.S. Thus, the current rig figure represents a **17.5% increase** in rigs. **Texas** still had the largest number of rigs with **537**, which is slightly over half (50.3%) of the total number of rigs in the U. S. **Louisiana** had a total of **61** rigs, **down 1** rig from last month.

As of October 30th, the **BOEM** has accepted a total of **83** of the **144** high bids received in **OCS Sale 251**, which was held in New Orleans in mid-August. A total of **61 remain** under evaluation. The 90-day clock for the bid evaluation period expires on November 13th.

Gem, Mineral, Fossil and Jewelry Show October 19-21, 2018



NOGS booth manned by School Outreach Chairperson Tom Bergeon





13th Annual Louisiana Water Conference April 15-16, 2019

Dear Colleagues:

Louisiana Geological Survey (LGS), LSU Agricultural Center (AgCenter), and Louisiana Water Resources Research Institute (LWRRI) are co-hosting the 13th Annual Louisiana Water Conference, April 15-16, 2019 at Louisiana State University, Baton Rouge, Louisiana.

You are cordially invited to submit titles and abstracts to the Water Conference.

The Conference offers 1 PDH Ethics Lecture for Professional Geologists (PG) and Professional Engineers (PE) and certificates of Continuing Education Units (CEUs).

Conference announcement (LAWater 2019 CFP): https://easychair.org/cfp/lawater2019 Title/Abstract submission (LAWater 2019): https://easychair.org/conferences/?conf=lawater2019

Important Dates:

Title and Abstract Submission Open: Now

Registration Open: January 2, 2019

Title Due: February 15, 2019

Abstract Due: March 15, 2019

Early Registration Deadline: March 15, 2019

Conference Days: April 15-16, 2019

Ethics Lecture for Geoscientists and Engineers (1 PDH): TBA

Conference Location:

Dalton Woods Auditorium, Energy, Coast & Environmental Building, Louisiana State University • Baton Rouge, Louisiana

Program Committee:

Douglas Carlson, Louisiana Geological Survey (co-chair)

Ryan Clark, The Water Institute of the Gulf

Stacia Davis Conger, LSU AgCenter, Red River Research Station

Mark Davis, Tulane University, Tulane Institute on Water Resources Law and Policy

Mary Gentry, Louisiana Department of Environmental Quality

Emad Habib, ULL, Department of Civil Engineering

Krishna Paudel, LSU AgCenter and LSU Agricultural Economics and Agribusiness (co-chair)

Frank Tsai, LSU Department of Civil and Environmental Engineering (co-chair)

Thomas Van Biersel, Louisiana Department of Natural Resources

Carol Wicks, LSU Department of Geology and Geophysics

Jun Xu, LSU School of Renewable Natural Resources

~ In Memorium ~

Lawrence Bres Eustis



We note with sadness the passing of Larry Eustis, NOGS last surviving charter member of 1941. He was 97 years old and lived a remarkably active life, both within the geologic community and in many social and other organizations.

The following is an excerpt from his published obituary in *The New Orleans Advocate:*

Larry spent his early years Uptown and attended Fortier High School and TulaneUniversity where he was a member of ATO fraternity. His college career was interrupted by WWII. He served in the U. S. Army Air Forces, then the U.S. Air Force. He was leader of the Photography Unit of the 40th Bomb Group stationed in India, China and on Tinian where he witnessed the departure of the Enola Gay on the fateful bombing runs to Japan. https://www.40thbombgroup.org/images/Changnon2/hcph.jpg. Larry's final active duty responsibility was to serve as editor of the Regimental histories, 40th Bombardment

Group. https://digicom.bpl.lib.me.us/ww_reg_his/127/
He spent many years in the reserves retiring from the
U. S. Air Force as a Lt. Colonel. He had a long career as a
petroleum geologist and was a charter member of the
New Orleans Geological Society and an emeritus member
of the American Association of Petroleum Geologists.
Because of working offshore for so many years, Larry was
well aware and deeply concerned about the degradation
of the coastal areas, marshes and wetlands as well as
native flora. He supported the work of many conservation
groups, primarily Woodlands Conservancy, but also Gulf
Restoration Network, Louisiana Master Naturalists of
Greater New Orleans and The Crosby Arboretum. Larry
had a strong interest in history.

At the 50th Anniversary Luncheon of the founding of NOGS, celebrated in early 1992, Larry was the Guest of Honor and had the pleasure of cutting the first slice of the anniversary cake, which was shared by all in attendance. Needless to say, Larry carried a torch for NOGS for many decades and we shouldn't let his achievements fade from our collective memory.

Memorial composed by Ed Picou.

NOGS Members Honored at Recent GCAGS Convention in Shreveport

by Ed Picou

Three NOGS members were recognized for their excellence in contributions to our Gulf Coast geologic community at the Opening Session and Awards Ceremony on Sunday, September 31, 2018

John R. Dribus received the AAPG Gulf Coast Section A.I. Levorsen Memorial Award for the best oral presentation at the 2017 GCAGS Convention in San Antonio. His paper was titled "Geologic Hazards Associated with Exploration in Deep Water and around Salt Structures in the Gulf of Mexico." At the Shreveport convention, John was the keynote speaker at the All Convention Luncheon where he gave a presentation on "The Continuing Evolution of Global Exploration." He also presented a paper Monday afternoon titled "Considering Key Geologic Risk Factors in Basin Margin Turbidite Plays Utilizing Analogs from the African Margin."

Christopher D. McLindon was the recipient of the 2018 GCAGS Statesmanship Award. This award was established in 2007 specifically to recognize Alfredo E. Guzman for his efforts in having the GCAGS expand to include the Asociación Mexicana de Geólogos Petroleros. Until this year, he had been the sole recipient. With no rigid guidelines for the award, NOGS submitted a nomination for Chris to receive the Statesmanship Award. Because of his considerable efforts, NOGS, with the Louisiana Geological Survey, will publish the first edition of the "Coastal Geohazards Atlas." The Atlas will have a major impact on the progress of coastal

restoration projects, delineating areas most susceptible to rapid subsidence. As noted by his citationist J. David Cope, "Chris has taken the lead in both specifically documenting the contribution of natural faulting to coastal land loss, and, more broadly in engaging a community of disparate talents and viewpoints in industry, academia, government, and NGOs, rallying them around the critical issue of wetlands preservation and restoration. This effort has resulted in a raising of consciousness that there is an appreciation for environmental issues within the oil industry."

Jeffrey A. Spencer received a 2018 GCAGS Distinguished Service Award for his long-time efforts in the organization. Jeff has served as the GCAGS Historian since 2010. Quoting his citationist Mary L. Barrett, "His passion and service to both the GCAGS and the greater petroleum community in preserving and educating others about petroleum history make him worthy of such an honor." In addition to serving GCAGS as Historian, Jeff plays a key role in the AAPG History of Petroleum Committee and is a charter member of the Petroleum History Institute and currently serves as president. NOGS members always enjoy his frequent articles published in our *NOGS LOG*.

NOTICE FOR POTENTIAL CANDIDATES TO APPLY FOR VACANCIES ON THE SOUTHEAST LOUISIANA FLOOD PROTECTION AUTHORITY EAST AND WEST LEVEE BOARDS.

The State contact person is Ms. Stephanie Aymond at Stephanie.Aymond@LA.GOV. Applicants need to complete the official application, which can be found at the following link: http://www.coastal.louisiana.gov/wp-content/uploads/2013/09/SLFPAApplication1.pdf. Applicants are needed to fill the following Board vacancies:

The Nominating Committee will be seeking applicants for this year to fill the following vacancies for their term beginning in 2019 and ending in 2023.

A. Non-Resident:

- SLFPA –East Board: One (1) Vacancy. A Non-Resident for the East Board means anyone who resides
 in the State of Louisiana or the United States; but, does not reside in either Jefferson or Orleans
 Parish in that respective portion of these Parishes that is located on the East side of the Mississippi
 River or anyone who resides in St. Bernard or Tangipahoa Parishes.
- SLFPA-West Board: One (1) Vacancy. A Non-Resident for the West Board means anyone who resides
 in the State of Louisiana or the United States; but, does not reside in either Jefferson or Orleans
 Parish in that respective portion of these Parishes that is located on the West side of the Mississippi
 River.

A Non-Resident applicant can apply to both Board's or may choose to apply for only the East or West Board's, subject to the residency requirements.

B. Resident:

- 1. SLFPA-East Board Tangipahoa Parish Resident: One (1) Vacancy. The applicant for this vacancy must reside within the boundaries of Tangipahoa Parish.
- 2. SLFPA-West Board Orleans Parish West Resident: One (1) Vacancy. The applicant for this vacancy must reside in that portion of Orleans Parish that is located on the West side of the Mississippi River.



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Find us at https://www.facebook.com/nogs.org/



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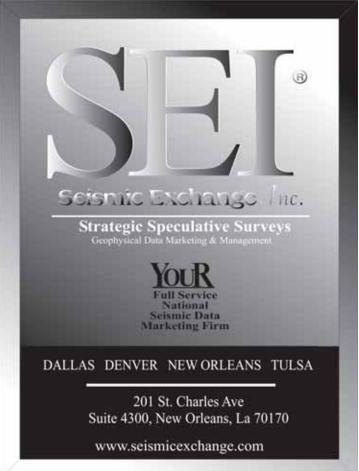
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2018 GCAGS CONVENTION

Photos courtesy of Art Christensen



Tom Ewing, Don R. Boyd Medal Recipient



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Ed Picou accepts Statesmanship Award for Chris McLindon



Kate Kipper, GCAGS Executive Secretary with Amanda Masterson, GCAGS Bookstore Manager



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John Dribus at All Convention Luncheon Denise Cox (lady in red), AAPG President



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