

# On the Cover

# Rising Wolf Mountain from a quiet pond on Two Medicine Lake, Glacier National Park, Montana



Rising Wolf Mountain is the dominant feature of Two Medicine Valley rising 3,100 feet above the surface of the lake. Named for one of the prominent chiefs of the Blackfeet Indians, the mountain formed during the Late Creataceous Larimide orogeny. The Lewis over-thrust placed older, highly resistive Middle Proterozoic "Belt Rocks" of the Appkunny, Grinnell, Empire and Helena Formations over younger less resistive Cretaceous shales and sandstones. Intense Pleistocene glaciation filled and shaped the deep stream cut valleys forming the lakes, vertical cliffs, sharp peaks and waterfalls of Glacier National Park.

Resources: <u>Glacier NP: The Geologic Story of Glacier National Park, USGS: Geological Survey Bulletin 600</u> (<u>The Surface Features</u>), <u>DataStore - Digital Geologic-GIS Map of Glacier National Park, Montana (NPS, GRD, GRI, GLAC, GLAC digital map) adapted from a U.S. Geological Survey Miscellaneous Investigations Series Map by Whipple (1992)</u>

### From the Editor

Hello again and Happy Easter,

Thank you David W. Hume of Hume Energy Enterprises for the March technical presentation: "The Deep-Water Andaman, Mahanadi and Bengal Basins. Three Frontier Areas with Massive Exploration Potential on the East Coast of India". Photos of David's presentation are in this issue of the NOGS Log. Come join us virtually April 16<sup>th</sup> or at Drago's in Metarie for a delicious lunch, engaging conversation and a presentation by Chip Kline, VP of Federal Affairs for GIS, Engineering.

SPE Delta Section meeting be held April 10, 2025 at Shell USA office, Hancock Whitney Center, 701 Poydras Street, 21st floor, downtown New Orleans, LA, 70139. Michal Sobera, Business Opportunity Manager, Vito Waterflood, Shell USA will present "Vito Waterflood Lecture" RSVP to Mary O'Neill at cyberbrat@msn.com or Kevin Landry at <a href="mailto:klandry@expertep.com">klandry@expertep.com</a>. Please advise if you will be attending in person or via TEAMS. If attending in person, please bring an unexpired government photo ID to the Shell receptionist on the day of the meeting

LSU Geology & Geophysics Department's Spring Seminar series will offer three presentations in April. Seminars are usually on Wednesdays at 3:20 p.m. beginning with refreshments served in the Clarence Cazalot Marathon Oil Atrium of Howe Russell Kniffen Geoscience Complex. Technical presentation begin at 3:45 p.m. in E130 Howe-Russell-Kniffen. Networking continues after the seminar in the Atrium. Financial support for the lecture series is provided by the LJ Wilbert Endowment, Grover E. Murray Educational Fund, and the Marathon Oil Distinguished Speaker Series Fund. Speaker and Seminar titles and topics are on page 10 of this months NOGS Log.

Registration to attend Geogulf 2025 is open! Nacogdoches, TX will host the the 74th GCAGS/GCSSEPM Convention and Exposition April 6<sup>th</sup> through the 8<sup>th</sup>. Registration fee is \$500, (\$100 for students). Registration includes admission to the technical program, admission to the Core Workshop, lunches on Monday and Tuesday, the Ice Breaker on Sunday, refreshment breaks, and more! It's not too late to make plans to attend!

Brian Bothner

The New Orleans Geological Society is still in need of an Editor Elect to serve on the Board of Directors. Please consider donating a little bit of your time to the continuation and health of our organization.

I encourage professionals, academics, and graduate students to grow your network and share your research. Become an active NOGS Member, consider writing a short article in the NOGS Log or, better yet, provide a short lunchtime presentation at a monthly meeting. Volunteer to work NOGS events or offer your services as a Board Member.

Until May....

Brian Bothner 2024/2025 NOGS Log Editor



## JARED BULLOCK

# A MESSAGE FROM THE 2024/2025 NOGS PRESIDENT

### Greetings,

It's hard to believe that Spring has already arrived, and along with it comes warmer weather, rainy days, and blooming plant life. Hopefully everyone is doing well and fighting the Springtime pollen as best as they can. I recently saw a picture online of a creek in Texas that was completely covered by a thick accumulation of green pollen. Right in time for St. Patrick's Day!

NOGS Board Members Chase Cromwell, Emmitt Lockard, and I traveled to UNO at the end of March to meet with students in the Earth and Environmental Sciences Department. Chase Cromwell spearheaded this visit and proposed that NOGS should sponsor students who are interested in becoming a licensed Geologist in Louisiana. The Board approved the proposal to cover the cost of the application and FG test for local university students who pass and become a Geologist-in-Training (GIT). Chase presented information to students about the ASBOG, licensure, and application process. We were joined by two Louisiana State Geologist Board Members. The students were very engaged and showed lots of interest in obtaining a professional geologist license. In addition, I discussed with students the advantages of becoming a NOGS member, luncheons and annual events, and the importance of a professional network. Emmitt discussed the Deepwater Technical Symposium and the portions of the program that are geared toward students including the Student Forum. I'd also like to include that the NOGS Board recently approved to offer a free one-year NOGS membership to new graduates (undergraduate and graduate students) at local universities. As a reminder, students can attend our monthly luncheons at no cost.

One of our Board members, Carol Avery, recently volunteered to represent NOGS at a booth in the exhibitor hall at the 2025 LSWA Environmental Conference in Lafayette, LA. The LSWA conference is the largest environmental conference in the state. Carol was joined by her daughter Madison Avery (NOGS member). The goal was to broaden our membership reach and spread the word about what NOGS offers. The feedback from Carol was positive. They connected with several potential members and prospective monthly luncheon speakers. Be on the lookout for her report about their trip in the LOG.

Our next monthly luncheon will be Wednesday, April 16<sup>th</sup> at Drago's in Metairie. The speaker will be Chip Kline giving a talk on "The Mid-Barataria Basin". The luncheon begins informally at 11:00a with networking followed by announcement and the presentation at 11:30 am. We hope to see everyone there or online.

In case you haven't heard, NOGS will be co-hosting a golf tournament with PLANO and SPWLA in October. The tournament will be October 6, 2025 at Bayou Oaks City Park New Orleans. This group of societies joined forces in 2023 for a golf tournament that turned out to be a huge success. Over \$8,000 was given to charity that year. So, please mark your calendar with the new golf tournament date.

# **Promoting NOGS**

Carol Avery; NOGS Director

We recently had our first NOGS exhibit hall booth at the LSWA - Louisiana Solid Waste Association convention in Lafayette where we certainly "passed a good time"!







While we didn't win best decorated booth; Eagle Consulting won that with their incredible balloon displays. We did get the word out about all that NOGS has to offer. We met people at several environmental consulting firms who took our brochures for their geoscience staff. We also met some people from our State Board of Geologists and had some interesting discussions on both our FG and PG examinations.

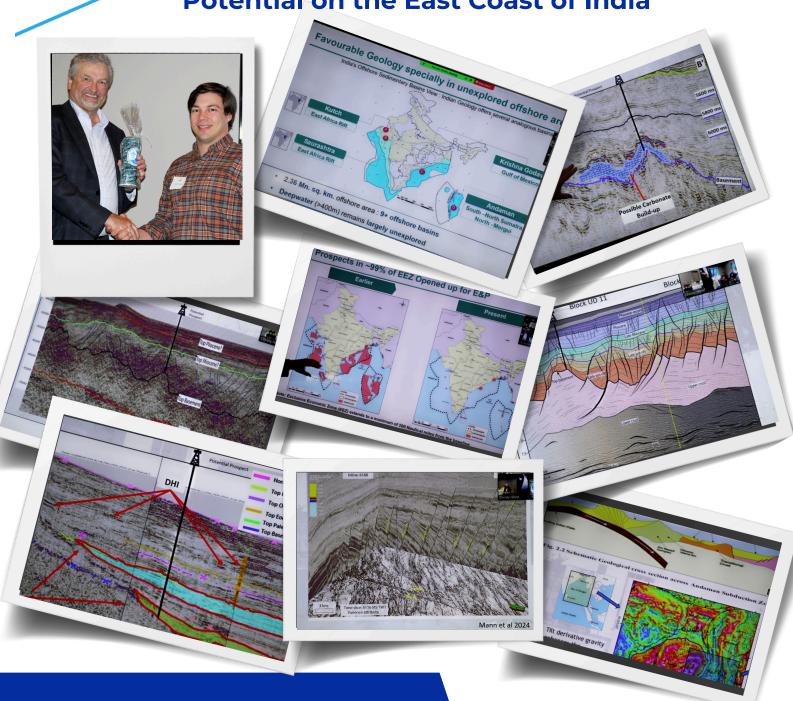
Thanks also to Madison Avery with the Louisiana Department of Natural Resources for working our booth.

We are looking forward to having a booth at the upcoming Louisiana State of the Coast conference here in New Orleans in May. Come check us out or better yet, volunteer to work our booth!



# MARCH MEETING

The Deep-Water Andaman, Mahanadi and Bengal Basins. Three Frontier Areas with Massive Exploration Potential on the East Coast of India



DAVID W. HUME, P.G. HUME ENERGY ENTERPRISES LLC

**ZEA'S NORTHSHORE** 

# NCS VEETING The Mid-Barataria Basin

The Mid-Barataria Basin, located in Plaquemines Parish, Louisiana, near the town of Ironton and the Phillips 66 Alliance Refinery, is experiencing significant land loss. This degradation is driven by factors such as hydrologic alterations, sediment deprivation, subsidence, sea level rise, and saltwater intrusion.

To address these issues, the Mid-Barataria Sediment Diversion (MBSD) Project aims to reconnect the Mississippi River to the basin. By restoring this riverine and estuarine connection, the project seeks to replicate historic deltaic sediment deposition, helping to build, sustain, and preserve land in the region.

NOGS is pleased to welcome Chip Klein, Vice President of Federal Affairs at GIS Engineering, as he presents an overview of this critical restoration effort in Louisiana.



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### **DELTA SECTION APRIL 2025 MEETING**

WHAT: Vito Waterflood Lecture

WHO: Michal Sobera, Business Opportunity Manager, Vito Waterflood, Shell USA WHEN: Thursday, April 10, 2025, at 11am networking & lunch; 11:30am Presentation

WHERE: Shell USA office, Hancock Whitney Center, 701 Poydras Street, 21st floor, downtown New

Orleans, LA, 70139

HOW: In person and via Teams link

FOOD: Light lunch

COST: FREE

RSVP to Mary O'Neill at <u>cyberbrat@msn.com</u> or Kevin Landry at <u>klandry@expertep.com</u>. Please advise if you will be attending in person or via TEAMS. If attending in person, please bring an unexpired government photo ID to the Shell receptionist on the day of the meeting. Note the Friday, March 28 Vito meeting has been rescheduled to Thursday April 10 to accommodate requests for a non-Friday meeting. Also, our proposed April speaker asked to defer his talk until the fall of 2025.

Regarding parking, there is parking in the Hancock Whitney Center with vehicle entrance on Carondelet Street. It usually costs \$13.20 for 3 hours. The parking website is go.lazparking.com and parking phone is (985) 956-6927. Also, there is parking on the street which is \$6 for 2 hours (feed the meter which accepts credit cards) or use the Premium Parking lots at about \$16 for 2 hours and reservable. See website <a href="mailto:parkopedia.com">parkopedia.com</a> (for street parking & lot parking) or <a href="mailto:premiumparking.com">premiumparking.com</a> (for lot parking).

**May 22, 2025, Thursday,** Expert office, Madisonville, LA, lecture on AI. Speaker will be Nefeli Moridis, PhD, Development Relationship Manager, Head of Subsurface, Global Energy Team, Nvidia Corp.

Tentative title of presentation: Generative AI Demystified: What it is and how we can leverage it in energy.

### Abstract:

Generative AI has introduced a new era in computing that promises to revolutionize human-computer interaction. At the forefront of this technological marvel are large language models, which empower enterprises to recognize, summarize, translate, predict, and generate content using large datasets. This talk will provide a high-level overview of GenAI, what are current capabilities and how we think this technology will continue to evolve. We will delve into the evolution of GenAI, from the announcement of ChatGPT to most recent developments. Additionally, we will discuss how we can leverage GenAI in energy, how it can used to accelerate different solutions and what use cases would benefit the most from this technology.

# LSU GEOLOGY & GEOPHYSICS DEPARTMENT SEMINAR SPRING 2025 SERIES UPCOMING EVENTS

Date	Speaker, Title or Top <mark>ic</mark>	Dept. Host
April 2	LSU Spring Break	
April 9	Becky Totten, University of Alabama A journey from below sea level to the Doomsday Glacier: How polar changes affect the Gulf Coast	Prof. Warny
April 16	Aaron Palke, Gemological Institute of America The Internal World of Gemstones: Inclusions as Geological Time Capsules	Prof. Dutrow
April 23-25	LSU G&G Rock Stars, Student Poster Presentations	Prof. Luttrell
	End of semester	

Seminars now on Wednesdays! At 3:20 p.m., we begin with refreshments in the Clarence Cazalot Marathon Oil Atrium of Howe Russell Kniffen Geoscience Complex. Seminars begin at 3:45 p.m. in E130 Howe-Russell-Kniffen. Networking continues after the seminar in the Atrium

Thanks to our seminar series sponsors: L.J Wilbert, Grover E. Murray, & Marathon Oil Funds



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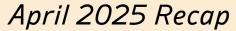
During February 2025, the Bureau of Safety and Environmental Enforcement (BSEE) approved 49 Gulf of America (GoA) drilling permits. Ten of the permits were for a shelf wells, and the remaining 39 permits were for deepwater wells. There were no new well permits issued.

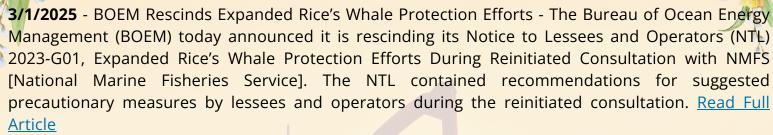
On February 28<sup>th</sup>, S&P Global Petrodata indicated that the GoA mobile offshore rig supply stood at 44, which are 3 less than last month. The marketed rig supply consisted of 33 rigs, of which 26 were under contract. The marketed rig supply was the same as month, and the contracted rig supply was 1 more than last month. The marketed contracted versus total rig supply utilization rate stood at 59.1%, and the marketed contracted versus marketed supply utilization rate stood at 78.8%. By comparison, the February 2024 total fleet utilization rate stood at 82.9% with 35 rigs in the marketed supply out of the 48 rigs in the fleet.

On February 28<sup>th</sup>, Baker Hughes reported that there are 11 active mobile offshore rigs in the GoM, which is the same as last month and 42.3% of the rigs under contract mentioned above. Currently, 1 rig is drilling on the shelf, and 10 rigs are drilling in deepwater. The single shelf rig is located in the Eugene Island Area. The deepwater rigs include 5 rigs in the Mississippi Canyon Area, 2 rigs in the Alaminos Canyon Area, and 1 rig each in the Keathley Canyon, Green Canyon and Garden Banks Areas.

On February 28<sup>th</sup>, the Baker Hughes total U.S. rig count stood at 593 rigs, which are 11 more rigs than last month. Of the 593 rigs, 486 (82%) are oil rigs and 102 (17.2%) are gas rigs. Five rigs are listed as miscellaneous. Of the 593 wells being drilled, 533 (89.9%) are horizontal and 12 (2%) are vertical. A year ago, there were 629 rigs working in the U.S. inferring that the current 36 rig decline corresponds to an 5.7% decrease in rigs year over year. Nationally, Texas has the largest number of rigs with 282, which is 47.6% of the total number of rigs in the U.S. Louisiana currently has a total of 29 rigs and is ranked fifth behind New Mexico, Oklahoma and North Dakota, which have 102, 49 and 32 rigs, respectively.







**3/11/2025** - Time has come to ramp up U.S. gas output, BP CEO says - BP is set to ramp up U.S. natural gas production in its onshore shale operations following the recent rise in domestic gas prices, CEO Murray Auchincloss said on Tuesday. "With rising gas prices, the time has come for the Haynesville" basin in eastern Texas, Auchincloss told the CERAWeek conference in Houston. Benchmark U.S. natural gas prices have more than doubled over the past year to around \$4.4 per million British thermal units (mmBtu) as new liquefied natural gas (LNG) export terminals along the Gulf Coast ramped up. Read Full Article

**3/26/2025** - Shell chief sees more US Gulf lease sales ahead after Trump White House meeting - Wael Sawan: 'It's very clear that the administration is going to go back to much more predictable lease sales'. Following a gathering of oil executives with US President Donald Trump and his top energy officials in Washington last week, Shell chief executive Wael Sawan believes a top Trump administration priority will be more US Gulf lease sales in the near future. "It's very clear that the administration is going to go back to much more predictable lease sales, which is critical," Sawan said at Shell's Capital Markets Day on Tuesday. "We're building infrastructure that is amongst the lowest cost, lowest carbon intensity molecules anywhere in the world, and the ability to be the largest player, following through on that opportunity, I think, is key." Read Full Article

**3/28/2025** - Federal Judge Cancels Biden's Last Gulf Lease Sale - A federal district judge has issued a ruling against a Gulf lease sale conducted by the Biden administration in 2023, saying the Interior Department was in violation of the Environmental Policy Act by failing to take into account the auction's impact on the climate and whale populations. Bloomberg reported that Judge Amit Mehta had not proposed any corrective action, leaving open the question of what the agencies responsible for the lease sale should do next. Per the report, options include invalidating the leases that were sold or revising the contracts in line with the findings. Read Full Article

**3/29/2025** - Federal judge blocks offshore lease sale, says feds failed to consider impacts on Rice's whales - A federal judge on Thursday blocked an oil and gas lease sale in Gulf waters off the coast of Louisiana, finding that a federal agency didn't adequately take into account how new offshore drilling would impact the highly endangered Rice's whale. The ruling from Judge Amit Mehta in the U.S. District court for the District of Columbia will require the Bureau of Ocean and Energy Management, which oversees the sale of oil and gas leases in federal waters, to conduct additional environmental reviews before the lease sale proceeds. The current lease sale is not canceled, but will be subject to additional environmental review. Read Full Article



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and science of Geology, with specific emphasis to exploration and production of
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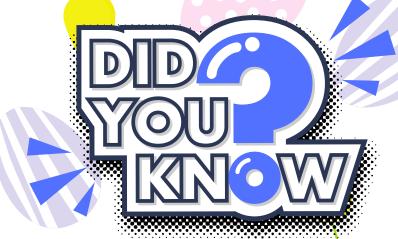




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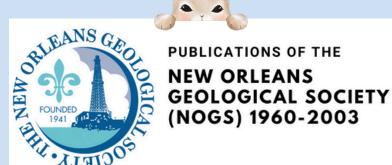
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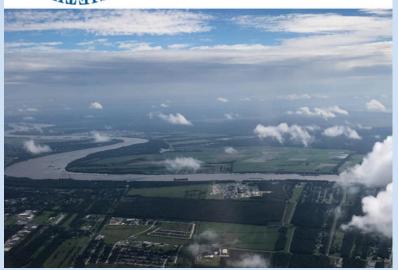
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