

# NOGS LOG

**JANUARY 2020**  
**Volume 60 No. 7**

**JANUARY 2020  
MEETING**

**How Hot Is The  
Kitchen?  
Presented by  
Rudy Wilhelm**

**MONDAY  
JANUARY 6**

*.HAPPY.  
New  
Year*



# UPCOMING EVENTS



**JAN 6**

NOGS Luncheon  
How Hot is the Kitchen?  
Presented by: Rudy Wilhelm  
Holiday Inn Downtown  
Superdome



**FEB 3**

NOGS Luncheon  
Relating GOM Shallow  
Water Flows to Drainage of  
Pleistocene Proglacial Lakes  
Presented by:  
Thomas W. Bjerstedt  
Holiday Inn Superdom

**MAR 2**

NOGS Luncheon  
Speaker & Topic TBA  
Holiday Inn Downtown  
Superdome



**APR 6**

NOGS Luncheon  
Speaker & Topic TBA  
Holiday Inn Downtown  
Superdome



**MAY 4**

NOGS-PLANO-SPWLA  
Golf Tournament

[\*\*Click Here to Register!\*\*](#)



# IN THIS ISSUE



## On the Cover

Huascarán Mountain at 22,205 ft. rises spectacularly over 12,000 feet above the city of Huaraz. Set in the Peruvian Andes it was the site of one of the largest natural disasters in history. On May 31, 1970 a 7.9 magnitude earthquake occurred on the subducting Nazca plate 22 miles offshore. Inland the northern wall of Mount Huascarán gave way causing a major rock, snow and ice avalanche burying the towns of Yungay and Ranrahirca 11 miles away. The nearby city of Huaraz was leveled as the earthquake lasted 45 seconds. Nearly 70,000 people died in the Great Peruvian Earthquake.



## *From the Editor...*

Thanks to everyone who contributes content for the monthly LOG. We had an exciting 2019 year of accomplishments with the LOG going fully digital and unveiled the flip book feature option to view the LOG online. I want to thank the following LOG Editing Team members for helping me transition so quickly - - Ed Picou, Christy Himel, Fran Wiseman and Tom Bergeon.

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.

Thanks, and Happy New Year.

*Charlie*



**Charles Miller III**  
**NOGS LOG Editor**

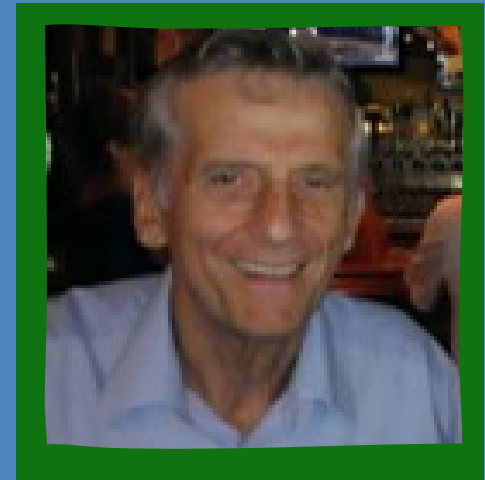
# JANUARY 2020 NOGS MEETING

**MONDAY**

**JANUARY 6, 2020 HOLIDAY INN  
DOWNTOWN SUPERDOME**

## How Hot is the Kitchen?

On March 1, 1993, W.G. Leach published a three-part OGJ article confirming that “The bulk of all oil and gas reserves in the South Louisiana Tertiary sands is concentrated near the top of abnormal pressure.” On November 3, 1997, Guzman et al. demonstrated in an OGJ article the usefulness of seismic velocity data for explorers by publishing numerous named examples of velocity slowdowns above some famous oil and gas fields in the GOM and onshore South Texas. This apparent contradiction caused concern among some in the oil and gas industry. The puzzle has now been resolved using HC Migration Tomography (HCM) scans. My talk will present case studies that will illuminate the hydrocarbon migration pathways from their sources into and through famous oil and gas fields and costly dry holes on the shelf, in deep water, and abroad.



**RUDY WILHELM**

Rudy Wilhelm holds an M.S. in Physics from the University of Texas, El Paso, a M.S. in Petroleum Engineering from Tulane University, and has passed Stanford University's online Reservoir Geomechanics course (from Mark Zoback). From 1972 to 2015, with a nine-year period in the middle as a Geophysicist consultant, Rudy has worked in various geophysical technical positions for Shell Oil. He has worked prospect generation and screening in Brazil (for Petrobras), in Mexico (for Pemex), in Oslo (for Norsk Hydro) and in the Gulf of Mexico, Newfoundland, Colombia, and Nigeria. He also is the chief developer of a software that focusses on predicting pre-drill pore pressure and seal capacity from seismic velocities. Since 2015, Rudy once again is a Consulting Geophysicist.

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## FROM THE NOGS PRESIDENT ROBERT ROONEY



I hope that everyone had a great New Year's Holiday, a Merry Christmas, and enjoyed some time off this holiday season!

I plan to spend time in the coming months in support of the 2020 GeoGulf (GCAGS) annual convention, which will be held in Lafayette. The Lafayette Geological Society will be hosting this year's convention along with NOGS and the Baton Rouge Geological Society.

For the January 6th luncheon meeting, I have invited James Willis, the GeoGulf (GCAGS) convention general chairman to address our membership and give a brief synopsis of the plans for the 2020 Annual Meeting in Lafayette this fall, September 30th - October 2nd.

In this issue of the NOGS LOG, you will find a GeoGulf call for papers. I encourage all of you to consider submitting an abstract on an area of expertise, research topic, poster session, or other technical work that you think will be of interest to the GCAGS and experience the satisfaction of sharing your talents and knowledge with your peers.

I am pleased to see this convention come back to south Louisiana and look forward to assisting with this endeavor. Please keep this convention in your fall plans, and consider attending, presenting, sponsoring, and/or volunteering. More information is available at <http://geogulf.org/>.

Regarding our holiday social, I have decided to have an "on your own" informal dinner gathering at Porter & Luke's in Metairie on Friday, January 10th at 7:00PM. If you would like to join us, make your own personal reservation at (504) 875-4555, and we will see you there. If enough people make reservations, then we may be able to pull a few tables together and have an enjoyable evening. If not, please accept our best wishes for a happy and prosperous new year!

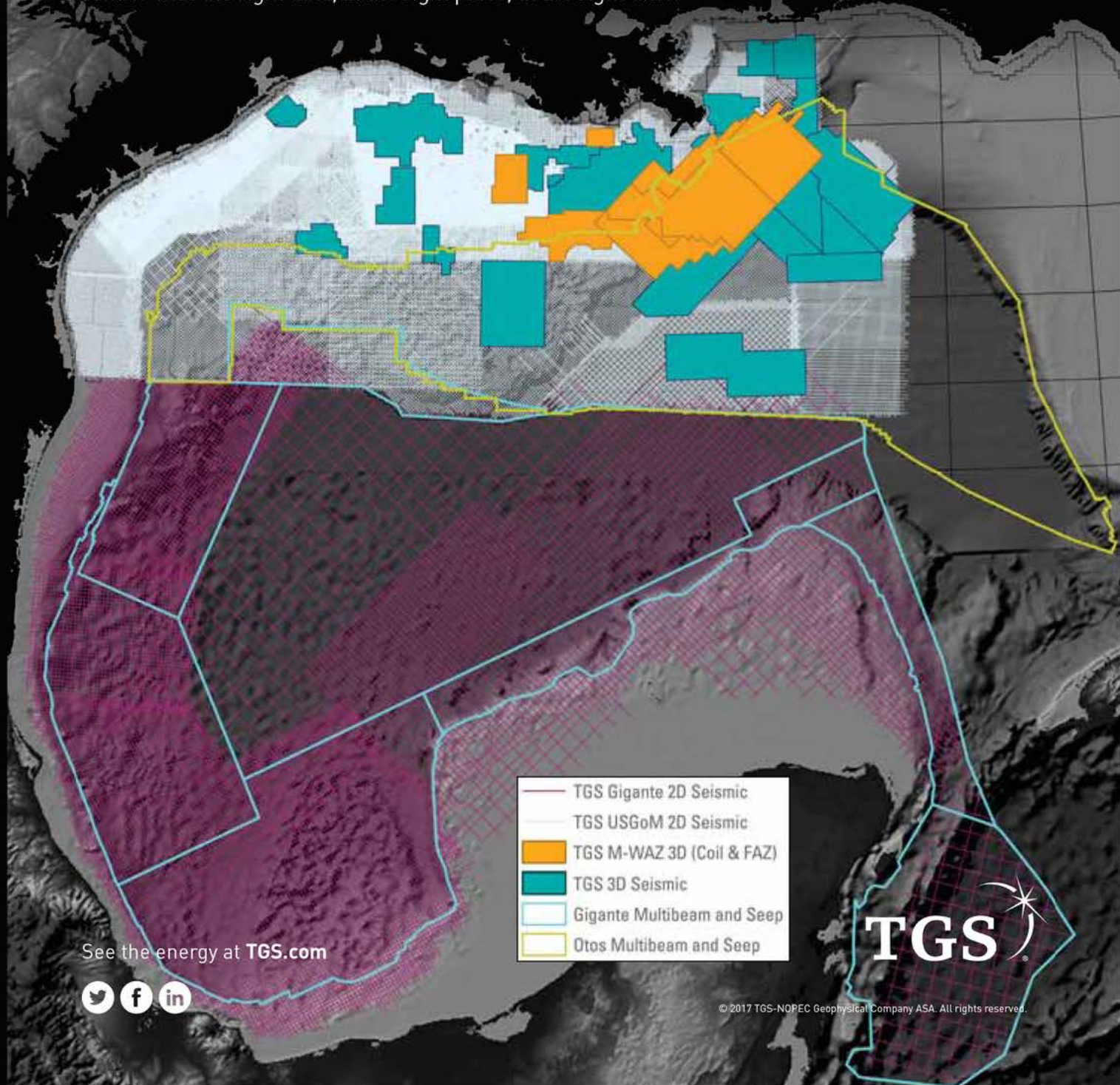
We look forward to seeing you at our January 6th luncheon for Rudy Wilhelm's presentation on petroleum systems: How Hot is the Kitchen?

A handwritten signature in blue ink that reads "Robert Rooney". The signature is written in a cursive, flowing style.



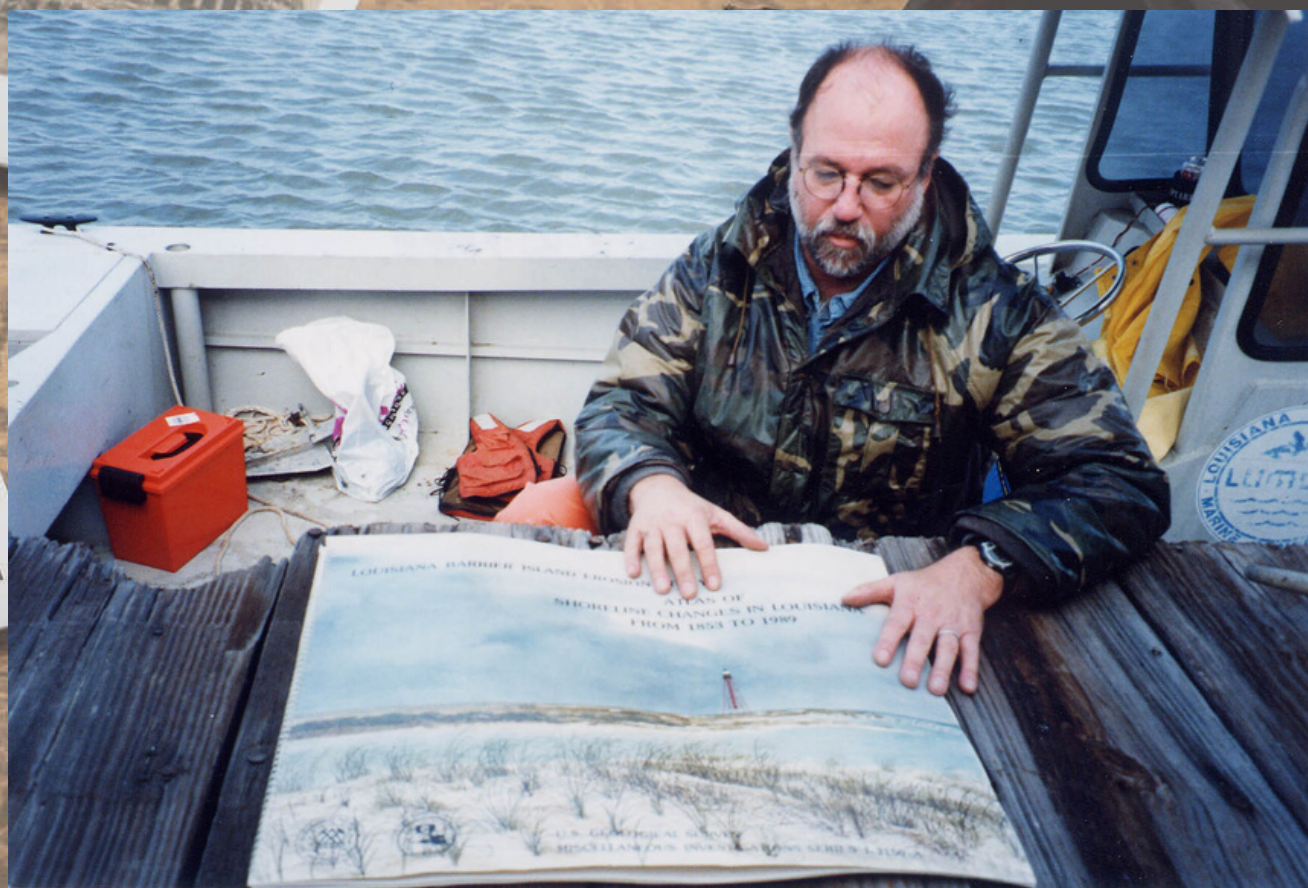
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# PICTURE FROM THE PAST



**November 1998 NOGS Grand Isle Field  
Trip Leader UNO's Dr. Shea Penland\* setting the stage  
for our excursion.**

**\*Deceased**

***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).

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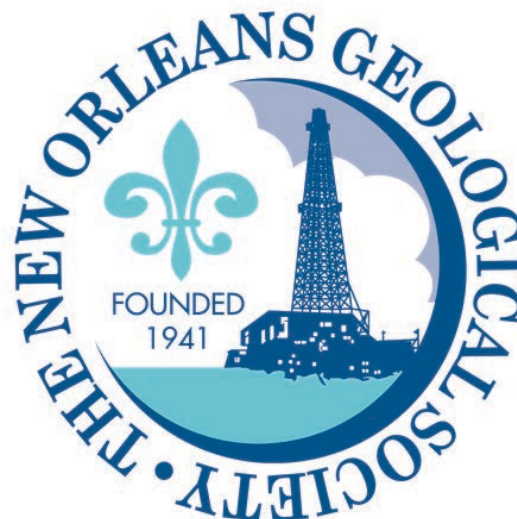
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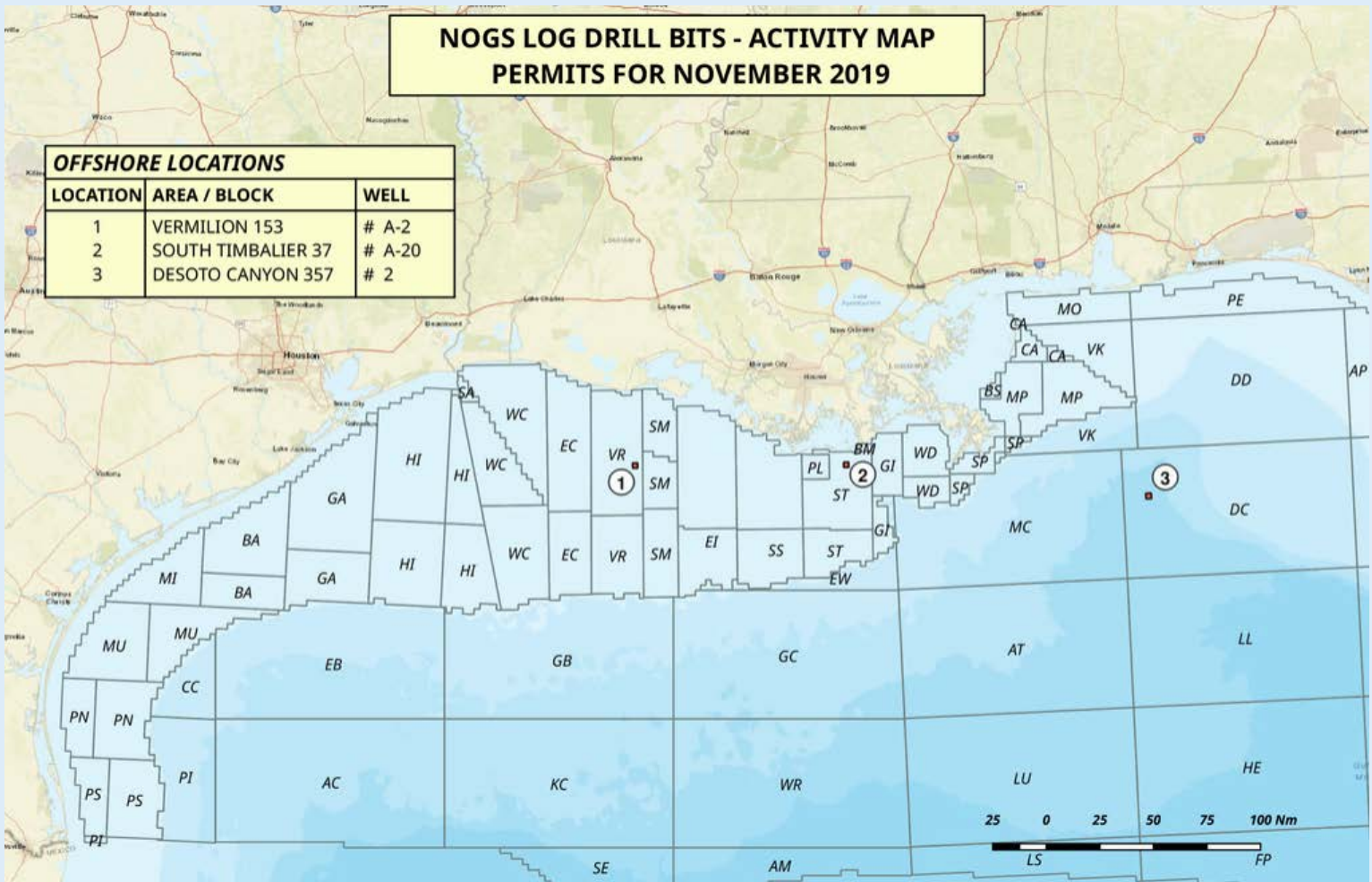
# DRILL BITS

OFFSHORE GULF OF MEXICO SHELF AND  
DEEPWATER ACTIVITIES  
BY AL BAKER

## NOGS LOG DRILL BITS - ACTIVITY MAP PERMITS FOR NOVEMBER 2019

### OFFSHORE LOCATIONS

LOCATION	AREA / BLOCK	WELL
1	VERMILION 153	# A-2
2	SOUTH TIMBALIER 37	# A-20
3	DESOTO CANYON 357	# 2



During November 2019, the U.S. Department of the Interior Bureau of Safety and Environmental Enforcement (BSEE) approved 77 Gulf of Mexico (GoM) drilling permits. Thirteen of these were for shelf wells, and 64 were for deepwater wells. Of the total number of permits, there were 3 new well permits; two were issued on the shelf and 1 in deepwater.

The two shelf new well permits included one exploration well and one development well. The exploration new well permit was issued to TOPCO OFFSHORE for their Vermilion 153 #A-2 well. The development new well permit was awarded to Arena Offshore for their South Timbalier 37 #A-20 well.

The single deepwater new well permit was for an exploration well. BP Exploration & Production received the exploration new well permit for their Desoto Canyon 357 #1 well.



# DRILL BITS

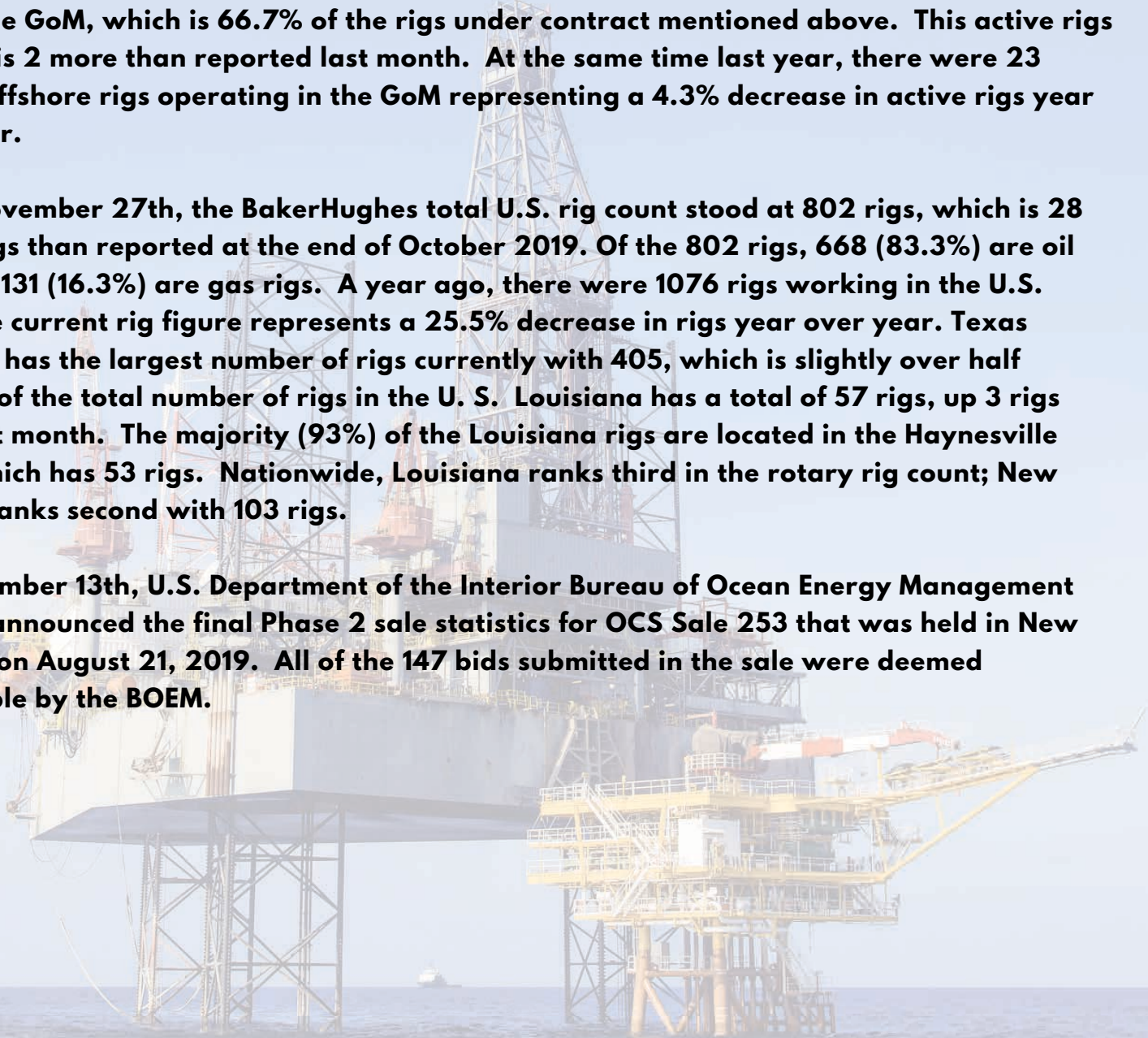
OFFSHORE GULF OF MEXICO SHELF AND  
DEEPWATER ACTIVITIES  
BY AL BAKER

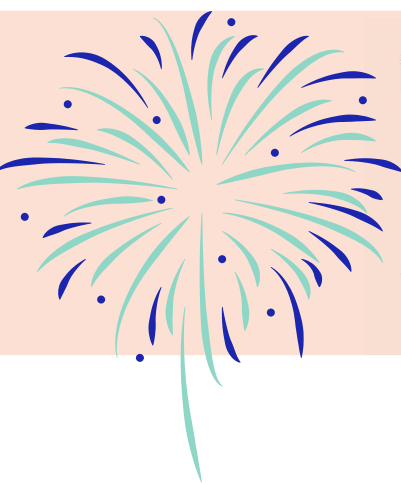
On November 27th, IHS-Petrodata indicated that the GoM mobile offshore rig supply stood at 71, which is 1 less than last month. The marketed rig supply consisted of 42 rigs, of which 33 were under contract. The marketed rig supply and the contracted rig supply numbers are also both 1 less than last month. The marketed contracted versus total rig supply utilization rate stood at 46.5%, and the marketed contracted versus marketed supply utilization rate stood at 78.6%. By comparison, the November 2018 total fleet utilization rate stood at 47.9% with 35 rigs under contract out of the 73 rigs in the fleet.

As of November 27th, BakerHughes reported that there were 22 active mobile offshore rigs in the GoM, which is 66.7% of the rigs under contract mentioned above. This active rigs number is 2 more than reported last month. At the same time last year, there were 23 mobile offshore rigs operating in the GoM representing a 4.3% decrease in active rigs year over year.

As of November 27th, the BakerHughes total U.S. rig count stood at 802 rigs, which is 28 fewer rigs than reported at the end of October 2019. Of the 802 rigs, 668 (83.3%) are oil rigs and 131 (16.3%) are gas rigs. A year ago, there were 1076 rigs working in the U.S. Thus, the current rig figure represents a 25.5% decrease in rigs year over year. Texas typically has the largest number of rigs currently with 405, which is slightly over half (50.5%) of the total number of rigs in the U. S. Louisiana has a total of 57 rigs, up 3 rigs from last month. The majority (93%) of the Louisiana rigs are located in the Haynesville Field, which has 53 rigs. Nationwide, Louisiana ranks third in the rotary rig count; New Mexico ranks second with 103 rigs.

On November 13th, U.S. Department of the Interior Bureau of Ocean Energy Management (BOEM) announced the final Phase 2 sale statistics for OCS Sale 253 that was held in New Orleans on August 21, 2019. All of the 147 bids submitted in the sale were deemed acceptable by the BOEM.





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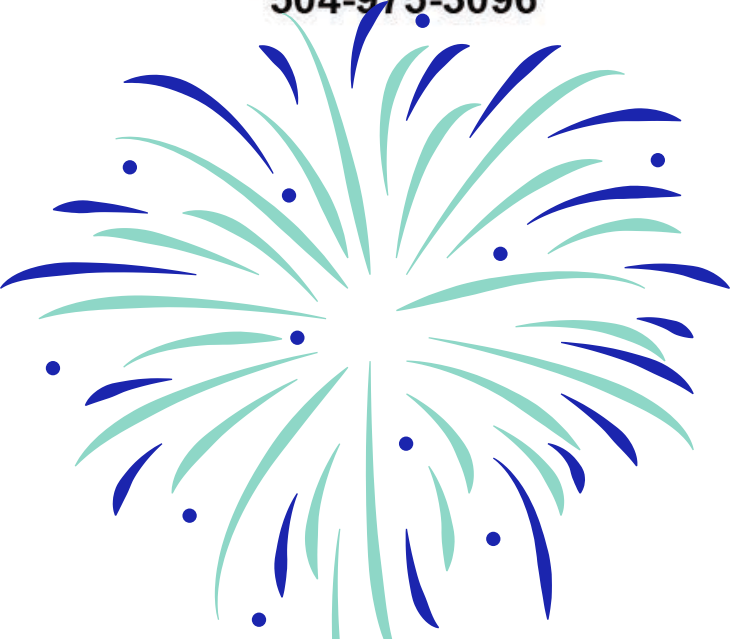
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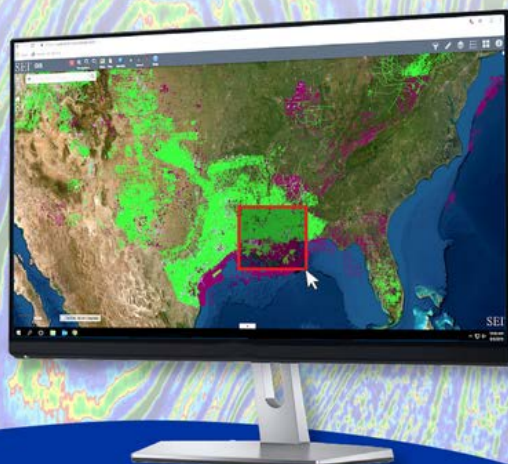


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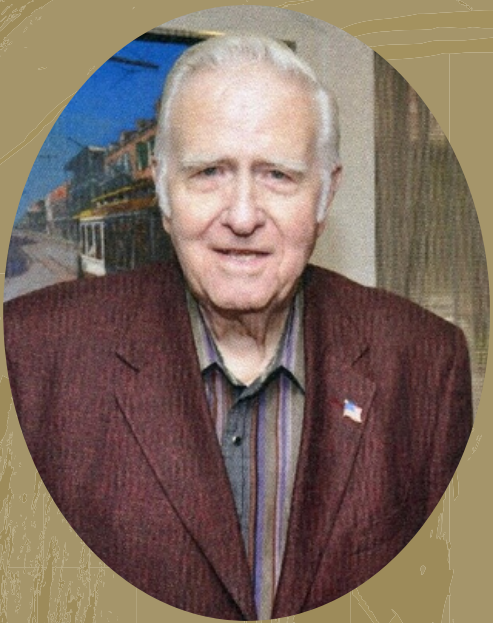
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IN MEMORY OF

# DONALD IRVIN ANDREWS

1929-2019

Donald Irvin Andrews died peacefully in his sleep at home on Friday, November 22, 2019, at the age of 90. Born on April 15, 1929, in Walton-on-Thames, Surrey, England, he immigrated to the United States with his parents in June 1929 and became a naturalized citizen in December 1948. In 1950, he graduated with a Bachelor of Science degree in Petroleum Geology from Colorado School of Mines and married his high school sweetheart, Carol Louise Springer Andrews, with whom he enjoyed traveling the world, including many trips to England for visiting relatives. He proudly served his country as First Lieutenant in the U.S. Army and later as First Lieutenant in the Army Corps of Engineers Reserve. He held professional memberships in the New Orleans Geological Society (NOGS), the Society of Independent Professional Earth Scientists (SIPES), and the American Association of Petroleum Geologists (AAPG). He is survived by his loving wife, Carol Louise Springer Andrews and extended family members.

After graduating from Colorado School of Mines, his first employment was in Shreveport with Conoco. After several years, he was transferred to their New Orleans office. He left Conoco to join the consulting firm of Rodgers, Seglund and Shaw Associates. Don then joined Anson Exploration in the early 1960s as Exploration Manager and remained with the company until it was merged with Florida Gas in the mid-1960s. He continued as Exploration Manager overseeing activities in their New Orleans and Jackson, Mississippi, offices. Don left Florida Gas and joined with Jim Forsythe to establish Ansythe Exploration. They maintained the firm for several decades until it was dissolved. Andrews continued consulting work until Hurricane Katrina essentially forced his retirement.

Don was the 25th NOGS president in 1963-64. He was awarded Honorary Life Membership in 1988.

Over the years, he faithfully attended NOGS monthly luncheon meetings. True to his sharp intellect, he often asked penetrating questions of the speaker's presentation, often suggesting alternate resolutions. Most of all, he was a true gentleman and the epitome of a "Soldier of the Greatest Generation."

# DONALD IRVIN ANDREWS

A memorial service to celebrate his life was held on December 14, 2019, at Lake Lawn Metairie Funeral Home, followed by interment in the All Saints Mausoleum. The family invites you to share your thoughts, fond memories and condolences online at [www.lakelawnmetairie.com](http://www.lakelawnmetairie.com).

As a way of memorializing Don's contributions to the petroleum industry, we want to mention his legacy in publishing several papers in the GCAGS Transactions. He published three papers in the 1960s, two were considered "landmark" contributions when published. His paper on the Louann Salt is comprehensive and anyone wanting to delve into the history of our understanding of this dominant deposit should read this paper. It is divided into two parts, one discusses its occurrences in north Louisiana, while the second discusses its distribution in south Louisiana salt domes.

Although the paper published in 1962 on downdip limits of production in the Oligocene and Miocene was a research effort by a NOGS committee, as Chairman, it was Don's expertise in writing that contributed so much to the success of this significant paper.

Andrews, D.I., 1960, "The Louann Salt and its Relationship to Gulf Coast Salt Domes," Transactions, Gulf Coast Assoc. Geol. Soc. Volume X, pp. 214-240.

Andrews, D.I., 1961, "Indigenous Pleistocene Production in Offshore Louisiana," Transactions, Gulf Coast Assoc. Geol. Soc. Volume XI, pp. 109-119.

Andrews, D.I., Chairman, The New Orleans Geological Society Study Group, 1962, "The Potential Down-Dip Limits of Production from The Oligocene and Miocene of Southeastern Louisiana," Transactions, Gulf Coast Assoc. Geol. Soc., Volume XII, pp. 63-87.

If you would like to read these articles, please send me a message at [epicou@bellsouth.net](mailto:epicou@bellsouth.net) and I will send you a PDF.

Ed Picou, Jr.  
Chairman,  
NOGS Historical Committee

Photo  
by Art Christensen





## 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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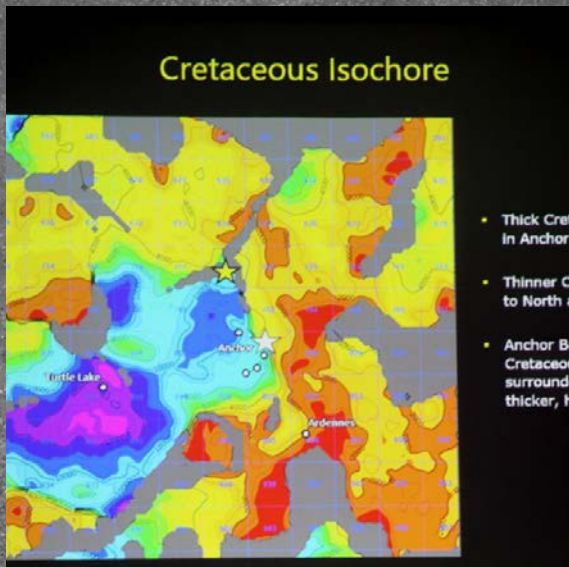
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# DECEMBER MEETING



**Point-derived, Transverse Fan  
Systems in the Deepwater  
GoM:  
Ideal Settings for 'Best-in-  
Class' Turbidite Reservoirs**

**JIM BOOTH**





# STEM QUEST



November 16th

## STEMQUEST SHINES ON THE NORTHSHORE

NOGS was present for the 3rd annual STEM QUEST at the north shore museum. The event was sponsored by Chevron and over 400 people attended. Children and their families learned about the various Science Technology, Engineering and Math disciplines (STEM). NOGS added geology to the equation! It was an engaging and fun event.

Stephanie Welch, an earth science teacher at Southeastern and her husband paleontologist Vann Smith, ran the rocks and minerals section, including, some radioactive specimens. Mandy Brewer, Leigh Anne Salathe, Darby Reiter, and Doug Bradford taught the kids how an oil field forms. Having trained them in exploring, the kids next tried their luck at the Oil Finder Game. Lisa Kennedy, Bobola Akintomide, Mike Fauquier, and David Reiter kept the money and rigs moving in this fast-paced game. Dave Cope brought some fabulous mineral specimens to demonstrate how impurities affect colorations in quartz. Peyton Madere (our long-term dinosaur expert), Bernie Regel, Tom George and I taught kids about dinosaurs in a very hands on manner.



All in all, it was a wonderful day. Major thanks to all who volunteered!

Tom Bergeon





Children's Museum  
of St. Tammany





# GeoGulf 2020 Call for Papers

**70<sup>th</sup> GCAGS/GCSSEPM Convention and Exposition**  
**Sept. 30–Oct. 2, 2020 • Lafayette, Louisiana**

Hosted by the Lafayette, Baton Rouge, and New Orleans Geological Societies

## GeoGulf 2020 Session Themes

- “All Things Salt”—Tectonics, Oil and Gas, Seismic Acq., Proc., and Interp., Mining, etc.
- Machine Learning and Artificial Intelligence Applications
- Gulf of Mexico Temperature and Pressure
- Smackover Session and Core Workshop
- GIS Technology and Applications
- Gulf Coast Environmental
- The Business Side—Legal, Unitization, Finance, Insurance, etc.
- Geoscience Applications of Drone Technology
- Geomechanics—Conventional and Unconventionals
- Special Session for GCSSEPM—topic to be announced
- Special Sessions for LGS, BRGS, and NOGS—topics to be announced
- And more—We are the place for Gulf Coast Geoactivities! We'll fit you in! Got an idea for a theme session, please let us know!

**Professionals and Students: We welcome you to submit an abstract for consideration of oral or poster presentation of 250–300 words by January 15, 2020.**

Early abstract submissions will be reviewed within a day or two of receipt with acceptance/rejection notification. Submit via email title, author(s) (with full contact information for each, including company or school, full address with zip code, email, and phone number), and abstract (preferably with 1–2 representative illustrations including reference from text and with captions) to General Chair, James J. Willis, [james.willis@gcags.org](mailto:james.willis@gcags.org).

All accepted presenters are expected to submit an initial draft of full paper or extended abstract for publication in the *GeoGulf Transactions* by March 15, 2020, to the *GeoGulf Transactions* Editor, James J. Willis, [james.willis@gcags.org](mailto:james.willis@gcags.org). Full information, instructions, size limitations, and helpful hints for abstracts, extended abstracts, and full papers will be posted soon at [www.geogulf.org](http://www.geogulf.org).

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](mailto:rmerrill@catheart.com)) by December 16, 2019. Once accepted for publication, the deadline for submitting a full manuscript is April 2, 2020. Full instructions for manuscript submissions will be posted online at <http://www.gcags.org>. Convention presentations of *Journal* submissions are encouraged, but not required.



# The race for deepwater oil ports in the Gulf of Mexico is on—and Louisiana is already years ahead.

By Sam Barnes - December 16, 2019

There's a race afoot in the deep waters of the Gulf of Mexico. A host of companies and consortiums are pursuing the development of at least five separate deepwater oil ports off the coast of Texas, each hoping to tap into burgeoning worldwide demand for exports and a growing supply of inland oil.

It appears, however, that those facilities first to cross the regulatory finish line will stand the best chance of getting built, as future demand won't likely support them all. Regardless, it's going to be a while before they catch up with the only current oil exporter in the U.S. deepwater market—the Louisiana Offshore Oil Port, located some 30 miles south of Fourchon.

Originally constructed as an import facility, the decades-old LOOP needed only a few adjustments to add export capabilities to its portfolio, and the investment appears to be paying off in a big way. LOOP loaded a record six Very Large Crude Carriers, or VLCCs, supertankers in a matter of weeks last summer—283,333 barrels per day in June alone—for the transport of medium-sour crudes to China, India and Europe.

Tyler Abadie, CEO at engineering consulting firm Abadie-Williams LLC in Metairie, says LOOP is way out in front of the export game—at least for the moment—as Texas investors must maneuver through a lengthy permitting process and a host of other challenges to turn their plans into reality. Abadie-Williams was tapped to design Sentinel Midstream's \$1 billion Texas GulfLink deep water export terminal 30 miles south of Freeport, Texas.

There are not a lot of precedents regarding how the permitting process works for these deepwater ports," Abadie adds. "We're also having to navigate through the engineering of a fixed structural platform in the Gulf of Mexico. Those just aren't built anymore." As such, Abadie-Williams ultimately had to recruit a handful of engineers nearing retirement to assist with the design. "The expertise and the knowledge were hard to find, regarding design codes etc. It's a massive undertaking."

Deepwater ports fill a critical need, as VLCCs require a draft of about 85 feet of water when they are fully loaded. Conversely, ports along the Mississippi River provide a draft of only 50 feet. "LOOP is in 115 feet of water, so it avoids all that," says Eric Smith, associate director of the Tulane Energy Institute in New Orleans. "That means a vessel can come in empty and go out full, come in full and go out full, etc."

Andy Lipow, president of Lipow Oil Associates in Houston, says VLCCs are the most efficient method for transporting oil across the globe. A former oil executive, Lipow serves as a consultant for producers, refiners and midstream operators. "Asia is where a lot of the growth is coming from, but U.S. produced oil is making its way all across the world," he adds. "It's going to Europe, to India. We've seen some go to South America, so it's just part of the overall world supply."

"It just makes sense that the number of ships using these offshore ports is going to increase," says Andy Lipow of Lipow Oil Associates in Houston. "Along with the pipelines, we're building terminals, docks and associated infrastructure to move this oil into these overseas markets."

This trend toward increased offshore exports should continue as new sources of oil come online. Earlier this year, the owners of the Capline Pipeline—Plains Pipeline LP, BP Oil Pipeline Co. and Marathon Petroleum Corp.—announced plans to reverse their pipeline flow to transport crude oil from Patoka, Illinois, and Collierville, Tennessee, to the Gulf Coast, thereby providing a route for Canadian and North Dakota oil producers to reach refineries in the New Orleans and Baton Rouge areas. It would also open up another route for exports.

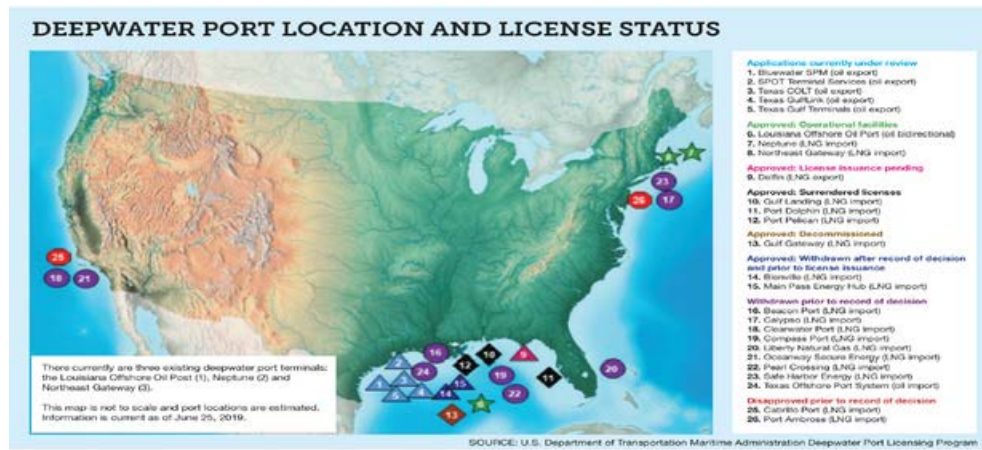
While Capline's owners say crude oil service could commence by the third quarter of 2020, Tulane's Smith expects a few bumps in the road. He says there will likely be delays from the environmental community as the pipeline crosses multiple state lines. "It's going to be a bit of a fight before it's over," Smith says. "There's also a short length of new pipe they have to install to connect to the pipelines coming out of Canada."

The article is by Sam Barnes from the online news source 10/12 Industry Report on the status of deepwater oil and LNG port development in Louisiana and along the Gulf Coast.

<https://www.1012industryreport.com/export/the-race-for-deepwater-oil-ports-in-the-gulf-of-mexico-is-on-and-louisiana-is-already-years-ahead/>



## LOOP Could Soon Feel the Heat



Still, I think there are some reasons for hope. I'm just saying I don't expect that to happen tomorrow." Even when it does happen, Smith doesn't expect much of the heavy crude coming from Capline to make it to LOOP, given the level of local refinery demand and the offshore demand for "medium sour" crude.

Until three years ago, LOOP supported about 300 vessels a year as they offloaded crude oil from Saudi Arabia, Iraq, Venezuela and other sources, then piped it inland. It's a whole new world today, as an influx of Gulf of Mexico crudes and weakening prices have contributed to a seismic shift to exports.

About 40% of vessels now leave full of U.S. crude for export markets, much of which includes a grade of crude called Mars Sour, produced offshore by Royal Dutch Shell Plc.

A relatively simple operation, LOOP is comprised of a large platform outfitted with pumps, three Single Point Mooring (SPM) buoys for the VLCC tankers and flexible pipelines. The port is supported by two onshore facilities: the Fourchon Booster Station and Clovelly Dome Storage Terminal. At Clovelly, up to 40 million barrels of crude oil are stored in underground salt caverns.

Despite its advantages, Tulane's Smith says the LOOP facility is somewhat constrained by its original purpose, as it now has only one pipeline for both importing and exporting. "It's a cumbersome process the way it's set up," he adds. "They made some modifications, but the real solution is to invest in a new pipe."

For this and other reasons, LOOP stands to face some stiff competition from Texas. According to the U.S. Maritime Administration, the five applications currently under review for deep water exporter ports were submitted by Bluewater SPM, SPOT Terminal Services, Texas COLT, Texas GulfLink and Texas Gulf Terminals. Most of the investors are planning to export crude oil from the Eagle Ford and the Permian Basin shale plays, as well as from Canada.

This would likely take potential business away from LOOP as it would give Texas producers a nearer option to get the shale play crude to market. In September, a Federal Register notification indicated that Houston-based West Delta LNG is seeking permission to build a fixed-platform deepwater port roughly 10.5 nautical miles off the coast of Plaquemines Parish in 60-foot waters (see sidebar, page 23).

In determining the location for its offshore deepwater facility, Abadie says Sentinel examined a variety of factors, including a keel clearance of 100 feet, absence of any nearby exploration or production activity, and waters clear of any underwater obstructions. Checking all those boxes can be a challenge, Abadie says, but it's all necessary to support the massive VLCC tanker ships.

"They're 1,100 feet long and they're drafting about 75 to 80 feet fully loaded," Abadie says. "And when the ship first starts up and gets to full speed, it kind of digs down a little bit."

Sentinel Midstream's Texas GulfLink project is financed by Dallas private equity firm Cresta Fund Management, while Abadie-Williams is the primary engineering and regulatory consultant and Baton Rouge law firm Kean Miller LLP is the lead legal advisor.

The company will ultimately deliver crude oil via an onshore pipeline from the Houston market into above ground crude oil storage tanks, located in a storage facility near Jones Creek in Brazoria County, Texas. The oil will be transported to one of two SPM buoys in the Gulf via a 42-inch pipeline. The buoys will allow VLCCs to moor and receive up to 2 million barrels of crude at a rate of 1.2 million barrels of crude per day.

A manned offshore platform will be equipped with round-the-clock port monitoring, custody transfer metering, and surge relief. "As the lead engineering and regulatory group, we put together the 6,000-page deep water port application and are currently designing the offshore platform and components of the onshore pipeline stations," Abadie says.

"We're also acting as the primary operational and regulatory support team through the one-year application timeline with the Maritime Administration and U.S. Coast Guard."

Elsewhere, Houston-based companies Kinder Morgan and Enterprise Products Partners have teamed up with Canadian pipeline operator Enbridge, to file for a federal permit to build a port about 30 miles offshore from Oyster Creek, Texas, where an oil storage terminal is also proposed to support the facility.

### **A new deepwater port for Louisiana?**

Houston-based West Delta LNG wants permission to build, own and operate a fixed-platform deepwater port in the Gulf of Mexico off the coast of Louisiana, as well as onshore facilities to export liquefied natural gas.

According to the Federal Register, the deepwater port and marine components would include an LNG production and storage unit, a loading platform/marine berth unit and support facilities. Onshore components would include the proposed Venice Pretreatment Plan in Plaquemines Parish in the existing Venice Gas Complex.

On its website, West Delta says the project is designed as "a world-first fixed-platform LNG production facility with uncongested open-water access for LNG carriers, free of the coastal footprint that burdens shore-based facilities," noting that it provides "opportunities for off-take partners to diversify upstream for even greater supply certainty and price protection." Production facilities would comprise three

LNG production platforms capable of accommodating six liquefaction trains with a combined capacity of 6.1 million metric tons of LNG. Aluminum storage tanks at the facility would be capable of holding 300,000 cubic meters of gas for offloading to LNG carriers. The Venice Pretreatment Plan would receive natural gas from Gulf of Mexico midstream pipelines and interstate pipeline feed gas from pipelines already interconnected with the Venice Gas Complex. The gas would be pre-treated and compressed onshore and sent to the offshore deepwater port.

The proposed deepwater port will comprise 13 fixed bridge connected platforms with piles in Outer Continental Shelf West Delta Lease Block 44, approximately 10.5 nautical miles off the coast of Plaquemines Parish in 60-foot waters. The loading platform and marine berthing facilities will contain a loading arm system to load onto a single LNG trading carrier.



Louisiana



## **You might just be a geologist in New Orleans too long**

**If you measure topography in inches...**

**If you recall Southwest having flights to H-town every 30 minutes...**

**If you were told all faults are extensional...**

**If you were told there are no sands that far out...**

**If you can remember 7 majors by name and who merged with whom...**

**If you worked with one or more of those 7 majors...**

**If you recall when your company did not host a local music festival...**

**If you go to the McIlhenny property at Avery Island for the salt not the Tabasco...**

**If you base your fishing spots on which offshore platform has the most exciting geology...**

**If you have more collected rocks in your garden than Mardi Gras beads in your attic...**

**If you studied the delicate cross rippled deposits in the London Avenue levee failure...**

**If you had your own "real estate" elevation map in your head long before Katrina...**

**If you are talking about the birdsfoot and are not a local veterinarian...**

**If you have a whole different view on coffee grinds...**

**If the names Coleman, Roberts, Locke, Bouma, Fisk, Craig mean anything to you...**

**If you plan your hurricane evacuation route on which states have the nearest outcrops...**

**If the word deepwater used to mean 400 ft...**

**If you recall NOGS holding court high in the Energy Center...**

**If bright spots used to be something you saw after staring at the sun too long...**

**If you are the only one who can navigate the backstreets when it is flooding uptown...**

**If you remember Al and Skip and their hilarious mineral auctions...**

**If you have long misplaced your rock hammer just before packing for that rare geo trip...**

**If you have kids that are older than the Wax Lake Delta...**

**If you somehow avoided the gravitational pull from the death star 365 miles to the west...**

# OFFICIAL NOTICE

NOGS has an opportunity to make nominations to fill two vacancies on the Louisiana Board of Professional Geoscientists. Currently, the Board needs representation from Congressional District 2 as well to fill a member-at-large position. In 2010, the Louisiana Legislature passed Act 974, the "Louisiana Professional Geoscience Practice Act" which established the Louisiana Board of Professional Geoscientists and lay the groundwork for licensing of Professional Geoscientists in Louisiana with a mission to protect the public health, safety, and welfare, and to guard the state's natural resources with regard to environmental and civil projects for which geoscientific review and evaluation is required in the making of recommendations of any geoscientific component.

The Louisiana Board of Professional Geoscientists meets 6 times a year and is charged with administering the various provisions of the Act and its subsequent modifications. It consists of nine members representing Louisiana's six Congressional Districts including at least six licensed professional geologists and one licensed professional engineer. Two at-large board positions can be filled by unlicensed or exempt geoscientists or non-geoscientists. To apply, please follow this link for the APPLICATION FOR GUBERNATORIAL APPOINTMENT TO A BOARD OR COMMISSION

**[https://gov.louisiana.gov/assets/docs/Boards  
Commissions/BC\\_Application.pdf](https://gov.louisiana.gov/assets/docs/Boards%20Commissions/BC_Application.pdf)**

or find the application on the Governor's website under Boards and Commissions. For more information about licensing of Professional Geoscientists, please visit the Louisiana Board of Professional Geoscientists website at [lbopg.org](http://lbopg.org) or this link: Louisiana Board of Professional Geoscientists. Liz McDade ([ecmcdade@lbopg.org](mailto:ecmcdade@lbopg.org)) can also help answer questions regarding Board activities and the nomination process.