

Davidson Conference Center, Boardroom, University of Southern California Los Angeles, CA 90089  
 Thursday, June 28, 2012

This Workshop is intended for the oil and gas operators involved in the stimulation and completion practices in shale gas and liquid rich shale using hydraulic fracturing. It is a prelude to the formation of a consortium for risk evaluation of potential side effects (eg induced seismicity) of hydraulic fracturing and the development of predictive tools and models. The goal is to develop and deliver an effective science-based roadmap for best operational practices, policy decisions, regulatory processes, and public education and communication with respect to the hydraulic fracturing activities in the shale plays in the U. S. and elsewhere.

Offered by USC Energy Institute ([enregy.usc.edu](http://enregy.usc.edu)) and USC Global Energy Network ([fen.usc.edu](http://fen.usc.edu))

Workshop Coordinator Fred Aminzadeh, USC, [faminzad@usc.edu](mailto:faminzad@usc.edu)

## Agenda

### 8:30 AM Registration Continental Breakfast

9:00	Wecoming Remarks	Yannis Yortsis (Dean, School of Engineering)
9:10	Objectives of the Workshop & State of the Art, of Hydraulic Fracturing and potential Induced Seismicity Risk	Fred Aminzadeh
9:40	Geologic considerations for Induced Seismicity	Charles Sammis
10:00	National Research Council Coommittee Report on Induced Seismicity	Don Clarke (USC Lecturer)

10:20 Break

10:30 Panel Discussion on probabaility of induced seimicity resulting from hydralic fracturing and waste water injection, Panelists include: **Lance Cole (Panel leader)**, Petroleum Technology Transfer Council (PTTC), **Dr. John Parrish**, Director and State Geologist of California and Co-Chair of the "Hazards" Committee of the Association of American State Geologists, **Stephen M. Testa**, Executive Officer of California MGB & president of AAPG MMD,, **Dr. G. Randy Keller**, Director Oklahoma Geological Survey, and State Geologist, **Austin Holland**, Seismologist, Sate of Oklahoma, **Mike Smith**, Executive Director, Interstate Oil & Gas Compact Commission.

12:30PM Lunch, Keynote Speaker: **Ali Deneshi, Daneshy Consultatnts Int'l (Formerly VP of Halliburton Energy Services)**

2:00	Charcaterization of Microseismic data for Hydraulic Fracturing	Martin Karrenbagh (SRS2020 & USC Lecturer)
2:20	The Mental Picture of Hydraulic Fracturing of Tight Shales	Sid Green, Schlumberger
2:40	Proababilistic Approach for HF-IS hazrd/risk map	Roger Ghanem

3:00 Break

3:15	Break out Session 1: Technical Challenges Chair: Donald Paul, Executive Director of USC EDnergy Institute
3:15	Break out Session 2: Public Outreach / Regulatory Challenges, Chair: James Slutz, Former Assistant Secretary of Energy and State Regulator
3:15	Break out Session 3: Opertors Challenges, Chair: Dana Jurick, Devon Energy

4:45 Overview of Break up Sessions Iraj Ershaghi and Session Chairs

5:15 Workshop Wrap up and next steps Fred Aminzadeh

Deadline: for registrtrion is June 10, 2012

For further information and registrtrion please contact: Aimee Barnard, [barnard@usc.edu](mailto:barnard@usc.edu), 213-740-8028