

GEOLOGICAL SOCIETY OF NEVADA NEWSLETTER

Geological Society of Nevada, 2175 Raggio Parkway, Room 107, Reno, NV 89512
(775) 323-3500 - Hours Monday -- Friday, 8 a.m. to 4 p.m.
Website: www.gsnv.org • E-mail: gsn@gsnv.org



December 2012, Vol. 28, No. 10

Published monthly except June and July

CALENDAR OF GSN EVENTS

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**Dec. 12, 2012
Wednesday**



WINNEMUCCA CHAPTER SILENT AUCTION MEETING (2nd Wednesday).
The meeting will be held at the Martin Hotel, 94 West Railroad St. Refreshments @ 6 PM; Appetizers @ 6:30 PM, Talk @ 7:00 PM. **SPEAKER: Robert Anderson, UNR Graduate Student, Title: "UNR SEG 2012 Field Trip: Mineral Deposits of Western Turkey"** (abstract pg 6). **Sponsor for the Bar & Food is Inspectorate America.**
For more information contact Leann Graf at leann.graf@newmont.com.

**Dec. 19, 2012
Wednesday**



GSN CHRISTMAS MEETING, ROCK RAFFLE & SILENT AUCTION
The Christmas meeting will be held at the Reno Elks Lodge, 597 Kumle Lane, Reno, NV. Drinks at 6:00 PM, Dinner at 7:00 PM, and Talk at 8:00 PM. Our Speaker is **Dean Heitt, Newmont Mining. Title: "Mining History of the Schroeder, Richmond, Lynn and Bootstrap Districts (Carlin Trend), Nevada, 1875 – 1961"** (see abstract on pg. 3) **Co-Sponsors for the evening are CGS, Inc., Miranda Gold and Skyline Labs.** Dinner reservations must be made by NOON Monday, December 17th. Contact Laura Ruud at (775) 323-3500 or e-mail gsn@gsnv.org for reservations. Cancellations must be received by Dec. 18th.

**Dec. 20, 2012
Thursday**



ELKO CHAPTER CHRISTMAS MEETING (3rd Thursday)
The monthly meeting will be held at the Western Folk Life Center, 501 Railroad St. Refreshments at 6:00 PM, Entertainment at 7:00 PM. Entertainment TBA. **Sponsor of the Bar/Food/Entertainment is BOART LONGYEAR.**
For more information contact Jared Townsend at jtownsend@barrick.com.

**Dec. 27, 2012
Thursday**

SOUTHERN NEVADA CHAPTER (Every last Thursday of the month)
Speaker TBA. For more info. contact R. Paul Bowen, 702-247-7765.

**Deadline to Renew Dues for 2013 is Dec. 31st!
LAST CHANCE TO BE IN THE DIRECTORY!**

Online: www.gsnv.org/membershipform.php or see form on page 12.

Also, anyone whose dues have not been paid by Dec 31st will not receive the January 2013 Newsletter. We don't want to lose you so please renew now!!

GSN BOARD OF DIRECTORS

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GSN DECEMBER MEETING SPONSORS



FROM THE PRESIDENT
David Emmons, G.S.N. President 2012—2013

Dear GSN Members,

We are now at the last month of 2012. And, it is time to renew your GSN membership – don't be left out of the 2013 Membership Directory! It is also time to submit advertisements for the directory.

GSN will have a booth at the Northwest Mining Association meeting in Spokane from December 5 to 7th. Publications from GSN will be available for purchase and you can renew your membership at the booth. I will be attending and hope to see many of you at the talks and display booths.

Dave Boden, Professor of Geosciences at TMCC, was the speaker for the November meeting. Dave provided an excellent presentation on geothermal. The speaker for this month is Dean Heitt, geologist with Newmont. He will be speaking on the early history of the Carlin district (see abstract).

The December meeting will also include the special activities that are a GSN tradition including raffles and auctions. Please consider donating some items for the event. The proceeds go to the GSN Foundation. D.D. LaPointe will be requesting donations.

Thanks to Paul Klipfel and Mike Kroencke for submitting articles for the "Rock Talk" column of the Newsletter. If you missed reading them pull out your copy and give them a read. Paul's is about the liability for not predicting an earthquake in Italy and Mike's is on the gold heist from museums in the Mother Lode of California. Please consider submitting an interesting article for the column.

Another quote – about 500 years old but it still rings true.

There are many arts and sciences of which a miner should not be ignorant. First there is Philosophy, that he may discern the origin, cause, and nature of subterranean things; for then he will be able to dig out the veins easily and advantageously, and to obtain more abundant results from his mining. Secondly there is Medicine, that he may be able to look after his diggers and other workman ... Thirdly follows astronomy, that he may know the divisions of the heavens and from them judge the directions of the veins. Fourthly, there is the science of Surveying that he may be able to estimate how deep a shaft should be sunk ... Fifthly, his knowledge of Arithmetical Science should be such that he may calculate the cost to be incurred in the machinery and the working of the mine. Sixthly, his learning must comprise Architecture, that he himself may construct the various machines and timber work required underground ... Next, he must have knowledge of Drawing, that he can draw plans of his machinery. Lastly, there is the Law, especially that dealing with metals, that he may claim his own rights, that he may undertake the duty of giving others his opinion on legal matters, that he may not take another man's property and so make trouble for himself, and that he may fulfil his obligations to others according to the law. — Georgius Agricola

Signing off for now – see you at the gala December meeting.



Wednesday, December 19, 2012 Membership Meeting

Reservations Are Required - Please Cancel if You Are Unable to Attend

GSN CANNOT GUARANTEE DINNER SEATING WITHOUT ADVANCE RESERVATIONS.

Please call 775-323-3500, Fax 775-323-3599 or e-mail gsn@gsnv.org by **NOON on Monday, December 17, 2012.**

Social Hour: 6:00 PM – Dinner: 7:00 PM – Speaker: 8:00 PM

**\$25.00 per person. LIMIT 200—PLEASE CANCEL IF YOU CAN'T MAKE IT SO OTHERS CAN GET IN.
Cancellations please no later than Dec. 18th at 4 p.m. No shows will be billed \$25 each.**

Location: Elks Lodge, 597 Kumle Lane, Reno, NV

Directions: across (W) from the Reno-Sparks Convention Center
(S. Virginia Street, behind the Les Schwab Tire Center)



Mining History of the Schroeder, Richmond, Lynn and Bootstrap Districts (Carlin Trend), Nevada, 1875 – 1961

Dean G. Heitt

In 1877, prospectors searching for riches in the Tuscarora Mountains north of the town of Carlin, Nevada discover silver – lead deposits in an area that would eventually become the Richmond district. Discoveries made at the time were small and none would become producing mines but proved that the area was worthy of prospecting. In the following years, other districts would be discovered including the Schroeder, Lynn and finally the Bootstrap district. Discovery of placer gold by Joe Lynn in 1907 was the first significant gold find in the area but it clearly was not the last.

Between 1877 and 1961 these districts produced not only gold but copper, lead, silver, antimony, barite, turquoise and even marble. When compared to other districts in Nevada worked at the same time, the discoveries north of Carlin would seem insignificant in comparison. However, when these mines and discoveries were plotted on a map and combined with the geology of the area they formed an alignment and provided an exploration model that would lead to the discovery of one of the largest gold camps in the world.

This is an account of the mines, people and events that came before discovery of the Carlin Mine. This history is largely based on accounts from local and regional newspapers with a smattering of information from the “professional literature”. It is the story of the “Mud Springs Millionaire’s”, Spirit Ore and some of the world’s largest and best turquoise nuggets. It is also about the discovery and mining of several “Carlin Type” orebodies prior to the Carlin Mine discovery.

Thanks to TonaTec Exploration, LLC

For Hosting the November 16, 2012 Meeting in Reno!

“FACES OF GSN”

Laura Ruud

G.S.N. Office Manager and Bookkeeper

So they finally talked me into being the Face of GSN for this month, although I think my face is best left hidden behind the GSN emails!

I was born in Corpus Christi, Texas to Jack & Eileen Nelson; lucky #7 of their 13 children (a true middle child!). Dad and Mom both came from farming families in southern Indiana where we spent 3 weeks of every summer vacation exploring the woods around my Grandma's farm. I fell in love with the limestone cliffs and layered sandstone creek beds there. Dad was a WWII and Korean War vet who got a Masters degree in Geology from Indiana University on the GI Bill. His first and only job was as a petroleum geologist with Standard Oil of Texas (later to become Chevron) in Corpus Christi. When I was 2, my Dad was transferred to Midland, Texas where I have fond memories of climbing trees, playing with horned toads and millipedes, and occasionally running from scorpions, tarantulas and rattlesnakes! With 7 brothers and 5 sisters we were never bored. When I was 10, Chevron transferred Dad to Denver and I did the rest of my growing up years in Golden, Colorado. Our house had its own “playground” right in front of the abandoned Coors clay pits which have since been turned into a public “Triceratops Trail” and the Fossil Trace Golf Course. Who knew those vertical sandstone walls that we spent countless hours running around bore 68 million year old dinosaur tracks and other fossils?!



While attending Golden Jr. High in the mid-70s, I walked daily across the Colorado School of Mines campus. There sure were a lot of “men” on that campus and they were all so old, 18-22 years old! After graduating from Golden High School in 1979 I ruled out CSM as a college destination (way too close to the home that was still filled with my parents and 8 siblings) and CU-Boulder (my Dad didn't want me to go that “hippie” school), and finally decided to attend Western State College of Colorado in Gunnison. Two of my favorite teachers at GHS graduated from there and thought it would be a good fit for me. Indeed it was. I enrolled in Geology 101 and within the first month decided Geology was the major for me. My WSC professors were incredible and made sure we got out of the classroom and into the geology as much as possible. Bruce Bartleson, Tom Prather and Fred Menzer were truly gifted Geology professors and the basics I learned from them were rock solid.

WSC is also where I met my future husband, Eric. He gave me and my friend a ride back to the dorms in his '57 Ford after a “mineralogy exam” post-party at Dr. Menzer's house one cold night when the temperature was 20 below zero! My friend said I had to sit in the middle next to him. I thought he was so handsome, nice and funny. His nickname was “Mr. Social” in the Geology Dept. and I was hooked on him from there on out. We've been married 27 years now.



On top of Italian Mountain NE of Gunnison during a class field trip, 1982. (GSN member Marco Montecinos was there too!)

I graduated with a Bachelors in Geology in 1983 having focused my studies in Petroleum Geology. Unfortunately that was the same time that the price of oil was spiraling downward to under \$20 per barrel and everyone was getting laid off in the industry. (Can anyone relate?) I applied at over 100 companies and no one was hiring. My parents were selling the family home in Golden and retiring back to the farm in Indiana so I had to get a job immediately to pay my bills and my college loan. I worked as a teller at 1st National Bank of Golden, while always keeping my eye out for that chance to get a job in geology. My chance came in 1984 during a bowling league night where I met my teammate's boyfriend who was the core warehouse manager of Surtek Oil (a secondary oil recovery company). He hired me on as his warehouse helper where I learned how to run a lathe, drill press, rock saw, porosity/permeability machine (that he built himself) and a crusher. It was all 6” and 8” diameter core that we stored in oil in these 5 foot long PVC pipes. Needless to say I was in good shape back then! We also photographed the sawn core for the clients and developed the film in the darkroom he had built in the warehouse. I learned a lot that Fall and in January 1985 the geologist at the company sent me to Kentucky to sit my first oil rig! I was there for 30 days and on call 24/7. We drilled 7 production holes on a farm in Utica just south of Owensboro where we had an existing polymer injection plant. The temperatures were below zero much of the time and I marked my first fresh core at 2 a.m. in freezing sleet and howling wind. It was so cold and I was so tired but I loved it! The next project they sent me on was sitting a rig in northeastern Wyoming just outside of Newcastle that May. The weather was much nicer and I really enjoyed my time there.



April 2012 w/Eric, Alex & Erica

The oil field work dried up in December of 1985 so I decided to follow Eric (who I had married in Oct. 1985) to Reno in Jan. 1986. He had been transferred here with Cone Geochemical back in Dec. 1984 and we decided it was probably time to finally live together as a married couple. When I arrived in Reno, I again found myself looking for work as a geologist but I didn't have the "right kind" of experience for economic geology. I went back to the teller business at Nevada National Bank on Mill & 395 (now B of A) where I remember meeting Anne Loring who was the Treasurer of GSN at the time. If I remember correctly, she was opening the first GSN checking account there that we still have today. After about a year and a half I decided that banking really wasn't for me so I went to work for GD Resources, a South African refinery and assay lab on E. Glendale in Sparks, Nevada. I worked in the AA lab for 2 years and it was during that time that we had our first child, Alexander, born in June 1988. GD closed their lab in June 1989 and Eric hired me as the Office Manager at Cone. Our second child, Erica, was born in February 1990. Many of you have known our kids since they

were born and watched them grow up into young adults. They are the light of our lives and we are so proud of them! Alex is working on a Masters in Computer Science while working part-time at Mine Development Associates in Reno. Erica is graduating from UNR on Dec. 8th with a degree in Nutrition/Dietetics. Although I was always working during their childhood, I was still able to volunteer in their classrooms, lead the Girl Scout troop, coach the soccer teams, be PTA Treasurer and JROTC Booster Club President over the years. Those were crazy busy years but I treasure them now.

My first experience with the GSN was attending meetings with Eric back in 1986. My volunteering started in 1990-1992 helping Eric with the Treasurer duties. When Eric's term was up, the GSN decided to hire me as the Bookkeeper as a permanent temporary employee through CGS Personnel. I have done the GSN's bookkeeping almost continuously since 1990. Eric left Cone and went to Bondar Clegg in 1996 so I also had to leave Cone and found a job at Sierra Mining Engineering. That's where I learned how to run a computer! I quit there in 1999 to take on the Office Manager position for the GSN Symposium 2000. After Donna Bloom quit as the GSN Office Manager in Sept. 2000 I was asked if I wanted the job. Of course I said yes! It was part-time, hourly pay, and no benefits back then but I was happy to have that job! When Eric was laid off by Chemex in

2002 after the merger with Bondar Clegg, our family needed health insurance so I unhappily resigned from my GSN job to take a full-time position with the Nevada Bureau of Mines & Geology as an Administrative Assistant. I worked there until the Summer of 2005 when Andrea Robinson quit the GSN Office Manager job and I was asked to come back again to help them out in my old position. I transferred to a part-time job with the Renewable Energy Center on the UNR campus so I could retain my health insurance. I did both "part-time" jobs for 2 years and was overwhelmed with trying to get everything done in only 50 hours a week! The funding ended for the Renewable Energy job in 2007 and I was again without insurance so when I was offered a full-time job with benefits as the head Administrative Assistant for the Mechanical Engineering Dept. at UNR, I took it. At that point I left the Office Manager position at GSN once again but continued on as the GSN Bookkeeper, working after 5 pm and on weekends handling all of the books for them. In August 2011, the GSN was once again in need of an Office Manager and I was thrilled when they offered me the full-time job! I love working for GSN. I get to go on field trips and exhibit our publications at mining conferences. I really enjoy attending the Elko and Winnemucca Chapter meetings whenever I can too!



My family at the farm in Birdseye, IN for Mom & Dad's 60th Anniversary in June 2011. Only missing a few!

The best part of the GSN is its multitude of wonderful members! It is an amazing organization that is run by dedicated volunteers whose help I am always grateful for. I am so happy to be back and hope that I will be able to stay here for many years.

For fun, I love to ski at Mt. Rose in the Winter & Spring and explore Nevada in the Summer & Fall. But what I enjoy most in life is visiting my parents & siblings who live all over the U.S. in the states of Alaska, Washington, Colorado, Texas, Wisconsin, Alabama and Indiana. There is always a wedding, birthday party or reunion to attend somewhere. Life is good!



Crested Butte—Feb. 2012



G.S.N. WINNEMUCCA CHAPTER FUNDRAISER MEETING-SILENT AUCTION WEDNESDAY, DECEMBER 12, 2012



Location: The Martin Hotel, 94 West Railroad St. Winnemucca, NV

Time: Refreshments @ 6 pm, Appetizers @ 6:30, Talk @ 7:00



Drinks & Appetizers Sponsor:

INSPECTORATE AMERICA



Presenter: Robert Anderson

Topic: “UNR SEG 2012 Field Trip: Mineral Deposits of Western Turkey”

Abstract

Each year the University of Nevada, Reno’s Society of Economic Geology Student Chapter organizes a spring break trip visiting notable mineral deposits both locally and internationally. Previous trips have included mineral deposits in New Zealand, Australia, Mexico, Chile, the Carlin Trend and the US southwest. Our most recent trip occurred this past March, visiting a diverse group of producing and exploration properties in western Turkey.

Turkey is host to a wide range of deposit types, including porphyry Cu ± Mo, porphyry Au, skarn, VMS, podiform chromite, MVT, SEDEX, and both high and low sulfidation epithermal deposits. Following efforts in the 1980’s to increase private and international investment, Turkey has seen rapid growth in the development of its mineral resources. Fifteen years ago, 85% of Turkey’s mining operations were controlled by the state. Today that ratio is reversed.

Visiting a number of these more recent operations and exploration targets, site visits for the trip included Teck Cominco’s Halilaga porphyry Cu exploration project and Tuprag’s Kisladag Mine, a porphyry Au system and one of the largest Au deposits in Eurasia. Western Turkey is also home to a number of young, extensional related LS epithermal systems similar to those here at home in Nevada. Visits to these LS systems included Koza Gold’s Ovacik Mine, Eldorado Gold’s Efemcukuru Mine, and Eurasian Minerals Akarca exploration project. Of note, mining operations in Turkey take a special approach to public relations. With cyanide containers covered in pictures of flowers and reclaimed waste dumps draped in olive orchards—complete with herds of livestock and bee keepers—each visitor is given a container of local, mine-produced olive oil when leaving Ovacik. I’ve yet to try it, but the novelty of it is amazing. While the more recent operation at Efemcukuru is flanked with vineyards, the first batch is to be bottled next year. Nothing like mine-produced Merlot.

In addition to geologic tourism, a number of historical and cultural sites were visited on this trip. Two weekends were spent in Istanbul, the third largest metropolitan area in Europe after London and Moscow. Here sites included the Roman hippodrome, the Byzantine Empire’s magnificent church of Hagia Sophia, and the 18th century Blue Mosque. While visiting Canakkale, the 97th celebration of the WWI naval battle of the Dardanelles—a point of Turkish national pride—was in full swing. Other cultural sites visited in western Turkey included the fabled ruins of Troy, the Red Basilica in Bergama, and the Roman acropolis of Pergamum, Europe’s second best preserved Roman ruins. Additionally, the 1000 mile road trip through Anatolia provided a first hand view of not only major metropolises of Turkey, but also the vast rural nature of the countryside. More than once, traffic jams consisted of herds of goats clogging rural villages; our black Mercedes diesel vans the only vehicles on the road. And the food... oh the food.



Events: *The Winnemucca Chapter will be selling T-shirts and Koozies along with hosting a silent auction to benefit future Winnemucca GSN events. For the auction we have already received some donations including two microscopes with light sources. However, we are still looking for more items. If you have any items you would like to add to the auction please contact Leann Graf by December 7th (775-304-7406).*



**G.S.N. ELKO CHAPTER
CHRISTMAS MEETING
THURSDAY, DECEMBER 20, 2012**



Location: Western Folklife Center, Elko Nevada

Catering by: Luciano's Catering

Time: Refreshments @ 6:00 p.m.; Appetizers Served @ 6:30 p.m.; Entertainment @ 7:00 p.m.

Sponsored by: Boart Longyear



**GSN DECEMBER 19TH MEETING
SILENT AUCTION & RAFFLE ITEMS STILL NEEDED!!**

The annual GSN Christmas meeting and GSN Foundation fundraiser Rock Raffle and Silent Auction is just around the corner—Wednesday, December 19! We hope we can count on you, the GSN members, to donate items for this event as you have in the past. Mineral specimens and gold samples are most desirable and other popular items include gift baskets and gift certificates; logo-srag; artwork; hand-crafted items; wine and other spirits; jewelry; commemorative coins, etc.

Any items that you wish to donate can be dropped off at the NuLegacy Gold Office (5450 Riggins Ct. Suite 1B), the GSN Office, or with D.D. LaPointe, NBMG & Keck Museum, or call D.D. at (775) 240-4916 to arrange pick-up of donated items in the Reno-Sparks-Carson City area. Thank you for continuing to make this a successful event for the GSN Foundation!

We need to have all items in hand before Friday, December 14, 2012 in order to prepare labels and make bid sheets. Donors will have their names displayed on signs at the event as well as having their names listed in the January newsletter.



Activity Update

Mike Brady, October 2012

www.activityupdate.com

NEVADA

Great Basin Gold Ltd. announced that recent experience at the Hollister Mine yielded “grade fluctuations”, lack of available working stopes and high personnel turnover resulting in a lower than expected output. The notice went on to state that due to the company’s difficult financial situation, it may have to consider a sale of the property. (resource = 337,500 tonnes @ 73.72 gpt Au, 618 gpt Ag measured) *N.M.:* September 24

Yukon-Nevada Gold Corp. announced that it changed its name to Veris Gold Corp. *Press Release:* October 9

Freeport McMoRan Mineral Properties Inc. announced that it acquired an option to purchase a 100% interest in the Butte Valley Property from Quaterra Resources Inc. for \$2,000,000. (resource = 181,800,000 tonnes @ 0.60% Cu inferred) *Press Release:* October 4

Sniper Resources Ltd. announced that it acquired an option to purchase an additional 30% interest (to hold 100%) in the Laura Property from Columbus Gold (US) Corp. for 1,500,000 shares. *Press Release:* October 23

Scorpio Gold Corp. announced that it would purchase a 100% interest in the Goldwedge and Pinon properties from Royal Standard Minerals Inc. for \$1,250,000 and 3,000,000 shares. *Press Release:* October 11

Pilot Gold Inc.(51%) announced that recent drill results at the Kinsley Mountain Project include 4.6 meters @ 9.5 gpt Au (PK067) and 6.1 meters @ 2.48 gpt Au (PK066). (resource = 1,795,000 tonnes @ 1.13 gpt Au inferred) *Press Release:* October 9

Patriot Gold Corp. announced that recent drill results at the Bruner Project include 68.4-87.4 meters @ 2.07 gpt Au (B-1207C) and 205.3-249.0 meters @ 2.27 gpt Au (B-1207C). *Press Release:* October 9

Nevada Sunrise Gold Corp. announced that recent drill results at the Golden Arrow Project include 188.9-193.6 meters @ 0.42 gpt Au (GA12-355); 57.9-65.5 meters @ 0.54 gpt Au (GA12-356); 99.1-103.6 meters @ 0.61 gpt Au (GA12-357) and 291.1-298.7 meters @ 1.0 gpt Au (GA12-361). (resource = 11,065,000 tonnes @ 0.82 gpt Au, 11.3 gpt Ag measured+indicated) *Press Release:* October 4

International Enxco Ltd. announced that based on recent drill results at the Contact Copper Project, resources aggregate 196,100,000 tonnes @ 0.25% Cu measured+indicated and 64,474,000 tonnes @ 0.24% Cu inferred. (was 122,900,000 tonnes @ 0.26% Cu measured+indicated and 48,500,000 tonnes @ 0.27% Cu inferred) *Press Release:* October 10

Corvus Gold Inc. announced that recent drill results at the North Bullfrog Project include 131.1-150.9 meters @ 0.76 gpt Au (NB12-153); 15.2-25.9 meters @ 0.17 gpt Au (NB12-154); 36.6-65.5 meters @ 0.84 gpt Au (NB12-161) and 48.8-73.2 meters @ 0.34 gpt Au (NB12-162). (resource = 15,230,000 tonnes @ 0.37 gpt Au, 0.44 gpt Ag indicated) *Press Release:* October 9

Max Resource Corp. announced that recent drill results at the Majuba Hill Project include 71.6-73.1 meters @ 0.50% Cu, 36.4 gpt Ag (DSM-01); 46.5-54.3 meters @ 0.57% Cu, 28 gpt Ag (DSM-02) and 19.5-25.9 meters @ 0.70% Cu, 38.8 gpt Ag (DSM-06). *Press Release:* October 2

**AIPG CHRISTMAS EXPLORATION
ROUNDUP**

Tuesday, December 11, Ramada Hotel
(6th & Wells)
6:00 Open Bar, 7:00 Dinner, 8:00 Program

Companies

Pilot Gold, Renaissance Gold, NuLegacy,
Western Lithium, Golden Predator,
Newmont, McEwen Mining, Barrick

Meeting Sponsor: Geopros, Inc.

\$50 AIPG/GSN Members; \$60 Others (cash,check)
Mackay Students: Free

Reservations: Kel Buchanan
(summitcrk@aol.com)
775-786-4515, fax 786-4324
by December 7, 2012 @ 5:00 p.m.

*Mineral Specimens from Mark Stock
to be Auctioned to Benefit
AIPG UNR Club field trips*

MINERAL SALE AT U.N.R.!!

The "Mackay Rockhounds"
Student Geology Club at UNR

is having a mineral sale on
"Dead Day", Wednesday, Dec. 12
at the W.M. Keck Museum on the
UNR campus from 10 AM to 1 PM

Lots of great minerals at (haha)
"ROCK-BOTTOM" prices!

*Half the sale proceeds go the Museum
and half go to the Mackay Rockhounds for
their geologyfield trips.*



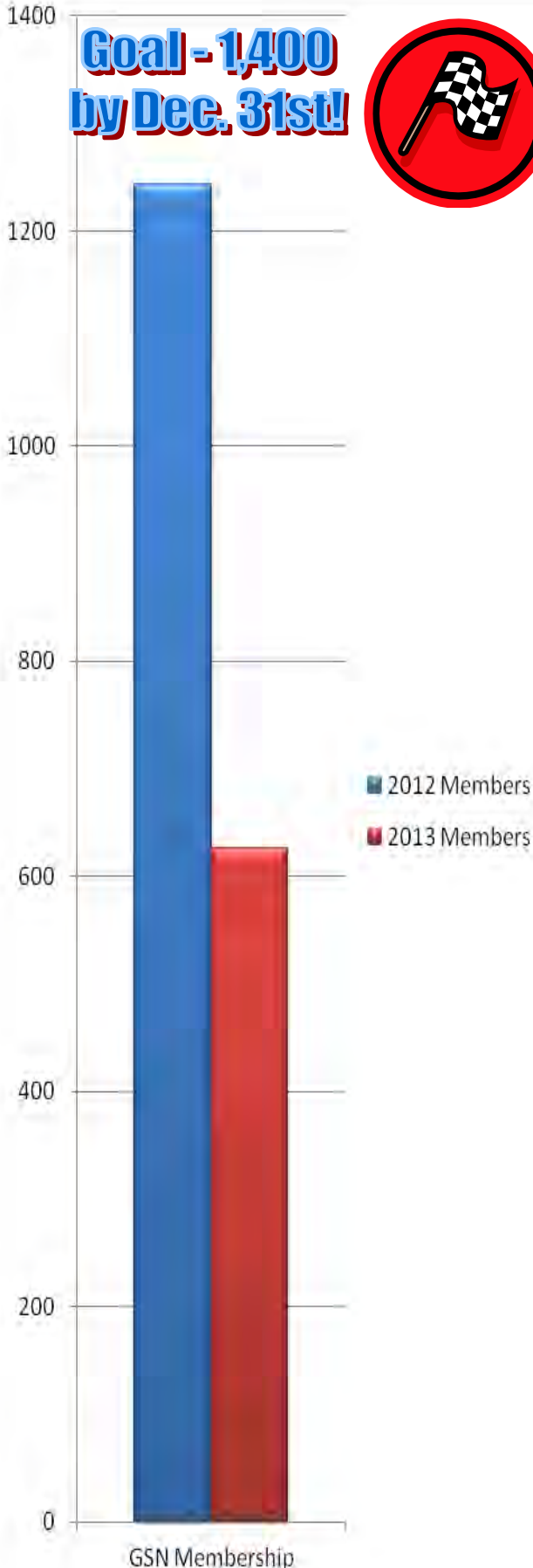
2013 GSN DIRECTORY

Download the GSN Directory Advertising Order Form from the
GSN website: <http://www.gsnv.org/membership.html>

Members who wish to advertise in the 2013 GSN Membership
Directory should submit a camera- ready high resolution black
and white digital copy no later than December 28, 2012 to
gsn@gsnv.org

Please send your advertisement and check or credit card number by Dec. 28th to:
Geological Society of Nevada, 2175 Raggio Parkway, Room 107, Reno, NV 89512
E-mail digital advertisements to: gsn@gsnv.org Preferred formats are JPG, PNG, DOCX

**Goal - 1,400
by Dec. 31st!**



**NBMG/GSN "2014 Nevada Geology
Calendar Photo Contest !!!**

**ENTRIES BEING ACCEPTED NOW FOR THE NEVADA
GEOLOGY 2014 CALENDAR CONTEST!
Who better than Geologists to take photos of the endless
grandeur of the Geology in Nevada?**

- 1. Deadline for entries is March 31, 2013.**
- 2. Photos need to be taken in Nevada. A location description and/or GPS coordinates should accompany submissions along with description.**
- 3. High quality, high resolution photo files of at least 300 dpi are required for quality printing.**
- 4. E-mail submissions to gsn@gsnv.org**

**FABULOUS PRIZES WILL BE AWARDED FOR 1ST, 2ND AND
3RD PLACE WINNERS! (NBMG Cartographers will have final
say on 2014 calendar photos)**



***The Northern Nevada Section of the
Society for Mining, Metallurgy, and
Exploration, Reno, Nevada***

***Invites you to their
ANNUAL CHRISTMAS PARTY***

***Saturday, December 8, 2012
The Mandalay Ballroom
Circus-Circus Hotel and Casino, Reno***

***Cocktails & Hors d'oeuvres: 6-7:00p.m.
Dinner: 7-8:30p.m.
Dancing and Door Prizes 8:30 to 11:00 P.M.!***

***Cost: \$70.00 per person
Menu: New York Steak or Chicken Mediterranean***

***Gold Sponsorship: \$1000 (includes 4 dinner tickets)
Silver Sponsorship: \$750 (includes 2 dinner tickets)
Copper Sponsorship: \$500 (includes 1 dinner ticket)***

***Please make reservations, with dinner preference,
by Monday December 3, mail checks to:
Diane Lightwood (dlightwood@unr.edu)
P. O. Box 20486 Reno, Nevada 89515
Phone: 775-682-7379***

*Thank you to our
generous donors in November*

G.S.N. FOUNDATION

GOLD LEVEL DONORS \$500-\$999

Richard Hipsley

SILVER LEVEL DONORS \$100-\$499

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Party Friday, December 7, 2012***

*Ramada Reno Hotel Skyline Room
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Cocktails 6:30 PM Skyline Bar, 14th Floor

Hosted by Barbour Well, Inc.

Buffet Dinner 7:15 PM

*Raffle, Gift Exchange
\$25/person for NPS Members & Guests*

*Please bring a wrapped gift for the
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The Geological Society of Nevada (GSN) is a non-profit, educational organization whose principal objective is to promote the advancement of geological sciences, especially as they relate to Nevada. GSN supports the dissemination of information through meetings, field trips, publications and academic endeavors. Membership is open to geologists, geophysicists, geochemists, engineers, educators, students, prospectors or anyone else with an interest in the geological sciences and/or the goals of the GSN.

The membership year begins on January 1. Annual dues of \$50.00 (\$25.00 for full time students) are due prior to December 31. The GSN conducts a Field Trip in the Fall and one in the Spring of each year. Monthly meetings are held in Reno, Winnemucca, and Las Vegas (Southern Nevada Chapter) September through May. The Elko Chapter holds meetings January through December.

Please help support the GSN Foundation when renewing. Foundation dollars are used for the Kindergarten through 12th grade Field Trip Grant Program, Nevada Mapping Grants and University of Nevada scholarships.

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ROCK TALK

Field Geologists (Finally) Going Digital

ScienceDaily (Nov. 5, 2012) — Not very long ago a professional geologist's field kit consisted of a Brunton compass, rock hammer, magnifying glass, and field notebook. No longer. In the field and in the labs and classrooms, studying Earth has undergone an explosive change in recent years, fueled by technological leaps in handheld digital devices, especially tablet computers and cameras.

Geologist Terry Pavlis' digital epiphany came almost 20 years ago when he was in a museum looking at a 19th-century geology exhibit that included a Brunton compass. "Holy moly!" he remembers thinking, "We're still using this tool." This is despite the fact that technological changes over the last 10 years have not only made the Brunton compass obsolete, but swept away paper field notebooks as well (the rock hammer and hand-lens magnifier remain unchallenged, however).

The key technologies that replace the 19th-century field tools are the smart phone, PDA, handheld GPS, and tablet PC and iPad. Modern tablets, in particular, can do everything a Brunton compass can, plus take pictures and act as both a notebook and mapping device, and gather precise location data using GPS. They can even be equipped with open-source GIS software.

Pavlis, a geology professor at The University of Texas at El Paso, and Stephen Whitmeyer of James Madison University will be presenting the 21st-century way to do field geology on Monday, 5 Nov., at the meeting of the Geological Society of America (GSA) in Charlotte, N.C. The presentations are a part of a digital poster Pardee Keynote Symposium titled, "Digital Geology Speed-Dating: An Innovative Coupling of Interactive Presentations and Hands-On Workshop."

"I had a dream we would not be touching paper anymore," says Pavlis. "I'm now sort of an evangelist on this subject."

That's not to say that the conversion to digital field geology is anywhere near complete. The new technology is not quite catching on in some university field courses because the technology is more expensive and becomes obsolete quickly, says Pavlis.

"Field geology courses are expensive enough for students," he notes. As a result, the matter of teaching field geology with digital tools is actually rather controversial among professors.

Meanwhile, on the classroom side of earth science education, there are new digital tools that bring the field into the classroom. One of them is GigaPans -- gigantic panorama images.

"A GigaPan is basically a really big picture that's made of lots of full-resolution zoomed-in photos," explains geologist Callan Bentley of Northern Virginia Community College. To make a GigaPan, you need a GigaPan Robot that looks at the scene and breaks it into a grid, then shoots the grid. That can result in hundreds or even thousands of images. The GigaPan system then stitches them together. The resulting stitched image is uploaded to the GigaPan.org website where everybody can see it.

"In geology, we look at things in multiple scales," says Bentley. "A well-composed GigaPan is very useful." Bentley will be presenting GigaPans at the same GSA meeting session as Pavlis, along with others using the latest technology to study and teach geology.

GigaPans were developed by Google, NASA, and the robotics lab at Carnegie Mellon University. Bentley got involved when the "Fine Outreach for Science" program recruited him. Since then, he has been documenting geology of the Mid-Atlantic region.

"I have used some of it in the classroom," said Bentley. "I have students look at a scene, make a hypothesis then look closer to test the hypothesis."

Story Source:

The above story is reprinted from [materials](#) provided by [Geological Society of America](#).

GEOLOGY JOKE CORNER

Q: What do you call a periodic table with gold missing?

A: "Au revoir"

Q: Why wasn't the geologist hungry?

A: He lost his apatite.

Q: Why shouldn't you lend a geologist money?

A: They consider a million years ago to be Recent.

source: <http://www.jokes4us.com/miscellaneousjokes/schooljokes/geologyjokes.html>

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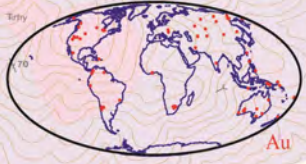
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