

Tuesday, December 4, 2012

<u>8:30 am – 5:00 pm</u>

Californian Oil: Geology, Land, Leasing and Permitting

- 7:30 8:30 Registration and Networking Breakfast
- 8:30 8:35 Chair's Welcome and Opening Remarks
- 8:35 9:15 *Presentation:* **The Overview of California's Most Prolific Oil Resources** This presentation will provide characterization of the Californian reservoirs, their similarities and differences and comparisons to other emerging shale plays across US. It will help you understand and overcome the geological hurdles and significant challenges to maximize your production in California.

Dr. Donald L. Gautier, Research Geologist, U.S. Geological Survey

9:15 – 10:00 Presentation: Leasing and Production Overview in California

- Reservoir characteristics
- Historical and current data on producing wells
- Latest leasing trends: Who is leasing and where? Expiring leases?
- Horizontal vs. vertical permitting trends
- Well statistics
- Infrastructure update: Available capacity and planned projects
- Recent A&D activity

Len Tesoro, Director of Land Products, Drilling Info

10:00 – 10:30 Morning Networking Break

10:30 - 11:00 *Case Study:* Oil & Gas Leasing and Permitting on Private Lands in California

Kern County is California's top oil-producing county, accounting for more than 80% of the state's active oil wells and more than three-quarters of the oil produced onshore in the state. County ordinances encourage development with policies that take a hands-off approach to permitting. Find out how permitting in Kern County has traditionally favored the developer more so than in other jurisdictions in California, and why a significant uptick in drilling activity and the use of enhanced recovery techniques, such as hydraulic fracturing, are causing some to scrutinize and even challenge the legality of the current permitting process.

Michael N. Mills, Partner, Stoel Rives LLP

11:00 - 11:30 *Case Study:* Oil and Gas Leasing and Permitting on Public Lands in California

California is the fourth largest oil producer and every day more than 500,000 barrels of oil are produced in California. BLM administered leases nationwide and manages 15.2 million acres of surface and 47 million acres of mineral estate in California. Learn about oil and gas leasing and recent developments on public lands in California and get an update on the most recent lease sale to discover public land mineral resources available for future exploration.

Paul B. Smyth, Of Counsel, Perkins Coie LLP

11:30-12:00 *Panel Discussion:* Landman's Perspective on Current Real Estate Rush This session will provide you with a landman's perspective on the real estate rush around Kern, Fresno and Kings counties as players of different sized, local as well as out of state, are snapping up the land to set up drilling operations.

Moderator: **Joseph (Joe) Manak**, *Owner*, J.F.Manak, P.C.

Panelists:

Doug Black, Bright Horizon Resources

Chris Boyd, Land Consultant, Bakersfield Association of Professional Landmen L. Rae Connet, Managing Partner, PetroLand Services

Duane D. Fadness MBA, CPL, *Vice President of Land*, Liberty Resources LLC **Stephen T. Harris, CPL**, *Oil, Gas and Geothermal Land and Operations*, 2010 President of Los Angeles Association of Professional Landmen

12:00 – 1:30 Group Luncheon

Focus on San Joaquin Basin, Salinas Basin, Santa Maria Basin, Ventura Basin, and Los Angeles Basin

1:30 – 2:15 *Presentation:* Chemometric Differentiation of Crude Oil Families in the San Joaquin Basin, California

Geochemistry identifies 22 oil families in the San Joaquin Basin that show systematic distributions related to sample location, reservoir unit, and thermal maturity maps from a three-dimensional petroleum system model. Multiple families of oil within individual fields improve understanding of reservoir compartments, filling histories, and variations in sulfur and heavy metal content. Five families originated from the Eocene Kreyenhagen Formation source rock and three families came from the overlying Eocene Tumey Formation. Fourteen families migrated from the upper and lower parts of Miocene Monterey Formation source rocks within the Buttonwillow and Tejon depocenters north and south of the Bakersfield Arch. The Eocene and Miocene families show little cross-stratigraphic migration due to seals within and between the source rocks.

Dr. Kenneth E. Peters, *Science Advisor*, *Geochemistry*, Schlumberger Information Solutions and *Consulting Professor*, *Geological & Environmental Sciences*, Stanford University

2:15 - 3:00 Case Study: Advanced Geomechanical Analysis and Optimum Treatment

Design Technologies to Maximize Production from Shale Resources

Shale resources in California present significant economic opportunity, but with significant technical challenges, many relating to critical geomechanical issues. These include: appropriate hydraulic fracture designs for fractured media; permeability anisotropy due to stress orientation and natural fracture density and orientation; the influence of faults, stratigraphy and structure on stress magnitude and orientation; wellbore stability and solids production; and induced seismicity and caprock integrity risks. This presentation will provide an overview of geomechanical issues, analyses techniques, and optimum treatment design considerations to maximize production from shale resources, with an emphasis on California Shale plays.

Michael S. Bruno, PhD, PE, President, GeoMechanics Technologies

3:00 – 3:30 *Afternoon Networking Break*

3:30 – 4:15 *Presentation:* Development of a Thermal Diatomite Project in Santa Barbara County, California

• Public data about competitors thermal diatomite projects has been mined for lessons learned by Santa Maria Energy to optimize operational parameters and to meet the environmental guidelines necessary for operating in the rigorous regulatory climate presented by Santa Barbara County, California

• The past 20+ years of experience by companies exploiting analog projects provides an abundance of learnings, not only to find out how to exploit the diatomite resource, but also to provide guidance in negotiating the regulatory landscape of coastal California

Mark L. Wilson, Geology Manager, Santa Maria Energy

4:15 – 5:00 *Case Study:* **A Tale of Two Projects Utilizing Steam Injection to Produce Oil from a Diatomite Formation**

An innovative Public/Private Sector partnership maximizing both economic and environmental benefits in the extraction of an essential energy resource. California in general and Santa Barbara County particularly have long been known as possessing the most stringent environmental regulations on the planet. Development projects not only receive extensive environmental review under the comprehensive California Environmental Quality Act (CEQA), but also must comply with the world's first landmark legislation Assembly Bill 32: The Global Climate Solutions Act which mandates the reduction of statewide greenhouse gases to 1990 levels by 2020. Learn how one innovative local company is proposing to expand a economically viable enhanced oil recovery pilot project by combining a wide array of design elements to avoid and mitigate potential and existing environmental effects, including the construction and installation of an underground pipeline to deliver reclaimed water from a County treatment facility to the

Bob Poole, Public and Government Affairs Manager, Santa Maria Energy

5:00 Californian Oil Adjourns