

San Joaquin Geological Society

Date: Tuesday, April 8th, 2014

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

Place: American Legion 2020 H St. Bakersfield, CA 93301 PSAAPG Members & Mesozoics \$25 w/ reservation \$30 without reservation

Non PSAAPG Members \$30 w/ reservation

Full-time Students with ID: Free, Courtesy of Chevron & Occidental

Regional Stratigraphic Framework Along the Central California Shelf Margin for Assessment of Quaternary Activity on the Hosgri Fault Zone

Hans AbramsonWard Lettis Consultants

We analyze USGS 2D high-resolution minisparker seismic profiles collected between Point Piedras Blancas and Point Sal along the central California coast to develop a regional sequence stratigraphic framework for the shelf margin as an aid to better assess the recency, style, and rate of slip on faults that collectively comprise the offshore Hosgri fault zone. The 2008 and 2009 USGS minisparker profiles provide sub-meter resolution of Quaternary shelf stratigraphy to depths of 150 m or more below the seafloor and allow for identification of sequence stratigraphic boundaries and marker horizons where preserved. We use both the unique seismic/stratigraphic signature of prominent horizons (primarily amplitude and styles of underlying and overlying unconformities), and connectivity with shore-parallel tie lines to regionally correlate sequence stratigraphic marker horizons throughout the ~1300 km2 study area. The three most recent lowstand systems tracts are tied to prominent prograding clinoform sequences at the shelf edge in northern Estero Bay. In addition, the most recent transgressive surface is generally well preserved along the shelf margin and within large embayments and closed depressions in the study area. Tentative age estimates are made through correlation of lowstand systems tracts with ages of late Quaternary sea-level low stands. These four horizons provide opportunities to evaluate the timing, rate, and sense of vertical separation along individual strands of the mainly strike-slip Hosgri fault zone where they intersect Quaternary sediment.

Hans AbramsonWard – Bio

Mr. AbramsonWard is an engineering geologist with more than fourteen years of professional consulting experience related to geologic hazard assessment and engineering projects both domestic and abroad. He received his bachelor's degree from the UC Berkeley and his master's degree from Humboldt State University. His areas of expertise include engineering geology, geologic hazards, Quaternary geology, and seismic source characterization for probabilistic seismic hazard analysis (PSHA). As an experienced field geologist, he routinely characterizes sites with complex geologic conditions, either through successful design and implementation of field mapping and exploration programs or through careful compilation and review of available data.

SJGS WEBSITE

http://www.SanJoaquinGeolo gicalSociety.org/

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By: Friday, Apr. 4th, **2014** By Replying to this email or by phone 412-5143

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