

NOGS LOG

AUGUST 2020
Volume 61 No. 2

NOGS
Virtual Meeting

Monday, August 3, 2020



NOGS AUGUST MEETING

MONDAY, AUGUST 3, 2020

11:30 AM

ZOOM MEETING

ERIC ZIMMERMANN
THE QUEST FOR 63



Eric Zimmermann is Vice President of Geology of LLOG Exploration and has worked with the company since 2007. Prior to LLOG, Mr. Zimmermann worked for BP and Dominion. Mr. Zimmermann's experience has been focused on exploration and development projects in the deepwater Gulf of Mexico.

Mr. Zimmermann received his Bachelor of Science and Master of Science in Geology at Louisiana State University and post-graduate work at Rice University. He is a Professional Geologist in the states of Texas and Louisiana and is a Fellow of the Geological Society of London. He is former President of the Southeastern Geophysical Society and an invited lecturer at LSU, UNO, Tulane, Rice, Colorado, and the American Association of Petroleum Geologists.

ABSTRACT

The National Park System is a crown jewel in the American Experience. Universally, the National Parks are loved and appreciated for the ability to capture our national diversity.. As geologists, we love the preservation of some of the most interesting geologic elements of our national physical history. From volcanoes in Hawaii to glaciers in Alaska to deserts in California, some of the best-preserved examples of physiography and geology in our country have been preserved for time memorial in these special locations. These 62 sanctuaries are a testament to all that is beautiful in our world and the preservation of natural beauty for generations to come.

When we look across the national park landscape, however, there are a few holes in the physical and geographic landscape that exist. The southeastern United States is sorely lacking in representation for national parks. There are no National Parks that exist in the Deep South of Louisiana, Mississippi, Alabama, and Georgia. From New Orleans, the nearest parks are 450 miles to Hot Springs, 620 miles to Mammoth Cave, and 650 miles to Great Smoky Mountains. Also, the beauty, value, and biological diversity of lowland swamps have no representation in our national park system.

The people of the Southern Region deserve a park of our own to help preserve our local geologic and cultural uniqueness. We propose an elevation of Jean Lafitte National Historic Park and Preserve to National Park status. This addition to our park system will provide an outlet for the millions of people in the region who have no park in the area. The addition will also allow us to shine a spotlight on the issues that exist today in South Louisiana while at the same time potentially allowing for greater access to our beautiful state to visitors from all over the world.

[CLICK HERE](#)
[TO REGISTER](#)

ZOOM INFO WILL BE EMAILED DAY PRIOR
TO MEETING

IN THIS ISSUE

On the Cover



Arches National Park, Moab, Utah Arches National Park lies north of Moab in the state of Utah. Bordered by the Colorado River in the southeast, it's known as the site of more than 2,000 natural sandstone arches, such as the massive, red-hued Delicate Arch in the east. Long, thin Landscape Arch stands in Devils Garden to the north. Other geological formations include Balanced Rock, towering over the desert landscape in the middle of the park.

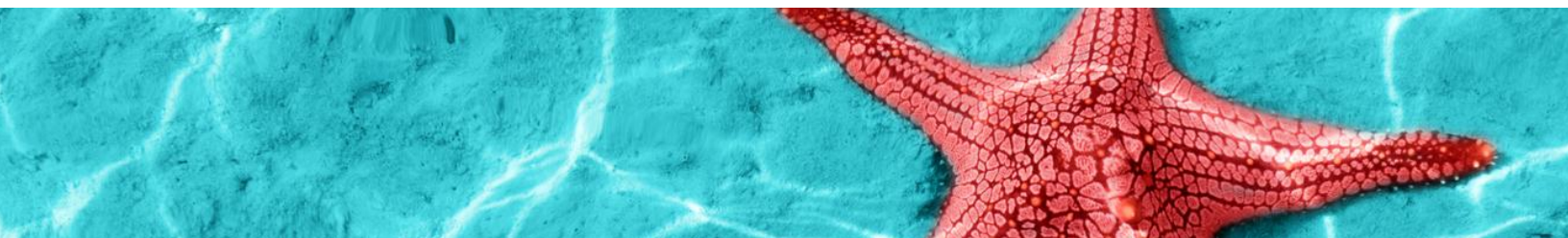
From the Editor...

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

Charlie



Charles Miller III
NOGS LOG Editor





JOHN R. DRIBUS

A MESSAGE FROM NOGS PRESIDENT

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

I hope that all members and friends of the New Orleans Geological Society have remained safe and well during the Covid-19 pandemic. Our Governor has extended Phase Two restrictions until Aug 7th, mandating a 50-person limit on social gatherings, and that masks be worn in public. For specific details I invite you to visit the Louisiana Department of Health website at <http://ldh.la.gov/Coronavirus/>. The result of these restrictions for NOGS is that we will continue to hold our monthly meetings on-line with a technical talk on ZOOM. I hope you were among the 42 individuals who attended July's talk by Dr. James Willis from Lafayette on welds; it was an excellent presentation. In that meeting, our past-President Robert Rooney presented awards to several of our members whose service has greatly enriched our community: Arthur Christensen was awarded an Honorary Life Membership and an Outstanding Service Award. Michael Fein also received an Outstanding Service Award, and Thomas Bergeon and Edward Picou received President's Awards. I congratulate and thank these members for their outstanding service to our society and community.

In my first President's letter I promised that this month I would review the programs that NOGS offers to its members and community. Our Technical Speakers Program invites local professionals to share an interesting aspect of their work with us. These talks can count toward the 14 hours of annual Continuing Education needed to maintain a professional license in Louisiana.

When you pay your dues, participate in our golf tournament and activities where fees are charged, the money (after expenses) is invested in our community in two major programs: our two local Louisiana Children's Museums, and the NOGS Memorial Foundation Academic Scholarships for students attending our local universities with geoscience programs.

NOGS has a 22-year relationship with the Louisiana Children's Museum (LCM), and 7-year relationship with the Children's Museum of St. Tammany (CMST), hosting Super Science Saturday, Energy Day, and STEMQUEST events. In 2015, NOGS and our Memorial Foundation pledged \$100,000 to help develop both the LCM and CMST, \$50,000 to each museum to promote geology and science paid over ten years. Both museums opened new facilities in 2019, and NOGS was instrumental in the geological focus of the "Dig Into Nature" Gallery at LCM. In addition, NOGS has assembled an impressive dinosaur collection, and also a very effective eight station "How an oil field forms" traveling program, both focused on demonstrating that science is fun.

The second program which significantly impacts the community is our Memorial Foundation Scholarship program which awards a total of \$30,000.00 in scholarships every year to one Junior, one Senior, and two Graduate program students at the University of New Orleans, Louisiana State University, and Tulane University.

With that, I will close by thanking each of you who have participated in our technical ZOOM meetings, renewed your membership, and remain committed to our various NOGS programs. In my next letter, I will share with you more about the volunteer services we provide to our community. Stay safe NOGS!

Regards,
John Dribus



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GeoGulf 2020 Update

GeoGulf 2020 (70th GCAGS/GCSSEPM convention) remains **GO for LAUNCH** in Lafayette, Louisiana, Sept. 30-Oct. 2, 2020.

BREAKING NEWS: GCAGS and AAPG recently signed a collaborative agreement between GeoGulf 2020 (Sept. 30-Oct. 2, 2020) and AAPG ACE 2020 *Online* (Sept. 29-Oct. 1, 2020). Some important details are:

- Attend, exhibit at, and/or sponsor GeoGulf 2020 and you receive AAPG ACE 2020 *Online* registration, exhibition, and/or sponsorship at no added cost!
- All GeoGulf attendees will receive complimentary ACE registration. Bronze (\$500) and Higher Level GeoGulf sponsorships receive complimentary registration(s) for both events.
- All GeoGulf exhibitors will receive complimentary ACE exhibition at their Sapphire level.
- All GeoGulf sponsors of Bronze (\$500) and Higher Levels will receive complimentary same-cash-level ACE sponsorship with the benefits thereof for “both” sponsorships. For example, a GeoGulf Platinum (\$5k) sponsorship receives at no added cost an AAPG Gold (\$5k) level sponsorship. Already sponsoring AAPG? Any funds supporting GeoGulf will be “added” to your AAPG amount which may boost your AAPG level of sponsorship.
- Free ACE platform pages/exhibit stands for GCAGS and GCAGS member societies at no added cost.
- A one half-day GeoGulf 2020 branded/programmed session will be streamed live from Lafayette as an integral part of the ACE 2020 *Online* program. Other GeoGulf 2020 presentations will be recorded onsite (speaker permitting) and provided post-convention to ACE for on-demand viewing.

ADDITIONAL NEWS: Many more details are coming soon in the next few days with release of our Announcement Brochure with live registration. Please visit www.geogulf.org for continuous updates. We are still accepting abstracts for the program, including back-up presentations. If interested in sponsorship or exhibition, please contact as soon as possible James Willis, GeoGulf 2020 General Chair, at 337-277-3652, james.willis@geogulf.org, or jwillis3@lsu.edu.

Covid-19 Preparedness Statement: We have developed and will employ a comprehensive covid-19 plan for our attendees, guests, and staff, following all venue, local, state, and CDC guidelines or regulations, which will be distributed prior to attendance. We are planning multiple sanitation stations dispersed throughout the venue, including prior to entry where we will be providing attendees with a personal protection kit, including mask, gloves, sanitation wipes, etc. Specific phase reopening requirements (LA is currently at phase 2) may limit registration for individual events thus we recommend registering as soon as possible to better guarantee your spot. We look forward to seeing you in Lafayette, but completely understand if your own personal risk assessment means we don't.

www.geogulf.org



GeoGulf 2020 Sponsorship Opportunities (includes Complimentary AAPG ACE 2020 Online Sponsorship)

THANK YOU IN ADVANCE to the sponsors of GeoGulf 2020 (70th GCAGS/GCSSEPM Annual Convention and Exhibition) to be held Sept. 30-Oct. 2, 2020, in Lafayette, Louisiana! Your support is essential for the success of this meeting and is appreciated.

BREAKING NEWS: We are excited to announce our partnership with AAPG ACE 2020 Online (Sept. 29-Oct. 1), which adds significant value to your GeoGulf 2020 Sponsorship wherein all GeoGulf sponsors at Bronze (\$500) and higher levels will be included in the earned tier of ACE 2020 Online sponsors and afforded the same benefits at no additional cost! For example, a Platinum (\$5k) GeoGulf 2020 sponsor will receive a complimentary sponsorship of ACE 2020 Online at their Gold level and all the benefits thereof. In any instances where sponsors are supporting both GeoGulf 2020 and ACE 2020 Online, the amount committed to GeoGulf 2020 will be added to the committed ACE 2020 Online amount and the cumulative total will be used to determine the company's AAPG tier for benefits. For example, if you are already an AAPG Gold (\$5k) sponsor and become a Platinum (\$5k) GeoGulf sponsor, you will be upgraded to an AAPG Platinum (\$10k) sponsor! Additionally, GeoGulf 2020 Bronze (\$500) and higher levels include complimentary registration(s) with all attending GeoGulf registrants receiving complimentary registration (s) with AAPG 2020 Online at no added cost!

DIAMOND (\$25,000+)

Complimentary AAPG ACE 2020 Online Titanium sponsorship with all of the AAPG benefits of that level, 5 comp full GeoGulf 2020 registrations with attendees receiving comp AAPG ACE 2020 Online registrations, full color 2-page ad spread with bleed to edge of page in Transactions, Announcement Brochure, and Convention Program, and on website; targeted sponsorship available (e.g., solo Icebreaker sponsor or solo Transactions sponsor); prominent logo placement in full color on inside front or back cover of Transactions; name on sponsor list (all publications, convention signage, and website, including AAPG Explorer advertisements).

SAPPHIRE (\$10,000+)

Complimentary AAPG ACE 2020 Online Platinum sponsorship with all of the AAPG benefits of that level, 3 comp full GeoGulf 2020 registrations with attendees receiving comp AAPG ACE 2020 Online registrations, full color 1-page ad with bleed to edge of page in Transactions, Announcement Brochure, and Convention Program, and on website; targeted sponsorship available (e.g., extra drink ticket, half Icebreaker sponsor or half Transactions sponsor, or other activities, e.g., all-convention luncheon), prominent logo placement in full color on inside front or back cover of Transactions, name on sponsor list (all publications, convention signage, and website, including AAPG Explorer advertisements).



Willis School of
Applied Geoscience



PLATINUM (\$5,000+)

Complimentary AAPG ACE 2020 Online Gold sponsorship with all of the AAPG benefits of that level, 2 comp full GeoGulf 2020 registrations with attendees receiving comp AAPG ACE 2020 Online registrations, 1/2-page ad in Transactions, Announcement Brochure, and Convention Program, and on website (color for digital versions/greyscale for printed); targeted sponsorship available (e.g., GCSSEPM or AAPG DPA luncheons); prominent logo placement in full color on inside front or back cover of Transactions, website, and convention signage; name on sponsor list (all publications, convention signage, and website, including AAPG Explorer advertisements).

AAG Association of
Applied Geoscientists
Linking Geoscience with Application



(additional sponsorship levels and contact info continued on next page)

GOLD (\$2,500+)

Complimentary AAPG ACE 2020 *Online* Silver sponsorship with all of the AAPG benefits of that level, 1 comp full GeoGulf 2020 registration with attendee receiving comp AAPG ACE 2020 *Online* registration, 1/4-page ad in Transactions, Announcement Brochure, and Convention Program, and on website (color for digital versions/greyscale for printed); targeted sponsorship available; logo placement on website and convention signage; name on sponsor list (all publications, convention signage, and website, including AAPG Explorer advertisements).

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SILVER (\$1,000+)

Complimentary AAPG ACE 2020 *Online* Silver sponsorship with all of the AAPG benefits of that level, 1 comp full GeoGulf 2020 registrations with attendee receiving comp AAPG ACE 2020 *Online* registration, 1/8-page ad in Transactions, Announcement Brochure, and Convention Program, and on website (color for digital versions/greyscale for printed); logo placement on website and convention signage; name on sponsor list (all publications, convention signage, and website, including AAPG Explorer advertisements).

Travis Helms, GCAGS President

Hunter Exploration

BRONZE (\$500+)

Complimentary AAPG ACE 2020 *Online* Bronze sponsorship with all of the AAPG benefits of that level, 1 comp full GeoGulf 2020 registration with attendee receiving comp AAPG ACE 2020 *Online* registration, Name placement in all digital and printed publications, including Transactions, Announcement Brochure, and Convention Program, and website.

Island Energy, LLC

Merlin Oil & Gas, Inc.

Patron (\$250+)

Name placement in all digital and printed publications, including Transactions, Announcement Brochure, and Convention Program, and website.

Tim Bennett

Friend (\$100+)

Name placement in all digital and printed publications, including Transactions, Announcement Brochure, and Convention Program, and website.

Kinnickinnick Exploration

Phalanx Petroleum

Contact us at 337-277-3652 or james.willis@geogulf.org

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Gulf Coast Association of Geological Societies
and the Gulf Coast Section of SEPM present:



GeoGulf 2020

Sept. 30-Oct. 2, 2020
Lafayette, Louisiana



Hosted by the Lafayette, New Orleans, and
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| <input type="checkbox"/> Bronze (1) | \$500+ |
| <input type="checkbox"/> Patron | \$250+ |
| <input type="checkbox"/> Friend | \$100+ |

Sponsorship Benefits Include:

Based on level of sponsorship, a mix of
benefits including:

- Bronze and higher GeoGulf sponsorships receive complimentary AAPG ACE 2020 Online sponsorship at equivalent cash value.
- Bronze and higher GeoGulf sponsorships receive Complimentary Registrations/Passes (# in parentheses above) with attendees receiving complimentary AAPG ACE 2020 Online registration
- Directed Sponsorship Opportunities
- Onsite and Website Signage
- *Transactions* ads
- Convention Program Book

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Directed Sponsorship Examples

- | | |
|--|----------------|
| <input type="checkbox"/> Icebreaker Reception | \$15,000 |
| <input type="checkbox"/> <i>Transactions</i> | \$15,000 |
| <input type="checkbox"/> 1st AAPG GCS Student Expo | \$10,000 |
| <input type="checkbox"/> Awards Banquet | \$10,000 |
| <input type="checkbox"/> All-Convention Luncheon | \$10,000 |
| <input type="checkbox"/> Cash Bars | \$5,000 |
| <input type="checkbox"/> Golf Tournament | \$5,000 |
| <input type="checkbox"/> Luncheons/Breakfast | \$5,000 |
| <input type="checkbox"/> Other Events | \$500 to \$5K+ |

For complete listing discuss with
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Title: _____

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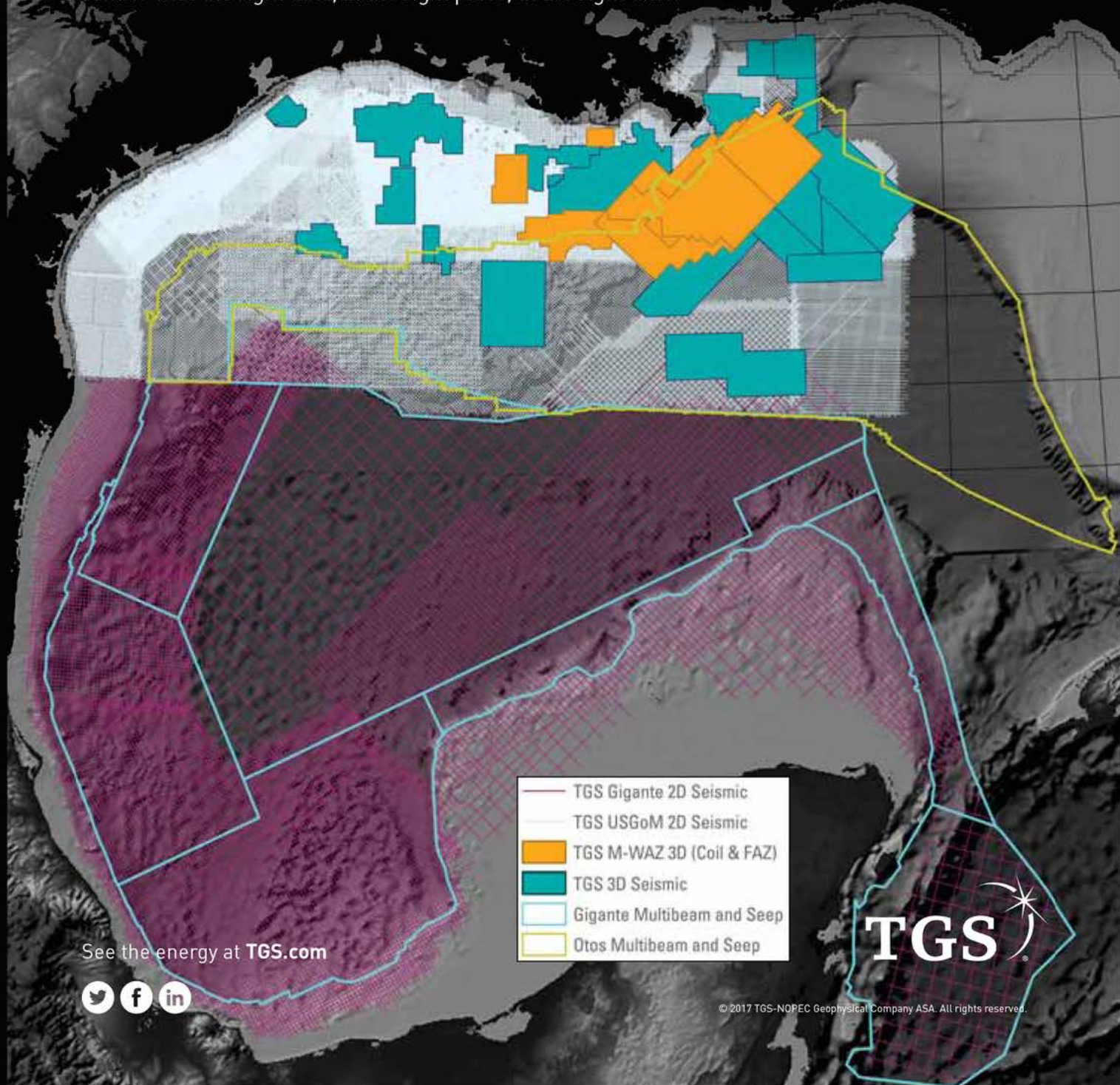
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Return with shaded areas filled-in to: James J. Willis, james.willis@geogulf.org or jwillis3@lsu.edu

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PICTURE FROM THE PAST



Will and Margie Conatser passing a good time at the NOGS Kick Off Party at Rock 'n' Bowl, October 7, 2017. Will was NOGS president in 1997-1998. Marge was a past president of the New Orleans Geological Auxiliary. Both are deceased.

Photo by Ed Picou

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.

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DRILL BITS

OFFSHORE GULF OF MEXICO SHELF AND
DEEPWATER ACTIVITIES
BY AL BAKER

During June 2020, the U.S. Department of the Interior Bureau of Safety and Environmental Enforcement (BSEE) approved 54 Gulf of Mexico (GoM) drilling permits. All 54 permits were for deepwater wells. Of the total number of permits, there were 5 new well permits issued.

The five deepwater new well permits were for exploration wells. Shell Offshore received 2 permits for their Alaminos Canyon 380 #2 (Blacktip) and their Alaminos Canyon 691 #1 wells. Both wells are situated in the Wilcox trend within the Perdido Thrust Belt. LLOG Exploration Offshore obtained a permit for their Mississippi Canyon 505 #1 well. BOE Exploration & Production was awarded a permit for their Green Canyon 35 #1 well, and Talos Petroleum was given a permit for their Green Canyon 867 #1 well.

On June 25th, IHS-Petrodata indicated that the GoM mobile offshore rig supply stood at 68, which is one more than last month. The marketed rig supply consisted of 41 rigs, of which 27 were under contract. The marketed rig supply was the same as last month, whereas the contracted rig supply number was 1 less than last month. The marketed contracted versus total rig supply utilization rate stood at 60.3%, and the marketed contracted versus marketed supply utilization rate stood at 65.9%. By comparison, the June 2019 total fleet utilization rate stood at 58.3% with 42 rigs under contract out of the 72 rigs in the fleet.

As of June 26th, BakerHughes reported that there are 11 active mobile offshore rigs in the GoM, which is 40.7% of the rigs under contract mentioned above. This active rigs number is 1 less than reported last month. Currently, there are no rigs drilling on the shelf. The 11 in deepwater include 7 rigs in the Mississippi Canyon Area and 1 rig each in the Green Canyon, Ewing Bank, Garden Banks, and Walker Ridge Areas.

As of June 26th, the BakerHughes total U.S. rig count stood at 265 rigs, which are 36 fewer rigs than reported at the end of May 2020. Of the 265 rigs, 188 (70.9%) are oil rigs, 75 (28.3%) are gas rigs and 2 are unknown. A year ago, there were 967 rigs working in the U.S. Thus, the current rig figure represents a 72.6% decline in rigs year over year. Texas continues to have the largest number of rigs presently with 112, which is 42.3% of the total number of rigs in the U. S. Louisiana currently has a total of 32 rigs, down 3 rigs from last month. Nationwide, Louisiana ranks third in the rotary rig count. New Mexico ranks second with 50 rigs.

On June 24th, the U.S. Department of the Interior Bureau of Ocean Energy Management (BOEM) announced updated results of the Phase 2 acceptances of bids received at OCS Sale 254, which was held in New Orleans on March 18, 2020. A total of 41 out of the 71 bids are now deemed acceptable. The remaining 30 bids are still under evaluation by the BOEM. The normal 90-day evaluation period for Phase 2 ended on June 16th.



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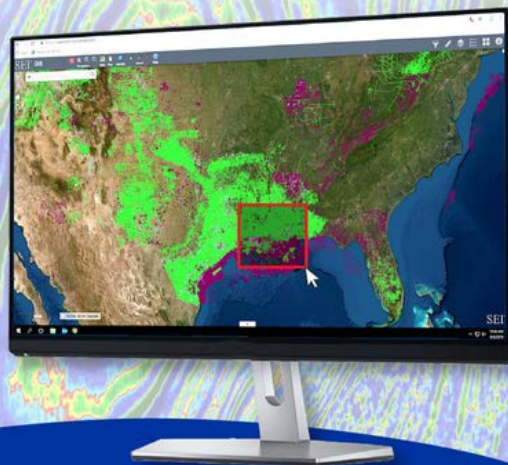
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Founded March 14, 1978, the mission of the New Orleans Geological Society Memorial Foundation is to promote earth science related or scientific purpose by granting of scholarships to outstanding Geology students at the universities in Southeast Louisiana 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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Shell Oil Company Foundation

Alex Janeveski

The background of the top section is a movie poster for 'Switch On'. It features a group of people in a developing setting, with a person in a pink shirt in the foreground. The text 'Now Showing' is at the top, followed by the title 'SWITCH ON' in large, bold, yellow and white letters. Below the title is a tagline: 'Watch Switch On, the highly anticipated sequel to Switch, exploring energy across the developing world.'

Now Showing

SWITCH ON

Watch *Switch On*, the highly anticipated sequel to *Switch*, exploring energy across the developing world.

Switch Energy Alliance Releases New Film “SWITCH ON”

Early last month, I was notified by Dr. Scott Tinker, UTX-Austin, Texas State Geologist, Director of the Texas Bureau of Economic Geology, and Past AAPG President, about their new film “Switch On.” The film focuses on the over one billion people across the globe who are “off grid” and only use biomass – wood and dung – for energy sources. Tinker spent two years travelling the world filming episodes in Columbia, Nepal, Ethiopia, Vietnam and Kenya. Each segment demonstrates that no matter how “energy poor” their natives are, all are eager to join with the rest of the developed world, which enjoys an abundance of instantly available energy, i.e. to “switch on.” The new film can be accessed at <https://switchon.org/films/switch-on/> The film’s running time is about seventy-five minutes.

For those who missed seeing the first film by Switch Energy Alliance, released in 2012, it can be accessed at <https://switchon.org/films/switch/>. The focus of this film is that petroleum is a finite energy source and will eventually be in limited supply. But with our current global climate change dilemma, alternate energy sources must be developed, and developed swiftly. In this film Dr. Tinker takes the viewer on a journey where he examines our current major energy sources – coal, oil and gas, hydro, hydrothermal, geothermal, solar, wind and nuclear. Which of these energy sources is the best option for our energy transition? The film’s running time is one hour and thirty-five minutes.

Watching the films is free. The Switch Energy Alliance is a Federally recognized 501(c)3 organizations and operates through contributions. The two films were significantly funded by petroleum companies, whose names are included in the credits. All one has to do is to log onto their site and follow on-screen instructions. Perhaps the greatest resource on the site is the collection of lectures and short videos. From the home page dashboard, select Educational Resources and/or Presentations. Here are some fourteen energy topics, with each one having from two to seven videos. One can select three educational levels – elementary, intermediate and secondary curricula.

Without a doubt, this is a most valuable website for anyone who would like to become educated in energy – in all its many forms. I strongly recommend the site to everyone.

Ed Picou, Jr.
Chair, Historical Committee

Oil Industry HeadlinesIn The News (July 2020)

7/17/2020 - BOEM Proposes Region-wide Oil and Gas Lease Sale for Gulf of Mexico – BOEM proposes to offer approximately 78.8 million acres for a region-wide lease sale 256 scheduled for November 2020 and will be livestreamed.

7/16/2020 - G20 Commits \$Billions to Energy - G20 countries have committed at least \$267.1 billion to support different energy types through new or amended policies since the beginning of the pandemic, as of July 15, according to energypolicytracker.org. This includes \$120.56 billion for unconditional fossil fuels, \$72.22 billion for conditional clean energy, and \$30.25 billion for conditional fossil fuels.

7/15/2020 - LLOG places long-term bet on deepwater project despite recent downturn - LLOG Exploration specializes in deepwater production and expects to drill inside a discovery known as Taggart which sits 140 miles southeast of New Orleans in the Gulf of Mexico under the Devils Tower Spar. The spar is owned by Williams, a publicly traded Tulsa, Oklahoma-based energy business.

7/13/2020 - The Wave Of Big Oil Write-Downs Is Far From Over - BP was first. The supermajor said last month that it could book asset writedowns of up to \$17.5 billion as a result of the industry crisis. Then it was Shell. The Anglo-Dutch company said earlier this week that it, too, would book sizeable writedowns on its assets, to the tune of \$22 billion.

7/14/2020 - Ecopetrol Awards Five-year Offshore Contract - Ecopetrol S.A. has contracted Doris Inc. as its consulting engineering company for offshore oil and gas development, Doris reported Monday. Under the five-year contract, Doris will provide Ecopetrol a variety of consulting engineering services. Doris explained the services will include studies, engineering and support as Ecopetrol executes offshore oil and gas development activities.

7/14/2020 - Market Update Oil Price News - OPEC+ will hold a committee meeting this week to assess the status of the oil market and decide on its next steps. For now, the group appears ready to begin unwinding the current production cuts, which could test the recent price rally. The historic cuts of 9.7MMbopd that OPEC+ implemented after the pandemic-related crash was always intended to be temporary. Initially, the cuts were set to expire at the end of June and begin tapering at the start of July; the group agreed to extend that first phase by a month. As of now, the cuts are slated to expire at the end of July, reducing the cuts from 9.7MMbopd to 7.7MMbopd.

7/8/2020 - EIA forecasts global stock draws through 2021 - The disruptions to global petroleum supply and consumption as a result of the 2019 novel coronavirus disease (COVID-19) and associated mitigation efforts have been significant. As road and air travel fell sharply when economies around the world went into lockdown in the first quarter and early second quarter of 2020, global liquid fuels consumption fell more quickly than production.

7/1/2020 - Byron Installs Gulf of Mexico Platform - Byron Energy has completed the installation of the SM71 G platform in the Gulf of Mexico. The installation of jacket and decks comprising the platform has been completed. The Triton Hedron derrick barge has de-mobilized off location after successfully installing the jacket over the SM58 G1 well ("G1") drilled in October 2019, then driving piles and finally installing the topside facility.



GoMRI Newsletter Farewell Issue 2020

For those who have followed the GoMRI newsletter, this 2020 issue just released is their final issue. You can view it on their website at:

<https://gulfresearchinitiative.org/news-and-events/gomri-newsletter/>

The Gulf of Mexico Research Initiative is a 10-year, \$500 million independent research program established by an agreement between BP and the Gulf of Mexico Alliance to study the effects of the Deepwater Horizon incident and the potential associated impact of this and similar incidents on the environment and public health.

**Remembering
NOGS member
Robert Louis Glasgow**



NOGS notes with sadness the passing of longtime member Robert L. Glasgow. “Bob” as he was called by most folks, died on June 22, 2020, at the grand age of 93. He was born March 21, 1927, in Fort Worth, Texas. He was a graduate of Texas Christian University where he excelled in geology and geography. Bob served in the U.S. Navy during WWII and the Korean War. He enjoyed a long and productive career as a petroleum geologist in Texas and Louisiana. We extend our collective sympathy to Bob’s widow Mary Nan, to whom he was married some 64 years.

**Edward B. Picou, Jr.
Chair – Historical Committee**

Remembering NOGS member Sherwood M. Gagliano



Dr. Sherwood “Woody” Gagliano passed away on the morning of July 17, 2020. He was born in New Orleans on December 10, 1935 and was a long-time member of the New Orleans Geological Society. Woody was a geologist’s geologist and one of the great coastal scientists of the last fifty years. Woody’s spirit as a scientist was on full display in his last presentation to NOGS at the April 4, 2016 luncheon. The title of his talk “Geoarcheology of Tectonic Events in South Louisiana” captured the three passions of his life – archeology, faulting and south Louisiana. His presentation embodied the nature of what it is to be a great scientist. He moved freely between the disciplines of geology, archeology, geography and ecology, and spoke with academic authority about each. He combined rigorous scientific investigation with creative out-of-the-box thinking to conclude that many Native American ceremonial centers may have been located along faults because “earthquake effects accompanied by dramatic landscape changes may have influenced their location.” This essential thinking about how humans interact with the natural environment appears to have been a driving force over his sixty-five year career.

Woody began working on a summer internship as a field technician at the LSU Coastal Studies institute in 1955 after his freshman year in Geology. He worked with his life-long friend Roger Saucier on the Quaternary geology and archeology of the Trinity River Delta in Galveston Bay. Twenty-three years later he hired me to work on a summer internship at his company Coastal Environments Inc. on the Quaternary geology of the Colorado River Delta in Matagorda Bay, which started a life-long friendship for me. Gagliano and Saucier shared a fascination with Native American shell

middens of coastal Louisiana, which they began exploring as teenagers. Woody would later say that it was the degradation of these mounds that first led him to an interest in the processes of wetlands loss. He received his B.S. in Geology from LSU in 1959, and M.S. in Geography in 1963 and a Ph.D. in Geography, both also from LSU. Woody continued to work at the Coastal Studies Institute throughout this time, and his dissertation “Geoarcheology of the Avery Island Salt Dome” was published as Coastal Studies Series No. 22 in 1967. Between 1961 and 1966 Woody worked with his colleague at CSI James Coleman on a study of the West Bay Subdelta and the South Pass Mudlumps on a project funded by Gulf Oil and Texaco. This work produced the seminal publications “Cyclic Sedimentation in the Mississippi River Deltaic Plain” and “Mudlumps: Diapiric Structures in Mississippi Delta Sediments.” In 1969 the U.S. Army Corps of Engineers put forward a proposal to divert approximately one-third of the total flow of the Mississippi River to Texas and New Mexico to alleviate water shortages in those regions. CSI was awarded the contract to evaluate the proposal, and Gagliano was put in charge of a team of geologists, geomorphologists, hydrologists and climatologists. They produced fifteen technical reports and numerous papers presented at professional meetings including the 1970 report “Deterioration and Restoration of Coastal Wetlands” presented at the 12th International Conference on Coastal Engineering in Washington, DC. The report presented findings on land loss; the effects of petroleum-industry canal dredging on coastal

wetlands; use of diversions for restoration; effects of geological faults; as well as a coastal zone management environmental atlas and multi-use management plan. Woody would later note that the study was launched during the advent of the environmental movement and marked the beginning of the coastal restoration program in Louisiana.

It was during this time period that Woody formed his own company, Coastal Environments, Inc. Throughout the 1970s and 1980s Coastal Environments was at the forefront of documenting patterns of wetlands loss and studying causal processes. They did work for the Corps, the US Fish and Wildlife Service, EPA, LADOTD and coastal parish governments. By 1990 much of this work was being used by the US Congress to enact the Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA). CWPPRA funding is now a mainstay of Louisiana's coastal restoration effort. In 1994 Woody prepared "An Environmental-Economic Blueprint for Restoring the Louisiana Coastal Zone" for the Governor's Office of Coastal Activities and the Wetland Conservation and Restoration Task Force. This provided the foundation for the Coast 2050 project in 1997, which is the foundation of the current Louisiana's Comprehensive Master Plan for a Sustainable Coast. In 2000 Woody made an unsolicited proposal to the Corps of Engineers to study the contribution of faulting to subsidence and the resulting effects on flood control, navigation, hurricane protection and coastal restoration. He assembled a team of geologists and geographers including E. Burton Kemp, III, Kathy Wiltenmuth Haggar, Dr. Juan Lorenzo, Robert W. Sabate, and Dr. Karen Wicker. Sabate and Haggar both had oil and gas industry experience, and this collaboration led to the first use of industry seismic data to study surface coastal processes. The group used aerial photography and vibrocore transects to document surface displacement due to fault movement. Woody also had an intuitive understanding of

an important principle of earth science – the best data comes from observations made in the natural environment, and the best observations are made by those who understand the environment best. In addition to collecting their own field data Woody collected anecdotal data from oyster fishermen and camp owners. It was camp owner Pete Hebert's description of his camp on Bayou Ferrand, which had rapidly submerged between the late 1960s and late 1970s, that led him to study the Bastian Bay fault. He would later refer to this as the "Rosetta Stone" in deciphering the relationships among fault movement, subsidence and wetlands loss. In 2003 the team produced the reports "Active Geological Faults and Land Change in Southeastern Louisiana" for the Corps and "Neo-Tectonic Framework of Southeast Louisiana and Applications to Coastal Restoration." These works were not universally well received. The Houma Courier reported in 2005 that "Gagliano's latest theory of what causes coastal land loss scares many people, and there are several entities trying to disprove him." This may be the most abiding characteristic of a great scientist. Woody was not only able to assemble and work with a wide array of experts and move easily between their disciplines. He stood steadfastly behind their findings once they were published, and didn't care to curry favor with the popular narratives. For many years he seemed to stand as a "lone voice in the woods" on the importance of faults as agents of change in the wetlands.

The last time I spoke to Woody he called me as I was leaving work. I ended up sitting in the stairwell of the parking garage for the next forty-five minutes talking about geology and the coast; faults and subsidence; the coastal community and the oil and gas industry; and how best to move the science forward. This was one of several such conversations that we had over the past few years. I had generally stayed in touch with Woody since working for him in 1978, but in 2015 we reconnected in a big way. The 2014 publication "Influence of growth faults on coastal fluvial systems: Examples from the late Miocene to the Recent Mississippi River Delta" by UT Austin and Tulane had shown unequivocally that 3-D seismic

data could be used to map faults that appeared to extend to the surface, and to investigate their relationship to subsidence. The following year we initiated the NOGS Fault Atlas Project, which was inspired entirely by the work of Woody Gagliano. In the following years I had the pleasure of reporting to him that the eight graduate research projects at area universities that were using 3-D data to study faults were not just proving him to right – they were proving him to be way right. Nearly every contention that Woody had made in his early research was proving to be correct, and I now personally believe that fault-related subsidence is the overwhelming cause of wetlands loss in the latter part of the 20th century.

Woody Gagliano has received many accolades for his lifetime of work including being a distinguished lecturer for the Society of Economic Paleontologists and Mineralogists, president of the Louisiana Archaeological Society, and vice-president of the Intracoastal Seaway Association. He was awarded the Coastal Stewardship Award for Distinguished Achievement by the Coalition to Restore Coastal Louisiana in 1996 and received their Lifetime Achievement Award in 2012. He also received a Lifetime Achievement Award from Southwest American Association of Geographers and the LSU Department of Geography and Anthropology Distinguished Alumnus Award in 2018, the James A. Ford Award for contributions to archeology in 1982, and the Charles W. "Buzz" Hair III Memorial Award at the 2013 Louisiana Civil Engineering Conference. I believe that Woody's greatest accolade will come slowly over the next few decades as coastal scientists look back and recognize him as a man that was ahead of his time.



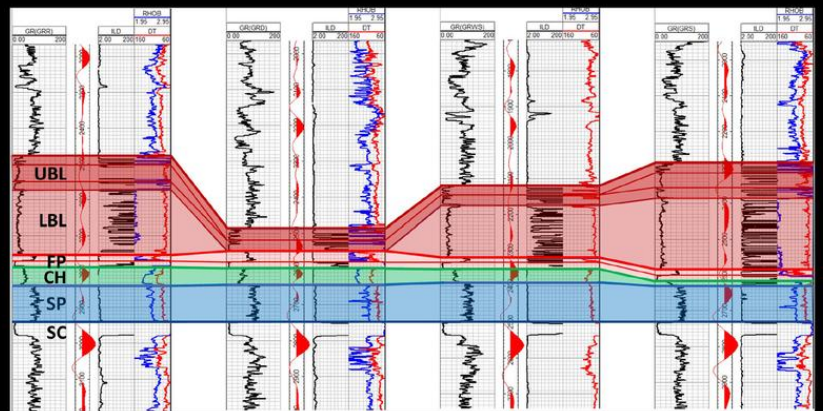
NOGS Continues Virtual Meetings



James Willis provided a great virtual presentation for us in July.

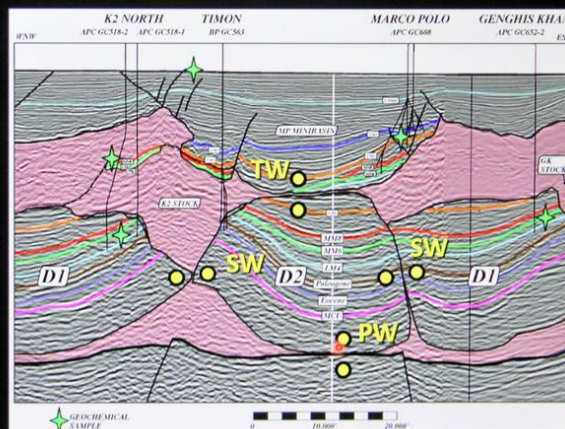
Here are a few slides from James' presentation.

Salt Dissolution Weld *Las Animas Arch, Colorado*



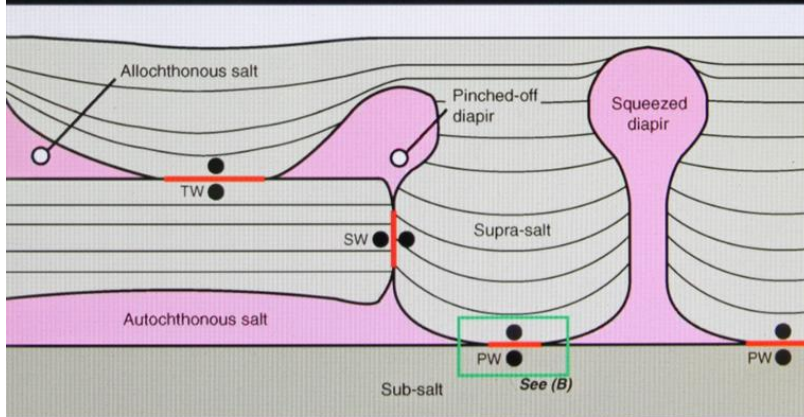
Deepwater GOM—K2/Timon/Marco Polo *Multiple Weld Types*

- Primary Weld (PW)
- Secondary Weld (SW)
- Tertiary Weld (TW)



(Mount et al., 2006, *GCAGS Trans.*)

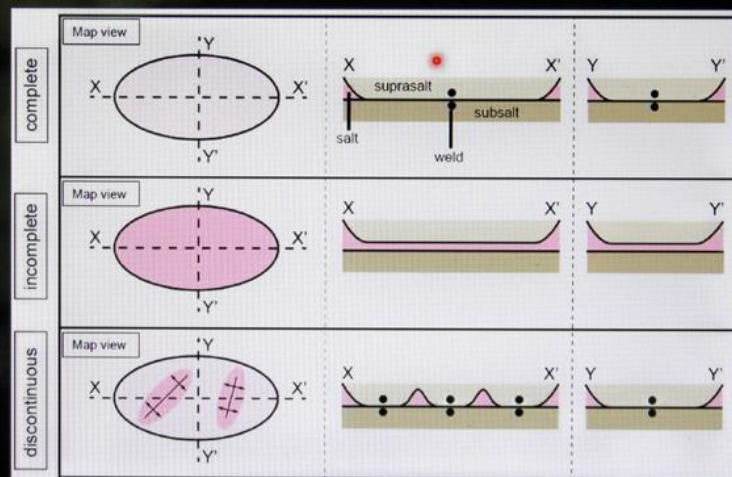
Salt Weld Types



- **Primary Weld** – Removal of Autochthonous Salt
- **Secondary Weld** – Removal of Allochthonous Salt Stock or Ridge
- **Tertiary Weld** – Removal of Allochthonous Salt Sheet

(Jackson et al., 2014, Interpretation; after Wagner, 2010, UT Dissertation)

Weld Completeness



- **complete** - contains **no** remnant salt
- **incomplete** – contains **up to 50 m** of remnant salt
- **discontinuous** – contains **complete and incomplete** parts
- **apparent** – appears free of salt at scale of observation...

(Jackson et al., 2016, AAPG S&D #41726)

Who Needs Geoscientists?

Submitted by Chris McLindon as an excellent recommended reading Mike Simmons, Andy Davies, Andy W. Hill and Mike Stephenson The evolving role of geoscience through the energy transition.

Click to read the full article here:

https://www.geoexpro.com/articles/2020/06/who-needs-geoscientists?dm_i=4ARG,UH2Q,O925R,3SNDG,1

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