



# San Joaquin Geological Society

**Date:** **Tuesday, December 8, 2015**

**Time:** 6:00 PM Social Hour  
7:00 PM Dinner  
8:00 PM Lecture

**Place:** Eagles Lodge  
1718 17<sup>th</sup> Street, Bakersfield, CA 93302

**PSAAPG Members & Mesozoics**  
\$25 with reservation  
\$30 without reservation

**Non PSAAPG Members**  
\$30 with reservation

**Full-time Students with ID:**  
\$10 - Courtesy of Chevron &  
California Resources Corp.

**\* RSVP \***

**By: Sunday, December 6,  
2015**

PayPal on the Website:  
<http://www.SanJoaquinGeologicalSociety.org/>

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<http://www.SanJoaquinGeologicalSociety.org/>

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## ***What's New is Old and What's Old is New – An Historical Overview of Hydraulic Fracturing***

Presented by Stephen Testa

Abstract: What history tells us is that everything has a beginning. The well enhancement technique known as hydraulic fracturing is a highly visible and controversial topic as exemplified by multitudes of news articles, regulatory workshops, local public hearings and documentaries and films. With all this media attention, one would think that hydraulic fracturing was some new innovative technology that only recently was being utilized on a grand scale and the cause of everything bad in the world. The concept of fracturing rock adjacent to a well bore to enhance production can be traced back to the mid-1860s with the development of the petroleum torpedo. Over time, developments in the use of fluids and proppants, pumping and blending equipment, and fracture-treatment design, have all contributed to the dramatic increase in the number of producing fields nationwide, and the role unconventional resources will play in the future. Through technological innovations, it is now estimated that about 30 percent of all U.S. recoverable oil and natural gas reserves are accessible via hydraulic fracturing.

(See expanded Abstract on <http://sanjoaquingeologicalsociety.org/next-event/>.)

Bio: Stephen Testa is the Past President of of the American Geosciences Institute (AGI), American Institute of Professional Geologists (AIPG), AAPG Energy Minerals Division, and Los Angeles Basin Geological Society. With over 30 years as an environmental and engineering geologist, since 2005 he has served as the Executive Officer of the California State Mining and Geology Board. He is the author of numerous books including the popular "One Man's Planet" published by AGI.

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