

# GEOLOGICAL SOCIETY OF NEVADA NEWSLETTER

Geological Society of Nevada, 2175 Raggio Parkway, Room 107, Reno, NV 89512  
(775) 323-3500 - Hours Tuesday -- Friday, 8 a.m. to 3 p.m. Monday by appointment.  
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## CALENDAR OF GSN EVENTS

May 7, 2015  
Thursday

### SO. NEVADA CHAPTER—(1st Thursday of the Month)

The So. NV Chapter meeting being held at the Las Vegas Natural History Museum, 900 Las Vegas Blvd. North, 5:30 p.m. **Speaker: Lance Prothro, National Security Technologies.** Title: "Confronting the Dragon: Geology, Geologists, and the Nevada National Security Site". Please contact Josh Bonde for more information [Joshua.bonde@unlv.edu](mailto:Joshua.bonde@unlv.edu). Details pg. 7.

NO MAY  
MEETING

WINNEMUCCA CHAPTER MEETING—NO MEETING THIS MONTH!  
SEE YOU INSTEAD AT THE G.S.N. 2015 SYMPOSIUM!!!

NO MAY  
MEETING

ELKO CHAPTER MEETING —NO MEETING THIS MONTH!  
SEE YOU INSTEAD AT THE G.S.N. 2015 SYMPOSIUM!!!

NO MAY  
MEETING

GSN Regular Membership Meeting —NO MEETING THIS MONTH!  
SEE YOU INSTEAD AT THE G.S.N. 2015 SYMPOSIUM!!!

May 14-23,  
2015



### GSN 2015 SYMPOSIUM—"NEW CONCEPTS & DISCOVERIES" IS HERE!!

Register online now for this don't-miss "once every 5 years" Technical Conference put on by volunteers of the GSN. Register NOW for field trips, short courses, technical programs, SEG Forum, Exhibit Hall passes, etc. at <http://gsnv.org/2015-symposium/>. **REGISTRATION FORM ON PAGE 9-10.**

June 12, 2015  
Friday

### G.S.N. MEMBERSHIP—BOARD OF DIRECTORS PICNIC

The GSN Board of Directors will personally host a GSN picnic for the membership on Friday, June 12, 2015 at Rancho San Rafael Park, Pagoda Pavilion, Reno, Nevada. Contact Laura Ruud at the GSN office to RSVP, [gsn@gsnv.org](mailto:gsn@gsnv.org). See details on page 16.

June 13, 2015  
Saturday

### G.S.N. GOLF TOURNAMENT

The GSN Golf Tournament will be held at Washoe Golf Course, 2601 Foley Way, Reno, NV this year. Shotgun start at 1 p.m. Golf Tournament sponsor once again is **BUREAU VERITAS MINERALS** (formerly Inspectorate and Acme Labs) See details and registration form on page 11!!



REGISTER ONLINE TODAY!!

<http://www.gsnv.org/2015-symposium>

# THANK YOU!!!!!!!!!!!!

Thank You to All of our Generous Sponsors This Year!

The G.S.N. Executive Committee, Board Members,

Foundation and especially the GSN Members

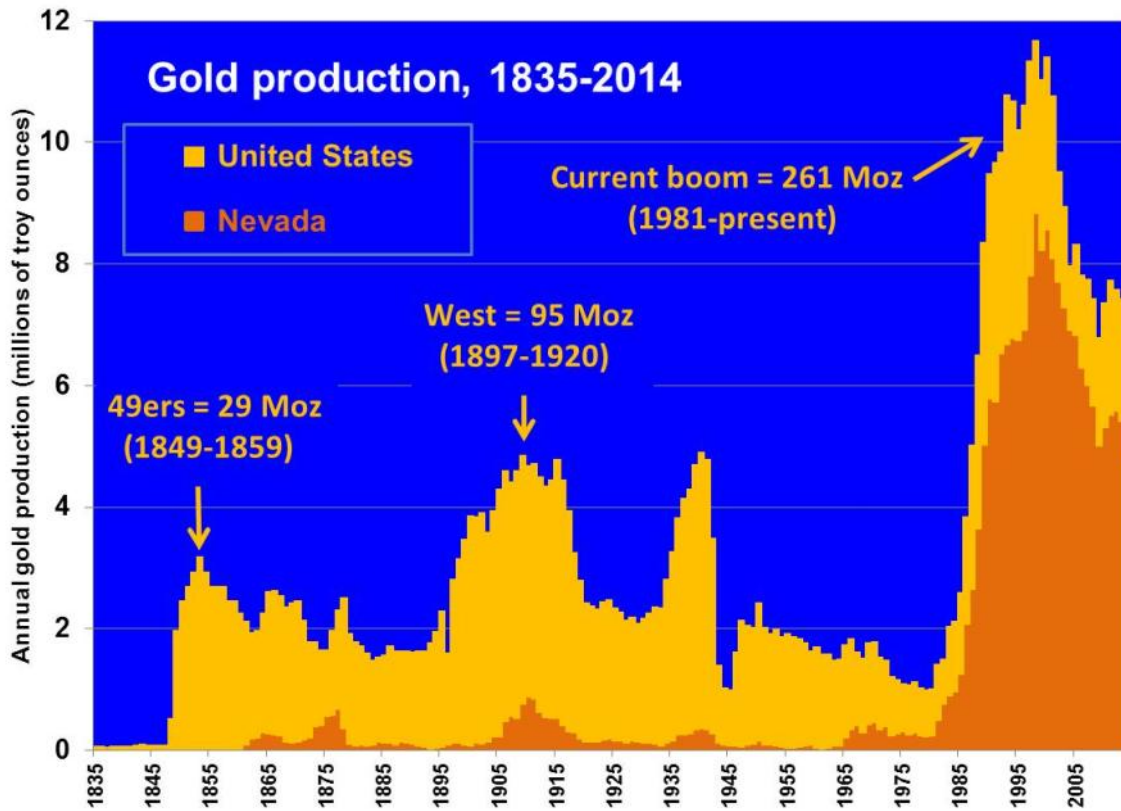
appreciate your generosity throughout the year!



**FROM THE PRESIDENT, MAY 2015**  
**“Another Reason Why Nevada is a Great Place to Explore”**

**Jon Price, G.S.N. President 2014-2015**

We are in the midst of the biggest gold-mining boom in American (and world) history. As illustrated in the graph below, the current boom outpaces earlier booms, including the California gold rush of the 49ers and the series of gold rushes in the western U.S. around the turn of the 19<sup>th</sup> to 20<sup>th</sup> century. The current boom has been longer in duration, higher in its peak annual production, and larger in cumulative production. Why has Nevada been at the center of this boom? The simple answer is geology. But it's perhaps more complicated than simply a geologically favorable area with a tectonic and magmatic history conducive to forming ore deposits. Part of the answer is the Geological Society of Nevada and its members.



Historical gold production in the United States and Nevada, 1835 to 2014. Data are from the U.S. Geological Survey, former U.S. Bureau of Mines, and Nevada Bureau of Mines and Geology.

Many of our members worked in Nevada in the early days of the boom and contributed to the geological knowledge base. Others arrived later but also made significant contributions to our knowledge of the geology and the mineral deposits. They raised capital for exploration and development. They traversed the state in search of geochemical and mineralogical indications of ore, and they occasionally used geophysical techniques to better define targets. (Cont. pg. 3)

**THANK YOU TO GEOTEMPS/GEOPROS, INC.**  
**for sponsoring the APRIL 17TH MEETING!**

# NO GSN Membership Meeting in MAY!!

We hope to see you at the G.S.N. Symposium at the Nugget, Sparks, NV—May 14-23, 2015

Register online @ <http://www.gsnv.org/2015-symposium>

(President's Message. Cont. from pg. 2)

They drilled, and drilled more and deeper. They presented updates on their discoveries at monthly GSN meetings. They published on many of their discoveries in GSN Symposium Volumes and in GSN fieldtrip guidebooks. They mapped Nevada's geology locally in great detail, and they published maps through the Nevada Bureau of Mines and Geology and the U.S. Geological Survey. They helped to formulate state and federal government policies that allowed exploration and mining the flourish on private and public lands.

It is not surprising that the excellent presentations and publications resulting from the GSN symposia (starting in 1987, followed in 1990, then every five years hence) have coincided with the current gold boom. In part the contributions of GSN members are a reflection of the heightened exploration and production activity, but I suggest that part of the boom can be attributed to the stimulation that GSN members and GSN publications have made in promoting Nevada geology. GSN members continue to contribute to the knowledge base that helps attract more exploration and increases the chances of discovery in Nevada. Come to the 2015 GSN Symposium – *New Concepts and Discoveries* – to learn how the boom will be sustained.

Upcoming GSN highlights in Reno include:

GSN 2015 Symposium, May 14-24, including short courses and field trips.

Friday, June 12 (starting at 4:00 p.m.) – BBQ at Rancho San Rafael – with a reinstatement of the traditional exploration games of the rock-hammer toss and the gold-pan toss.

Saturday, June 13 – the GSN Golf Tournament (watch for details from Laura)

Friday, July 24 – GSN night at an Aces game

Late August – the Silver Series lecture and pot-luck dinner

Friday, September 18 – the next regular meeting in Reno.

As many as 5,000 teachers are expected to attend the National Science Teachers Association area conference in Reno on October 22-24 (Thursday-Saturday), 2015. The Minerals Education Coalition (MEC) of the Society for Mining, Metallurgy & Exploration is coordinating activities at a 10x20-foot geology and mining booth in the exhibition hall at the Reno-Sparks Convention Center. They will bring various posters and handouts for the teachers to take back to their classrooms. The Education Committee of the Nevada Mining Association is gathering samples of ores and minerals (1,500 each) to give away, and the Mackay students will be helping to put the samples and labels in plastic bags. We expect to get gold ore from Round Mountain, silver ore from Coeur Rochester, copper-silver ore from Phoenix, diatomite from Pershing County, gypsum from Empire, barite from Lander County, and pumice from California. GSN volunteers will be most welcome to assist in explaining to teachers the importance of mining and the uses of the metals and industrial minerals as they pick up their samples. Booth times are 11:00 a.m. to 5:00 p.m. on Thursday, 9:00 a.m. to 3:00 p.m. on Friday, and 9:00 a.m. to noon on Saturday. If you can help, please send Rachel Grimes, MEC Outreach Coordinator <[rgrimes@snet.net](mailto:rgrimes@snet.net)> and me <[JonathanGPrice@alumni.ls.berkeley.edu](mailto:JonathanGPrice@alumni.ls.berkeley.edu)> an e-mail.

Please note that the GSN membership year begins with our fiscal year, starting June 1. Therefore, pay your dues as soon as possible for the 2015-2016 GSN year, and see the January newsletter for the reasons why signing up for life membership makes sense for nearly everyone.

It has been an honor and pleasure to serve as your GSN Vice President last year and as GSN President this year. We have had great participation at monthly meetings in Reno, Elko, Las Vegas, Winnemucca, and Battle Mountain, and with organizing the Symposium. Members of the Executive Committee and of the Board of Directors have been most helpful. Most appreciated is the help of Laura Ruud, our Office Manager/chief operating officer. Thanks to all.



## “FACES OF GSN” Kristen Benchley

It seems quite naive now, but in 2002 I did not realize that geologists were looking for gold in Nevada (or anywhere else in the world). I had just graduated from the University of Vermont with a BS Degree in Geology and moved to Alpine Meadows, CA to live the ski bum life with college friends. The River Ranch Lodge gave me a job as a cocktail waitress where I met Geologist/Ski Patroller/Crown Royal drinking Gene Urie. He explained to me what he did as an exploration geologist, the cyclic nature to the gold business and the fact that there were very few jobs at that time, but things would pick up someday. That “someday” came for me in the fall of 2004 when Gene contacted me about an exploration job, working for Bob Cuffney at White Knight Gold (WKG). I started off doing general office work and then one day in the spring of 2005 Bob brought out a box of rocks and told me to identify all of them. Bob stood over me (probably contemplating why he hired this clueless girl) while I completely struggled to identify them. “Jasperoid? I’ve never heard of that rock!” My face turned red from the sudden quiz that I soon learned was a part of Bob’s initiation ritual. As another part of the initiation to the industry and Nevada geology Bob sent me on the 2005 GSN Symposium Carlin Trend field trip where I saw my first open pit gold deposit. I couldn’t believe that while driving across I-80 for the first time in 2002 I hadn’t noticed all the mining activity in the state.

As far as a first job, I got extremely lucky that I landed with the WKG crew. I spent 2.5 years working a 10/4 rotation out of Eureka, NV, roaming in the Roberts Mountains and learning from a dedicated group of geologists. Not to say it wasn’t full of challenges. Bob decided that I would begin my second field season acting as “Project Geologist” at Gold Bar Horst. Bob, with his blunt constructive criticism, made it clear that I needed to be planning ahead for my three week drill program. Well, after being stuck on the first drill hole for a month and then it taking two months to complete the remaining holes I learned quite a lot about RC drilling and what can go wrong! Having to think back on all my experiences I have the most stories from my days with WKG. If you know Bob Cuffney, you probably can imagine why! Bob and the crew mentored me in all the diverse aspects of a junior gold explorer and I’m always thankful for that. I loved that mentality as well as the independence of driving your own truck and banging on rocks in a remote and beautiful part of the western US.

I was warned early on about the unstable nature of the exploration business, that companies were merged, bought, “imploded” and you should always be thinking of where you’ll find your next job. The one thing I didn’t realize was how true this would be for me personally in the first ten years of my career! The WKG days came to a close when US Gold decided to snap up the companies working on the Battle Mountain-Eureka Trend, including us. The nail in the WKG coffin was celebrated at the infamous Wake of the White Knight, by far my craziest work function to date (enough said about that).



Me, Mike Leask, Gordon Leask, Bob Cuffney and Ruth Buffa  
at the White Knight Gold Wake, March 2007.

(Cont. on pg. 5)

(Benchley, Face of GSN, cont. from pg. 4)

The next opportunity introduced me to Alaska where I worked for Teck, on an exploration drill program at the Red Dog Lead-Zinc Mine in the Brooks Range. The highlights that summer were flying in a helicopter, seeing the caribou migration, the northern lights, and learning about the Inupiat native culture, but mine life and logging core weren't adventurous enough for me to return for a second season. I stayed in Alaska though, working at the Donlin Gold and the Arctic VMS deposits for NovaGold. They had many young exploration geologists and half of them were female; I couldn't believe it when I started. Up to that point I had worked mostly with old guys (sorry WKG, you were all young at heart). And although I only made it 9 months before NovaGold laid off two-thirds of their exploration staff (including me) I had made lifelong friendships, including my boyfriend Caleb Stroup.

After getting the bad news of the layoffs I immediately emailed all of my industry friends and contacts, including Moira Smith, who suggested I contact Fronteer Gold about a job in Nevada. At this point I was pretty keen on coming back to the Nevada desert and driving my own truck instead of taking a helicopter to work! I started working at Long Canyon in the fall of 2008 and what an experience that was! It was extremely satisfying and exciting as a geologist to work on a developing gold deposit. In my experience, Long Canyon and Fronteer was a well-oiled machine (including Major Drilling—who kicked our butts for producing lots of core every day), we worked hard by day which allowed us to have some fun at night. We had many great BBQs in the parking lot of the Chinatown and the famous Gin and Taco Tuesdays every hitch. I think most of you know what happened next...Newmont! On an average sunny January day, I came into the Elko office at 7:30AM to a cloud of gloom, Fronteer was being taken over by Newmont. I couldn't help thinking, "not again!".

After some short-term contract work, Caleb and I decided we would attempt to work together, so in May 2011 we headed up to Alaska again, this time working on the Chisna project in the southern Alaska Range. This job challenged me most, not solely geologically but also with respect to my tolerance of cold snowy mountain conditions. As with most AK projects it was helicopter supported. A group of us were mapping a large mountain range and due to localized weather patterns, every week we were snowed on and it seemed like the wind was always blowing! The terrain was extremely to moderately steep and where there wasn't outcrop it was covered in scree or boulders. Hard traveling when it's dry, but a major challenge when covered in ice and snow. Luckily most days you'd return from the field with a backpack of samples that contained gold and the area had seen little to no exploration. Plus the camp cooking was outstanding and I didn't run into a bear or get stuck on the mountain over night!



**Sampling a trench at the Chisna Project, Alaska Range. If you look closely you'll see the pink sample tags and tape measure across the slope, Summer 2011.**

For the last three years I've been working as a contractor with Agnico Eagle in their Reno office focusing on US Property Evaluations. This has awarded me with all new experiences, challenges and a different perspective on gold projects.

Becoming an exploration geologist has been quite the experience for an east coast girl who had no idea what she would do with her geology degree. I've seen some amazing places, in remote parts of the US and worked with so many smart, interesting and driven people over the years. Working and often living with your coworkers for months to years quickly creates close friendships that I think very few industries experience. I used to joke with my Boart driller, Kevin, "I see and talk with you more than my own boyfriend", but sadly it was true. As a geologist that doesn't fit the usual "mold" in our industry, it has been wise to keep a sense of humor to handle such times as when I was standing in the Red Dog check-in line at the Anchorage Airport and was approached by several people who informed me I must be in the wrong line. And while having breakfast at the Pony Espresso in Eureka, several locals asked if I was the secretary for the gold company (WKG). After working eleven years as a geologist, I still have to explain to my family what I do for a living and they often marvel at the stories, atypical work environment, and crazy cast of characters. (Cont. on pg. 6)



(Benchley, Face of GSN, cont. from pg. 4)

Caleb and I have settled in Verdi, NV with our 3 year old yellow lab named Ezzy but we both still enjoy adventuring. We just returned from an 18 day trek in the Everest region of Nepal, fortunately before the devastating earthquake hit. The trek involved hiking over three snowy mountain passes at 18,200', 17,500', 17,700' and Everest Base Camp at 17,600'. It was incredible to be amongst the world's tallest peaks and actually to not feel that "remote". We joked at how ironic it was to be no more than five hours hike from a town in the Himalaya but many times while working in Nevada you could be more than a day's hike from the nearest town or ranch!

The GSN has provided me many opportunities to engage with other geologists and a great platform to learn about the industry through publications and monthly meetings. I'm looking forward to the 2015 GSN Symposium coming up in May and am the Symposium Field Trips co-chair with Joe Kizis. I hope that the next generations of Nevada economic geologists can learn as much from this organization as I have, and continue to maintain the wonderful work of GSN.



On top of the Renjo La Pass (17,700 ft) with Everest in the background (peak between our heads), April 2015.

THANK YOU TO THE ELKO CHAPTER  
APRIL MEETING SPONSOR

THANK YOU TO THE WINNEMUCCA  
APRIL MEETING SPONSOR



## **GSN SOUTHERN NEVADA CHAPTER MEETING**

**THURSDAY, MAY 7, 2015**

**Location:** The Las Vegas Natural History Museum, 900 Las Vegas Blvd. North

**Time:** Drinks and Pizza—5:30 p.m., Talk to follow

**Speaker:** Lance Prothro, National Security Technologies

**Title:** “Confronting the Dragon: Geology, Geologists, and  
the Nevada National Security Site”

**Topic:** Mr. Prothro will discuss the geology of the Nevada National Security Site (NNSS) and the role geologists have, and continue to play in support of the site’s national security and environmental missions.

**Speaker Bio:** Mr. Prothro is a principal scientist for National Security Technologies. He has BS and MS degrees in geology, and has spent the last 25 years providing geologic support to a variety of projects at the NNSS ranging from underground nuclear testing to groundwater flow and contaminant transport modeling. Prior to working at the NNSS, Mr. Prothro was a petroleum geologist in Louisiana, New Mexico, Oklahoma, and Texas.

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## **GSN ELKO CHAPTER MEETING**

**THURSDAY, JUNE 18, 2015**

**Location:** The Duncan Little Creek Gallery  
518 Commercial Street, Elko, Nevada

**Time:** Begins at 6:00 p.m.

**Food and Drinks Sponsored by:**  
**Enviroscientists, Inc. and Skyline Labs**



## **GSN 2015 SYMPOSIUM SHORT COURSES!!!**

Whether your focus is on regulation, environmental, permitting, exploration, development, production or closure, this GSN Short Course program has been designed to help you rise to meet those challenges. This year's course roster addresses the practical and applied issues that face the professional geoscientist with outstanding classes that offer:

- ⇒ Relevant experiential focus with excellent instructor to student ratios.
- ⇒ Taught by top experts and offered at a fraction of the cost of hiring these experts individually.
- ⇒ Conveniently arranged around the main Technical Sessions to provide a seamless experience.

**The exceptional quality of GSN Short Courses and Field Trips is well known and time tested. With Symposium only a few weeks away it's time to register online to reserve your spot if you haven't already done so! Go to [www.gsnv.org/2015-symposium](http://www.gsnv.org/2015-symposium) for more information and to register.**

### **PRE-SYMPOSIUM COURSES**

- SC1 Ore Reserve Estimates in the Real World** (May 15-17, 2015)
- SC2 Modern Drilling Systems: The Hardware, Elko, NV** (May 13-14, 2015)
- SC3 Modern Drilling Fluids: The Software, Elko, NV** (May 15-16, 2015)
- SC4 Great Basin and Western Cordillera Mining Geophysics** (May 16, 2015)
- SC7 Analytic Methods in Geochemistry** (May 17, 2015)
- SC10 Geochemical Data Analysis using IoGAS** (May 16, 2015)

### **POST SYMPOSIUM COURSES**

- SC6 Epithermal Deposits: Characteristics and Processes** (in conjunction with Field Trip 7, May 21-23, 2015)
- SC8 Geometallurgy: Applied Metallurgy for Geologists** (May 21-22, 2015)
- SC9 Leapfrog Modeling for Exploration and Development** (May 21-22, 2015)
- SC11 Paper to Electrons: Practical GIS for Geoscientists** (May 22, 2015)

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## **GSN 2015 SYMPOSIUM FIELD TRIPS!!!**

The 2015 GSN Symposium is offering an array of pre- and post-symposium field trips: two "Carlin" trips, two epithermal trips, one porphyry trip, and one "non-geologist" trip to examine the full spectrum of a mine's life cycle.

**The three-day trips are more fully described on the GSN website, <http://www.gsnv.org/2015-symposium>, and all will begin and end at the Nugget in Sparks. The Pequop "Carlin" trip and the Northern Nevada Epithermal trip are now FULL (wait lists available). Field Trips 2 and 4 are almost full so sign up today!!**

### **PRE-SYMPOSIUM FIELD TRIPS**

- FT1 Intro to Carlin Gold Deposits: *Turquoise Ridge, Cortez Hills, Gold Quarry, and Emigrant*** (May 14-16, 2015)
- FT2 (FULL) Epithermal Deposits of Northern Nevada: *Midas, Fire Creek, Goldbanks, with overview stops at Mule Canyon, Beowawe, Midas Trough, Jake Creek, and possibly Ivanhoe (Hollister)*** (May 14-16, 2015)
- FT3 Mining for Non-Geologists - Exploration to Reclamation: *Eagle Picher (Fernley) Diatomite, Mount Hope Moly, and Robinson Copper*** (May 14-16, 2015)
- FT4 Epithermal Deposits of Central Nevada: *Round Mountain, Hasbrouck, Goldfield, Mineral Ridge, Crescent Dunes Solar Plant*** (May 14-16, 2015)

### **POST-SYMPOSIUM FIELD TRIPS**

- FT5 (FULL) The Pequop Trend-Nevada's Newest "Carlin" Trend: *Kinsley & Long Canyon Projects*** May 21-23, 2015
- FT6 Porphyry-Related Deposits of Nevada: *Robinson mine & Ely Area, Yerington district (including the MacArthur pit), Pumpkin Hollow shaft & mine, and Ann Mason deposit*** (May 21-23, 2015)
- FT7 The Famous Comstock Gold & Silver District: *Virginia City*** (May 23, 2015)





**REGISTRATION FORM**  
**Geological Society of Nevada 2015 Symposium**  
**“New Concepts and Discoveries”**  
**May 14-23, 2015**  
 J.A. Nugget Hotel, Sparks, Nevada



Exhibits and Technical Sessions **May 18-21**. Registration & Information: <http://www.gsnv.org/2015-symposium>.

**Please call Molly Hunsaker at 775-340-0289, or e-mail Andrea Rascati, office manager at: [info@2015gsnsymposium.org](mailto:info@2015gsnsymposium.org).**

Registrants for field trips and short courses must register in one of the four categories below, unless otherwise noted by price designation. All Technical Session Registrants will receive a **CD Version of the symposium volumes**.

*\*Cancellation fees apply. Please see registration website for more information.*

<b>Early</b> (Registration must be received by <b>February 28, 2015</b> ) <b>Member \$325/Non-member \$375</b>	\$ <u>    N/A    </u>
<b>Regular</b> (between <b>March 1 and April 30, 2015</b> ) <b>\$375 Member/\$425 Non-member</b>	\$ <u>    N/A    </u>
<b>On-Site/Late</b> (after <b>April 30, 2015</b> ) <b>\$425 Member/\$475 Non-member</b>	\$ <u>          </u>
<b>One-Day Technical Session Pass</b> <b>\$212.50</b>	\$ <u>          </u>
<b>Student</b> (must be able to show proof of student status) <b>\$150</b>	\$ <u>          </u>
<b>Exhibits-Only 4-Day Pass</b> (may not attend technical sessions, no Symposium CD) <b>\$75</b>	\$ <u>          </u>
<b>Spouse Pass</b> (may not attend technical sessions, no Symposium CD) <b>\$20/day</b>	\$ <u>          </u>

**Pre-Meeting Field Trips and Short Courses** (limited number of spaces)

<b>Field Trip 1-Introduction to Carlin Gold Deposits Nevada</b> (May 14-16) <b>\$400</b>	\$ <u>          </u>
<b>Field Trip 2-Epithermal Deposits of Northern Nevada</b> , (May 14-16) <b>\$450 (FULL)</b>	\$ <u>    N/A    </u>
<b>Field Trip 3-Mining for the Non-Geologists: Exploration to Reclamation</b> (May 14-16) <b>\$375*</b>	\$ <u>          </u>
*Not required to register for the Symposium Technical Program	
<b>Field Trip 4-Epithermal Deposits of Central Nevada</b> (May 14-16) <b>\$450</b>	\$ <u>          </u>

<b>Short Course 1-Ore Reserve Estimates in the Real World</b> (May 15-17) Registrant <b>\$675</b> , Non-Registrant <b>\$850</b> , Student <b>\$150</b>	\$ <u>          </u>
<b>Short Course 2-Modern Drilling Systems: The Hardware</b> (May 13-14) Registrant and Non-Registrant <b>\$195</b> , Student <b>\$25</b>	\$ <u>          </u>
<b>Short Course 3-Modern Drilling Fluids: The Software</b> (May 15-16) Registrant <b>\$450</b> , Non-Registrant <b>\$550</b> , Student <b>\$100</b>	\$ <u>          </u>
<b>Short Course 4-Great Basin and Cordillera Mining Geophysics</b> (May 16) Registrant <b>\$225</b> , Non-Registrant <b>\$350</b> , Student <b>\$50</b>	\$ <u>          </u>
<b>Short Course 7-Analytical Methods in Geochemistry</b> (May 17) Registrant <b>\$225</b> , Non-Registrant <b>\$350</b> , Student <b>\$50</b>	\$ <u>          </u>
<b>Short Course 10 - Geochemical Data Analysis using ioGAS</b> (May 16) Registrant <b>\$200</b> , Non-Registrant <b>\$250</b> , Student <b>\$50</b>	\$ <u>          </u>

**SUNDAY, MAY 17, 2015 - G.S.N. and Society of Economic Geologists Forum**

**Topic:** “Carlin-Like Gold Deposits: What Can We Learn Beyond the Known Trends and Nevada?”  
 Symposium Registration not required, but encouraged; **Cost \$195.00, Students \$100**     \$           

**Keynote Luncheons:**

<b>Monday, May 18<sup>th</sup></b> - <i>Chuck Thorman, Keynote Speaker</i> <b>Cost \$35.00</b>	\$ <u>          </u>
<b>Tuesday, May 19<sup>th</sup></b> - <i>Andreas Audétat, Keynote Speaker</i> <b>Cost \$35.00</b>	\$ <u>          </u>
<b>Wednesday, May 20<sup>th</sup></b> - <i>Brent Cook, Keynote Speaker</i> <b>Cost \$35.00</b>	\$ <u>          </u>



**REGISTRATION FORM (continued)**  
**Geological Society of Nevada 2015 Symposium**  
**May 14<sup>th</sup>-23<sup>rd</sup>, 2015**



**Post-Meeting Field Trips and Short Courses** (limited number of spaces):

**Field Trip 5 - The Pequop Trend - Nevada's Newest "Carlin" Trend** (May 21-23) **\$450 (FULL)** \$ N/A

**Field Trip 6 - Porphyry-Related Deposits of Nevada** (May 21-23) **\$425** \$           

**Short Course 6 - Epithermal Deposits: Characteristics and Processes** (May 21-23) in combination with  
**Field Trip 7\* - The Famous Comstock Gold and Silver District** (May 23)  
 Registrant **\$575**, Non-Registrant **\$700**, Student **\$125** \$           

\*Will be open to field trip participation only (May 23) in April, 2015. Field Trip Only Cost **\$100**

**Short Course 8 - Geometallurgy: Applied Metallurgy for Geologists** (May 21-22)  
 Registrant **\$450**, Non-Registrant **\$550**, Student **\$100** \$           

**Short Course 9 - Leapfrog Modeling for Exploration and Development** (May 21-22) \$           

**Short Course 11 - Paper to Electrons: Practical GIS for Geoscientists** (May 22)  
 Registrant **\$225**, Non-Registrant **\$350**, Student **\$50** \$           

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To pay by credit card please go to <http://www.gsnv.org/2015-symposium> to find the registration link. (Please fill out a separate form for your spouse.) Please enclose check/money order, made payable to "GSA Symposium 2015" and mail to GSN 2175 Raggio Pkwy., Reno, NV 89512. **Please, no mail submissions after May 8<sup>th</sup>, 2015.**

Hotel rooms at J.A. Nugget Hotel ([www.janugget.com](http://www.janugget.com)), please call 1-800-648-1177 and use the code "GGSN" to get the group reservation rate.



**BUREAU  
VERITAS**

# Attention GSN Golfers!!

**GSN Annual Golf Tournament is Saturday, JUNE 13, 2015**

We are pleased to have **Bureau Veritas Minerals** (formerly Inspectorate & Acme Labs) as the main sponsor & host of the Golf Tournament for the 6<sup>th</sup> year in a row! "Shotgun Start" will be at 1:00 PM at the Washoe Golf Course, Reno, NV.



**BUREAU  
VERITAS**

MINERALS

Place: Washoe Golf Course  
2601 Foley Way  
Reno, Nevada 89509

MINERALS

The \$50 Registration fee will include 18 holes of golf, cart, dinner, prizes, soda, water and drink coupons!! All golfers please be at the course by 12:15 pm to ensure a timely start. Shotgun Start: 1:00 p.m. A fabulous BBQ Dinner will be served at the Washoe Golf Course as soon as all Golfers are done. Each GSN Member may bring one Guest for Golf. Bureau Veritas Minerals will sponsor up to 4 GSN Student Members (waived for golf and dinner).

The GSN Foundation would appreciate **any items** that companies would like to donate for the raffle.

The GSN Foundation will sell raffle tickets for \$5.00 each or 5 for \$20.00. Buy as many as you like. Mulligans will be sold for \$5.00 each or 5 for \$20.00, no more than five Mulligan's per person.

**All Mulligan and Raffle Ticket sales will go directly to the GSN Foundation!**

Please provide the following information for each golfer and guest:

Name:  Email:  Phone:

BBQ Guest Name:

**Teamed With:**

Name:

BBQ Guest Name:

Name:

BBQ Guest Name:

Name:

BBQ Guest Name:

\$50.00 fee includes golf and dinner.

\$20.00 fee to be paid for dinner only (those not golfing - BBQ Guest)

Amount Included with this form:

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## THANKS TO BUREAU VERITAS MINERALS

For Hosting the GSN Annual Golf Tournament - 2015!!



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**Payment must be made by May 29, 2015  
No refunds after May 29, 2015**

Geological Society of Nevada,  
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Fax to 775/323-3599, E-mail gsn@gsnv.org





## **G.S.N. FOUNDATION AWARDS FIELD CAMP GRANTS TO EIGHTEEN NEVADA STUDENTS!**

Eighteen students who applied for the GSN's field camp grants were awarded \$1,000 each at the GSN regular membership meeting on Friday, April 17, 2015. This grant greatly helps those students pay for the cost of attending their field camp course this summer. Recipients of the awards are:

Kelly August	Rick Kauffman
Joseph Clark	Amanda Morris
Jason Craig	Alaina Nowakowski
Paige dePolo	Katherine Schnoor
Nathaniel Foote	Lindsay Sewell
Rebecca Gonzalez-Clayton	Michael St. Clair
	Will Struble
Dustin Holcomb	Scott Sylvester
Caitlan Jellema	Cameron Walker
Emmett Jones	

## **G.S.N. Mackay Student Night was a great success!**

There were fifteen student participants who competed in the April 17th poster competition. Nine of these students also gave a 3-minute powerpoint presentation to the general membership that night, summarizing their research.

1st Place, \$100 Winner—Joel DesOrmeau

2nd Place, \$75 Winner—Tyler Hill

3rd Place, \$50 Winner—Ryan Anderson

**Thank you to all of the participants!**



Pictured l to r: Tyler Hill, Ryan Anderson and Joel DesOrmeau

## **Women's Mining Coalition 2015 Fly-In to Washington D.C.**



*Summary By The Numbers*

**23<sup>rd</sup> annual Fly-In to Washington D.C.**

**40 participants**

**3 ½ days of meetings**

**70 Senate meeting**

**158 House meetings**

**228 Total meetings**

**76 Drop-offs of Issue Paper Packets**

**Grand Total: 304 Meetings**

**32 Meetings with actual Senators and Congressmen**

**29 Meetings with Legislative Directors**

**3 Meetings with Chiefs of Staff**

**3 Meetings with Regulatory Agencies (USFWS, USFS, BLM)**



Women's Mining Coalition celebrated another successful Fly-In to Washington D.C. the week of April 13-17, 2015, as shown by the above statistics. Issues included sage grouse, critical & strategic minerals, permitting, Waters of the US, EPA and administration overreach, and CERCLA 108b financial assurance.

WMC would like to thank the sponsors, the participants, and the companies that sent their employees to the 2015 Fly-In. Without continued support from such WMC friends and partners, the Fly-In would not be possible.

# GSN 2015-2016 ELECTION RESULTS

## OFFICERS FOR THE 2015-2016 G.S.N. EXECUTIVE COMMITTEE:

**PRESIDENT:** Elizabeth Zbinden

**VICE PRESIDENT:** Alan Coyner

**SECRETARY:** Steve Weiss

**TREASURER:** Bob Kastelic

**MEMBERSHIP CHAIR:** Bob Felder

**PUBLICATIONS CHAIR:** David Boden

## BOARD OF DIRECTORS—Class A: Three Year Term – 2015 to 2018

Lynne Volpi and John Watson

## WINNEMUCCA CHAPTER OFFICERS FOR 2015-2016

**President:** James Carver

**Vice President:** Matt Fithian

**Secretary:** Chad Peters

**Treasurer:** Peter O'Byrne

**Membership Chair:** Erin Hart

## ELKO CHAPTER OFFICER NOMINEES FOR 2015-2016

**President:** Mark Travis

**Vice President:** Allie Phillips

**Treasurer:** Gabe Kassos

**Secretary:** Nate Wright

**Membership Chair:** Christine O'Neill

## SOUTHERN NEVADA CHAPTER OFFICER NOMINEES FOR 2014-2015

**President:** Joshua W. Bonde

**Vice-President:** Paul Dockweiler

**Treasurer:** Paul Bowen

**Secretary:** Melisa Bishop

**Please thank our outgoing members who have served the G.S.N. so well!**

**GSN President:** Jonathan Price; **GSN Secretary:** Lori Carpenter; **GSN Publications Chair:** Keith Fowlow

**GSN Board of Directors:** Randy Vance, Director; Tommy Thompson, immediate Past-President

**GSN Elko Chapter:** Jon Powell, President; Justin Milliard, Membership Chair

**GSN Winnemucca Chapter:** Pat Donovan, President; Juan Contreras, Vice President; Emily Sudholt, Secretary

**GSN Southern Nevada Chapter:** Gabriel Judkins, Vice President; Wyatt Bain, Secretary

# Activity Update

Mike Brady, MARCH 2015

[www.activityupdate.com](http://www.activityupdate.com)

## NEVADA

Black Isle Resources Corp. announced that it acquired an option to earn a 100% interest in the Ferguson Flats Property from private interests for \$437,000 cash and 1,500,000 shares over 5 years. *Press Release:* March 18

Timberline Resources Corp. announced that it acquired an option to purchase a 100% interest in the Talapoosa Property from Gunpoint Exploration Ltd. for \$10,000,000 cash and 2,000,000 shares. (resource = 28,362,000 tonnes @ 1.11 gpt Au, 15 gpt Ag measured+indicated) *Press Release:* March 17

Canamex Resources Corp. announced that based on recent drill results at the Bruner Project, resources aggregate 10,300,000 tonnes @ 0.72 gpt Au, 5.9 gpt Ag indicated and 2,450,000 tonnes @ 0.77 gpt Au, 3.4 gpt Ag inferred. (no previous estimate) *Press Release:* March 12

Entrée Gold Inc. announced that recent drill results at the Ann Mason Project include 202.7-559.3 meters @ 0.22% Cu, 0.03 gpt Au (EG-AM14-070); 272-500 meters @ 0.24% Cu, 0.04 gpt Au (EG-AM14-071); 248.4-477.3 meters @ 0.28% Cu, 0.06 gpt Au (EG-AM14-073) and 294-454 meters @ 0.20% Cu, 0.03 gpt Au (EG-AM14-074). (resource = 581,800,000 tonnes @ 0.38% Cu, 0.24 gpt Au indicated) *Press Release:* March 10

Rye Patch Gold Corp. announced that it purchased 1,655 acres of private land adjacent to its Lincoln Hill Project from New Nevada Resources LLC. for \$500/acre and a sliding-scale 2.125-3.5% NSR. (resource @ Lincoln Hill = 3,847,000 tonnes @ 0.43 gpt Au, 12.2 gpt Ag measured) *Press Release:* March 3

Pershing Gold Corp. announced that recent drill results at the Relief Canyon Project include 125.0-136.2 meters @ 5.07 gpt Au (RC15-279); 90.4-103.0 meters @ 3.54 gpt Au (RC15-280); 156.0-160.9 meters @ 2.75 gpt Au (RC15-282) and 125.4-136.1 meters @ 9.89 gpt Au (RC15-283). (oxide resource = 24,270,000 tonnes @ 0.68 gpt Au measured+indicated) *Press Release:* March 3

Nevada Copper Corp. announced that it completed the construction of a 1,900 feet-deep, 24 foot diameter shaft at the Pumpkin Hollow Project. (western zone = 485,840,000 tonnes @ 0.45% Cu, 0.03 gpt Au measured+indicated) *Press Release:* February 26

European Uranium Resources Ltd. announced that it acquired the Mustang, Iron Point, Kibby Flats properties and the mining lease to the Red Hill Property from Miranda Gold Corp. for 8% of its outstanding shares. *Press Release:* March 2

Midway Gold Corp. announced the start-up of operations at the Pan Gold Mine. Capital costs for mine construction are now estimated at \$76,000,000. (reserve = 48,311,000 tonnes @ 0.56 gpt Au proven+probable) *Press Release:* March 3

Gold Standard Ventures Corp. announced that based on recent drill results at the Pinion Project, the Dark Star Deposit aggregates 23,110,000 tonnes @ 0.51 gpt Au inferred. (no previous estimate) *Press Release:* March 3

Nevada Zinc Corp. (was Goldspike Exploration Inc.) announced that it acquired an option to earn a 50% interest in the North Lone Mountain Property from Bravada Gold Corp. for \$150,000 in exploration expenditures over 2 years. *Press Release:* March 2

Coeur Mining Inc. announced that it acquired an option to earn a 70% interest in the Arabia Property from Renaissance Gold Inc. for yet to be determined terms. *Press Release:* March 2

Allied Nevada Gold Corp. announced that it filed for voluntary relief under Chapter 11 of the Bankruptcy Code due to a high corporate debt as well as low metal prices. (reserve @ Sulfur = 1,007,300,000 tonnes @ 0.37 gpt Au, 15.7 gpt Ag proven+probable) *Press Release:* March 10

McEwen Mining Ltd. announced that it recorded a \$98,000,000 write-down of its Nevada assets due to lower metal prices. (resource @ Tonkin Springs = 32,660,000 tonnes @ 1.4 gpt Au measured+indicated) *M.J.:* March 13

Walmer Capital Corp. announced that it acquired an option to earn a 100% interest in the Golden Shears Property from Renaissance Gold Inc. for \$50,000 cash and \$1,400,000 in exploration expenditures over 4 years. *Press Release:* March 26

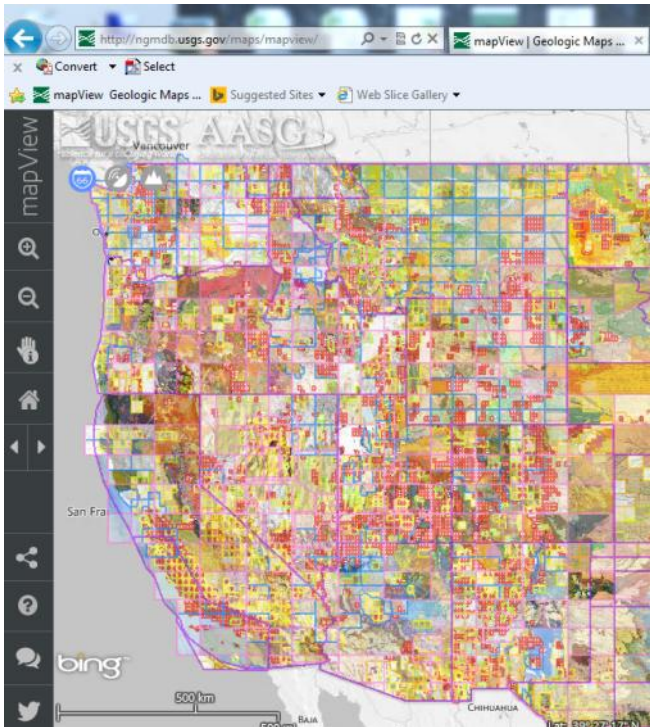


# ROCK TALK

Here is couple of great websites for geologists.

**The first is “mapView” by the USGS.** The website is <http://ngmdb.usgs.gov/maps/mapview/>

The website allows you to search for maps including geologic map on an interactive map of the US. And, then you can “click” on the map to get the map and a list of publications in the area.



**The second is Google Earth Pro.** As of January 2015, Google Earth Pro is **FREE**. Just Google it, download the software, log in with your email address and use GEP-FREE for the password. One of its advantages is that allows you to download higher resolution images. There are other upgrades from the regular Google Earth with the Pro version.

Dave Emmons, April 2015

*Thank you to our generous donors in APRIL*

## **STUDENT DINNER FUND**

**Hallet Elson  
Edward Orbock, III**

## A Few Random Thoughts About Geologists, “Mining Men” And Memoirs

Dave Shaddrick

Many of you heard about the memoir by long time GSN Honorary Lifetime Member, Del Flint. I bought it and look forward to reading it soon. This got me to wondering if others in our business find these literary efforts as interesting as I do. The following mentions a few of them as well as some detail on my current “read”. I’m told these books don’t make money so it has to be that geologists and engineers working in exploration are particularly proud of their careers and exploits and are often driven to share them with the general public. I, for one, am glad they do. I did not realize how many of them there were until I started collecting these “memoirs of mining men” some years ago. I now have a small collection of such efforts, ranging from notables like Murray Pezim, Bill Koolmoos, Harvey Sobel, Franc Joubin and Del Flint to quite a few others I’m sure you’ve never heard of. They are sometimes educational, sometimes self-serving but almost always entertaining.

The book I’m just finishing up is by Harold Linder, a colleague known to many of you, who has written an autobiography/ reminiscence on his career as an exploration geologist. The title is **“Wild Places: The Adventures of an Exploration Geologist”**.

Harold’s book, for those who, like me, enjoy such things, is a great read. The writing is clean and concise, it’s well illustrated and many of us have ties to the people and places he describes. If you’ve not been there, the detail and clear attempt at accuracy will make you feel like you have been.

Don’t expect a novel. This book is just what it’s advertised to be – recollections of many adventures, misadventures and hardships in the exploration business and Harold does an excellent job of bringing the reader into his world. He doesn’t sugar coat the conditions, the societies or the language and he makes no attempt to make his role bigger than it was. I must admit, having been a relatively pampered “explorer”, that the chapters on exploration in the Canadian bush left me thinking “why the hell would anyone do that?” I didn’t need to be reminded of my brief experience with wet days in camp, snow, sub-zero temperatures and black flies but I was interested to read Harold’s experiences with those things and I was intrigued by his assertion that he loved it all. I’ll bet he bitched a bit more than indicated in the book. I also cheered when, near the end of the book, he takes on the “environmentalists”.

One thing that comes through clearly for me is that Mineral Exploration is an active, outdoor profession. Harold has worked on all seven continents. He’s done the grunt work and the science. He’s worked on many unsuccessful programs and made significant discoveries.

Unlike my first introduction to this genre, yes, *genre*, “Adventures of a Mining Engineer” by E.T McCarthy (published in 1919), Harold didn’t take part in Latin American Revolutions and violent labor disputes nor, as in “My Adventures With Your Money” by George Graham Rice, did he get deeply involved in infamous mining scams but he did take part in the formative events of what is our modern exploration industry and the various boom times of the last half of the 20<sup>th</sup> century. I’m enjoying the book and I think you will too. By the way, this is a large (8 X 10) book of 456 pages so don’t fall asleep while reading in bed or you’ll need a nose job. It is available from Amazon or you can contact Harold (listed in the GSN directory).



# Geological Society of Nevada Board of Directors

presents a  
**GSN MEMBERSHIP PICNIC**

To be held at  
**RANCHO SAN RAFAEL PARK, RENO, NEVADA**  
**FRIDAY, JUNE 12, 2015, 4:00 p.m.—7:00 p.m.**



Please join us and fellow GSN Members for an informal evening of food, drink and conversation! Jon Price is resurrecting the GSN Games including the popular Hammer Toss and Gold Pan Toss!

Please R.S.V.P. to the GSN office by Monday, June 8, 2015 - [gsn@gsnv.org](mailto:gsn@gsnv.org).

## OTHER UPCOMING EVENTS

**April 2, 2015**—NV Petroleum & Geothermal Society *Meeting*. *Speaker: Ben Delwiche, Ormat Nevada* – “McGuinness Hills Project”. Ramada Reno Hotel, 1000 E. 6th Street, Reno, NV. Cocktail Reception 6:30, Skyline Bar, 14th Floor. Dinner 7 pm, Talk at 8 pm. NPS Members \$20; Non-members \$23; Students—\$10. RSVP by May 5th at the following link:

**May 11, 2015**—SME Northern Nevada Section. Happy Hour @ 6pm, Dinner @ 6:45 pm; Talk @ 7:30 pm. Circus-Circus Mandalay Room, Reno, Nevada. *Speaker: Kevin Brown, General Manager, Mt. Hamilton Project, Solitario Exploration and Royalty Corp., Ely, Nevada.* “*Engineering and Permitting of the Mt. Hamilton Gold Project*”. Members-\$30; Non-members \$35; Students free. Please make reservations by Wednesday, May 6, 2015. RSVP to Brooke Miller: [NNevSME@gmail.com](mailto:NNevSME@gmail.com).

**May 31-June 3, 2015**—2015 AAPG Annual Convention & Exhibition, Colorado Convention Center, Denver, CO. <http://ace.aapg.org/2015>

**June 12, 2015**—**GEOLOGICAL SOCIETY OF NEVADA MEMBERSHIP PICNIC** hosted by the GSN’s Board of Directors. Rancho San Rafael Park, Pagoda Pavilion, Reno, NV. Jon Price is resurrecting the traditional games of “rock hammer throw” and “gold pan toss”. Prizes will be awarded! Please RSVP to the GSN office, [gsn@gsnv.org](mailto:gsn@gsnv.org).

**June 13, 2015**—GSN’s Annual Golf Tournament, Washoe Golf Course, Reno, Nevada. Shotgun start @ 1:00 p.m. BBQ and raffle to follow. Many fabulous raffle prizes will be available and proceeds will benefit the GSN FOUNDATION. Registration form on page 11.

**Hosted by Bureau Veritas Minerals!**

**July 24, 2015**—G.S.N. RENO ACES NIGHT—SPONSORED BY **NATIONAL EWP!!** Mark your calendars now and look for details via GSN email in June!

## THE G.S.N. 2015 SYMPOSIUM FINALLY IS HERE!!!!

**14-23 MAY 2015, GSN SYMPOSIUM 2015: NEW CONCEPTS AND DISCOVERIES**

Being held at J.A. Nugget, Sparks, Nevada. Pre- and Post-Field Trips, Short Courses, Exhibits, Technical Program and GSN-SEG Forum. For more information please contact Molly Hunsaker, [mollymhunsaker@2015GSNsymposium.org](mailto:mollymhunsaker@2015GSNsymposium.org) or Andrea Rascati at [info@2015gsnsymposium.org](mailto:info@2015gsnsymposium.org).

**REGISTER NOW** for the Technical Session, SEG Forum, Field Trips, Short Courses and Exhibits online at: [www.gsnv.org/2015-symposium](http://www.gsnv.org/2015-symposium). **REGISTRATION IS OPEN & EXHIBITS & FIELD TRIPS ARE FILLING FAST!!**





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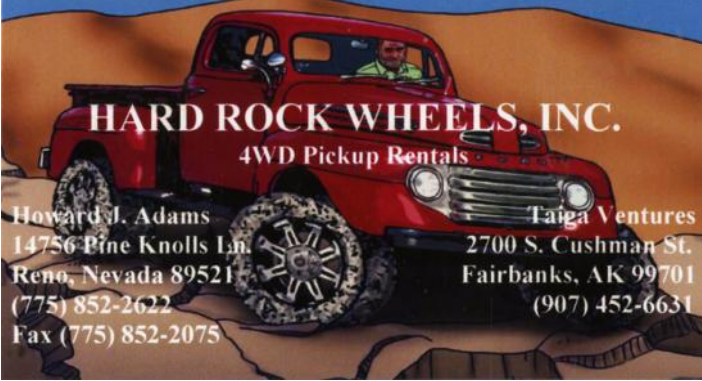


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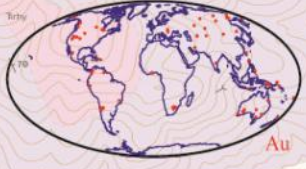
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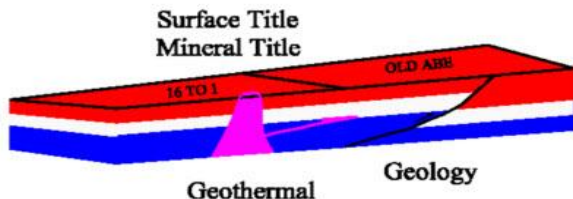
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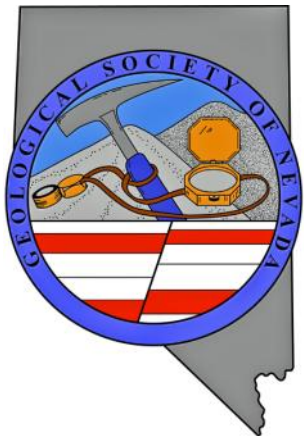
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