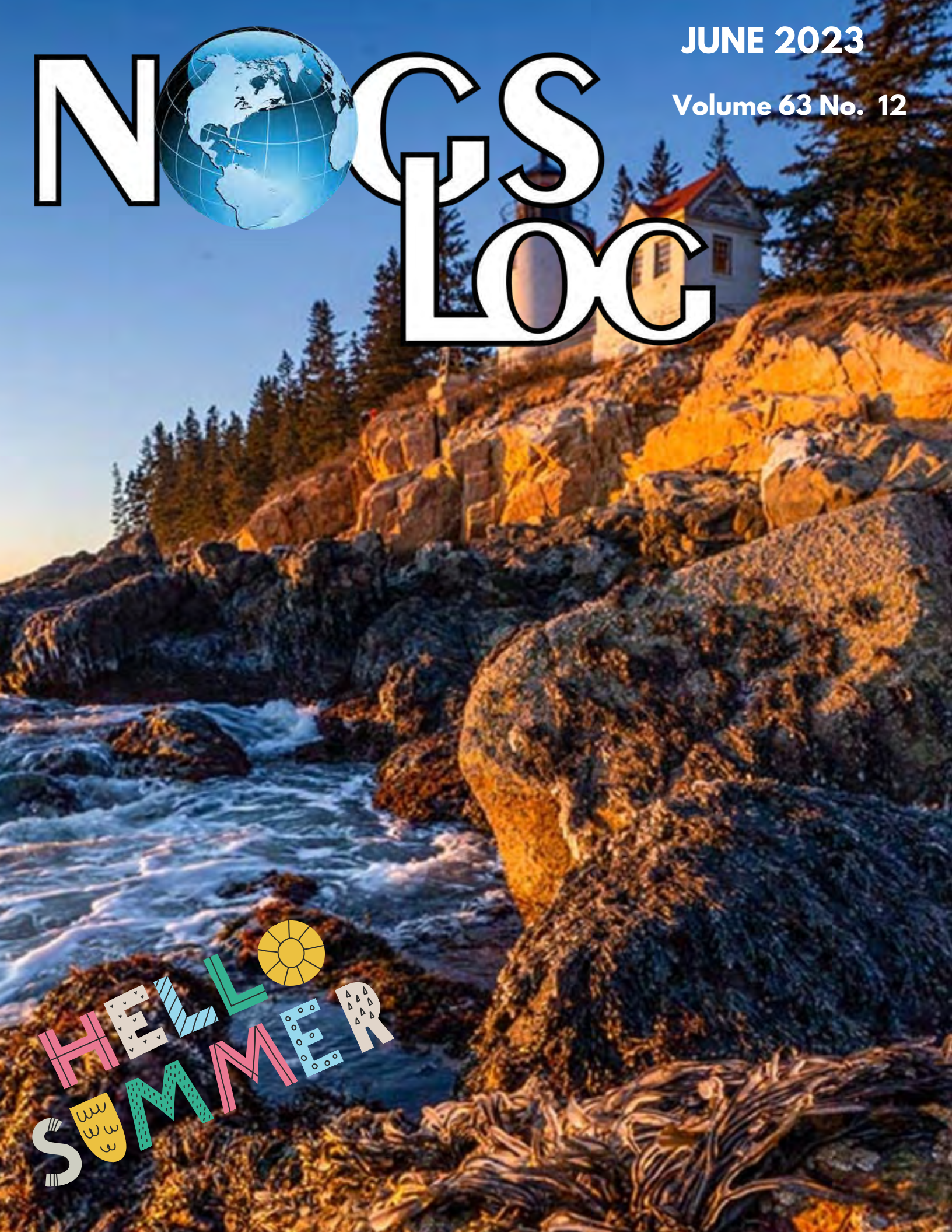


JUNE 2023

Volume 63 No. 12

# NCGS LOG



HELLO  
SUMMER

## On the Cover

The Bass Harbor Head Light Station is one of the most visited sites in Acadia National Park, located on the southernmost point of Maine's Mt. Desert Island. The rugged coastline here is composed primarily of Late Ordovician to Silurian granitic schists and gneisses that have been highly modified during the Holocene Wisconsin Glaciation about 18,000 years ago. Even though small in size, Acadia National Park is one of the top ten most visited national parks in the U.S., with nearly 4 million visitors annually.



## *From the Editor...*

Greetings Everyone,

The summer vacation season is upon us once again and I'm sure most of you have that perfect trip planned in the next few months. Make sure you take your rock hammer and loupe with you and take lots of photos of geologic interest. And if you care to share those photos and stories of geologic discovery, please feel free to share them with us on the NOGS LOG editorial board at [editor@nogs.org](mailto:editor@nogs.org) and we will be glad to publish your adventures. And don't forget to make plans this summer for a couple of upcoming seminars of geologic interest. The one-day NOGS sponsored geoscience seminar prior to the Deepwater Technical Symposium takes place on Monday, July 24. Michael Hudec will present a course on salt tectonics. And on August 2-3, the Louisiana Water Resources Institute will present the 14th Annual Louisiana Water Conference at LSU in Baton Rouge. Flyers for both of these events are included in this issue of the NOGS LOG.

Thanks, and have a great summer!



**David Reiter**  
2022/2023 NOGS LOG Editor



**DOUGLAS BRADFORD**

# **A MESSAGE FROM 2022/2023 NOGS PRESIDENT**

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

Summer is here and this year we are all looking forward to “normal” times without the concern of being around other people, so that families can travel and socialize once more. An example is that I plan to go to the annual family reunion this month for first time since the pandemic began. We may also feel more comfortable attending meetings as we did before.

An event coming up soon is the 25th Annual Deepwater Technical Symposium which will be July 24-26 at the Sheraton Hotel in New Orleans. The NOGS portion will be all day Monday July 24 and will feature Dr. Michael Hudec’s presentation entitled “Introduction to Salt Tectonics”. More information about the symposium and registration is available on the NOGS website by [clicking here](#).

Another event coming up is the 14th Annual Louisiana Water Conference at Dalton Woods Auditorium at LSU in Baton Rouge on August 2-3, 2023. It is co-hosted by The Louisiana Water Resources Research Institute (LWRRI), the Louisiana Geological Survey (LGS), and the Baton Rouge Geological Society (BRGS). Registration is available [here](#) and on the LGS and BRGS websites. Watch for announcements of other events on the NOGS website, many of which will need volunteers.

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**

# PICTURE FROM THE PAST



**NOGS Secretary John Dombroski presents a “Thank You’ gratuity to Gloria Bovia at the December 1997 Luncheon at the New Orleans Petroleum Club. For many years, Gloria was responsible for our luncheon arrangements at the Club in the Energy Center Building in the CBD.**

*Submitted by  
Ed Picou, Chairman - Historical Committee*

**NOGS Presents**  
**Opening Geoscience Seminar**  
**Monday, July 24, 2023**  
**8:00 am - 4:30 pm**  
**Sheraton New Orleans**



**Dr. Michael R. Hudec**



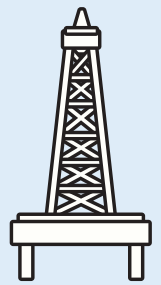
**Early Bird Registration**  
**Members \$150**  
**Non-Members \$200**

The course is an introduction to the principles of salt tectonics that will include how and why salt structures evolve and the three-dimensional forms that result. Additional topics include evaporite deposition and flow, salt structures, salt systems, and practical applications. The course is for students, professional geologists, geophysicists and engineers in the petroleum industry, environmental science professionals and geotechnical engineers.

# SALT TECTONICS PRINCIPLES AND PRACTICE

# DRILL BITS

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



During April 2023, the Bureau of Safety and Environmental Enforcement (BSEE) approved 50 Gulf of Mexico (GoM) drilling permits. Eight of the permits were for shelf wells, and the remaining 42 permits were for deepwater wells. There were 7 new well permits issued; 2 were on the shelf, and 5 were in deepwater.

The two shelf new well permits were for development wells. Arena Offshore was granted a permit for their Eugene Island 58 #B-4 well, and Cantium received a permit for their Main Pass 38 #BG-10 well.

Of the 5 deepwater new well permits, 4 were for exploration wells, and 1 was for a development well. Anadarko Petroleum received an exploration well permit for their Green Canyon 992 #1 well in Gunflint Field. Chevron U.S.A. obtained a permit for their Walker Ridge 758 #PS-11 exploration well in Jack Field. Murphy Exploration & Production Company was given an exploration well permit for their Walker Ridge 425 #4 well in Chinook Field. Hess Corporation acquired a permit for their Mississippi Canyon 727 #PK-1 exploration well. LLOG Exploration Offshore was granted a development well permit for their Keathley Canyon 785 #3 well in Buckskin Field.

On April 28th, S&P Global Petrodata indicated that the GoM mobile offshore rig supply stood at 45, which is one less than last month. The marketed rig supply consisted of 30 rigs, of which 25 were under contract. The marketed rig supply and the contracted rig supply number were each 3 less than last month. The marketed contracted versus total rig supply utilization rate stood at 55.6%, and the marketed contracted versus marketed supply utilization rate stood at 83.3%. By comparison, the April 2022 total fleet utilization rate stood at 82.4% with 34 rigs under contract out of the 46 rigs in the fleet.

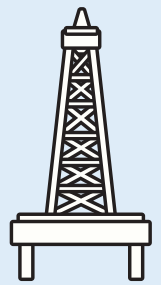
On April 28th, Baker Hughes reported that there are 18 active mobile offshore rigs in the GoM, which is 1 more than last month and 72% of the rigs under contract mentioned above. Currently, one rig is drilling on the shelf, and 17 rigs are drilling in deepwater. The 1 shelf rig is located in the Vermilion Area. The deepwater rigs include 6 rigs in the Mississippi Canyon Area, 2 in the Walker Ridge Area, 2 in the Garden Banks Area, 2 in the Green Canyon Area, 2 in the Keathley Canyon Area and 1 rig each in the Alaminos Canyon, Ewing Bank and Atwater Valley Areas.

On April 28th, the Baker Hughes total U.S. rig count stood at 755 rigs, which is the same as reported at the end of March 2023. Of the 755 rigs, 591 (78.3%) are oil rigs and 161 (21.3%) are gas rigs. Three rigs are listed as miscellaneous. A year ago, there were 698 rigs working in the U.S. inferring that the current rig figure represents an 8.2% increase in rigs year over year. Presently, Texas continues to have the largest number of rigs with 377, which is 49.9% of the total number of rigs in the U. S. Louisiana currently has a total of 60 rigs, which are 3 more than last month. Louisiana ranks third behind New Mexico, which has 107 rigs.

On April 14th, the Bureau of Ocean Energy Management (BOEM) announced the Phase 2 initial acceptance of bids received at GoM OCS Sale 259 held on March 29, 2023. A total of 10 bids were accepted leaving 303 bids remaining under evaluation; the accepted bids are all situated on the shelf. The BOEM has a 90-day evaluation period following the sale to determine bid sufficiency.

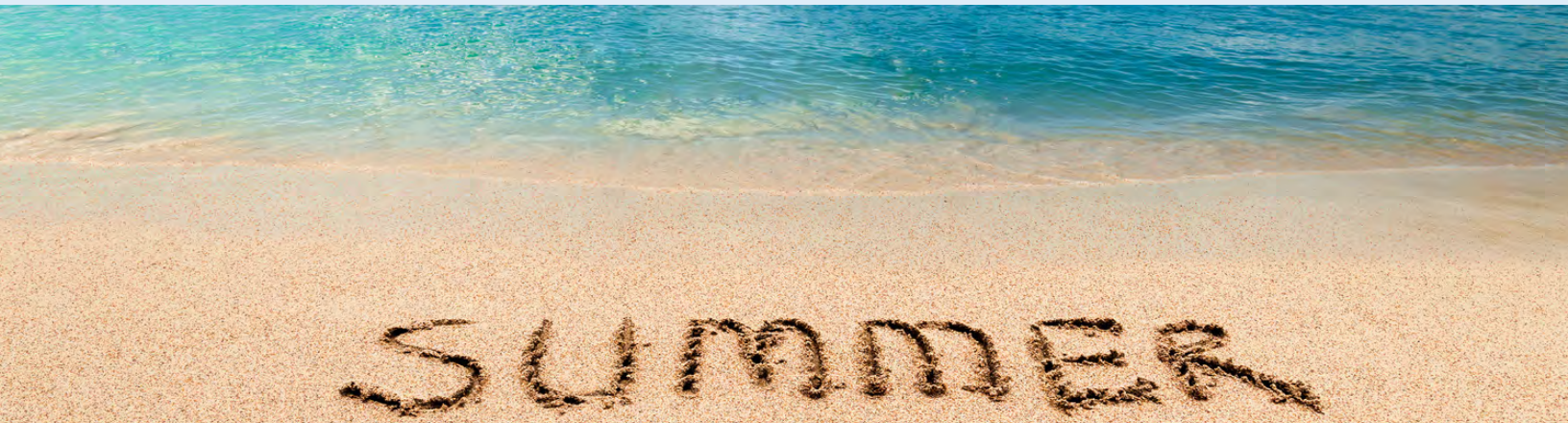
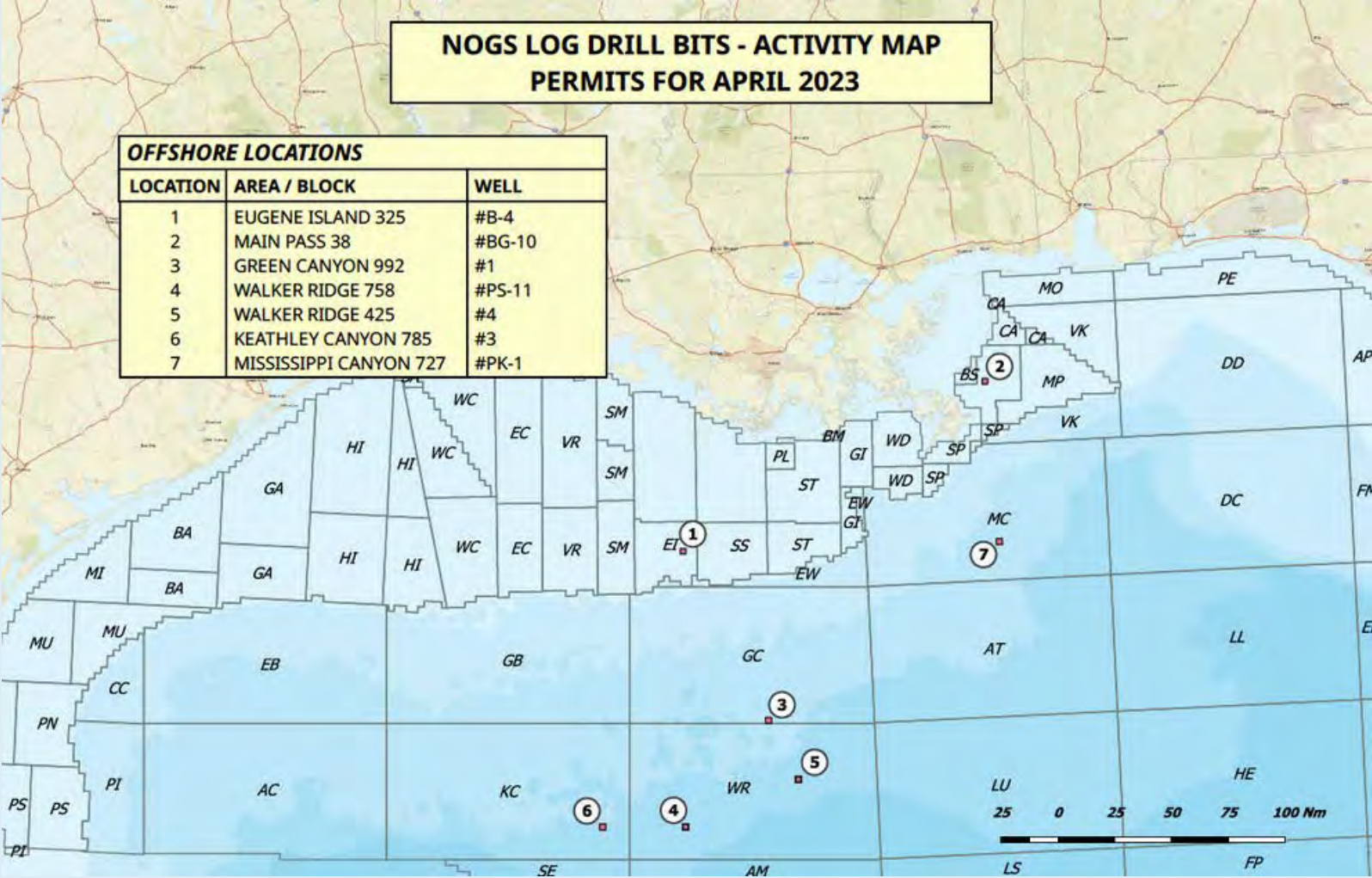
# DRILL BITS

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



**NOGS LOG DRILL BITS - ACTIVITY MAP  
PERMITS FOR APRIL 2023**

OFFSHORE LOCATIONS		
LOCATION	AREA / BLOCK	WELL
1	EUGENE ISLAND 325	#B-4
2	MAIN PASS 38	#BG-10
3	GREEN CANYON 992	#1
4	WALKER RIDGE 758	#PS-11
5	WALKER RIDGE 425	#4
6	KEATHLEY CANYON 785	#3
7	MISSISSIPPI CANYON 727	#PK-1



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PHOTOGRAPHY BY ARTHUR

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ENVIRONMENTAL  
MANAGEMENT

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Founded March 14, 1978, the mission of the New Orleans Geological Society Memorial Foundation is to promote earth-science related educational or scientific purpose by granting of scholarships to outstanding Geology students at the universities in Southeast Louisiana 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 encompasses New Orleans, Jefferson, Plaquemines, St. Bernard and St. Tammany Parishes.

THE MEMORIAL FOUNDATION 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!

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## Calling for donations for the upcoming **AAPG Caughey-Zimmermann Energy Library**

LSU AAPG is developing a library that will provide a **wealth of valuable resources** to students. Our goal is to foster a **collaborative environment** where students can **explore** topics in petroleum geology, **empowering** them to **pursue careers** in the energy sector... ***BUT WE NEED YOUR HELP!***

### How can you support us?

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# Recent Energy Headlines...May 2023 Recap

**5/22/2023 - Mad Dog Phase 2 Project, Gulf of Mexico** - The Mad Dog Phase 2 project involved the development of southern and southwestern extension of the Mad Dog Field in Gulf of Mexico. Mad Dog project is operated by BP with 60.5% interest. Other partners include Woodside Energy (23.9%) and Chevron USA-affiliate Union Oil Company of California (15.6%). BP reached a final investment decision (FID) for the development of the Mad Dog Phase 2 in December 2016. The project began production in April 2023 from the Argos offshore facility, BP's fifth platform in the Gulf of Mexico. [Read Full Article](#)

**5/19/2023 - Repsol makes strategic move with US Gulf of Mexico acquisition** - Repsol increases its interest in Blacktip deep-water project to 50%. Spanish energy major Repsol has made a major strategic move in the US Gulf of Mexico by agreeing to a dramatic increase in its interest in the large Blacktip deep-water oil discovery. Repsol will now hold a 50% share of the Blacktip and Blacktip North discoveries in Alaminos Canyon Block 380 and 336, and be partnered by the operator LLOG Exploration, also on 50%. [Read Full Article](#)

**5/17/2023 - Gulf drilling continues to rebound** - Leading offshore drilling contractors have picked up in 2023 right where they left off last year. "During the (first) quarter, we booked nearly \$900 million of contract backlog," Transocean CEO Jeremy Thigpen told analysts in a May 2 call. "In fact, this more than doubled the backlog added in the first quarter of 2022 and more than seven times what we added in the first quarter of 2021. We believe that this is another clear indication of the sustainability of this constructive market environment, particularly in light of the record backlog we booked last year." Amid whipsawing oil prices, drilling activity in the Gulf of Mexico continues to rebound with 22 largely deepwater rigs active as of May 12, according to Baker Hughes. "Activity in the U.S. Gulf of Mexico has kept regional supply and demand largely in balance over the last several quarters," Thigpen said. [Read Full Article](#)

**5/17/2023 - Shell to use new AI technology in deep sea oil exploration** - Shell PLC will use AI-based technology from big-data analytics firm SparkCognition in its deep sea exploration and production to boost offshore oil output, the companies said on Wednesday. SparkCognition's AI algorithms will process and analyze large amounts of seismic data in the hunt for new oil reservoirs by Shell, the largest oil producer in the U.S. Gulf of Mexico. "We are committed to finding new and innovative ways to reinvent our exploration ways of working," Gabriel Guerra, Shell's vice president of innovation and performance, said in a statement. [Read Full Article](#)

**5/18/2023 - Study: Gulf of Mexico Production Energy Production 43% Cleaner than Global Average** - U.S. Senator Bill Cassidy, M.D. (R-LA), member of the Senate Energy and Natural Resources Committee, issued the following statement on a new report from the National Ocean Industries Association (NOIA) and ICF: The GHG Emission Intensity of Crude Oil and Condensate Production. They found that oil production in the U.S. Gulf of Mexico has a carbon intensity 46% lower than the global average, outperforming other nations like Russia, China, Brazil, Iran, Iraq, and Nigeria. [Read Full Article](#)

**THE COLLEGE OF THE COAST & ENVIRONMENT  
REGRETS TO ANNOUNCE THE PASSING OF OUR FRIEND  
AND COLLEAGUE DR. JAMES M. COLEMAN.**



**"Jim Coleman's leading research in coastal geology is known the world over. On behalf of our college, I extend condolences to his family, friends and colleagues," said Dean D'Elia.**

**Dr. Coleman received a PhD in Geology from LSU in 1966. His research focused on the process, form and characteristic of sedimentary dynamics, specifically in offshore and deltaic regions. He earned numerous awards and recognitions throughout his career, eventually receiving the distinction of Boyd Professor, LSU's highest academic honor.**

**"I am saddened to hear of the passing of Dr. Jim Coleman," said Kam-biu Liu, George W. Barineau III Professor and Chair of the Department of Oceanography & Coastal Sciences. "His work with sedimentary characteristics in coastal and deltaic regions was truly groundbreaking. He will be sorely missed."**

# TOP 10 REASONS TO JOIN NOGS

1

## **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.

2

## **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.

3

## **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

## **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.

6

## **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.

7

## **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.

10

## **Do it for YOURSELF!**

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



# **LAWater 2023: 14th Annual Louisiana Water Conference**

**Louisiana State University, Dalton Woods Auditorium, Energy, Coast & Environment Building  
Baton Rouge, LA, United States, August 2-3, 2023**

**Submission link <https://easychair.org/conferences/?conf=lawater2023>**

**Abstract registration deadline June 15, 2023**

**Submission deadline June 15, 2023**

**Topics: water resources ground water surface water water quality**

**The Louisiana Water Resources Research Institute (LWRRI), the Louisiana Geological Survey (LGS), and the Baton Rouge Geological Society (BRGS) are co-hosting the 14th Annual Louisiana Water Conference, August 2-3, 2023 at Louisiana State University, Baton Rouge, Louisiana.**

**The Louisiana Water Conference aims to disseminate the latest water-related research and activities within and around Louisiana, promote education and public awareness of Louisiana's valuable freshwater resources, and promote engagement of water-use sectors.**

**The Conference will offer certificates of Continuing Education Units (CEUs) and 1 PDH Ethics for Professional Geoscientists (PG) and Professional Engineers.**

**You are cordially invited to submit abstracts to LAWater 2023. Registration fee is waived for presenting authors (oral or poster). There is a limit for only one free registration for each accepted presentation.**

## **Important dates**

**Abstract submission opens: April 17, 2023**

**Registration opens: May 1st, 2023**

**Abstracts due: June 15, 2023**

**End of early registration: July 1, 2023**

**Conference dates: August 2-3, 2023**

**Ethics Lecture for Professional Geoscientists and Engineers (1 PDH): August 3, 2023**

**Registration fee By July 1, 2023**

**Professional: \$80. Faculty: \$40**

**Student: \$20 (fee waiver for a limited seats with valid student ID)**

**After July 1, 2023**

**Professional: \$100. Faculty: \$50**

**Student: \$20 (fee waiver for a limited seats with valid student ID)**

**For online registration, click here (BRGS website). Contact Shanna Mason (BRGeologicalSociety@gmail.com) if you have registration questions.**

**For sending checks, mail checks to the BRGS mailing address:**

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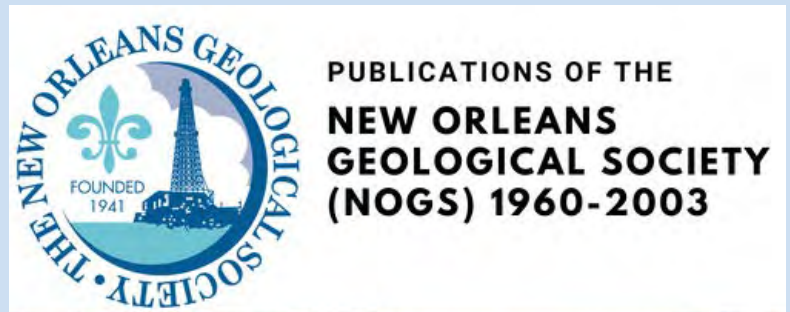
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