

Announcing
AEG San Francisco Section Meeting

**Debate and Practice of
Geophysics at a Landfill Site**

**Roark Smith, RGp
MACTEC Engineering and Consulting, Inc.**

Restaurant: Sinbad's, Pier 2 Embarcadero Street, San Francisco
(Phone 415.781.2555 for directions only—not a reservation line)

Date and Time: Tuesday, December 13, 2005

6:00 pm—Social Hour and Sign-in
7:00 pm—Dinner (Fish, Beef or Vegetarian)
8:00 pm—Presentation

Cost: \$35 AEG Members, \$40 Non-members, \$15 Students

Reservations: AEG members fax or e-mail Sachiko Tanikawa (fax # 510.268.5099, treasurer@aegsf.org) with the following information

- (1) Name
- (2) Phone number
- (3) Meal choice

Please Note: Reservation deadline is NOON on FRIDAY, December 9; availability cannot be guaranteed after this deadline. ****Walk-ins are not guaranteed!**** For financial reasons no-shows and last minute cancellations will be charged.

See over for abstract and speaker biography.

Debate and Practice of Geophysics at a Landfill Site

A geophysical pilot study was conducted to determine the effectiveness of selected geophysical methods for assessing bedrock configuration beneath as much as 140 feet of buried refuse, with the target being a reported topographic 'low spot' in the bedrock surface where landfill fluids may be accumulating. The seismic reflection, seismic refraction, and micro-gravity methods were tested. It was determined that seismic refraction provided the best subsurface information. However, the geophysicists involved with the project disagreed over whether the method provided sufficient resolution and accuracy to image the target; hence, given its cost, the value of a full-fledged production survey was called into question.

Because the study was directed by the US Environmental Protection Agency and yet performed for a commercial client, it highlighted the difference between academic and commercial approaches to the scientific practice and underscored the dilemma faced by scientists working for private, for-profit consulting firms, especially when their work is subject to review by academia.

SPEAKER BIOGRAPHY

Roark W. Smith, RGp, is a Bay Area geophysicist employed by MACTEC Engineering and Consulting, Inc. He has been working in the environmental and geotechnical consulting business for nearly 20 years performing surveys using seismic, magnetic, electromagnetic, and ground penetrating radar methods, among others. Prior to that he worked in petroleum exploration for two major oil companies. Born and raised in San Francisco, he graduated from San Francisco State University with a BA in geology in 1980.