



Arizona Geological Society Newsletter

APRIL 2015

THIRD ANNUAL AGS DOUG SHAKEL MEMORIAL STUDENT POSTER EVENT April 18, 2015

- Where:** Third floor lobby (Crater Carpet) of the Interdisciplinary Science and Technology Building #4 (ISTB-4) on the Arizona State University Campus (781 South Terrace Road, Tempe, AZ 85281)
- When:** Viewings of Posters at 8:30 am— Oral Presentations at 10:00 am — Lunch Buffet at 12 noon — Tour of Interdisciplinary Science and Technology Building at 1:15 pm — Viewing of Science Films at Marston Theater at 2:15 pm — Presentation of Awards at 3:15 pm.
- Cost:** Lunch Buffet \$25, Students Members free with online reservation (\$10 without).

RESERVATIONS ARE REQUIRED: Reserve on the AGS website (www.arizonageologicalsoc.org) by **3 pm by Tuesday, April 14th**. The Lunch Buffet will include an assortment of sandwiches and salads. Please cancel by Tuesday, April 14th at 3 pm if you are unable to attend—no shows and late cancellations will be invoiced.

The Third Annual AGS Doug Shakel Memorial Student Poster Event is
Sponsored by Geotemps, Inc. and SRK Consulting



AGS is grateful for our sponsors, who help us offset our event costs.

[Many Sponsor Slots at all Dollar Levels are Still Available for this Event](#)

Third Annual Arizona Geological Society Doug Shakel Memorial Student Poster Event

The AGS will host a special meeting on Saturday, April 18, 2015 at the Interdisciplinary Science and Technology Building #4 (ISTB-4) on the Arizona State University campus (781 South Terrace Road, Tempe, Arizona 85281).

Prizes to be awarded:

First Prize: \$500; Second Prize \$250; Third Prize \$150; Three honorable mentions at \$50.

Special geological gifts will be given to each entrant.

Continued on Page 2

Event Announcement - Continued from Page 1**Schedule**

8:00 am: Students arrive at the Interdisciplinary Science and Technology Building #4 and mount their posters on poster boards. The event will be held in the third floor lobby, better known as the Crater Carpet. Appropriate tacks will be provided. (No more taped posters falling off the walls!) Parking is free on Saturdays in the big parking garage next door ([See Google map](#)).

8:30 am - 9:30 am: Viewing of posters and beginning of judging by Carl Bowser, Professor Emeritus, University of Wisconsin, Madison; Nyal Niemuth, Economic Geology Section Chief, Arizona Geological Survey, Phoenix; and Gordon Haxel, Scientist Emeritus, U.S. Geological Survey, Flagstaff.

9:30 am - 10:00 am: Coffee break

10:00 am - 12:00 Noon: 3-minute oral summaries of each poster by each presenter.

12:00 Noon - 1:15 pm: Buffet Lunch (free for students, whether or not they present a poster). Everyone attending the Buffet Lunch must make reservations no later than 2:00 pm on Saturday, April 11, 2015.

1:15 pm - 3:15 pm: Tour of the Interdisciplinary Science and Technology Building and the showing of some nifty science films at the IMAX-like, Marston Theater (located on first floor).

3:15 pm - 4:00 pm: Presentation of awards for the best posters.

SRK CONSULTING ANNOUNCES 2015/2016 SCHOLARSHIP PROGRAM

This program is intended to help students complete master's and doctoral degrees in mining-related fields, including: mining engineering, exploration and mining geology, hydrogeology and water engineering, tailings and mine waste management and environmental science and engineering. For more information please visit SRK's [web page describing this program](#).

Offered For Sale (\$8,000)

Olympus Innov-X Alpha 6000 X-Ray Spectrometer, with case, stationary stand, and 3 batteries. S/N 9708. Manufactured March, 2008. The X-Ray gun has had 220 hours of use. We paid over \$30,000 for it new in 2008. We will bring it to you to test it before you buy. Iridium Sat Phone and an S. E. International Radiation Detector included.

Contact Rex Loesby
E-mail - RexLoesby@aol.com
Tel/Cell: (303) 771-9610



March 2015 AGS Dinner Meeting was a Great Success

The March 2015 Arizona Geological Society dinner meeting at the Sheraton Tucson Inn and Suites was a great success with more than 125 members and guests attending a presentation by Senator Harrison Schmitt; one of only twelve humans who have set foot on the Moon and the only geologist to have done so.

The Arizona Geological Society thanks Senator Schmitt for an evening that we will never forget. Many of the attendees made this event a family affair by bringing their children to meet and hear this important figure in America's space program.



Audience Listens to Presentation on Lunar Geology

Over a period of approximately an hour, he took us on a virtual field trip to the Valley of Taurus-Littrow, which is located along the southeastern rim of the Mare Serenitatis Basin. During his presentation, he described a number of geological features that were observed during his 72-hour visit to the lunar surface as well as the results of more than forty years of scientific research on samples and data collected during the Apollo 17 Mission to the Moon.

It is interesting to note that many of the geological features



J. D. Mizer and his daughters meet Senator Schmitt

observed on the Moon are very similar to those commonly found on Earth, while others are less commonly preserved here due to the dynamic forces that have shaped and continue to shape our planet.

Senator Schmitt concluded his remarks with a brief observation that lunar resources make the Moon an ideal stepping stone for future human exploration, utilization and settlement of space.



Senator Harrison Schmitt Describes His Visit to the Valley of Taurus-Littrow

Some More Photos from the March Dinner Meeting



Harrison Schmitt and Spencer Titley chat at the March meeting



George Davis and Harrison Schmitt talk about Lunar geology



Harrison Schmitt discusses Apollo 17 Mission with a young, aspiring astronaut



Ana Ingstrom and Brin Lindley meet Harrison Schmitt



Bob Kamilli presents an award to Harrison Schmitt

AGS Spring Field Trip | Oak Creek – Mormon Lake Graben

Date/Time: Saturday, 2 May / 7:30 a.m. – 5:00 p.m.

Starting Location: Parking lot at the High Country Conference Center, 201 West Butler Ave., Flagstaff, AZ 86001 (about 1/2 block east of intersection of Milton Rd and Butler Ave.)

Trip Leader: Paul Lindberg, Geologist

Level of Difficulty: Most stops along the field trip route will be short and close to the vehicles. However, there will be one short rock scramble along Oak Creek. Comfortable, supportive footwear is recommended.

Check weather forecast in advance and dress accordingly; it is spring and we will be at a relatively high elevation (3,800 to 7,000 feet).

Guidebook and Lunch Costs: \$50 (members and guests) , Student members are free.

Field trip guidebooks will be provided to trip participants. Additional guidebooks will be produced by the AGS following the trip, which can be purchased at our dinner meetings.

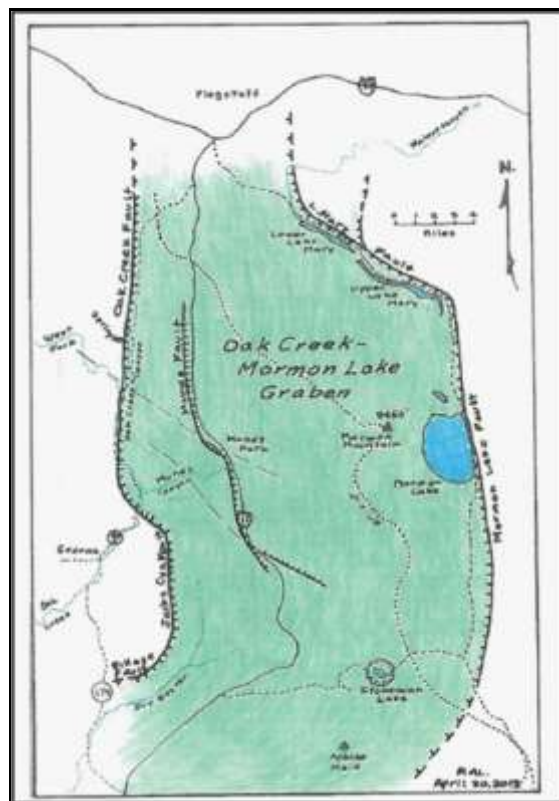
A sack lunch and bottled water will be provided. Participants should bring snacks and other beverages to suit their needs.

Car pooling Arrangements: Carpooling is strongly encouraged to reduce travel costs and number of cars at each stop for safety and logistical reasons. Participants names/contact information will be circulated to registered attendees for participants to make arrangements, as needed.

Additional Transportation Costs: Rental vans may be required depending on the group size and need to reduce the number of caravan vehicles at field trip stops. An additional fee to cover these costs will be evaluated once trip registration begins.

Motel Accommodations: Participants will be responsible for their own motel accommodations. [See Field Trip Flyer.](#)

Tour Description: Paul Lindberg has graciously agreed to lead an AGS field trip to the Oak Creek – Mormon Lake area south of Flagstaff. Participants from outside the Flagstaff area, will probably need to arrive in Flagstaff on the evening of 1 May.



Continued on Page 6

Oak Creek—Mormon Lake Graben Field Trip, Continued from page 5

The May 2, 2015 field trip will examine the Oak Creek-Mormon Lake Graben by circumnavigating key locations around its perimeter. The age of the new graben cutting into the Colorado Plateau is estimated to be only 2-3 million years old and its subsidence may be contemporaneous with the start of the eruption cycle of the San Francisco Peaks. Flagstaff lies within the northern end of the graben and the I-17 freeway corridor extends south toward Camp Verde, where the rift valley merges into the older Verde Graben that is estimated to be ~10 million years old. As such, Interstate 17 traverses from Flagstaff to Camp Verde entirely on the surface of Miocene basalt lava flows with no Paleozoic Mogollon Rim sedimentary rocks exposed along its length. Mogollon Rim exposures lie to the west and east of the young graben.

For a detailed description of the geology of Oak Creek and the nearby Mormon Lake Graben see Paul Lindberg's 31-page paper in the Oak Creek Watershed book now available at the AZGS's Arizona Experience Store.

There may be an opportunity for an informal tour of the San Francisco volcanic field on Sunday, 3 May. We'll circulate information as it becomes available.

Donations to the Arizona Geological Society

Donations to the Arizona Geological Society are used to fund the Courtright and AGS Scholarship programs. The Arizona Geological Society is grateful for the generosity of the following individuals, whose contributions will help students achieve their professional goals.

William Berridge	Rachel Feuerbach	Kevin Horstman	Mary McMacken	Alan Wright
Jonathan Boswell	Don Hammer	Richard Jones	Eric Seedorff	
Clay Conway	Harry Hanneman	Jonathan Kern	Ralph Stegen	
Scott Donaldson	Cori Hoag	Dennis McMacken	Bruce Walker	

Arizona Geological Society Membership Stats

Total Membership	Professional Members	Student Members	Organizational Members
534	384	143	7

New Concepts and Discoveries:

2015 Geological Society of Nevada Symposium May 14-23, 2015

Co-hosted by the Society of Economic Geologists, Nevada Bureau of Mines and Geology and the U. S. Geological Survey.



Arizona Geological Survey News Brief



[Arizona Mining Review](#) (AMR) e-Video Magazine – 3/25/2015

- Ribbon cutting at ASARCO's Avalon Solar Project at Mission Mine, Arizona
- Interview with Frank McAllister (former Chairman and Chief Executive of Asarco)
- Interview with Dr. Krishna Parameswaran, Environmental Director Grupo Mexico/Asarco Officer of Asarco Incorporated
- Dr. Ken Green, Senior Director, Center for Natural Resources, Fraser Institute - How did the Arizona mining environment rank nationally & globally in 2014?

AZGS Receives Grant to Build a Landslide Inventory in Arizona

AZGS was awarded \$150,656 from the Arizona Dept. of Emergency and Military Affairs through the federal Pre-Disaster Mitigation program to build and publish a landslide inventory of Arizona. Dr. Ann Youberg is the project manager. See our news release for details (http://www.azgs.az.gov/news_releases2015.shtml)

For the 'facts' regarding landslides in Arizona: http://www.azgs.az.gov/news_releases2015.shtml

New Publications – Online at the AZGS Document Repository (repository.azgs.az.gov)

Spencer, J.E., Richard, S.M., Johnson, B.J., Love, D.S., Pearthree, P.A. and Reynolds, S., 2015, [Geologic map of the Artillery and Rawhide Wash 7.5' minute Quadrangles, Mohave and La Paz Counties, Arizona](#), Arizona Geological Survey Digital Geologic Map, DGM-100 v 2.0, 1:24,000 map scale, 2 map sheets.

The Arizona County Geological Map Series (1:375,000), which was originally published by the Arizona Bureau of Mines in 1959 and 1960, will be added to the Arizona Geological Survey Document Repository over the next couple of weeks. [The first of these maps \(Navajo and Apache Counties\) is available here.](#)

Employment Opportunity at Arizona Geological Survey

AZGS is in the market for a GIS applications developer. For more details, visit http://www.azgs.az.gov/employment_gis_apps_developer.shtml.

ANNOUNCEMENTS

Welcome New AGS Members

Gennillee Allender

Brad Herbert

Felicie Williams

Ivars Azis

Junhyeok Park

Christine Willmott

Christopher Bullock

Jeff Simpson

Arizona Geological Society is grateful to Freeport-McMoRan, Inc for their generous support of our student members!



Freeport-McMoRan is sponsoring student dinners for the 2015 AGS monthly meetings.

2015 AGS MEMBERSHIP APPLICATION OR RENEWAL FORM

Please mail check with membership form to: Arizona Geological Society, PO Box 40952, Tucson, AZ 85717

Dues (check box) 1 year: \$20; 2 years, \$35; 3 years: \$50; full-time student (membership is free)

NEW MEMBER or RENEWAL? (circle one) Date of submittal _____

Name: _____ Position: _____

Company: _____

Mailing Address: _____

Street: _____ City: _____ State: _____ Zip Code: _____

Work Phone: _____ Home Phone: _____

Fax Number: _____ Cellular Phone: _____

E-mail: _____ Check this box if you do not have an email address

All newsletters will be sent by email. If you do not have an email address, we will mail a hard copy to you, but we cannot guarantee timeliness.

If registered geologist/engineer, indicate registration number and State: _____

Enclosed is a _____ tax-deductible contribution to the J. Harold Courtright or the Arizona Geological Society Scholarship Funds.