# NOVEMBER 2022 Volume 63 No. 5

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On the Cover

The Fall harvest is in, exemplified by a field of ripe pumpkins and golden corn in eastern Colorado, looking west towards the majestic snow-capped Rocky Mountains. Happy Thanksgiving!



# From the Editor...

#### Hello Everyone

As we move towards the end of year holiday season, our thoughts turn towards giving thanks for everything we have in our lives and to giving back to those we appreciate and are in need. NOGS members have always been very generous with their time and money by volunteering for various activities, including serving on NOGS Board positions and committees. We participate in numerous educational events (Children's Museums, Boys and Girls Scouting, high school science fair judging) and generously support the annual Golf tourney. Please consider a year-end tax-deductible donation to the New Orleans Geological Society Memorial Foundation which helps fund our annual scholarship program and other NOGS related educational activities. If you have any other suggestions how NOGS can help the general public understand the importance of geosciences to our daily lives, please feel free to contact us at editor@nogs.org. Have a wonderful and safe Thanksgiving!

David Reiter 2022/2023 NOGS LOG Editor

# A MESSAGE FROM 2022/2023 NOGS PRESIDENT

#### To all members and friends of the New Orleans Geologic Society:

The NOGS October meeting was held at Zea's Rotisserie in Covington. At this meeting Chris McLindon gave a very thought-provoking presentation entitled "Geologic Evaluation of the Mid-Barataria Diversion." The information he provided regarding sediment diversion was very informative, addressing our current concerns regarding land loss. Information was presented and questions were raised about the process with regard to the positive and possible negative effects.

The November meeting will be a joint NOGS and SEG development & production luncheon. Everyone is encouraged to attend. It is to be held on the north shore at the Hilton Garden Inn Hotel. The speaker will be Gilles Hennenfent, Ph.D., the Chevron Gulf of Mexico Geophysics Manager, who will give a presentation on how developments in seismic imaging has had a positive effect on exploration and production of deep-water oil and gas. His presentation will include field examples showing how these new developments have positively affected the future of deep-water hydrocarbon exploration and production.

As always, a reminder of dues renewal if you haven't already done so, \$35.00 for Regular membership and \$15 for Student membership. I encourage you to pay your dues and to give consideration to adding a special donation to the Memorial Foundation to help us continue our worthwhile local community, university, and education programs.

Thanks everyone, stay safe and well!

Best regards, Doug Bradford 2022-2023 NOGS President





# JOINT MEETING NOGS & SGS NOVEMBER



THURSDAY, NOVEMBER 10, 2022 11:30 AM - HILTON GARDEN INN 350 HOLIDAY SQUARE BOULEVARD COVINGTON, LA 70433

NODE-WORTHY CONTRIBUTIONS TO SHORTEN CYCLE-TIME AND UNLOCK ADDITIONAL BARRELS



Presented by: Gilles Hennenfent, Ph.D. Chevron | Gulf of Mexico Geophysics Manager

**ABSTRACT:** The last few years have seen a step change for seismic imaging in the Gulf of Mexico (GoM), combining (ultra-)long offset Ocean Bottom Nodes (OBNs) data with advances in data-driven velocity model building using Full Waveform Inversion (FWI). We get sharper, more accurate subsurface images to build/update reservoir models, improve reservoir characterization, and fine tune full-field development. In parallel, the timeline between data acquisition and delivery of an interpretable product has considerably shortened, increasing the value of the new data and its business impact. We will use a few field examples to review how this step change for seismic imaging is shaping the future of deep-water hydrocarbon exploration and production.

BIO: Gilles Hennenfent is the Gulf of Mexico (GoM) geophysics manager for asset development at Chevron. He received a Ph.D. in geophysics from the University of British Columbia in 2008. He received several professional awards, including the J. Clarence Karcher award from SEG in 2013 and the Arie van Weelden award from EAGE in 2008. Gilles joined Chevron in 2008 as a research geophysicist. In 2013, he moved to Chevron Midcontinent Business Unit as an exploration & development geoscientist where he worked the Delaware Basin Wolfcamp Formation. In 2015, Gilles became the geophysics R&D team lead before taking an R&D project manager role. In 2017, he joined Corporate Strategic Planning as an oil supply advisor. In 2019, Gilles joined GoM asset development as the geophysics manager. His team supports 15+ fields for all their geophysical needs (acquisition, QA/QC, processing, imaging, and quantitative interpretation) from development planning to abandonment.

# PICTURE FROM THE PAST



GEOI

HL + N

YEARS

Display in the LSU Center for River Studies: Lower Mississippi River Physical Model. Photo taken on December 1, 2018, during the NOGS-sponsored field trip. For more information on this facility: <u>CLICK HERE</u>

> Submitted by Ed Picou, Chairman - Historical Committee

The New Orleans Geological Society was organized on October 3, 1941, as a nonprofit 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.

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### **DRILL BITS** OFFSHORE GULF OF MEXICO SHELF AND DEEPWATER ACTIVITIES BY AL BAKER



During September 2022, the Bureau of Safety and Environmental Enforcement (BSEE) approved 79 Gulf of Mexico (GoM) drilling permits. Ten of the permits were for shelf wells, and the remaining 69 permits were for deepwater wells. There were 7 new well permits issued in deepwater.

Of the seven deepwater new well permits, 6 were for exploration wells and 1 was for a development well. Murphy Exploration & Production Company - USA received a permit for their Desoto Canyon 90 #1 well. Talos Energy Offshore obtained a permit for their Viosca Knoll 1000 #SS-1 well, which is described as a technically mature prospect located 5 miles from the Talos-operated Ram Powell Field. Their affiliate, Talos Petroleum, also acquired a permit for their Mississippi Canyon 28 #A-35 development well in Pompano Field. LLOG Exploration Offshore was given a permit for their Keathley Canyon 872 #2 well in their Buckskin Field. BP Exploration & Production was granted a permit for their Green Canyon 821 #3 well at their Puma West development, which is located 12 miles west of Mad Dog Field. Finally, Shell Offshore received 2 permits in the Alaminos Canyon Area Perdido Complex. One was for their Block 815 #WS-502 well in their Silvertip Field, and the other was for their Block 857 #GD-8 well in their Great White Field.

On September 30th, IHS-Petrodata indicated that the GoM mobile offshore rig supply stood at 46, which is the same as last month. The marketed rig supply consisted of 34 rigs, of which 28 were under contract. The marketed rig supply was the same as last month, and the contracted rig supply number was 1 more than last month. The marketed contracted versus total rig supply utilization rate stood at 73.9%, and the marketed contracted versus marketed supply utilization rate stood at 82.4%. By comparison, the September 2021 total fleet utilization rate stood at 66.7% with 30 rigs under contract out of the 45 rigs in the fleet.

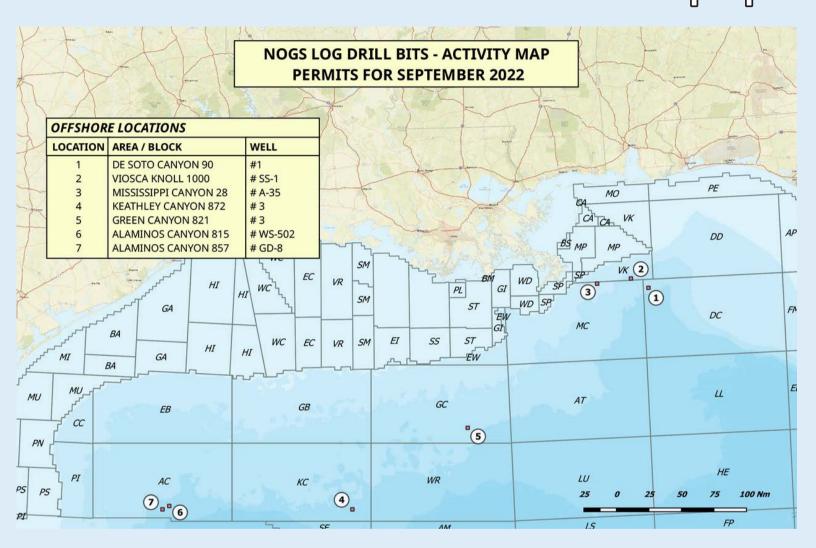
On September 30th, Baker Hughes reported that there are 15 active mobile offshore rigs in the GoM, which is 1 less than last month and 53.6% of the rigs under contract noted above. Currently, all 15 rigs are drilling in deepwater. They include 9 rigs in the Mississippi Canyon Area, 2 rigs in the Green Canyon Area and 1 rig each in the Garden Banks, Walker Ridge, Ewing Banks and Keathley Canton Areas.

On September 30th, the Baker Hughes total U.S. rig count stood at 765 rigs, which is the same as reported at the end of August 2022. Of the 765 rigs, 604 (79%) are oil rigs and 159 (20.8%) are gas rigs. Two rigs are listed as miscellaneous. A year ago, there were 528 rigs working in the U.S. inferring that the current rig figure represents an 44.9% increase in rigs year over year. Presently, Texas continues to have the largest number of rigs with 360, which is 47.1% of the total number of rigs in the U.S. Louisiana currently has a total of 66 rigs, which is 1 more than last month. Louisiana ranks third behind New Mexico, which has 113 rigs.

On September 14th, the Bureau of Ocean Energy Management (BOEM) in compliance with congressional direction in The Inflation Reduction Act announced that they had accepted the 307 high bids from OCS Sale 257 totaling \$189,888,271. The sale was originally held in November 2021. However, a federal judge had subsequently nullified the bids in February 2022 as a result of litigation pursued by environmental groups against the lease sale.

# **DRILL BITS**

#### NEW WELL PERMITS OFFSHORE GULF OF MEXICO SHELF AND DEEPWATER ACTIVITIES MAP BY KEVIN TROSCLAIR



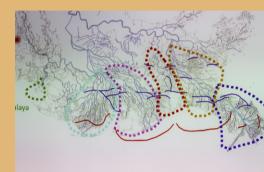




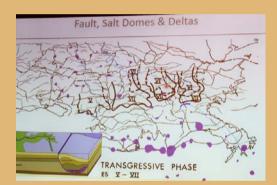
# NOGS OCTOBER NORTH SHORE MEETING

#### GEOLOGICAL EVALUATION OF THE VICINITY OF THE MID-BARATARIA SEDIMENT DIVERSION



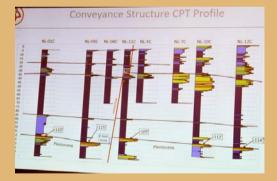


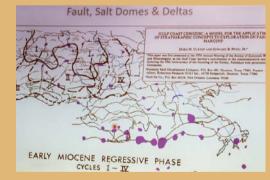


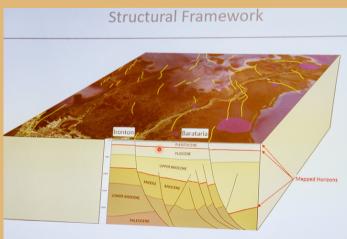




Presented by: Chris McLindon











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#### 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.

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### **Recent Energy Headlines .....October 2022 Recap**

**10/18/2022 - Biden admin keeps delaying oil and gas permitting due to math error** - Biden admin math error is having a 'real impact' on offshore oil production, industry group says. The administration has failed to remedy a math glitch in its oil and gas permitting review process, causing a system backlog and a decrease in offshore energy production. <u>Read Full Article</u>

**10/14/2022 - Chevron CEO Blames Climate Policies For Global Energy Crisis** - The chairman and CEO of energy company Chevron warned the global energy crisis had been exacerbated by Western governments "doubling down" on green energy policies that will only cause "more volatility, more unpredictability, and more chaos."<u>Read Full Article</u>

10/12/2022 - ExxonMobil reveals new partnership on Louisiana carbon capture project - ExxonMobil and CF Industries have announced a carbon capture project that will store 2 million tonnes per annum of carbon dioxide in Louisiana, with start-up expected by early 2025. The project will sequester CO2 emissions from CF Industries' Donaldsonville, LA. <u>Read Full Article</u>

**10/11/2022 - Exxon Mobil looking to buy oil and gas producer Denbury** - Denbury, which has a market capitalization of approximately \$5bn, exited bankruptcy in 2020. Exxon Mobil is in preliminary talks to acquire US-based oil and gas producer Denbury. <u>Read Full Article</u>

**10/6/2022 - Oil Prices Could Climb Back to \$110 a Barrel, Analyst Says** - Oil prices could surge back above \$100 a barrel next year as already-tight supplies could be further challenged by an increase in Chinese consumption, according to Global X Management. <u>Read Full Article</u>

**10/6/2022 - US emergency oil supply shrinks to 40-year low as Biden keeps tapping reserve** - The nation's Strategic Petroleum Reserve had 416.4 million barrels in the week ended Sept. 30 – the lowest level since 1984 – after the Biden administration released another 6.2 million barrels, according to Department of Energy data. <u>Read Full Article</u>

**10/6/2022 - BOEM Moves Forward with Leasing Provisions Mandated in Inflation Reduction Act** -The Department of the Interior today announced next steps that the BOEM and Bureau of Land Management (BLM) will take to comply with congressional direction on oil and gas leasing through the Inflation Reduction Act (IRA). <u>Read Full Article</u>

**10/2/2022 - Pioneering geologist Bill Armstrong plans new drilling in Alaska** - Geologist whose 2013 discovery 'revolutionized' North Slope oil exploration lays plans to drill again this winter. <u>Read Full Article</u>

**10/1/2022 - Buffett has 'clear path' to acquiring Occidental, Truist says -** Warren Buffett's Berkshire Hathaway has a "clear path" to acquiring Occidental Petroleum after adding more shares to its holdings, analysts at Truist said on Thursday. <u>Read Full Article</u>

# **TOP 10 REASONS TO JOIN NOGS**

#### Proclaim your professionalism

With an 80 year history and over 300 active members, NOGS is the premier professional organization for geologists in New Orleans. Adding your name to the ranks declares your pride in the profession you have chosen.

#### Advance your career

NOGS members enjoy educational opportunities and top speakers designed to increase knowledge and keep up with the newest trends in geoscience, both on the national and local levels.

#### Advertise your integrity

NOGS has a reputation of over 75 years for upholding high standards. Align yourself with like-minded geologists and related fields.

# 4

1

2

#### Further your cause

NOGS was organized for the purpose of facilitating the development of the profession and science of Geology, at the time with a focus on production of oil and gas. Since Hurricane Katrina our objectives expanded to include the dissemination of the geological facts of flood control, engineering and environmental geoscience.

# 5

#### Network with others who do what you do

Making connections, between people and ideas, is an important part of any scientific endeavor. Meet others who can help you make those connections.



#### Advocate for your profession

Serious-minded professionals know that serving the profession means responding to calls for action from those who represent the profession. NOGS monitors trends in geoscience education, regulation, and practice standards and periodically advises members on required action.



#### Serve your profession and community

Opportunities for individuals to serve on NOGS committees that work on a variety of issues from building educational programs to sharing knowledge with others to providing scholarships to young geologists in our area.

8

#### Don't reinvent the wheel ... use available resources

NOGS members can provide you with the resources you need to do your job well. Long-time members remain active and are happy to share their knowledge and best practices.

9

#### Play a part in elevating the status of geosciences.

Your membership in NOGS and your dedication to geoscience elevates the entire profession.



#### Do it for YOURSELF!

It's all about YOU! NOGS' educational, networking, and career planning programs will take you where you want to go!



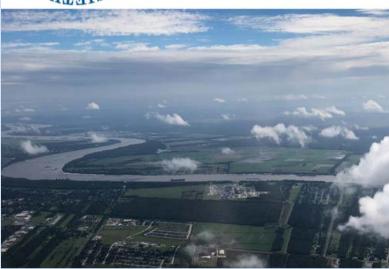
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# SUBMIT A TALK OR POSTER ABSTRACT DEADLINE: DECEMBER 15, 2022

Themes include Gulf Coast Exploration and Production, Onshore and Offshore, Mexico and Caribbean, Geoscience Research, and Exploring the Future of Geoscience in the GOM.

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