



OUTCROP

Newsletter of the Rocky Mountain Association of Geologists

Volume 63 • No. 10 • October 2014

President's Column

By Matt Silverman

Where You Stand Depends on Where You Sit

As RMAG members, we're earth scientists, trained in the scientific method to ask questions, do research, hypothesize, experiment, analyze our results, draw conclusions and communicate the findings. We're driven by the data.

We don't look for guidance from tarot, palmistry, Ouija boards or past-life regression. We don't accept the dubious teachings from astrology, numerology, dowsing or channeling as science.

We don't deny the Apollo moon landings, the Holocaust or the HIV-AIDS connection.

Then why do so many of us reject a body of overwhelming, hard-won, peer-reviewed scientific evidence and deny the existence of climate change, including the anthropogenic impact? As astrophysicist Neil deGrasse Tyson put it, "The good thing about science is that it's true whether or not you believe in it."

RMAG members follow the facts. We know that vaccination saves lives and doesn't cause autism. We know that fluoride prevents cavities and doesn't promote communism. We know that ESP, clairvoyance and telekinesis are all hooey (although I wonder how my wife knows the things she does, sometimes).

We understand that the physical world around us can't be explained by creationism, geomancy, the Hollow Earth theory, or the subduction of Atlantis. There's no place in our biota for Big Foot, fairies, Chupacabras, zombies or the Loch Ness Monster.

Some argue that climate change is just a theory, but



at this point it's a theory in the same way that gravity is a theory, or heliocentrism or plate tectonics. As we teach students, it's a set of statements that explain a

diverse group of facts, one that has been repeatedly tested and can be applied to make useful predictions about future physical events.

We rightly condemn celebrity cracktivists who ignore the data and would ban hydraulic fracturing. Because we respect the facts, we know that fracking has revolutionized the energy economy of the country, but it doesn't initiate devastating earthquakes or cause tap-water to catch fire.

Rehashing the technical arguments is way beyond the scope of this column. Yes, the Earth has been both hotter and warmer than it is now; and no, we are not going to destroy the planet. A healthy dose of skepticism is wise. But the consensus of the experts is such that our confidence in the reality

Continued on page 8 >>

***RMAG members
follow the facts.
We know that
vaccination saves
lives and doesn't
cause autism.***

Daub & Associates, Inc.

SPECIALIZING IN PROFESSIONAL GEOLOGICAL, ENVIRONMENTAL,
HYDROLOGICAL, GEOTECHNICAL AND PERMITTING SERVICES

Gerald J. Daub, P.G., C.P.G.
President

2241 South Broadway
Grand Junction, CO 81507-4101

OFFICE (970) 254-1224
CELL (970) 216-1010
FAX (970) 242-8438

gjdaub@daubandassociates.com
www.daubandassociates.com

of climate change should be similar to our once-hesitant but now certain knowledge that smoking cigarettes causes cancer.

Most of us are employed in an industry whose members tend to be politically conservative. But it's hardly conservative of us to enjoy the great benefits of fossil fuel use today, while ignoring the high cost of global problems that we defer to our grandchildren. That's deficit spending. Sea-level rise, for example, isn't *our* problem; but it's likely to be *their* problem.

By one recent count (Cook, 2013) over 97% of the current scientific research papers that took a position on the origins of climate change found that we humans are causing it. How often do we get that kind of consensus on a controversial topic of current interest in exploration geology? How long was Alfred Wegener dead before Continental Drift was generally accepted?

Yes, attracting funding for the research of climate-change scientists may depend on extrapolations that demonstrate a clear and present global threat. And sure, this creates the possibility of a conflict of interest, including data-fudging, premature conclusions and

doomsday scenarios. But to suggest that the thousands of highly respected scientists worldwide that recognize climate change all got together to swear to each others' lies: that's buying a conspiracy theory that would make a birther blush.

Aren't those of us in the fossil fuel industry subject to a reciprocal inclination to deny climate change, driven by our own financial interests? (Hence, the title of this piece, which is also known as Miles' Law, after its' author Rufus Miles, who served as an assistant secretary under three presidents.) Don't we pick and choose the data from the geologic past to support our own agendas and political inclinations? Can we admit that our expertise lies mostly outside the measurement and interpretation of global atmospheric, oceanic and other environmental data?

Is climate change our fault, those of us in the fossil fuels business? Of course not. James White, Professor of Geology at the University of Colorado – Boulder, gave a compelling lecture to Denver's Energy Finance

Continued on page 10 »

www.GeoSteering.com

281-573-0500
info@geosteering.com

**Free introductory consultation
with modeling:
let us demonstrate whether
images or propagation resistivity
could add value to your well.**

Personnel with degrees & 20+ years of oilfield experience

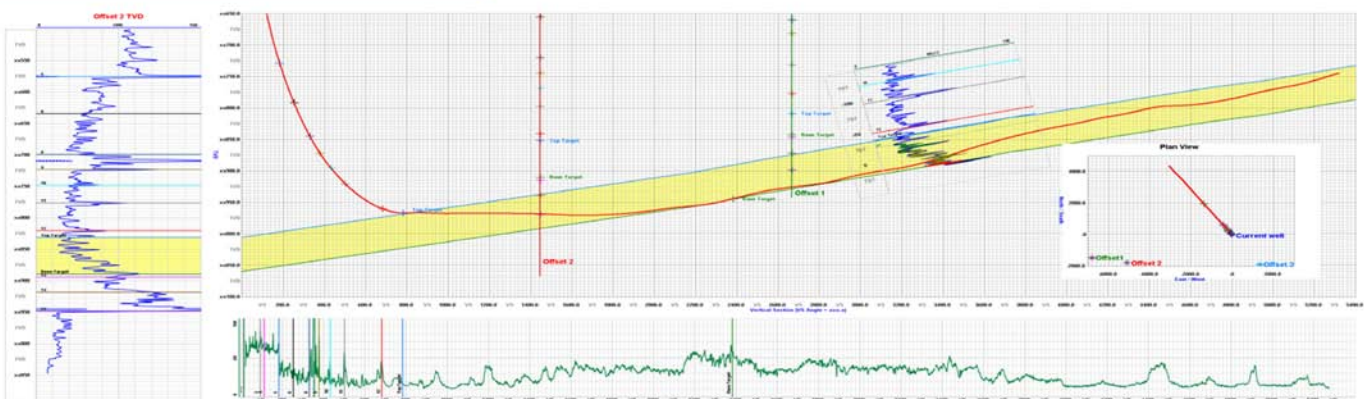
Proprietary software

TST interpretation for GR only jobs

**Image displays / interpretation for jobs with azimuthal GR,
resistivity or density**

**Resistivity modelling / interpretation for jobs with LWD
propagation resistivity**

Real-time (always)



Discussion Group this spring. Among other insights, he pointed out that we don't blame farmers for an epidemic of obesity in America, and we shouldn't blame energy producers for that portion of climate change which is related to the use of the products we supply to an eager marketplace.

Then, what should we do, as citizens, consumers and earth scientists, many of us petroleum geologists? Good question, and one of the answers is to discover, produce and promote the use (and export) of oil and natural gas in place of dirtier fuels. Another answer is

to acknowledge our own conflict of interest. We can also recognize the likely consequences of the existing energy systems and provide balanced information to the public and the decision-makers. And we also have our skills as geoscientists to help mitigate some of the problems associated with climate change. What are some other answers?

These are my musings, not the policy of RMAG (wisely, we don't have one). I welcome your comments, questions, ideas, and suggestions: president@rmag.org. <<



Tel. 303.813.8100 Fax 303.813.8101
www.bradsbysgroup.com

Denver's Premiere Recruiting Firm

B BRADSBY
group

Outcrop Deadlines
for the *Outcrop* advertising is the 1st of the month,
the deadline for other content is the 5th of the month.