

MISSISSIPPI GEOLOGICAL SOCIETY

*e***BULLETIN**

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POLYMER FLOODING REINVIGORATED!
Randy Seright

MISSISSIPPI'S KARST GEOLOGY
Dr. David Dockery III, RPG



www.missgeo.com



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2025-2026 MGS MEETING SCHEDULE

When	What/Who	Where
September 10	Howard Duhom - Viking Engineering	River Hills - 11:30am
October 8	Ashley Little - IperionX	River Hills - 11:30am
November 12	SPE Sporting Clay Shoot	Providence Hill Farm
December 10	Randy Seright - Polymer Flooding - SPE	River Hills - 11:30am
January 14		River Hills - 11:30am
February 11		River Hills – 11:30am
March 11		River Hills – 11:30am
April 8		River Hills - 11:30am
May 13		River Hills - 11:30am
TBD	Spring Fling	TBD

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PRESIDENT'S LETTER



Dear MGS Members,

I hope everyone enjoyed a wonderful Thanksgiving! While I was unable to attend the Oil and Gas Industry Christmas Party, I hear it was a great success.

🎓 **Congratulations to our MGS Webmaster, Jonathan Leard!** Jonathan's Ph.D. commencement ceremony will be held on **Thursday, December 11th, 2025 in Starkville.**

Our December luncheon speaker will be **Randy Seright**, distinguished lecturer from SPE. Randy will present on *why polymer flooding is gaining momentum in the oil and gas industry*. As always, the luncheon will be held at **River Hills Club in Jackson on December 10th at 11:30 a.m.**

On **November 6th**, the Department of the Interior, through the U.S. Geological Survey, published the **final 2025 List of Critical Minerals**, identifying 60 minerals vital to the U.S. economy. Ten new minerals were added: **boron, copper, lead, metallurgical coal, phosphate, potash, rhenium, silicon, silver, and uranium.**

The U.S.G.S. plans to continue sampling in Mississippi and Alabama this spring and is currently analyzing brines collected last summer. If you know of anyone interested in having their wells sampled for critical minerals, please let me know—I can connect you with the U.S.G.S. Their current focus is on **Smackover and Cotton Valley brines**, where elevated concentrations of **lithium, magnesium, potassium, and boron** have been observed.

The complete list of minerals can be found here: <https://www.usgs.gov/news/science-snippet/interior-department-releases-final-2025-list-critical-minerals>.

Finally, while the deadline to submit abstracts for **GeoGulf 2026 in Baton Rouge** has passed, those intending to present a talk or poster should still email me. I will coordinate with the Technical Program Chair to explore opportunities for inclusion.

Warm regards,

Tim Palmer
President, Mississippi Geological Society



SPE DISTINGUISHED LECTURER

Polymer Flooding Reinvigorated! Why is Polymer Flooding Taking Off?

Randy Seright

11:30 AM

Wednesday, December 10, 2025

RIVER HILLS CLUB

Mississippi Section

Abstract

Polymer flooding has experienced remarkable expansion of application in recent years. Beginning with the massive Daqing project that started in Northeast China in 1996 to the impressive use of horizontal wells to recover 1000-10,000-cp oil in Canada (beginning ~2004) to the record-breaking success of the Milne Point project on Alaska's North Slope (beginning in 2018). Although some have claimed that polymer flooding is a "mature" technology, substantial advances have been made in just the past few years that have allowed polymer flooding to be much more cost-effective than it was even 10 years ago. In this lecture, the audience will learn the conditions where polymer flooding will provide the greatest impact and hear about the advances that have been made to allow the technology to be cost-effective in recovering oil with viscosities up to 10,000 cp and in reservoirs with temperatures up to 120°C. New records are being broken with the updated version of this technology. For example, in one pattern at Milne Point, produced water cuts dropped from ~70% during waterflooding before the project to less than 5% during polymer injection. In another pattern, over 0.3 PV of polymer solution was injected to displace 850-cp oil, while significant produced water and polymer breakthrough was only detected recently. This lecture will describe those advances and help the audience determine if polymer flooding is right for them. The talk will inform the listeners how to avoid the pitfalls that have limited the technology in past applications.

Biography

Dr. Randy Seright has developed polymer flooding and gels to improve sweep efficiency in reservoirs since 1978, when he started his career with Exxon. He worked at New Mexico Tech for 36.5 years, making polymer flooding and gel treatments more viable. Randy has been involved with many of the major polymer flooding projects throughout the world, including China, Canada, India, Argentina, Suriname, Kazakhstan, and Alaska. He provided short courses on Polymer Flooding and Water Shutoff in 19 countries. He received the SPE/DOE IOR Pioneer award in 2008 for his work on using polymer and gels to improve oil recovery.



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CURRENT PRICES

Market Watch

Crude Oil WTI (NYM \$/bbl) Front Month

[+ Watchlist](#)

🔒 CLOSED

Last Updated: Dec 9, 2025 4:59 p.m. EST - Delayed quote

\$ **58.39**

▼ -0.49 -0.83%

SETTLEMENT PRICE 12/09/2025

\$58.25



Natural Gas Continuous Contract

[+ Watchlist](#)

🔒 CLOSED

Last Updated: Dec 9, 2025 4:59 p.m. EST - Delayed quote

\$ **4.579**

▼ -0.333 -6.78%

SETTLEMENT PRICE 12/09/2025

\$4.574





MISSISSIPPI OFFICE OF GEOLOGY

New Publications

The Mississippi Office of Geology is pleased to announce the publication of the following maps for the month of December

[OF-356 Geologic Map of the Bovina Quadrangle Hinds and Warren Counties, Mississippi](#)

[Native Lithic Materials of Mississippi](#)

[OF-349 Geologic Map of the Sharon Southeast Quadrangle Rankin, Madison, and Scott Counties, Mississippi](#)

[OF-348 Geologic Map of the Shoccoe Quadrangle Madison and Rankin Counties, Mississippi](#)

[OF-347 Geologic Map of the Canton Quadrangle Madison County, Mississippi](#)





MONTHLY POST

Dr. David Dockery III RPG

MISSISSIPPI'S KARST GEOLOGY

David T. Dockery III, RPG

One of our most common inquiries to the MGS Office of Geology is, "There is a sinkhole in my yard. What do I do about it?" We usually ask for a picture to be sent by email attachment, and most of the time the explanation is a man-made problem. But there are places where a geological explanation is in order. One of those places is Haynes Lake in Tishomingo State Park. As shown on the cover of the June 1982 issue of the *Department of Natural Resources Newsletter*, the Bureau of Geology [as named at that time] was investigating a water loss problem at Haynes Lake and using our Failing 1500 drill rig to grout cracks and crevices in a limestone bed under the lake. The limestone bed was in the Green Hill Member of the Mississippian Pride Mountain Formation and had a thickness of about 5 feet. In 1980, the lake started losing water down a stomp hole [and into the limestone] to such an extent that a whirlpool formed at the surface and the shoreline retreated one foot per day. The resulting flow fed some 10 or 12 springs below the dam, the largest of which had a measured flow of 200 to 300 gallons per minute (*The Geology of Mississippi*, page 79).

Figure 1

DEPARTMENT OF NATURAL RESOURCES

GEOLOGY . LAND & WATER . POLLUTION CONTROL . RECREATION & PARKS
P. O. Box 20305 JUNE 1982 Jackson, Mississippi 39209
(601)961-5099 Volume 2, Number 12

Environmental Geology — A Varied Job

Peter Clark, atop the rig, assists by putting rope on crown block.

Investigating a water loss problem at Haynes Lake, Tishomingo State Park, is just one of the many jobs undertaken by the environmental section, Bureau of Geology. Drilling and searching for cracks and crevices in a limestone bed has been an on-going project for the multi-faceted section. Once a crack is located, cement is pumped into the hole in an effort to retard the water flow to an acceptable level. The grouting operation is supervised by the Bureau of Recreation and Parks preventive maintenance section and the Tishomingo State Park maintenance staff.

In addition to the Haynes Lake project, the environmental geology section is often called on to consult with state agencies and the public in general. Some of the projects currently being handled by this section include geologic investigation to determine the suitability of the location of sanitary landfills, consulting services in monitoring pollution of groundwater, monitoring test wells at Tatum Salt Dome, giving advice on landslides, swelling clays and other geologic hazards, reviewing all environmental impact statements that affect Mississippi and reviewing all geologic reports and data being generated by the national nuclear waste program.

Mike Seal, geologist, operates drilling rig.



Mike Seal (left) and David Booth, both geologists, prepare rig for drilling.



newsletter



MONTHLY POST

Dr. David Dockery III RPG

Figure 2 shows the karst channels in the Green Hill Member limestone below the dam of Haynes Lake, the source of so many springs.



Figure 2. Solution channels along joints in the basal limestone of the Green Hill Member below the spillway of Haynes Lake in Tishomingo State Park. Picture (digital; Image 834) taken by Stephen Jennings on November 7, 2003.

Figure 3 shows the channeled limestone looking up toward the spillway, which is dry due to the flow under the dam. Since that time, we have given recommendations against two proposed lake developments in Mississippi due to karst limestone at the dam site.



Figure 3. Close-up view of solution channels along joints in the basal limestone of the Green Hill Member below the spillway, seen at top, of Haynes Lake in Tishomingo State Park. Picture (digital; Image 835) taken by Stephen Jennings on November 7, 2003.



GEOLOGY POST

ARTICLES, PAPERS or NEWS?

ATTENTION!!!!!! Industry, Professors and Students:

I am looking for more content from the industry and our schools.

Submissions can include anything from professional papers, thesis abstracts, job opportunities to pictures. Anything!!!!

If you have any information or news you would like to share with the Society **PLEASE** email them to the MGS Editor at:

mcaton13@yahoo.com

Thanks & Regards,

Matt Caton
Editor

GEO LINK POST

USGS TAPESTRY OF TIME AND TERRAIN <http://tapestry.usgs.gov> The CCGS is donating to all of the 5th and 6th grade schools in the Coastal Bend. Check it out—it is a spectacular map. You might want a framed one for your own office. The one in my office has glass and a metal frame, and it cost \$400 and it does not look as good as the ones we are giving to the schools. Call Owen 510-6224 if you want one for your office for \$150. Duncan, Mike, Chris, Dave, Bob Randy, Seb., Kevin, Ken, Craig, Patrick, Robert.

FREE TEXAS TOPO'S <http://www.tnris.state.tx.us/digital.htm> these are TIFF files from your state government that can be downloaded and printed. You can add them to SMT by converting them first in Globalmapper. Other digital data as well.

FREE NATIONAL TOPO'S [http://store.usgs.gov/b2c_usgs/b2c/start/\(xcm=r3standardpitrex_prd\)/.do](http://store.usgs.gov/b2c_usgs/b2c/start/(xcm=r3standardpitrex_prd)/.do) go to this webpage and look on the extreme right side to the box titled TOPO MAPS DOWNLOAD TOPO MAPS FREE.

<http://www.geographynetwork.com/> Go here and try their top 5 map services. My favorite is 'USGS Elevation Date.' Zoom in on your favorite places and see great shaded relief images. One of my favorites is the Great Sand Dunes National Park in south central Colorado. Nice Dunes.

<http://antwrp.gsfc.nasa.gov/apod/astropix.html> Astronomy picture of the day — awesome. I click this page everyday.

<http://www.spacimaging.com/gallery/ioweek/iow.htm> Amazing satellite images. Check out the gallery.

<http://www.ngdc.noaa.gov/seg/topo/globegal.shtml> More great maps to share with kids and students.

www.geo.org Don't forget we have our own web page.

<http://micro.magneet.fsu.edu/primer/java/scienceoptiscu/owersofl0/>

<http://asterweb.jpl.nasa.gov/galery/default.htm> Great satellite images of volcanoes

<http://terra.nasa.gov/gallery/> More here

www.ermapper.com They have a great free downloadable viewer for TIFF and other graphic files called ER Viewer.

www.drillinginfo.com This is an incredible (subscription) well and completion data service for independents. Can be demo'ed for free.

<http://terraserver.com/> Go here to download free aerial photo images that can be plotted under your digital land and well data. Images down to 1 meter resolution, searchable by Lat Long coordinate. Useful for resolving well location questions.

<http://www.fs.fed.us/gpnmf/volcanocams/msh/> This is a live cam of Mt. St. Helens refreshed every 5 minutes. At the bottom are old videos of past eruptions in this cycle. It is worth a watch especially now.



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2025-2026

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(Note: Please contact Steve Walkinshaw at (601) 607-3227 or mail@visionexploration.com for details concerning placing your ad on the MGS web site.)

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