



PBS-SEPM NEWSLETTER



August 2018

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Midland College
3600 N. Garfield
Carrasco Room

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*"An education
isn't how much you have
committed to memory, or
even how much you know.
It's being able to
differentiate
between what you do
know and what you
don't."*

- Antole France

President's Column

Exciting New Year for the PBS-SEPM

As the summer break wraps up and a new term is about to start, I hope that each and every one of you has had at least few days of relaxing and joyful vacation. I am so excited to lead the PBS-SEPM executive board this year and look forward to providing the best service to our membership and the Permian Basin geoscience community at large. The transition of business to the new incoming board went smooth and we are all now up to speed – many thanks to the past president James Hawkins and the outgoing board members who worked tirelessly during the past year to keep the society running in the best shape possible. Gratitude and appreciation also go to our committees' chairs and members, as well as our volunteers (Norman Frances and Frank Fullbright) for their continuous support. Without their efforts, many accomplishments would not have been possible.



We have many educational, networking, and professional development activities lined-up for this year. Our monthly luncheons will resume in September and will take place in the Carrasco Room of Midland College. Although we welcome walk-ins, registration is very important because it helps us serve you better and save money by ordering the right amount of food for the expected number of attendees.

Finally, the board has agreed on sharing an exhibitor booth with the Midland Energy Library during the approaching WTGS Fall Symposium. Please, plan to stop by to renew your membership, browse through our list of valuable publications and chat with your new executive board members. I look forward to welcoming you all there.

Mohamed Zobia

PBS-SEPM President
2018–2019

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Midland, TX 79704

September 2018

- **18: PBS-SEPM Luncheon and Annual meeting:** (11:30am-1pm) **Speaker: Michael C. Dix,** **Title:** "Application of Rapidly-Acquired Whole-Rock Elemental Data for Improved Drilling Results: The Permian Basin and Beyond"
- **25-27: WTGS Fall Symposium**

October 2018

- **16: PBS-SEPM Luncheon** (11:30am-1pm)

November 2018

- **20: PBS-SEPM Luncheon** (11:30am-1pm)

PBS-SEPM Luncheon Talk – September 18, 2018

Michael C. Dix

“Application of Rapidly-Acquired Whole-Rock Elemental Data for Improved Drilling Results: The Permian Basin and Beyond ”

**Principal Geoscientist
Premier Oilfield Group**

Tuesday

September 18, 2018 - [Midland College, Carrasco Room](#), 11:30 a.m.

Please Note: Luncheon cost has increased to \$25 per person.

Abstract

While not widely appreciated, whole-rock elemental data has been used for improved stratigraphic correlation (chemostratigraphy) and formation evaluation since the early 1990s. Chemostratigraphy was a small but growing discipline successfully applied to sandstone reservoirs, and later to carbonates, through the middle 2000s. Two events conspired in the late 2000s to push elemental applications into the mainstream: the proliferation of unconventional plays (self-sourced, mudstone-dominated reservoirs) and significant improvements in portable XRF technology. The rich mineral diversity and trace element compositions of fine-grained rocks makes the XRF approach particularly useful, and data is now collected from well over a thousand historical and actively drilling wells per year. The Permian basin has been one of the busier geological regions in the world for the use of elemental data.

Using core-scanned XRF data as a baseline, elemental data from cuttings has proven highly effective in helping to delineate target zones in pilots wells, and more importantly in providing formation evaluation and stratigraphic cross-checks on laterals. Practical element-based models of mineralogy and brittleness have proven robust, as have well-known elemental criteria for recognizing organic richness. Because XRF data can be collected and interpreted rapidly, the results are readily used to design “engineered” completions that better group rocks of like attributes in the same frac stages.

In addition to the day-to-day use of elemental data in drilling operations, integration with other data streams allows additional insight to be gained on field-wide or basin-wide stratigraphy and reservoir distribution.

Biography



Michael C. Dix has over 33 years of geoscience experience, 26 in the oil and gas industry and 8 in academic research. He received his B.S. (Geology) from the University of Dayton (USA) in 1981 and attended the graduate geology program at the University of Houston. He has developed expertise in sedimentary petrology, reservoir geology, elemental geochemistry / chemostratigraphy, regional geology, and fracture analysis. Prior to joining Premier Oilfield Group, he worked for Core Laboratories, the University of Houston, Westport Technology Center, Halliburton, Chemostrat, and Weatherford. In the early 1990s, Mike became interested in using inorganic elemental data to improve understanding of sandstone provenance, sediment dispersal, and sequence correlation, and to establish diagenetic and reservoir-quality signatures. While much of his work has involved integrated laboratory studies, Mike has spent a large part of the last 18 years helping to develop and implement wellsite analytical technologies such as LIBS, XRF, XRD, FTIR, and programmed pyrolysis. Mike's experience in applying elemental techniques spans all reservoir types and includes sequences from North America, the Middle East, South America, West Africa, China, and Australia. Mike is a member of American Association of Petroleum Geologists, SEPM (Society for Sedimentary Geology), Geological Society of America, Clay Minerals Society, Mineralogical Society of America, Society of Petrophysicists and Well Log Analysts, and Houston Geological Society.

Mike is originally from Hollywood, Florida. After graduating from the University of Dayton in Ohio, he moved to Houston, which has been his home and professional base for 37 years. He is married and has two children, ages 9 and 6. Most free time is spent enjoying sports and other activities with his family, including coaching soccer and taking advantage of the great museums, parks, and zoo in Houston. A self-described “science junkie”, Mike keeps up with developments in geoscience, planetary science, astronomy, and paleobiology, and enjoys helping with science classes at his children's school.

PBS-SEPM Publications



PBS-SEPM Symposia And Core Workshops on 3 DVDs



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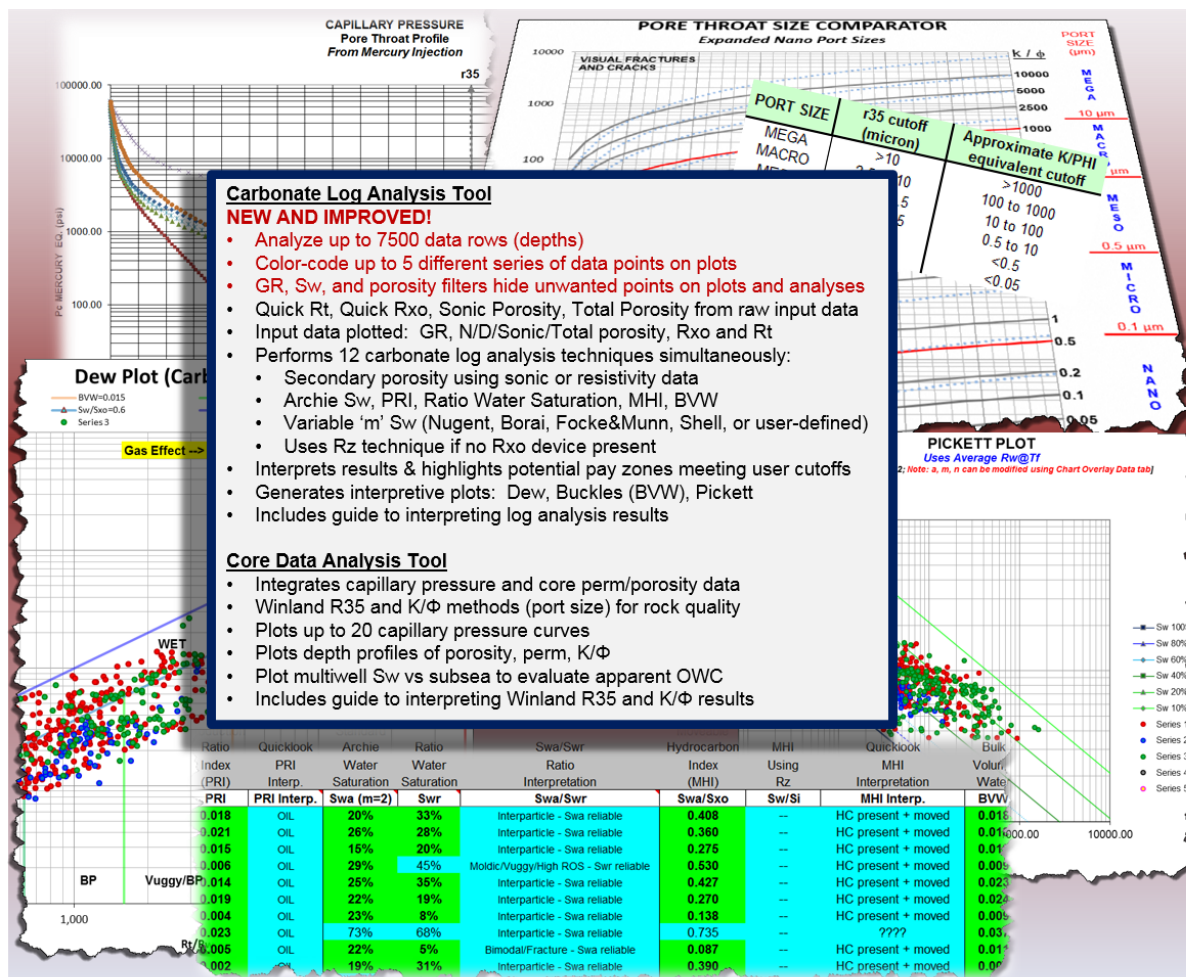
For additional information **contact: PBS-SEPM office** (432) 279-1360 or info@pbs-sepm.org



PBS-SEPM Publication

Carbonate Log Analysis Spreadsheet v. 4.0

By: Cory L. Hoffman
Designed for Microsoft Office Excel 2013



INTRODUCTORY PRICE: \$40 (all proceeds go directly to PBS-SEPM)

- Get 2 tools for 1 low price — spreadsheet includes carbonate log analysis AND core data analysis tools
- Flash drive contains current version (Excel 2013; v. 4.0) and previous version (Excel 2010; v. 3.2) of spreadsheet
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For additional information contact: PBS-SEPM office (432) 279-1360 or info@pbs-sepm.org.

PBS-SEPM Luncheon Cost Announcement

Effective September 18, 2018

**Luncheon cost is increasing from
\$20 to \$25 per person**

**This slight increase will help cover regular luncheon
catering costs.**

Please contact your current PBS-SEPM executive board with any questions.



**PBS-SEPM
Core Workshop
March 2019**



** More Details Coming Soon**

PBS-SEPM Executive Board (2018-2019)

President:	Mohamed Zobaa	zobaa_m@utpb.edu
President-Elect:	Sandra Elliott	sandra.elliott@apachecorp.com
First Vice President:	Antony N. Giles	agiles@midland.edu
Second Vice President:	Brady T. Kolb	bkolb@sm-energy.com
Treasurer:	Ryan C. Thompson	ryan.thompson@apachecorp.com
Secretary:	Chantel Lines	clines@sm-energy.com
Previous President:	James Hawkins	jhawkins@callon.com
Board Advisor:		

Do you have an idea for an interesting luncheon talk? Have a core workshop you'd like to present? Have some suggestions on how PBS-SEPM can better serve the geologic community? Just click on the e-mail above & drop us a note, your PBS-SEPM Executive Board wants to hear from you!

"The most exciting phrase to hear in science, the one that heralds new discoveries, is not 'Eureka!' but 'That's funny...'"

- Isaac Asimov

Corporate Sponsorships (2018-2019)

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Your support lifts your corporate name within the Permian Basin.



PBS-SEPM is grateful for the generosity of these fine corporate sponsors !

"Chance favors the prepared mind."

- Louis Pasteur

If you are interested in a sponsorship opportunity, please call PBS-SEPM for more details at (432) 279-1360 or e-mail info@pbs-sepm.org.



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We're on the Web!
www.pbs-sepm.org

"Equipped with his five senses, man explores the universe around him and calls the adventure Science"

— Edwin Powell Hubble

PBS-SEPM is the Permian Basin Section of SEPM—the Society for Sedimentary Geology. However, you do not need to be a SEPM member or a geologist to join PBS-SEPM.

Our non-profit society relies entirely upon the efforts of dedicated volunteers to serve the geological community—primarily through educational events. These events include monthly luncheon talks, core workshops, annual field trips, and special geological publications. Additionally, we are involved on the college campuses—reaching out to future earth scientists through scholarships, discounted memberships, and offering full-time geology students the ability to participate in professional-grade field trips at little to no cost.

If you would like to join PBS-SEPM, you may visit our updated website (www.pbs-sepm.org) to learn more about us, download or fill out a membership form, and learn how to get involved.

Individual Sponsors of PBS-SEPM (2018-2019)

Individual sponsors are advertised on the PBS-SEPM website and each Newsletter. Cost is \$85/year. If you are interested in a sponsorship opportunity, please call PBS-SEPM for more details at (432) 279-1360 or e-mail info@pbs-sepm.org.

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Both individual and corporate sponsorships are available