



AND SO THE FUN BEGINS!

2013 Spring Field Trip

Come join our Northern California Chapter of the Explorers Club for an **Underground tour of the 1860's Black Diamond coal mine & silica sand mine!**
Organized by EC member, Rick Blake

Mt. Diablo East Bay Regional Park, Antioch, CA

Saturday, May 11, 2013
9:30 AM to 3:30 PM



Our day will begin with a 15-20 minute introduction about safety and our tour agenda while we enjoy coffee and bagels.

We will enter the mine at the Hazel Atlas Mine Portal. During the tour, we will trek through the old mine on an approximately two hour underground tour, led by geologist and retired SFSU professor Dr. Ray Sullivan and park ranger / miner Pat Dedmon. The underground shafts vary from narrow tunnels to large "rooms" that open up to four stories high! We will learn about the mining operations and geology, and observe the difficult conditions under which these miners labored. We will exit the mine at the Greathouse Park Museum to see historical photos and artifacts and hear a summary presentation by park rangers with possibly a short video about the mine. A copy of Dr. Sullivan's published article on the **History of Coal Mining at Black Diamond Mine** will also be provided to each tour participant.

At 12:30 we'll stop for a picnic lunch catered by Bentelino's International Deli from Concord that will include lasagna, salad, garlic bread, and desert. Water bottles will be provided.

During lunch there will be some time to take a walking tour of what remains of the old town of Somersville or to explore surface geology with Rick Blake, also a geologist, who has familiarity with sub-surface geology in his search for oil and natural gas. To whet your appetite, per Rick: *"The coal and glass sand mined at Black Diamond Mines was produced from the marine Eocene – the second of three epochs in the Paleogene — Domengine Formation (about 54 to 37 million years ago). This geologic formation consists mainly of sands that crop out on the surface at the mine and dive below ground with a thickness that ranges between 600 to 800 feet."*

After lunch, we will make a short hike (about 200 yards) up a relatively steep hill to Rose Hill Cemetery, where we will hear a presentation from Supervising Naturalist, Bob Kanagaki, about the Welsh miner's and others who are buried at the site,

The day's activities will conclude about 3:30 PM. For those wishing to extend on their own, there are nearby campsites and numerous hiking trails, plus Prospect Tunnel -- an excavation made by miners searching for coal.

Physical Endurance Requirements: Gentle walk through the mine. We will encounter a few steps and narrow shaft trail, but mostly upright walking. After lunch, the short hike up the hill to the Rose Cemetery may be a slight challenge for some, but should be achievable by most if taken slowly. (**NOTE:** *For those who may have difficulty walking up the hill, a van with space for five passengers will be provided by the park service*).

Field Trip Cost: \$20 (includes \$15.00 catered lunch, morning coffee and bagels and a \$5.00 park tour fee).

PayPal through the usual EC channels will be set up to take payment

(**Note:** A park entrance fee will be \$5.00 per car and payable at the gate. Carpooling is encouraged).

For questions, please contact Rick Blake (blake2@llnl.gov), Field Trip Organizer, at Cell 925-209-6175, or Von Hurson (trekking@sonic.net), EC Field Trip Chairman, at 707-545-6880. **Please RSVP no later than May 1 to Rick Blake (blake2@llnl.gov).**

For a quality experience, our group can be no larger than 15-18 people so early sign-up is a must!
Additional details will be sent to those who are signed up to participate.

A bit about Ray Sullivan:

Originally born in a town in the South Wales Coalfield, his father went underground at the age of 13 but was later called for army service in France during WW I. Ray graduated with a Ph.D from the University of Glasgow, went to work for Shell Oil of Canada, then spent 39 years as a professor of Geology at San Francisco State University. He has guided private tours through the Black Diamond Coal Mine for such groups as the CA Geological Society and Lawrence Livermore Labs – and now, the Northern CA Chapter of the Explorers Club. Ray has co-authored three books – one on the Black Diamond Coal Mine. His background and expertise will make this a field trip a truly memorable one.