

# N<sup>OGS</sup> LOG

MARCH 2021  
Volume 61 No. 9





# UPCOMING NOGS MEETINGS

## APRIL 2021

**Dr. Sharon Cornelius**

University of Houston

Geo-Pressure in the Gulf of Mexico



## MAY 2021

**Dr. John Snedden**

University of Texas at Austin

The Gulf of Mexico Super Basin



## JUNE 2021

**Abdul Wahab , MS**

Submarine Fan Architecture



Anyone who has a great technical talk that they would like to share with NOGS, or who knows of someone who we should invite to present please email us at [admin@nogs.org](mailto:admin@nogs.org)

# IN THIS ISSUE

## On the Cover

### Yellowstone National Park



Yellowstone National Park is one of the most famous parks in the world for its geothermal activity and vivid formations. The park is a wilderness recreation area atop a volcanic hot spot. It is 3,500 sq. miles in size and is essentially a broad, volcanic plateau, between 7,000 and 8,500 feet above sea level. Mostly in Wyoming, the park spreads into parts of Montana and Idaho too. Yellowstone features dramatic canyons, alpine rivers, lush forests, hot springs and gushing geysers, including its most famous, Old Faithful. It's also home to hundreds of animal species, including bears, wolves, bison, elk and antelope.

## *From the Editor...*

Thanks to all those who continue to contribute to the monthly LOG. If you have any suggestions for future issues or have an article/photo(s) to contribute, please email me at [cmiller@ocsbbs.com](mailto:cmiller@ocsbbs.com). We would certainly love your input and any additional LOG content to be considered that may be of interest to NOGS members.

*Charlie*



Charles Miller III  
NOGS LOG Editor







**JOHN R. DRIBUS**

# **A MESSAGE FROM NOGS PRESIDENT**

To members and friends of the New Orleans Geological Society:

Just as the new virus vaccination program was showing hope for an accelerated recovery from the Covid 19 Pandemic, we were slammed by a fierce winter storm that left over 100,000 Louisiana homes and businesses without power, and many residential water systems temporarily impaired. Our state has had 426,000 Covid-19 cases and over 9,500 deaths attributed to the virus. We still have 715 Covid patients hospitalized across the state, and over 100 on ventilators. The good news is that over 850,000 doses of the vaccines have been administered, and almost 300,000 Louisiana residents have completed the second dose, including several NOGS members! Louisiana continues to operate under modified Phase Two Covid mitigation measures. For more details on Phase Two, please visit the Louisiana Department of Health website at <http://ldh.la.gov/Coronavirus/>.

Social gatherings continue to be the biggest culprit for spreading the virus, so meetings like our NOGS luncheons are still not advised. Consequently, NOGS will continue to offer our monthly Technical Webinar Series throughout 2021. Of the ten slots remaining this year, we already have eight filled with superb technical speakers including Dr. Robert Loucks from the University of Texas at Austin (UTA), Dr. Sharon Cornelius from the University of Houston, Dr. John Snedden also from UTA, Abdul Wahab from Tulane University, Staff Geologist Tom Bjerstedt of the U.S. Bureau of Ocean Energy Management, Dr. Clara Rodriguez with Petronas, Dr. Rebecca Minzoni from the University of Alabama, and Darryl Willis, Vice President of Energy Industry for Microsoft. What a great lineup! We still have a couple of speaker slots available later in the year, so I invite you to contact me or Hillary Sletten, NOGS VP, if you have an interesting technical talk that you would like to share, and we will put you on the calendar!

In addition to the NOGS monthly technical webinars, be sure to check out other major geology events planned this year. Five events that might be of direct interest to NOGS members include:

March 17-18: AAPG Colombia Virtual Symposium: Southern Caribbean Frontier Basins,  
April 13: Mexico Offshore Exploration Summit,  
May 23-26: AAPG Annual Convention and Exhibition (ACE) in Denver, Colorado,  
July 26-28: Unconventional Resources Technology Conference (URTeC), Houston, Texas,  
Sept 19-21, GeoGulf (GCAGS) 2021, Austin, Texas  
Please visit the AAPG website for details and registration.

I close my letter this month reminding everyone that NOGS still has some nice Photo Calendars on fire sale for \$10 each. Keep your guard up and your masks on NOGS, and let's all pitch in to help bring this virus under control.

Regards,  
John Dribus



# Drill with confidence.

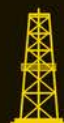
Diversified Well Logging, LLC brings the accuracy and expertise only a company with over sixty years in the oil and gas industry can deliver. We are your eyes and ears in the field, especially when it comes to deep water or high pressure, high temperature areas.

DWL offers 24-hour formation evaluation. We provide secure and customized real-time data communication, in-house research and development, and 24/7 on-call support for our equipment and our engineers.

Whether you have a 10-day job or a 110-day job, we provide the specialized attention you require. **Our experience means you can be confident in the safety and performance of your well.**



- *Formation Evaluation*
- *Geosteering*
- *Drilling Optimization*
- *Real-time Data Transmission*
- *Early Kick Detection*



**DIVERSIFIED**  
WELL LOGGING, LLC

*Serving the Oil and Gas Industry for Over 60 Years*



# PICTURE FROM THE PAST



**Al Baker (at left) and members of his “fearless foursome”  
team ready to hit the links at the May 15, 2000, NOGS Golf  
Tournament**

***Submitted by  
Ed Picou, Chairman - Historical Committee***



# advertising rates

The New Orleans Geological Society was organized on October 3, 1941, as a non-profit organization for the purpose of facilitating the development of the profession and science of Geology, with specific emphasis to exploration and production of petroleum and natural gas. Secondary related objectives include the dissemination of pertinent geological and environmental technological data, and the maintenance of a high standard of professional conduct of its members. The full history of the Society can be found at [nogs.org](http://nogs.org).

The NOGS LOG is now a digital magazine with live links to your site to reach NOGS Members and support your Society. Please contact Christy Himel [admin@nogs.org](mailto:admin@nogs.org) for placement availability. Full page NOGS LOG advertisers will have their Company LOGO posted on the NOGS Website front page. All advertisers are included on the Society's monthly PowerPoint and listed on the website with a link to their home page. Please check out our website [www.nogs.org](http://www.nogs.org)

## CURRENT AD RATES

Full Page 7.5" x 10" \$1,750

Half Page 3.75" x 10" or 7.5" x 5" \$925

Quarter Page 3.75" x 5" or 7.5" x 2.5" \$500

Eighth Page 3.75" x 2.5" \$300

Twelfth Page 3.75" x 1.65" \$188

Note Size 3.75" x 0.75" \$60

Premium Locations Inside Front Cover +30%

Opposite President's Page +20%

Opposite Oral Abstract +20%

Inside Back Cover +30%

Outside Back Cover +40%

**LLOG**  
exploration



### Covington Office

1001 Ochsner Blvd., Suite 200

Covington, Louisiana 70433

p: 985.801.4300

f: 985.801.4796

### Houston Office

CityCentre Three

842 W Sam Houston Pkwy N

Suite 600

Houston, Texas 77024

p: 281.752.1100

f: 281.752.1199

### Scott Office

814 S. Frontage Rd.

Scott, LA 70583

p: 337.408.4000

f: 337.408.4049

[www.llog.com](http://www.llog.com)

DOMESTIC &  
INTERNATIONAL



## BIOSTRATIGRAPHY

**ANYTIME.  
ANYWHERE.  
ANY FOSSIL.**

*Complete paleo services*

*Largest single-source GoM  
database*

*Custom projects & mapping*

*Multiple fossil disciplines*



**504-488-3711  
PALEODATA.COM**

**50**  
**PALEO**  
1968 - 2018  
**DATA**  
**NEW ORLEANS, LA**



**ROCK SOLID  
SERVICE**



© 2013 Core Laboratories.  
All rights reserved.



**Core Lab**  
RESERVOIR OPTIMIZATION  
[www.corelab.com](http://www.corelab.com)  
**337-837-8616**



# DRILL BITS

## OFFSHORE GULF OF MEXICO SHELF AND DEEPWATER ACTIVITIES

BY AL BAKER



During January 2021, the U.S. Department of the Interior Bureau of Safety and Environmental Enforcement (BSEE) approved 94 Gulf of Mexico (GoM) drilling permits. Thirty of the permits were for shelf wells, and the remaining 64 permits were for deepwater wells. Of the total number of permits, there were 16 new well permits issued; 11 were on the shelf, and 5 were in deepwater.

All eleven of the shelf new well permits were for Arena Offshore development wells. They were awarded permits for Galveston 192 #B-11 and #B-12 wells, Galveston 209 #B-13 well, Eugene Island 252 #L-14, #L-15 and #L-16 wells, Eugene Island 253 #L-18 well, Eugene Island 254 #K-13, Eugene Island 262 #A-14, South Timbalier 37 #H-16 well, and South Timbalier 52 #CA-11 well.

The five deepwater new well permits were for 3 exploration wells and 2 development wells. Murphy Exploration & Production Company was given 2 exploration well permits for their Green Canyon 432 #3 and #4 wells in Samurai Field. Shell Offshore received one exploration well permit for their Mississippi Canyon 522 #4 well in Fourier Field. Shell Offshore also was awarded 2 development well permits for their Mississippi Canyon 943 #PN-1 and #PN-3 wells in Power Nap Field.

On January 29th, IHS-Petrodata indicated that the GoM mobile offshore rig supply stood at 59, which is the same as last month. The marketed rig supply consisted of 36 rigs, of which 23 were under contract. The marketed rig supply and the contracted rig supply number also remained the same as last month. The marketed contracted versus total rig supply utilization rate stood at 61%, and the marketed contracted versus marketed supply utilization rate stood at 63.9%. By comparison, the January 2020 total fleet utilization rate stood at 58% with 40 rigs under contract out of the 69 rigs in the fleet.

On January 29th, Baker Hughes reported that there are 16 active mobile offshore rigs in the GoM, which is 1 less than last month and 69.6% of the rigs under contract mentioned above. Currently, 1 rig is drilling on the shelf and the remaining 15 rigs are drilling in deepwater. They include 4 rigs in the Mississippi Canyon Area, 4 rigs in the Walker Ridge Area, 2 rigs in the Green Canyon Area, 2 rigs in the Ewing Bank Area, and 1 rig each in the Eugene Island, Alaminos Canyon and Keathley Canyon Areas.

On January 29th, the Baker Hughes total U.S. rig count stood at 384 rigs, which is 33 more rigs than reported at the end of December 2020. Of the 384 rigs, 295 (76.8%) are oil rigs and 88 (23.8%) are gas rigs. The remaining 1 rig is listed as miscellaneous. A year ago, there were 790 rigs working in the U.S. inferring that the current rig figure represents a 51.4% decline in rigs year over year. At present, Texas continues to have the largest number of rigs with 182, which is 47.4% of the total number of rigs in the U.S. Louisiana currently has a total of 47 rigs, which is 8 more rigs than last month. Nationwide, Louisiana continues to rank third in the rotary rig count. New Mexico ranks second with 62 rigs.

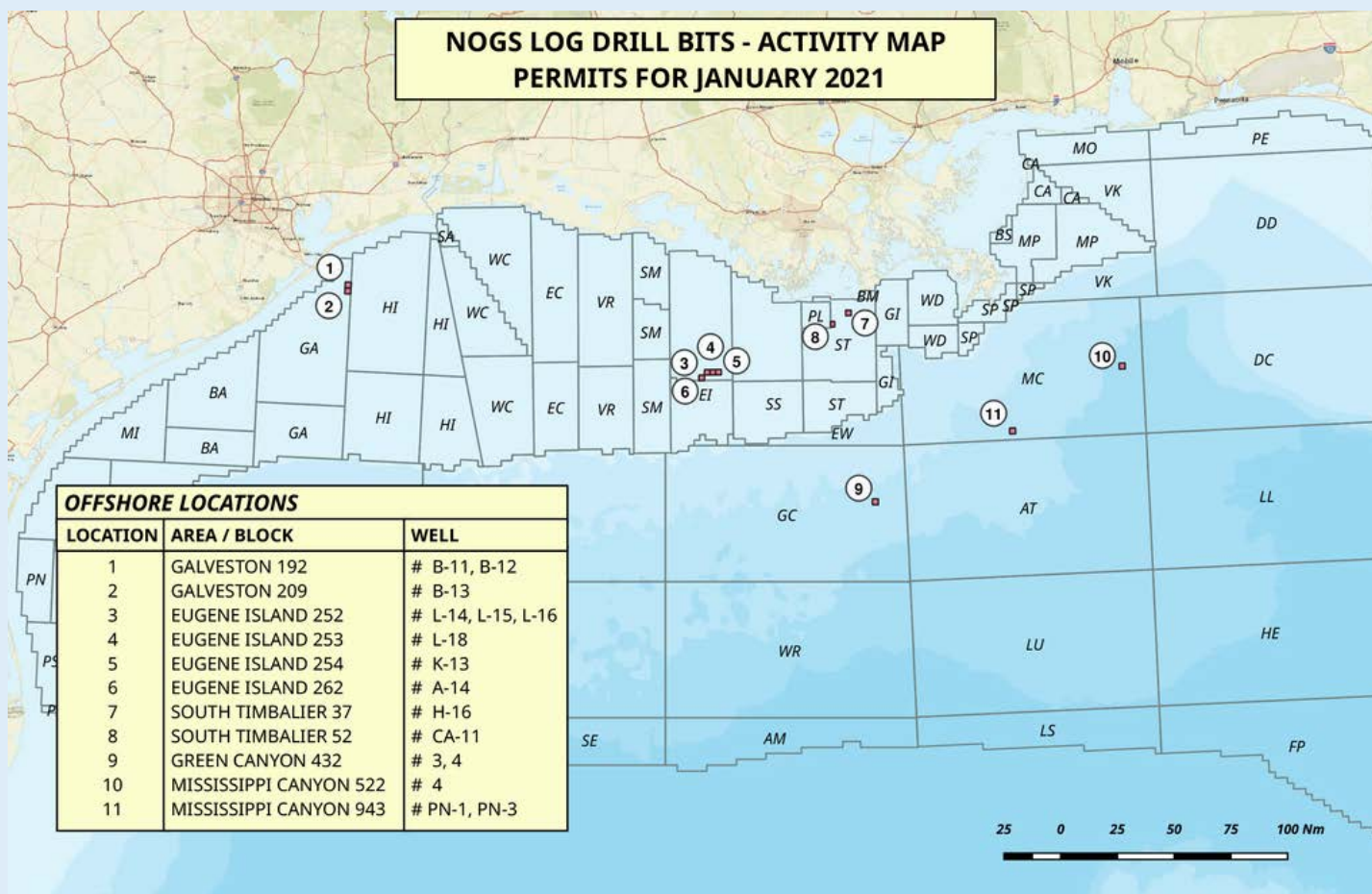




# DRILL BITS

## OFFSHORE GULF OF MEXICO SHELF AND DEEPWATER ACTIVITIES

BY AL BAKER



On January 19th, the Bureau of Ocean Management (BOEM) Gulf of Mexico Region finalized their Phase 2 acceptance of the bids received in OCS Sale 256 that was held on November 18, 2020 in New Orleans. The BOEM has deemed 86 of the 93 tracts as acceptable. The remaining 7 bids were rejected as insufficient. All of the rejected bids were on deepwater tracts.

On January 19th, Kosmos Energy announced an Upper Miocene sub-salt oil discovery at their Winterfell Prospect in Green Canyon Block 944. The discovery well was drilled in approximately 5,300 feet of water to a total depth near 23,000 feet. The well found approximately 85 feet of net oil pay in two intervals. An appraisal plan and development options are currently underway.



# NOGS 2021 Wall Calendar

**SALE**



**\$10 EACH PLUS  
SHIPPING!**

**[www.nogs.org](http://www.nogs.org)**



# NOGS

## D-O-R ENGINEERING, INC.

Reservoir Engineering - 3-D and Geoscience Services

6161 Perkins Rd.  
P.O. Box 80812



Bus: (225) 765-1914  
Baton Rouge, LA 70898

## C & R EXPLORATION, INC.

Carlo C. Christina

Lawrence G. Ringham

Thomas L. Davis  
Geologist



+35 Years exploration & development  
experience in the western US,  
overseas and offshore.

Tel: 818-429-4278 [tdavisgeo@gmail.com](mailto:tdavisgeo@gmail.com)  
[www.thomasldavisgeologist.com](http://www.thomasldavisgeologist.com)

Prospects, data and field assessments available. Lots of free petroleum geology info at the website.

## EDWARD B. PICOU, JR.

Shell - Retired

504-975-3096

PHOTOGRAPHY BY ARTHUR

Arthur F. Christensen

[arthur\\_shalimar@yahoo.com](mailto:arthur_shalimar@yahoo.com)

985-893-2013



**LaBay**  
Exploration Co., L.L.C.

4 Autumn Lane, Mandeville LA  
(985) 264-3700



Emmitt Lockard  
[emlockard@yahoo.com](mailto:emlockard@yahoo.com)

## GEM Consulting, LTD

Michael Louis Merritt  
[admin@gemconsultingltd.com](mailto:admin@gemconsultingltd.com)





NEW ORLEANS  
GEOLOGICAL SOCIETY  
MEMORIAL  
FOUNDATION INC.

Founded March 14, 1978, the mission of the New Orleans Geological Society Memorial Foundation is to promote earth science related or scientific purpose by granting of scholarships to outstanding Geology students at the universities in Southeast Louisiana having a comprehensive curriculum and offering a degree in Geology. The

Bill Craig Memorial Fund provides for any earth science related educational or scientific purpose that is a direct benefit to grades K-12 teacher or teachers within the Greater New Orleans Area. This area is defined as the area encompassing New Orleans, Jefferson, Plaquemines, St. Bernard and St. Tammany Parishes.

THE MEMORIAL  
FOUNDATON IS AN  
IRS TAX EXEMPT  
CODE #501(C)(3)  
ORGANIZATION.  
THE FEDERAL ID IS  
72-1220999.  
PLEASE CONSIDER  
MAKING A  
DONATION TO THE  
FOUNDATION. YOUR  
INDIVIDUAL  
SUPPORT IN ANY  
AMOUNT WILL HELP  
MEET THE IRS  
GUIDELINES FOR  
OUR FOUNDATION.  
THANKS!

DONATE



## THANK YOU TO OUR DONORS!

### \$10,000

Gibbet Hill Foundation - *In Memory of Steve & Marion Millendorf, William J. Prutzman, Roger G. Vincent, Ron Youngblood, Uno Numella and Dr. Robert T. Sellars, Jr.*

### \$250-\$499

Hillary James Brook

Edward B. Picou - *In Memory of Robert "Bob" Branson, Thomas Klekamp, Donald Andrews, William Furlong, Duncan Goldthwaite*

### \$1,000

Chevron Your Cause

William M. Whiting - *In Memory of Robert "Bob" Branson, Gene Cobb, Thomas Klekamp*

### UP TO \$249

Woods W. Allen, Jr. - *In Memory of Dr. William C. Ward*

Theresa M. O'Neill - *In Memory of Brian J. O'Neill*

Candace Strahan - *In Memory of James R. Strahan - The Bill Craig Memorial Fund*

Stephanie Klekamp - *In Memory of Thomas Klekamp*

Philip J. Valent

Margaret McKinney

Joel Klekamp - *In Memory of Thomas Klekamp*

Donald & Marianne Klekamp - *In Memory of Thomas Klekamp*

Linda P. Fulton - *In Memory of Thomas Klekamp*

Shell Oil Company Foundation

Alex Janeveski

Fran Wiseman - *In Memory of Steve Widdicombe*

Arthur Christensen - *In Memory of Tom Klekamp*



# Recent Oil Industry Headlines .....March 2021

**2/19/2021 - CNBC - JPMorgan says two factors could drive up oil prices by another \$5 to \$10 per barrel -** JPMorgan says crude prices could see further upside ahead as oil continues to see strong gains so far this year. It comes against the backdrop of an improving global outlook as major economies press ahead with their ongoing coronavirus vaccination campaigns. "I think there's room for oil prices to move a little bit higher in this environment but, you know, not thinking about a price of \$80 or \$90 a barrel. Maybe it goes up by \$5 or \$10 more from here," Kerry Craig, global market strategist at JPMorgan Asset Management, told CNBC's "Street Signs Asia" on Friday.

**2/17/2021 - World Oil - U.S. will import 62% more crude by 2022 due to domestic production declines, says EIA -** Throughout much of its history, the United States has imported more petroleum (which includes crude oil, refined petroleum products, and other liquids) than it has exported. That status changed in 2020. The U.S. Energy Information Administration's (EIA) February 2021 Short-Term Energy Outlook (STEO) estimates that 2020 marked the first year that the United States exported more petroleum than it imported on an annual basis. However, largely because of declines in domestic crude oil production and corresponding increases in crude oil imports, EIA expects the United States to return to being a net petroleum importer on an annual basis in both 2021 and 2022.

**2/12/2021 - BOEM - Biden Rescinds Record of Decision for Gulf of Mexico Lease Sale -** BOEM today announced that it is rescinding the Record of Decision (ROD) for the Gulf of Mexico (GOM) Oil and Gas Lease Sale 257. The decision pauses planning for the proposed sale, which was expected to occur this March. The ROD is being rescinded in response to Executive Order 14008, "Tackling the Climate Crisis at Home and Abroad." The order, which was signed by President Biden on Jan. 27, directs the Secretary of the Interior to pause new oil and gas leasing on public lands and offshore waters pending completion of a comprehensive review of Federal oil and gas activities.

**2/10/2021 - WorldOil - LLOG strikes deal with Eni and Marubeni for deepwater Mississippi Canyon tieback -** LLOG Exploration Offshore and Eni S.p.A. announced the signing of an Infrastructure Agreement in the deepwater Gulf of Mexico. The agreement provides LLOG access to Eni and Marubeni Oil & Gas' existing subsea infrastructure connected to the Williams-owned Devils Tower Spar in Mississippi Canyon 773 to optimize its development of the Taggart discovery. The agreement provides LLOG a more streamlined, efficient, and cost-effective solution for development while also providing the owners an opportunity to maximize the value of their existing infrastructure.

**2/10/2021 - Lafayette Daily - Louisiana lawmakers, governor fear Biden's energy policies could cripple oil and gas industry -** Louisiana legislators sounded the alarm about President Biden's energy policies during a joint meeting of Natural Resources Committees on Wednesday, while Democratic Gov. John Bel Edwards' energy secretary said the governor also is critical of Biden's actions. Three members of Louisiana's congressional delegation — Republican Sen. Bill Cassidy by video and Congressmen Garret Graves, R-Baton Rouge, and Clay Higgins, R-Port Barre, in person — also pledged to rally an effort to reverse Biden's actions in Washington. Among Biden's executive orders: placing a moratorium on new permits to drill for oil and gas on federal lands and waters and halting construction of the Keystone Pipeline.



# Help Support NOGS!

Spread the word  
about these  
resources available



PUBLICATIONS OF THE  
**NEW ORLEANS  
GEOLOGICAL SOCIETY  
(NOGS) 1960-2003**



NEW ORLEANS GEOLOGICAL  
SOCIETY

**OIL & GAS FIELDS OF  
SOUTH LOUISIANA**



To purchase  
these publications,  
go to the NOGS  
website at  
[www.NOGS.org](http://www.NOGS.org)  
Click the  
“NOGS Store” link  
at the top

**More NOGS Store Items Coming Soon!**

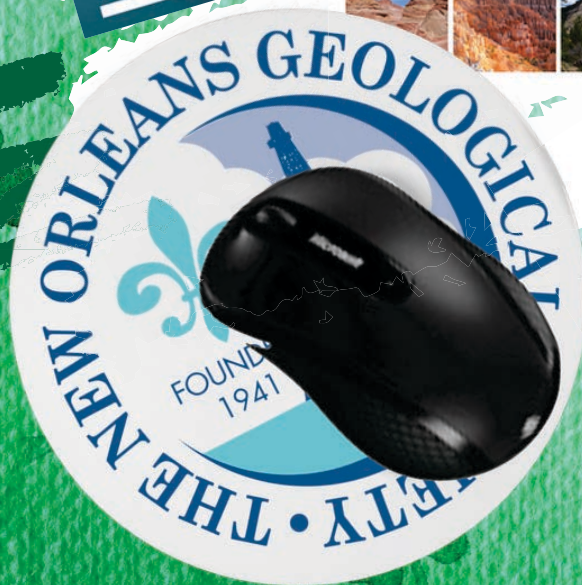
**Stay Tuned!**



*Shop from home and show your support!*

# NOGS MERCHANDISE!

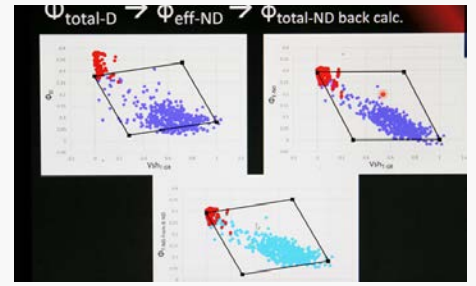
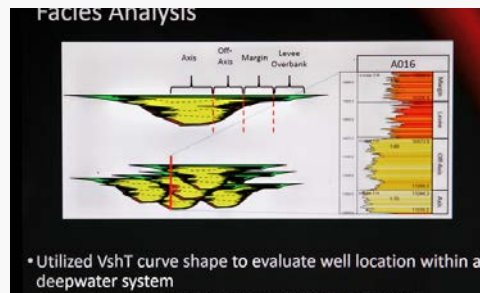
**Calendars, Coffee Mugs, Polo Shirts,  
Mousepads & More!**



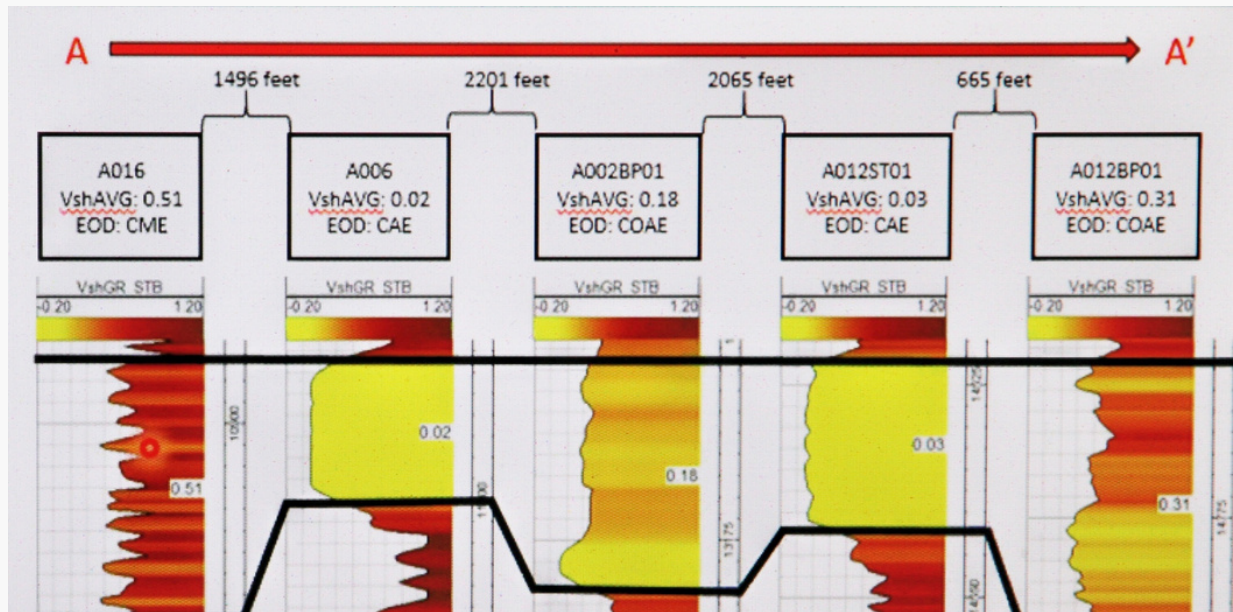
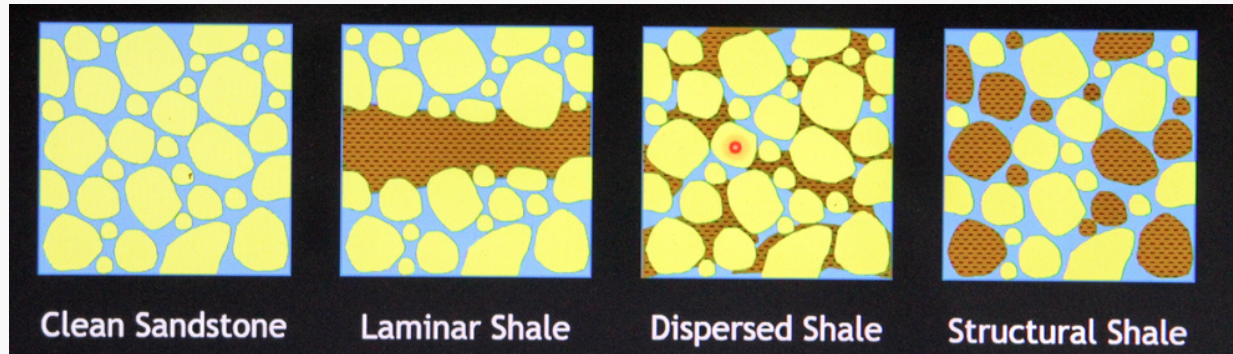
**[www.nogs.org](http://www.nogs.org)**



# FEBRUARY VIRTUAL MEETING



Dr. James Willis



SHALE DISTRIBUTION ANALYSIS OF GULF OF  
MEXICO TURBIDITES



## CALL FOR PAPERS

**Sustaining Geoscience through the Energy Transition**

September 19 – 21, 2021

Marriott Renaissance | Austin, Texas

### PROPOSED SESSIONS

#### Future of Production

- The future of deepwater development in the Gulf of Mexico
- Salt tectonic: salt dynamics for improved E&P
- Unconventional plays in an evolving energy landscape
- Revitalizing Gulf Coast conventional plays: new infrastructure-led strategies

#### Future of Geohazards and Resource Management

- Rising sea-level around the GOM: projections and adaptations
- Water and Energy: balancing demand and disposal
- Induced seismic events: geohazards analysis and monitoring strategies
- Neotectonics and the role of subsidence and faulting in destabilization of the Gulf Coast
- Ground water: managing supply and demand from disposal to desalination

#### Future of Sustainable Energy

- Carbon capture, utilization, and storage (CCUS)
- Hydrogen subsurface storage
- Critical minerals for renewable energy and storage
- Geothermal resources of the Gulf Coast

#### Future of Technology in the Geosciences

- Reservoir models from forecasts to exploration and beyond
- Deep learning, AI, and geostatistical applications across the geosciences
- New technologies in hydrology and water resource management

#### Panel Discussions

- Adapting a regulatory framework to an evolving energy landscape
- Geoscience careers for 2021 and beyond
- Economics of shale plays in a post-Covid world: re-evaluate the unconventional business model
- Creating a stronger workforce through Diversity, Equity, and Inclusion (DE&I)

**[CLICK HERE FOR MORE INFORMATION](#)**