



SPE Meeting April 12, 2016

**Bordeaux Banquet Room
Crowne Plaza Lansing West
925 South Creyts Road
Lansing, MI 48917
517 323-4190
(see Page 3 map)**

5:00 – 6:00 – Social Hour
6:00 PM – Dinner
Presentation after Dinner
Cost (including dinner): \$30
Receipt Available

**Topic:
First-Ever Comprehensive Environmental
Characterization of Hydraulic Fracturing for Shale Oil
and Gas Production**

By: Daniel Tormey – ENVIRON Corporation

Please RSVP by April, 8
Ben Updyke (Program Chair)
313-235-1115
updykeb@dteenergy.com

Society of Petroleum Engineers Distinguished Lecturer 2015-2016 Lecture Season

First-Ever Comprehensive Environmental Characterization of Hydraulic Fracturing for Shale Oil and Gas Production

**Daniel Tormey
ENVIRON Corporation**

Abstract:

The well completion process of high volume hydraulic fracturing has become a touchstone for opposition to the development of oil and gas resources from shale source rocks. Although the development of shale gas and oil has brought substantial economic, geopolitical, and climate change benefits to the United States, hydraulic fracturing has displaced global climate change as the most controversial environmental policy issue. As other countries evaluate development of shale oil and gas, these same environmental concerns are available on the internet and media sources. Without data, the concerns become a substantial hindrance to acceptance of shale gas development.

This study presents the first-ever peer-reviewed study that quantifies the effects of two specific high-volume hydraulic fracturing jobs to 14 different environmental resource categories. The objective was to provide factual information supported by a high quality dataset to guide policy making. None of the measurements detected a change due to hydraulic fracturing, including microseismic effects, ground motion and induced seismicity, water quality, methane migration, community health, well integrity, fracture containment to the target zone, and others.

The hydraulic fracturing occurred in the center of Los Angeles, California, at the largest urban oil field in the US. The level of community and regional concern, the breadth of the study, and many of the results are applicable to other shale oil and gas areas worldwide. The results provide the first dataset that addresses the range of concerns directly, and finds no adverse effects to any of the environmental resource categories.

Biography:

Dr. Tormey is an expert in energy and water. He works with the environmental aspects of all types of energy development, with an emphasis on oil and gas, including hydraulic fracturing and produced water management, pipelines, LNG terminals, refineries and retail facilities. He has conducted important assignments in onshore, offshore, nearshore, estuarine, riverine and glacial environments. Dan has worked throughout the US, Australia, Indonesia, Italy, Chile, Ecuador, Colombia, Venezuela, Brazil, Senegal, South Africa, Armenia and the Republic of Georgia. He has a Ph.D. in Geology and Geochemistry from MIT, and a B.S. in Civil Engineering and Geology from Stanford.

Map to Bordeaux





MICHIGAN SECTION NEWS

<http://connect.spe.org/Michigan/Home/>

2015-2016 Michigan Section Officers

Chairperson:	Sue Burla	248-205-7414	susan_burla@transcanada.com
Program Chair:	Ben Updyke	313-235-1115	updykeb@dteenergy.com
Treasurer:	TBD		
Secretary:	Kishan Makwana	248-205-4543	kishan_makwana@transcanada.com
Scholarship Chair	Stanley George	248-205-4555	stan_george@transcanada.com

SPE Michigan Section is actively seeking potential officers to serve on the executive committee for the 2016-2017 fiscal year. If you are interested in joining the Michigan Section executive committee, please contact any of the current committee members.

2016 Michigan Section SPE Scholarship

The Michigan Section of the Society of Petroleum Engineers (SPE) would like to announce that it will be awarding a scholarship of \$1,000 to a Michigan college student or an incoming college student who is interested in the petroleum and natural gas industry. For a detailed list of the requirements for the scholarship, please see <http://connect.spe.org/Michigan/AboutUs/Scholarships/>.

2015-2016 SPE Michigan Section Meeting Schedule (Lansing, MI)

Tue Apr 12, 2016 Daniel Tormey First-Ever Comprehensive Environmental Characterization of Hydraulic Fracturing for Shale Oil and Gas Production

2015-2016 SPE Northern Michigan Section Meeting Schedule (Traverse City, MI)

Wed Apr 13, 2016 Daniel Tormey First-Ever Comprehensive Environmental Characterization of Hydraulic Fracturing for Shale Oil and Gas Production

2015-2016 SPE Midwest Gas Storage Section Meeting Schedule (Pontiac, IL)

Thu May 19, 2016 Duane McVay The Value of Assessing Uncertainty (What You Don't Know Can Hurt You)

Michigan Basin Geological Society (MBGS) Meeting Schedule (www.mbgs.org)

Request for e-mail addresses

If you received this newsletter by "snail mail", we do not have your valid e-mail address, which could be due to your choice to not receive email from SPE and requirements from the global privacy laws. If you would like to receive this newsletter via email, please send an e-mail to Kishan Makwana. He will add you to the SPE Michigan chapter email list.

Society of Petroleum Engineers Upcoming Events:

For information regarding the upcoming SPE conferences or exhibitions, visit the Society for Petroleum Engineers website at <http://www.spe.org/events/calendar/>.

Continued Education

SPE understands the importance of continuing education for keeping skills up to date, improving expertise or learning new techniques.

You can grow your knowledge by attending short programs and courses, such as:

- SPE Training Courses <http://www.spe.org/training/courses.php>
- American Association of Petroleum Geologists (AAPG) Education programs <http://www.aapg.org/education/>
- Field trips with Michigan Basin Geological Society http://www.mbgs.org/field_trips.html
- Professional Engineer information: go to www.ncees.org or <http://www.dleg.state.mi.us/bcsc/forms/eng/peexam.pdf> for application process for Professional Engineers License in Michigan.

Other News

We are always looking for **guest speakers** for upcoming SPE meetings. If you have a talk on a geological or engineering topic, we can provide the audience.

If you are interested in **advertising** in the Michigan Section newsletter, please contact Kishan Makwana. Proceeds from advertising go to the SPE scholarship program.

Comments? Questions? Concerns? How can your SPE section serve you better? To voice your opinion on any aspect of section membership, please contact any of the officers or grab their attention at the meetings.