



# THE OHIO GEOLOGICAL SOCIETY

*An Affiliate (1963) of the American Association of Petroleum Geologists (AAPG)*

The Newsletter of the Ohio Geological Society

September-October 2002

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## **President's Column**

Hello To All Members,

We have started a new year for the Society and I first would like to extend my gratitude for all those who have made this a worthy organization and to ask for continued support. Most of you know that I am with the Ohio Geological Survey but may not be aware that my office is not located in Columbus but at the core and sample repository at Alum Creek State Park near Delaware. We opened the facility three years ago and have experienced increased usage from industry, academia, and other governmental entities.

To remain a viable organization there is always a need for new members. This year the person enlisting the most members will receive 2 free tickets to a Columbus Blue Jackets game (courtesy of John Forman). Second and third place will receive one or more of the following: OGS mug, Morrow County Anthology, OGS t-shirt, free ¼ page of advertising in the newsletter, or free registration to the next OGS/PTTC sponsored event. The Deadline for new members will be the Christmas party and as always, in case of a tie, there will be a coin toss.

Our meetings will be held at the Hearth and Eagle Tavern located off Route 315 just north of I-270. Meeting dates for the 2002-2003 year are tentatively scheduled for 21 October, 18 November, 6 December, 21 January, 18 February, 17 March, 21 April, and 19 May. Some meeting dates may have to be adjusted so as to obtain an AAPG Distinguished Lecturer or a co-meeting with another Society. However, as it stands now, these are dates to plan for.

We are putting together a slate of speakers to represent many different aspects of the geological field and hope that you will attend. The October 21<sup>st</sup> speaker is the Ohio Survey's own Ernie Slucher who will update us on ongoing coal bed methane and carbon dioxide sequestration assessment in Ohio and the Midcontinent.

R2

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Notable recent awards, please join in congratulating our distinguished members:

Ohio Geological Society Honorary Membership Award: **Jerry C. Olds, John Cochrane, and Dick Struble.**

Eastern Section AAPG Honorary Membership: **Lawrence H. Wickstrom**

Eastern Section AAPG Distinguished Service Award: **John L. Forman**

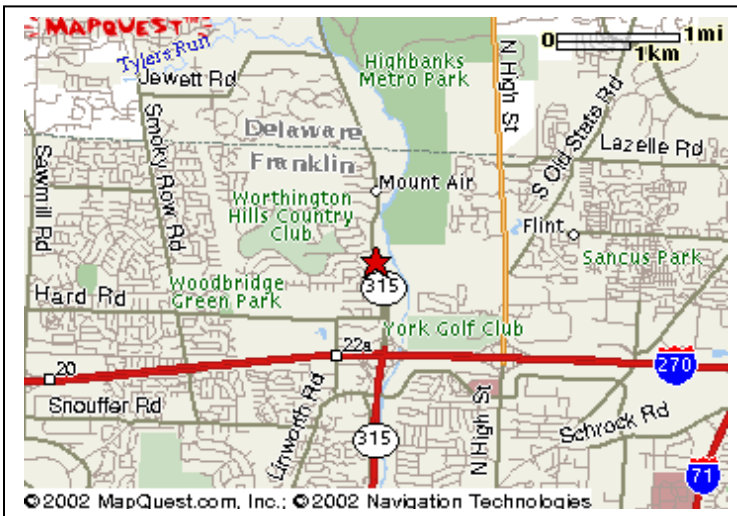
John T. Gale, Sr., Memorial Public Service Award: **Thomas Berg**

Mather Award: **Dr. Richard D. Hoare**

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Editorial comments, letters, and **CONTRIBUTIONS**, always welcomed!  
OGS Editor Pete MacKenzie (614) 781-3271 or [pete@cgasinc.com](mailto:pete@cgasinc.com).

## OGS MEETING October 21, 7:30 p.m. Hearth and Eagle Tavern, Worthington

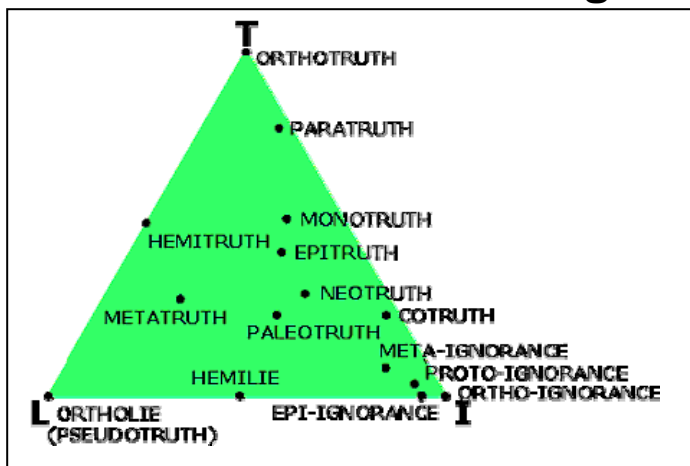


Ernie Slucher, Senior Geologist, Ohio Department of Natural Resources, Division of Geological Survey will be giving a talk titled: “**Coalbed Methane, Carbon Dioxide Sequestration and Future Energy Resources in Ohio**”

Dinner will be at the Hearth and Eagle at 5:30 p.m. A “Happy Hour” will be held from 7:00 to 7:30 in the meeting room. For more information or to RSVP, contact Ron Rea at (614) 265-6585 or ron.rea@dnr.state.oh.us

**DIRECTIONS:** The meeting will be upstairs in a meeting room Hearth and Eagle Tavern, 7800 Olentangy River Road, Worthington, OH 43085 (614-888-0872). State Route 315, about 1 mile north of the I-270 & Rt. 315 intersection. It is located in the Olentangy Valley Center shopping center, at the bottom of the Worthington Hills subdivision entrance.

### The Geological T – L – I System



The **Truth-Lie-Ignorance (T-L-I) System** in geology ranges from ORTHOTRUTH to META-IGNORANCE, as shown in the accompanying graph and glossary.

This **EPITRUTHFUL** system is reprinted courtesy of **GEOLOG**, the newsletter of the Geological Association of Canada, re-discovered in a corner of the US Dept. of Interior, Bureau of Reclamation website.

- ORTHOTRUTH** - The real truth; withstands the most severe scrutiny. Rare in geology, e.g., crystal symmetry.
- PARATRUTH** - Confused by most with orthotruth. Usually quantitative, well documented coincidence of several lines of evidence, but based in part on a supposition which may, in the future, prove to be incorrect. Most exact-looking disciplines in earth science, e.g., magmatic differentiation, geochronology.
- MONOTRUTH** - A hypothesis or idea not seriously contested, at present, by others, e.g., plate tectonics.
- EPITRUTH** - One hypothesis or interpretation among several others, e.g., submarine-exhalative origin of massive sulphide deposits.
- HEMITRUTH** - A halftruth; shows only one side of the picture.
- NEOTRUTH** - A paleotruth quickly redressed by using the fashionable recent rhetorics (present application of plate-tectonics principles to various continent-based features, e.g., ore distribution).
- PALEOTRUTH** - An archaic truth proved to be no more valid. Common with geologists whose geoknowledge has remained frozen since the time of graduation, e.g., idea that all ore deposits must be related to granites.
- METATRUTH** - Any higher order truth knowingly metamorphosed to suit one's preconceived idea.
- COTRUTH** - A truth based on an evidence by comparison, when the standard is not commensurable with the compared subject, e.g., buoyancy of the lithosphere on mantle compared with buoyancy of wood on water.
- ORTHOLIE** - (Or **PSEUDOTRUTH** as used by gentlemen-geologists and the old-school Japanese): A straightforward lie. Rare in western geology. Has appeared from time to time in dogmatic societies, e.g., Earth as the center of the solar system.
- HEMILIE** - A lie with a great degree of uncertainty.
- ORTHOIGNORANCE** - (Or 'different opinion' by gentlemen); the zero knowledge without smokescreen.
- EPI-IGNORANCE** - The ignorant unaware (but the audience aware) of his ignorance.
- PHOTOIGNORANCE** - The ignorant aware of his ignorance but trying to make his listeners unaware.
- META-IGNORANCE** - Ignorance substituted by a piece of unrelated knowledge; common in exams, e.g., when asked to define a micrite, talks about microscopic techniques.

## Guest Columnist William M. Rike

### Accuracy in Wireline Measurements

If you are like me, you have on occasion romped through the log file at the Geological Survey and found an oddity or two. Years ago I began to keep a file of these little curiosities.

They include such things as twinned holes with dissimilar pay sections, or even dissimilar looking logs from the same hole. I find that tracer logs are especially interesting. Like autopsies, they are almost never utilized unless something went horribly wrong in the first place. Some of the entries are my own contribution. Once I logged a Berea well and noted a 400 ft. thick section of Big Injun sand. The offset had no Big Injun sand at all. That stuff is not supposed to happen in western Appalachian Basin.

I consider the most interesting of my contributions to this file of oddities to be one that stems from three wells that I had the opportunity to log within the span of twenty four hours. It also produced what I feel is a useful bit of information for anyone doing wellsite work or detailed mapping.

In the summer of 1978 I had two clients drilling three wells. Two were cable rigs and the third was a rotary, and as I indicated above, all would drill-in within a twenty four hour period. I only mention the time span because it set up a situation where I accumulated data from three wells and had all the details fresh in my mind. Had the wells been spread over a week's time, or whatever, it is unlikely that I would have considered anything out of the ordinary.

There was one other key element. All three wells were logged by the same logging truck.

At the end of the day in question, I realized that in each instance the driller's and logger's depths differed by eight feet in a thousand (0.8%). This was indeed fascinating because, invariably, we take a wireline measurement as gospel. But is it? And how to tell?

The answer came from a particular rotary rig I had the opportunity to work around on a fairly frequent basis. The crew was a constant, the same year after year, and conscientious in their work. They taped their drillpipe to the hundredth of a foot rather than the more common twentieth of a foot. This was unique in that it provided accuracy to four significant places, or, for our purposes, to the very foot. And to make the whole situation perfect, they measured subs into their drillstring. When they said they had 4892 ft. of drillstring, that is exactly what they meant and it is exactly what you got.

Comparing total depths is something of a grab bag in that fill is an unknown. However, the top of the Big Lime is an easy pick every time, whether it be from the drill rate or from the wireline measurement. Thus, whenever I had the opportunity to log from this rig, I made note of the driller's and logger's top of Big Lime.

What emerged over the next several years was a pattern of variance that ranged freely up to about three feet in a thousand (0.3%). Has this shaded my thinking along the way? Yes. Today, if someone tells me that the log top for such-and-such formation is 5000 ft., I assume that the measurement is accurate to within 15 ft., that the actual top is somewhere between 4985 ft. and 5015 ft.

If someone were to show me a structure map and state that they have mapped a 5 ft. fault at a depth of 5000 ft., I say, "Fantastic!" Years ago at Texaco, when it was knee-deep and we did not believe a word of it, that's what we said.

Progress is relentless, though. Nowadays some of the wireline services utilize magnetic markers, usually placed at one hundred feet intervals. These markers provide a means for continually correcting the vagaries of wireline measurement and insure better accuracy.

But then I recall an incident just a few years ago where an operator drilled a Rose Run well, set 5 ½" casing into the Gull River at about 4500 ft., and ran a gamma ray correlation log before finishing the hole. This correlation log utilized the magnetic markers. After the well was drilled-in, an open hole log was run by a different logging company (I just *love* this) that also utilized the magnetic markers. Between the two logs, the top of the Gull River differed by nine feet. You do the math.

Ohio Geological Society Meetings:

21 October 2002                    Dr. Scott Bair, Hearth & Eagle Tavern, 5:30 p.m. dinner, 7 p.m. happy hour, Presentation at 7:30 p.m.  
18 November 2002                TBA  
6 December 2002                TBA

\*\* If you would like a coveted speaker spot, call Jason Henthorne and he'll square you away!

Others meetings or events of note:

October 23-26 - 2002 SPE Eastern Regional Meeting; Lexington, KY. [http://www.spe.org/cda/event\\_item/1,1093,451,00.html](http://www.spe.org/cda/event_item/1,1093,451,00.html)

November 4-6 – Joint Ontario-New York Oil & Gas Conference and Trade Show, Niagara Falls, ON, [www.ontpet.com](http://www.ontpet.com)

November 5-8 - NGWA Short Course-Fracture Trace and Lineament Analysis: Application to Ground Water Resources  
Characterization and Protection, State College, PA. <http://www.ngwa.org/education/index.html>

November 21 – AIPG Annual Meeting, Fawcett Center, The Ohio State University, <http://www.aipg-ohio.org>

December 3 - PTTC Short Course: Exploration and Evaluation of Fractured Reservoirs with Emphasis on Fault-Related Fracture  
Systems. <http://karl.nrcce.wvu.edu/>

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**(We would prefer to E-mail you this Newsletter. Please send us your E-mail address.)  
Need a Membership Form? See our web site, or contact one of the Officers.**