### **GEOLOGICAL SOCIETY OF NEVADA NEWSLETTER**

Geological Society of Nevada, PO Box 13375, Reno. NV 89507 (775) 323-3500 Office Location: Laxalt Mineral Research Center, Room 266, UNR - Hours Monday -- Friday 8-3 Website: www.gsnv.org • E-mail: gsn@gsnv.org

CALENDAR OF GSN EVENTS

April 2009, Vol. 24, No. 4

Published monthly except June and July

WINNEMUCCA CHAPTER (Every 2nd Wednesday of the month)

#### **PRESIDENT**

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#### Mike Ressel

Kinross Gold Corporation mikeressel@sbcglobal.net

#### Nevada Bureau of Mines and Geology

#### April 16 Thursday

April 8

Wednesday

**ELKO CHAPTER** (Every 3rd Thursday of the month)

The monthly meeting will be held at the Western Folk Life Center, 501 Railroad Street. Refreshments at 6:00 PM, talk at 7:00 PM. Sponsor for the evening to be announced. Speaker for the evening to be announced. For more information contact Moira Smith at (775) 777-2900.

The monthly meeting will be held at the Martin Hotel, 94 West Railroad Street.

Services. Speaker for the evening will be Steven I. Weiss, Senior Exploration

Drinks and appetizers at 6:30 PM, speaker at 7:00 PM. Sponsors for the

evening will be Layne Christensen Company and International Directional

Geologist, Goldcorp - Mexico. His talk will be titled "The El Sauzal High-Sulfidation Epithermal Gold Deposit, Chihuahua, Mexico". (see abstract on

page 8). For more information contact John Marma at (775) 635-6472.

#### April 24 Friday

#### **GSN MEMBERSHIP MEETING**

The monthly 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. Sponsor for the evening will be Geotemps, Inc. (Lance Taylor). Speaker for the evening will be J. K. Cluer, Altan Rio (US) Inc. His talk will be titled "Regional Geophysics and Geodynamic Evolution of the Northern Carlin Trend: Insights from the Star Lake Project". (see abstract on page 2). Dinner reservations must be made by 1:00 PM Wednesday, April 22nd. Contact Kathy Sestanovich at (775) 323-3500 or e-mail gsn@gsnv.org for reservations.

#### April 30 **Thursday**

#### **SOUTHERN NEVADA CHAPTER** (The last Thursday of the month)

The monthly meeting will be held at 6:45 PM. Speaker for the evening to be announced. Sponsor for the evening to be announced. For more information contact Josh Bonde at (702) 468-2500.

#### FROM THE PRESIDENT

Marcus Johnston, GSN President 2008-2009

April arrives in Nevada, with its predictably unpredictable periods of wind-whipped rain/sleet/snow that ultimately give way to warm, calm, sun-drenched days in the field. Gold still looks good to most analysts, but investor uncertainty regarding the results of the US government bailouts and the conditions of other global markets still has gold generally vacillating between \$900 and \$960 per ounce. Which way will it break, and where to look for opportunities?

Richard W. Harris, Esq., did not have direct answers as to where to look, but he certainly had a number of suggestions on how to effectively go about looking. During his March presentation in Reno, there were audible mumbles, and a less tangible sense of tension and/or thrill of possibility as he detailed five key points from the Mining Law of 1872. Of most interest to me were the various scenarios related to overlapping claims, whether they are placer or lode. Those of us in attendance were provided answers to some tricky questions regarding long-standing issues of precedence.

#### GSN APRIL MEETING SPONSOR



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(Continued on page 2)

### News and Announcements

(Continued from page 1)

J. Kelly Cluer is our April speaker, and while his presentation will bring us back into the more familiar realm of geology, his topic should prove equally thought provoking. Kelly will discuss projection of known gold belts, and present interpretations from geochemical and geophysical studies that indicate the potential for buried Carlin-type deposits in a previously unclaimed and un-drilled area along the northwest extension of the Carlin gold belt. The concepts Kelly will detail have the potential to target new major mining districts underneath post-mineral volcanic and alluvial cover. It is my personal opinion that these sorts of buried targets represent the best chance for finding large, 10+ million ounce deposits that have been the backbone of mining in Nevada for the last 20+ years.

Regardless of where individuals and companies look for new deposits, we all need to be certain that we conduct our business in a legal and ethical manner. To this end, Alan Day is the 'Face' of GSN for April. Alan runs a company that takes care of claim-staking, geochemical sampling, and other related activities, which allows many of us to manage our other day-to-day exploration and mining activities in Nevada and elsewhere. He is also a longtime member of GSN, with a great perspective on a number of issues if you have the time to drop by his Reno office.

A new slate of GSN Officers for 2009-2010 has been nominated, and a request will soon be put out to the membership to vote. I hope to see you at the April meeting in Reno.

Stay safe, Marcus

#### **UPCOMING EVENTS**

#### **April 13 SME Dinner Meeting**

Speaker will be Dan Kappes, Kappes, Cassiday & Associates, his talk is titled "Heap Leaching and Milling - Competitors or Compatriots?", held at the Circus, Circus, Mandalay Room, down the escalator at the corner of 5th and Sierra streets

April 17 8:30 AM - 4:30 PM - University of Nevada Las Vegas 4th Annual GeoSymposium Keynote talks & Geoscience student presentations in the Blasco Event Wing of the UNLV Foundation Building 4:15 PM - Reception & Silent Auction, in the Lilly Fong Geoscience Building.

April 18 8:30 AM - 5:00 PM - University of Nevada, Las Vegas 4th Annual GeoSymposium Field Trip to Arrow Canyon and Valley of Fire State Park.

See the GeoSymposium website for registration and additional details. <a href="http://geoscience.unlv.edu/">http://geoscience.unlv.edu/</a> GeoSymposium/GeoSymposium.htm

#### May 8- GSN 2009 Spring Field Trip

May 10 Diverse Gold Deposits of the Osgood Mountains and Humboldt Range, North-Central Nevada:
Pinson-Getchell-Turquoise Ridge and Spring Valley-Lincoln Hill-Wilco. See page 11 for details.

June 27 GSN Golf Tournament (Lakeridge Golf Course) Hosted by Inspectorate America Corporation. Tee
time will be at 1:00 PM and dinner will be at 6:00 PM.
See page 7 for more details.

### Thank you to our generous donors

#### **GSN FOUNDATION**

GOLD LEVEL DONORS \$500+ Barrick—Cortez Gold Mine

SILVER LEVEL DONORS \$100-\$499

**BRONZE LEVEL DONORS \$1-\$99** 

#### STUDENT DINNER FUND

Lindsay D. Craig

#### STUDENT FIELD TRIP FUND

Mack Taylor Mike Ressel

# Thanks to Ruen Drilling Incorporated for hosting the March meeting

### GSN April 24, 2009 Membership Meeting

#### RESERVATIONS ARE REQUIRED

GSN CAN NO LONGER GUARANTEE DINNER SEATING WITHOUT ADVANCE RESERVATIONS.

Please call 775-323-3500, Fax 775-323-3599 or e-mail gsn@gsnv.org by 1:00 PM, Wednesday, April 22, 2009.

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

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

#### Regional Geophysics and Geodynamic Evolution of the Northern Carlin Trend: Insights from the Star Lake Project

J. K. Cluer (with a little help from my friends)
Altan Rio (US) Inc.,
Carson City. NV

The U.S. Geological Survey team writing in the journal *Economic Geology* (Ludington et al. 2006) portrayed a previously unknown geochemical cluster in northern Nevada 20 km south of the Idaho border along strike of the Carlin Trend. The paper is considered a breakthrough event triggering targeted exploration of the Carlin Trend far to the north under mysterious cover, in a land of *geologica incognita*. Tonight's talk augments the paper given at NWMA in 2008 and will provide a concept-based structural and geophysical framework for the region, a geodynamical landscape evolution hypothesis, and discuss new results of Altan Rio's exploration at Star Lake (Fig. 1) where coincident geophysical and geochemical anomalies are ready for drilling in summer 2009.

Star Lake is 60 km north-northeast from Twin Creeks and 100 km north-northwest from Goldstrike. The USGS geochemical anomaly at Star Lake is similar in size, amplitude and ingredients – gold, arsenic, antimony, silver, lead and zinc – to anomalies at Twin Creeks and Goldstrike and subsequently has been shown to have a dash of thallium and mercury as well; all indicative of the Carlin recipe. This is indeed an anomalous anomaly since conventional wisdom suggested the area was a vast sea of deep Miocene and younger sediments and volcanic flows, related to activation of the Yellowstone mantle plume and resultant Snake River Plain downwarp – not exactly the preferred metallogenic setting for Carlin style precious metals.

Yet various lines of structural evidence lead us to believe that the Carlin Trend could be projected along its known strike into the area of the anomaly. Evidence consisted of Landsat lineaments, regional geophysical gradients, and the general idea that if the Carlin and other mega-trends in Nevada are in fact major crustal-scale boundary zones (a la Rodriguez, Grauch, etc.) they should not simply end to the north of their present exposures; they are just concealed by young geology. These are not new concepts, but they have never been pushed as far into northern Nevada as Star Lake, as mining claims have never been filed in the area, ever.

Over the last 18 months Altan Rio completed an extensive gravity array from the Burner Hills to the Idaho border which guided the staking of 1,880 mining claims, detailed geochemical profiles using conventional and partial leach analytical methods and an 11 km long MT/CSAMT profile. The gravity array covering the middle of the Owyhee Plateau imaged a structurally faceted 5 mgal anomaly interpreted as a shallowly buried range of hills 20 km long trending about N20°W precisely beneath the USGS geochemical anomaly. MT modeling indicates source of the gravity high is only 200 m below surface, is structurally complex, and has apparent resistivity in the range of (though not definitive of) Paleozoic sedimentary rocks – a possible lithological interpretation consistent with characteristically "quiet" magnetics over the gravity high.

The shallowly buried range of hills interpreted from the Star Lake gravity anomaly likely was a free-standing mountain mass following inception of Basin and Range extensional block faulting, but subsequently foundered and tilted northward into the Snake River Plain downwarp in the wake of eastward propagating Yellowstone mantle plume and was completely buried by Miocene sediment, tuff and thin volcanic flows. Timing of events remains enigmatic.

See Figure 1 on page 6

Due to the Elks Lodge having a prior commitment on April 17th, the April GSN meeting will be held the fourth Friday of the month instead of the third Friday:

Friday, April 24, 2009

#### **FACES OF GSN**

Alan Day, Reno, Nevada Consulting Geologist, Mineral Exploration Services

Aside from collecting rocks as a kid, my first experiences in geology came from exploring old mines in the Wasatch Mountains of Utah as a boy scout. The curiosity continued into an obsession as I began the search for gold during high school and college. Unfortunately, the mountains and streams of Utah were pretty bleak for placer gold. I soon began the search for more prosperous places like Idaho, Nevada and Arizona.

I graduated from the University of Utah in 1990 with a B.S. in Geology and a B.A. in Spanish. Soon after graduating, I was offered a job with North American Exploration in Kaysville, Utah. Soil sampling and claim staking sounded much better than digging ditches on the family farm. I accepted the job and soon found myself digging holes and packing dirt all over Utah, Nevada, Idaho, Montana and Wyoming. Geochemical sampling wasn't a whole lot better than farming but the scenery was much better. Soon I found myself traveling all over the west and loving every minute of it. Oh for the old days of working months at a time in the field, only to return to stacks of per diem and paychecks! Much of my time was spent in Idaho for Cominco sampling over 3000 square miles of the Yellow Jacket Formation for base metals. I was also able to spend many months in Winnemucca, Battle Mountain, Elko and Eureka, sampling many of the old Santa Fe properties that later became Newmont mines.

After a couple of years working in the western U.S., I consulted for FMC Gold in Mexico. Mexico was a wonderful experience with most of my time spent doing reconnaissance work and project development. I was able to work one on one with some of the great geologist in the business such as Rod Asher, Boise Hall and many others. During this time I also became acquainted with Scott Werschky. I soon began buying and swapping mineral specimens with Scott, which has become a lifetime addiction. Several years later. Scott and I formed a business called Miner's Lunchbox to sell minerals. I have had the privilege of traveling all over the world seeking great mineral specimens, including trips to Australia, South America, Africa and Europe. Although I am no longer a partner in Miner's Lunchbox, I still enjoy collecting and selling minerals and swapping with Scott and other local collectors.

After two years working in Mexico, I got married. Wanting to stay closer to home, I took a consulting job at Kennecott's Bingham Canyon Operation. After a year doing environmental hydrology work at Kennecott, I was asked to take over CGS Inc in Reno. My wife and I moved to Reno in 1995 and we both ran the

retail store and catalog business at CGS. In 1998 we left CGS and started our own consulting business, Mineral Exploration Services, along with partner Orson Tingey. With Mineral Exploration Services, we have focused on serving mining companies with short term geological contract work such as claim staking, GPS surveys and geochemical sampling. We have also managed exploration programs throughout the west as well as in Alaska and Mexico. Eleven years later, I am still running Mineral Exploration Services. Orson has since left and joined Barrick Gold in Elko as a Landman.

My wife and I have been very blessed living in Reno, with two great kids (Ryan and Adam), great friends, and wonderful business associates, many of whom are GSN members.

#### **APRIL BALLOT**

During the first week in April, a ballot will be sent to all GSN members that presents the proposed slate of officers for the Executive Committee and Class A directors of the Board of Directors for 2009/2010 effective June 1, 2009, which was approved by the Board during their February meeting. Those members, who receive their GSN Newsletter by email, will receive their ballot by email and those GSN members, who receive their Newsletter in the mail, will receive their ballot as an insert in their Newsletter. The ballot must be returned to the GSN office within ten working days of the date it was distributed. Results of the election will be published in the May GSN Newsletter and announced during the GSN dinner meeting in May.



#### **News from the GSN Foundation**

Unfortunately, as a sign of the times we live in, school teachers are finding it more and more difficult to meet the new regulations associated with student field trips. The number of applicants for the GSN Foundation's K-12 Field Trip Grant program did not meet our expectations this year and requests for funding totaled only \$7,924. When D.D. LaPoint and Rachel Dolbier contacted several long time participants who did not apply this year the general comment was that it just isn't worth the hassle to obtain all of the clearances. As a result, we are not distributing all of the funds in the budget for this item. The Foundation Board feels that it is important to continue supporting students in their effort of gaining field exposure to Earth Sciences. Therefore, we took a different tack. The cost of UNR's summer geology field camp increased substantially recently and several students are finding it difficult to pay the tuition for this required course. The Foundation decided to award eight \$625 scholarships to assist students in funding this summer's field camp. This deviation from the K-12 Field Trip Grant program is a onetime event and will be continued in the future only if there is money remaining in the budget after the K-12 needs are satisfied or if there is a groundswell of contributions from the GSN membership to continue field trip grant funding.

The geology summer field camp scholarship awardees areMolly Hunsaker, a junior majoring in Economic Geology
Katie Ryan, a junior majoring in Geology and Geophysics
Anna Perry, a junior majoring in Geological Engineering
Rachel Wearne, a senior majoring in Geology
Patricia Capistrant, a senior majoring in Geology
Nicolas Steele, a junior majoring in Hydrogeology
Brooke Mills, a junior majoring in Geology

Jonathan Jacquet, a junior majoring in Geological Engineering

The Northern Nevada Section of SME recently made a generous \$1,000 contribution to the Foundation. Thank you NNVSME for the continual support of our programs.

One of the objectives of the Foundation is to support the Nevada Bureau of Mines and Geology geological mapping program, but until this year we have not had sufficient funds to meet this goal. Discussions are in progress with Jon Price to select a map area that would be of interest to the general GSN membership. We hope to be able to maintain this funding in future years. If there are areas that the membership feels are in need of published maps please advise the Foundation and we will make an effort to add these areas to a list of potential projects.

Roger C. Steininger Chair GSN Foundation

A Note of Thanks

GSN would like to thank **Robert Wheatley** and **Yamana Gold Inc.** and **Steve Barnwell** and **Boart Longyear Company** for donating furniture for GSN's new office.

We would also like to thank **Jannette Raglen** and **Tami Amrine** for taking time out of their busy day to show the furniture to Kathy and the GSN volunteers on moving day.

A huge thank you goes to Christopher Magee and Brian Page of Magee Geophysical Services LLC, for moving furniture from Boart Longyear's office in Carson City and Yamana Gold's office in Reno to GSN's new office at DRI. Another thank you goes to Vic Chevillon of Chevillon Exploration Consulting and Brian Park-Li for moving furniture from Yamana Gold's office in Reno to GSN's new office at DRI.

(Continued from page 3)

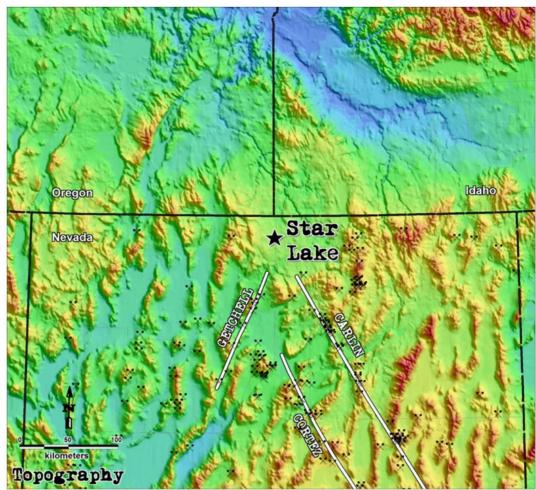


Fig. 1. Physiography of Nevada's northern Basin & Range province and the High Lava Plains of Oregon and Idaho, showing selected metallic occurrences and gold trends (topography: *Great Basin Geoscience Data Base*)

#### **ACTIVITY UPDATE**

Mike Brady, February 2009 Nevada

www.activityupdate.com

Atna Resources Ltd.(49%) announced that recent drill results at the Clover Project include 750-780 feet @ 0.020 opt Au, 0.39 opt Ag (USCV08); 760-810 feet @ 0.017 opt Au, 0.48 opt Ag (USCV09); 740-760 feet @ 0.011 opt Au, 3.79 opt Ag (USCV10) and 695-710 feet @ 0.403 opt Au, 0.49 opt Ag (USCV11). *Press Release:* February 4

Franco Nevada Ltd. announced that it purchased a 7.29% NSR on the Gold Quarry Property from private interests for \$500,000,000 in cash and other financial facilities. *N.M.:* January 19

Western Lithium Corp. announced that based on recent drill results at the Kings Valley/PCD Project, resources aggregate 52,910,000 tons @ 0.27% Li indicated and 46,530,000 tons @ 0.27% Li inferred. (no previous estimate) *N.M.:* February 2

Golden Eagle International Co. announced that it acquired an option to operate the Jerritt Canyon mine and mill from Yukon-Nevada Gold Corp. pending Yukon raising \$17,500,000 and receiving all the necessary permits to resume milling operations. *E/MJ:* February 2009

AuEx Ventures Inc. announced that recent drill results at the Klondike North project include 160-165 feet @ anomalous (KN02); 605-610 feet @ anomalous (KN06) and 300-305 feet @ 0.040 opt Au (KN08). *Press Release:* February 20

Desert Gold Ventures Inc. announced that recent drill results at the Goldbanks/Main Zone Project include 422-446 feet @ 0.011 opt Au (GB08-8); 652-766 feet @ 0.064 opt Au (GB08-9); 640-705 feet @ 0.007 opt Au (GB08-11) and 285-305 feet @ 0.038 opt Au (GB08-22). (resource = 28,450,000 tons @ 0.020 opt Au inferred) *Press Release:* February 2

Victoria Gold Corp. and StrataGold Corp. announced that they would merge on a 0.1249 share Victoria/1.0 share StrataGold exchange basis. (resource @ Big Springs = 15,400,000 tons @ 0.078 opt Au inferred) *Press Release:* February 11

Quadra Mining Ltd. announced that reserves at the Robinson Mine aggregate 133,862,000 tons @ 0.54% Cu, 0.007 opt Au proven+probable. (was 160,067,000 tons @ 0.69% Cu, 0.007 opt Au proven+probable) *Press Release:* February 20



# Attention Golfers!!







Inspectorate America Corporation is pleased to announce sponsorship of the GSN Annual Golf Tournament 2009 on Saturday, June 27<sup>th</sup>. Tee time will commence at 1:00 p.m. with a "Shotgun Start" at Lakeridge Golf Course. The tournament is restricted to the first 100 people to enter, so sign up early! Deadline for reservations is Friday, June 19<sup>th</sup>. You may call Kathy at the GSN office (775) 323-3500, fax (775) 323-3599, or e-mail gsn@gsnv.org to sign up individually, or as a foursome. A fee of \$35.00 per head that will include golf, dinner, and two drink coupons and \$5.00 per head for those not golfing will be charged. Mulligan's may be purchased at 4/\$20.00 with a limit of four per person. Dinner will follow the tournament and raffle tickets for prizes will be sold at 5/\$20.00 or \$5.00 each. All/proceeds raised are to benefit the GSN Foundation. Please join us for a great time and we thank you in advance for supporting the GSN Foundation.

Please provide the following information for each golfer and guest:/

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<u>Re</u>	egistration Form
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BBQ Guest Name(s):	
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# THANKS TO INSPECTORATE AMERICA CORPORATION

For Sponsoring the GSN Annual Golf Tournament - 2009

#### **GSN Winnemucca Chapter** Meetina **April 8, 2009**

#### "The El Sauzal High-Sulfidation **Epithermal Gold Deposit** Chihuahua, Mexico"

Steven I. Weiss, Senior Exploration Geologist Goldcorp - Mexico

The El Sauzal high-sulfidation epithermal gold deposit in western Chihuahua state, Mexico, was discovered in 1995 by geologists prospecting on foot in the rugged, road less, lower canyon of the Rio Urique, near the western escarpment of the Sierra Madre Occidental. Production began in 2004 with estimated reserves of 19 M tonnes at an average grade of 3.4 g/t gold, or approximately 1.8 Moz gold. As of the end of 2008, gold production has averaged approximately 275,000 ounces per year. The principal host rocks are a sequence of dacite and overlying rhyolite ash-flow tuffs and coarse volcanic debris-flows of probable late Eocene to Oligocene age. all of which dip 35° to 60 °the east, with progressive decrease in dip up-section. Tabular to irregular silicic cores of porous to dense vuggy residual guartz are mantled laterally and upward by zones of quartz-kaolinite ± dickite, which in turn grade outward into quartz-alunite altered rocks. These zones are underlain abruptly by kaolinite-illite, and illite-chlorite assemblages at depth. Above the sulfide boundary gold is mainly disseminated as small grains interstitial to alunite, kaolinite and quartz. The majority of the ore is situated in transitional quartz-kaolinite altered rocks, peripheral to the vuggy quartz cores. Grade domains are modelled as subhorizontal to east and southeast-dipping. The highest grades are commonly found marginal to vuggy quartz in transitional, hematite-rich quartz-kaolinite rocks. 40/39Ar ages on alunite indicate a deposit age of approximately 30 Ma (Sellpack, 1997).

Thanks to Boart Longyear Drilling Services for sponsoring the Winnemucca March meeting.

#### **DRI MOVE UPDATE**

The GSN Office will be moving, from UNR, in May or June 2009 to NBMG's Great Basin Science Sample and Records Library at The Desert Research Institute Campus





Thanks to Marston for sponsoring the Elko March meeting.

#### WINNEMUCCA CHAPTER APRIL MEETING CO-SPONSORS





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### **Back-Pack Kids**

### GSN to hold Food Drives to benefit the Food Bank of Northern Nevada

We will hold a food drive at our April 24<sup>th</sup> meeting to collect food items, small toiletries, backpacks and canvas totes/briefcases to benefit the Food Bank's *Back-Pack Kids* program. This program provides food to homeless children who don't have much to eat over the weekends because they don't have access to school breakfasts and lunches. Please roundup all of those rarely used canvas bags and briefcases from conferences you have attended over the years.





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#### GSN Back-Pack Kids Food Drive Requested Items

- Backpacks, canvas briefcases & totes with geologic/mining logos (You probably have a closet-full of these things from conferences!)
- Kid-Friendly Individual Food Items:
  - $\Rightarrow$  Easy Mac cups or packages,
  - ⇒ Individual cups or pouches of tuna
  - ⇒ Granola bars
  - ⇒ Individual hot cocoa packets
  - ⇒ Single-serving peanut butter packets
- Personal care items:
  - $\Rightarrow$  Toothbrushes
  - ⇒ Toothpaste
  - ⇒ Chap stick
  - ⇒ Shampoo and soap (Please collect these items from motels/hotels when you travel!)







### \*\*\*CALL FOR PAPERS\*\*'

#### GSN 2010 Symposium

\*\*Draft Abstracts due no later than April 30, 2009\*\*

#### GSN 2010 SYMPOSIUM

May 14-22, 2010

John Ascuaga's Nugget Hotel and Casino, Reno-Sparks, Nevada

GSN invites contributions for oral, poster, and core shack presentations. The Sixth Symposium's focus will be Great Basin Evolution and Metallogeny through descriptive accounts of ore deposits, new ideas on deposit formation, and innovative methods of discovery.

Oral presentations require abstracts and a written paper to be peer-reviewed and published in the Symposium Proceedings following the meeting. Poster presentations require abstracts.

Draft abstracts up to 500 words should be submitted no later than April 30, 2009. Written papers should be 2,000 to 20,000 words with figures and tables. **Draft manuscripts due November 30, 2009**. **Information** 

for contributors: http://www.gsnv.org/symposium/author\_guidelines/guidelines.aspx

Submit abstracts on-line: www.gsnv.org/symposium or via e-mail: technicalsessions@gsnv.org

#### **TECHNICAL PROGRAM SUN-WED, MAY 16-19 Focus Topics:**

- Rumors from the Bush Great Basin **Exploration Update**
- New Mine Development
- Tertiary Magmatism and Metallogenesis
- Geology and Tectonics of Nevada
- Regional Metallogeny and Mineral Belts
- Active or Recent Gold Systems
- **Intrusion-Related Deposits**
- A Stroll Down Walker Lane Geology and Ore Deposits
- Volcanic-Hosted Precious-Metal Deposits
- Carlin-Type Gold Deposits: Great Basin and Beyond
- Controversies in Great Basin Geology
- Student Research—Best Student Paper Award
- Environmental/Regulatory Issues
- Geothermal Resources
- Case Histories of Great Basin Discoveries
- Exploration International
- Exploration Americas
- **Exploration Technologies**

#### FIELD TRIPS

#### **Pre-meeting:**

- Carlin-Type Gold Deposits for Geologists
- Epithermal Deposits of Northern Nevada
- Porphyry-Related Deposits-Eastern Nevada
- Industrial Mineral Deposits, Southern Great Basin

#### **Post-meeting:**

- Carlin-Type Gold Deposits for Non-Geologists
- Recent Advances in Carlin-Type Deposits, Nevada
- Epithermal Deposits of Central Nevada
- Porphyry-Related Deposits of Western Nevada
- Modern and Ancient Geothermal Systems

#### **SHORT COURSES**

- Society of Economic Geologists-Gold Workshop
- Epithermal Deposits: Occurrences, Models, **Exploration Criteria**
- Structural Systematics: Exploration Applications
- Fundamentals of Canadian NI 43-101
- Introduction to Carlin-Type Gold Deposits
- Porphyry Copper Occurrences, Models, and Exploration Criteria
- Molybdenum Deposits and Exploration Criteria
- Database Management, Geostatistics, GIS, & Modeling
- Sample Collection, Prep, and Analyses: Methods and Advice
- Isotopes and Exploration: Bringing the Esoteric into the Mainstream















#### Geological Society of Nevada Spring Field Trip May 8-10, 2009

# Diverse Gold Deposits of the Osgood Mountains and Humboldt Range, North-Central Nevada:

Pinson-Getchell-Turquoise Ridge and Spring Valley-Lincoln Hill-Wilco

Friday, May 8th: Evening lectures by Karl Marlowe; overnight in Winnemucca.

Saturday, May 9th: Getchell Gold Trend: Pinson, Getchell, and Turquoise Ridge mines; Evening

lectures by John Muntean, Jean Cline, Tony Longo and students on Getchell

(Overnight in Winnemucca).

Sunday, May 10th: Lincoln Hill and Willard-Colado projects (Bill Howald and Radu Conelea, Rye Patch Gold) and

Spring Valley project (Alan Branham, Midway Gold, and Barrick Gold).

#### SPONSORSHIP OPPORTUNITES FOR THE SPRING 2009 FIELD TRIP

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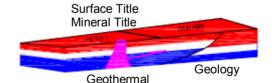
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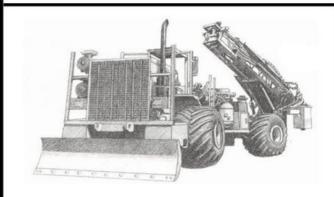
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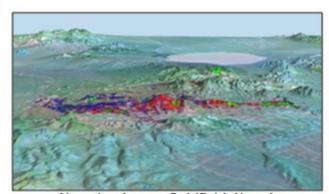


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