

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



October 2008, Vol. 23, No. 8

Published monthly except June and July

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CALENDAR OF GSN EVENTS

- Oct. 8
Wednesday** **WINNEMUCCA CHAPTER** (*Every 2nd Wednesday of the month*)
The monthly meeting will be held at the Martin Hotel, 94 West Railroad Street. Drinks and appetizers at 6:30 PM, speaker at 7:00 PM. Sponsor for the evening is IntraSearch Represented by Lundy Gammon. Speaker for the evening is Derick Unger. His talk will be titled "Geochronology and Geochemistry of Mid-Miocene Bonanza Low-Sulfidation Epithermal Ores of the Northern Great Basin, USA" (see abstract on page 6).
For more information contact John Marma at (775) 635-6472.
- Oct. 16
Thursday** **ELKO CHAPTER** (*Every 3rd Thursday of the month*)
The monthly meeting will be held at the Western Folk Life Center, 501 Railroad Street beginning at 6:00 PM, speaker at 7:00 PM. The speaker for the evening will be Don Harris of Midway Gold. He will present an update on the Spring Valley Project.
For more information contact Moira Smith at (775) 934-2987.
- Oct. 17
Friday** **GSN MEMBERSHIP MEETING** (*Every 3rd Friday of the month*)
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. Speaker for the evening will be Greg B. Arehart. His talk will be titled "Thermal and Isotopic Profiling of Hydrothermal Systems: Application to Mineral Exploration". For reservations contact Kathy Sestanovich at (775) 323-3500 or e-mail gsn@gsnv.org.
- Oct. 30
Thursday** **SOUTHERN NEVADA CHAPTER** (*The last Thursday of the month*)
The monthly meeting will be held at UNLV, Lily Fong Geoscience Building, Room 105, Las Vegas, NV beginning at 6:45 PM.
For more information contact Josh Bonde at (702) 468-2500.

FROM THE PRESIDENT

Marcus Johnston, *GSN President 2008-2009*

Thanks to all who attended our September meeting in Reno, especially Art Fisher and Leslie Thompson of Pintail Nevada Gold Technology. Art arranged the talk, which Leslie delivered. Leslie's work in the biomineralization field is groundbreaking, and her talk provided insights into some of the innovative processing and recovery techniques she has developed. Another thanks to Eklund Drilling Company for sponsoring the night's refreshments.

Thirty-four students registered for dinner in September, which is by far the largest contingent that I can recall. Just before the talk, we had the students stand for recognition, and they made up a full 20% of the audience! To encourage continued interaction, we have designated the January meeting in Reno as 'Students' Night.' We are currently soliciting abstracts for potential talks and/or posters for this meeting.

(Continued on page 2)

GSN OCTOBER MEETING SPONSOR

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News and Announcements

(Continued from page 1)

One of the goals of this year's GSN Officers and Directors is to establish better interaction and communication between the GSN 'Mothership' in Reno and the affiliated Chapters in Elko, Las Vegas, and Winnemucca. We couldn't have had a better start than we did on September 18th in Elko, where the GSN Board of Directors chose to hold its quarterly meeting. All the Board Members were present, including the various Presidents, except for one Director, Steve Green, who participated via a conference call. The last of this year's Elko Chapter Summer BBQs followed the meeting, with clear demonstration of the vibrant culture GSN is building in Elko.

Greg Arehart is the speaker for October, and will discuss applications of thermal and isotopic profiling for mineral exploration. Moira Smith, the current President for the Elko Chapter of GSN, is the second in our newly inaugurated "Faces of GSN" series. I hope to see many of you this weekend for the GSN Fall 2008 Field Trip!

Be safe,
Marcus

GSN MEMBERS' PERSONAL NOTES & NEWS

In May 2008 Dana Willis transferred from Newmont's Phoenix Operation to Newmont's Malozemoff Technical Facility in Englewood, CO where he is the senior resource geologist responsible for resource estimation on the Hope Bay Project in Nunavut, Canada.

Allan Moran, Principal Geologist based in the SRK Tucson Office, and his wife Sha (pronounced Shay) received terrible news about their oldest daughter, Spree Desha, who was in the commuter train wreck near Los Angeles on Friday, September 12. Their daughter, Officer Spree Desha, died in the commuter train wreck, in uniform, while on her way home from work. Spree was a 7-year veteran of the North Hollywood PD and LAPD.

Joyce Quiroz has accepted the position of Lab Manager for ALS Chemex's new lab in Reno. Joyce has transferred from the Winnemucca Branch and is now overseeing the Reno Lab's move to 4977 Energy Way. Brian Park-Li remains with ALS Chemex in the new role of Technical Services Manager, USA.

"NO CHILD LEFT INSIDE" 2008 Earth Science Week Field Trip

October 18 or 19, 2008 (same trip repeated two days)

Please volunteer to come help out with the annual Nevada Bureau of Mines & Geology Earth Science Week public field trip on one or both days. Be a geo-hero! We need all the geologists we can muster to answer the questions people have about rocks at each stop we make. No special training needed as long as you can tell flow-banded rhyolite from vesicular basalt or limestone tufa! All stops are easy-access, designed to accommodate many vehicles. In keeping with the national 2008 Earth Science Week theme of "No Child Left Inside," we have planned a field trip this year to appeal to children of all ages, to the "inner child," or life-long learner who never tires of collecting interesting rocks and finding out about local geologic history! **Meeting place will be 8:00 AM at the parking lot of the new Scheels sporting goods store in the Legends at Sparks Marina shopping center at the corner of Lincoln Way and Sparks Blvd. in Sparks.**

A detailed road log will be up on the NBMG website (www.nbmgs.unr.edu) in a week or so, but the current plan for stops is as follows:

- Mustang exit off I-80 - Martin Marietta construction materials pit to collect flow-banded rhyolite, 9 Ma Lousetown basalt, and nearby, 1.4 Ma vesicular basalt
- USA Parkway industrial park (Wes Construction) to collect

a variety of Tertiary Cascade-type dacite and andesite float.

- Soda Lake near Fallon - recent volcanic maar to collect basaltic bombs with crystals of plagioclase feldspar and olivine
- Gravel pit near Grimes Point east of Fallon to collect polished Nevada wonderstone pebbles from shoreline of ancient Lake Lahontan
- Historic lime kiln on US Hwy 95 a few miles south of I-80 to collect Pliocene fossiliferous freshwater limestone, tufa, and conglomerate
- One last stop near the Patrick Exit off I-80 at a perlite pit with Apache tears.

There will also be an opportunity to learn more about Geocaching and Earthcaching - a high-tech treasure hunting game using GPS devices. If you have a hand-held GPS unit, bring it, so you can help participants find the Geocaches and Earthcaches located near some stops.

Bring your own insured high-clearance vehicle, lunch and the usual safety equipment for a day out in the field - WATER, hat, sunscreen, sturdy walking shoes or boots, first aid kit, collecting bags and rock hammer if you have one. Carpool to save fuel.

Questions about the field trip? Call D.D. at 682-8772

For more information about educational activities during Earth Science Week, go to the national Earth Science Week website at: <http://www.earthsciweek.org/>

**Thanks to Eklund Drilling Company Inc.
for hosting the September meeting.**

GSN October 17, 2008 Membership Meeting

Date: Friday, October 17, 2008

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

Time: Social-6:00, Dinner-7:00 (\$17.00), Meeting-8:00

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

Reservations: Phone: (775) 323-3500, Fax: (775) 323-3599, E-mail: gsn@gsnv.org

Speaker/Title: Greg B. Arehart / Thermal and Isotopic Profiling of Hydrothermal Systems: Application to Mineral Exploration. See abstract below:

Deadline: Reservations by 1:00 PM Thursday, October 16th

Thermal and Isotopic Profiling of Hydrothermal Systems: Application to Mineral Exploration

Greg B. Arehart, Raymond A. Donelick, and Marcus K. Johnston

New exploration techniques are vital to the search for new orebodies in mature terranes, as well as for extensions of existing orebodies. Low-temperature dating techniques (primarily apatite fission-tracks) and stable isotope measurements (carbon and oxygen in carbonate rocks) in and around the Pipeline deposit, Chukar deposit, and the Bald Mountain area illustrate that these techniques can provide exploration vectors that should be used in conjunction with other geologic, geochemical, and geophysical techniques in the exploration for Carlin-type (and other) deposits.

At Pipeline, geochronometry and stable isotope measurements yield a clear indication of the elevated temperatures and fluid flows associated with the fossil hydrothermal system. The pattern is one of a central target (Pipeline deposit) with decreasing thermal and oxygen isotopic effects as far as several kilometers laterally from the known ore zone. Carbon isotopes do not show a pattern. Because of the irregular nature of fluid flow through fractures, a significant number of samples is required to discern this pattern, but the pattern is quite clear from the ~100 samples in and around the Pipeline pit. Both techniques provide a "footprint" of the Pipeline system that is several diameters larger than the ore zone (as presently known). Similar measurements of stable isotopic parameters at the Chukar deposit in the Carlin gold belt have been used to identify fluid flow paths at a somewhat smaller scale. Low oxygen isotope values correlate with elevated precious metals and trace elements, clearly indicating the paths of fluid flow and mineral deposition.

Although none of the isotopic and thermochronological techniques provide a direct indication of the metal content of the fossil hydrothermal fluids, they do provide an indication of the robustness of fluid flow and the potential size of a hydrothermal system. In addition, the data for Pipeline suggest an age of the mineralization near 40 Ma, consistent with other Carlin-type deposits.

ACTIVITY UPDATE
Mike Brady, August 2008
www.activityupdate.com

NEVADA

Royal Gold Inc. announced that it acquired a portfolio of royalties on 77 separate properties from Barrick Gold Corp. for \$150,000,000 cash + an unstated reduction in its royalty on the Cortez District properties. The acquired royalties generate \$12,000,000/year in present income. *M.J.:* August 8

Yukon-Nevada Gold Corp. announced that it terminated 240 of its employees at the Jerritt Canyon Complex since it would now shift to contract underground mining. (reserve = 2,000,000 tons @ 0.250 opt Au proven+probable) *Reno G/J:* August 10

General Moly Inc. announced that it signed an agreement with Sojitz Corp. for Sojitz to purchase 1,000,000 pounds/year Mo over 5 years from the Mt. Hope Project at the spot price once the mine is in operation. (reserve = 1,062,500,000 tons @ 0.068% Mo proven+probable) *M.J.:* August 15

Allied Nevada Gold Corp. announced that recent drill results at the Hycroft Project include 49-523 feet @ 0.014 opt Au, 1.3 opt Ag (H08-D3188); 370-485 feet @ 0.015 opt Au, 0.4 opt Ag (H08-D3373); 305-400 feet @ 0.016 opt Au, 0.5 opt Ag (H08-D3211)

and 455-505 feet @ 0.019 opt Au, 0.1 opt Ag (H08-D3388). (oxide reserve = 38,320,000 tons @ 0.020 opt Au proven+probable) *Press Release:* August 21

Atna Resources Ltd.(30%) announced that recent drill results at the Pinson Project include 706-719.5 feet @ 0.389 opt Au (BRFC-26); 335-405 feet @ 0.135 opt Au (BRFC-27); 910-920 feet @ 0.634 opt Au (BRFC-28) and 518.5-529 feet @ 0.852 opt Au (BRFC-30). (resource = 2,505,000 tons @ 0.421 opt Au measured+indicated) *Press Release:* August 5

AuEx Ventures Inc.(35%) announced that recent drill results at the Long Canyon Project include 137.8-155 feet @ 0.154 opt Au (LC072C); 130-144.2 feet @ 0.062 opt Au (LC074C); 70-145 feet @ 0.226 opt Au (LC092C) and 245-255 feet @ 0.017 opt Au (LC094C). *Press Release:* August 19

Firstgold Corp. announced that it now has received all the necessary permits to begin operations at the Relief Canyon Mine pending the increase of its reclamation bond to \$2,800,000. The company estimates that initial gold production would now be received in November 2008. (resource = 12,930,000 tons @ 0.033 opt Au inferred) *Press Release:* August 26

(Continued on Page 7)

FACES OF GSN

Moira Smith, *Elko, NV*

'Guess I'm what you'd call a "new kid on the block", both in terms of geography and profession. I got my start in geology when I was about six, on a trip to the southwest with my family, and through climbing the big volcanoes in the Cascades a little later on. In University (Pomona, Western Washington and Arizona), I studied structural geology and tectonics, loved mapping, and wanted to be a professor until I discovered that the job involved far too many hours writing grant proposals and grading exams. For four years after school, I worked for the British Columbia Geological Survey, and spent summers in the Coast Range, battling Devil's Club and mossy cliffs in the interest of figuring out the tectonic setting of ore deposits large and small, for the betterment of the Crown. An invitation from friends to join a mineral exploration recon crew for the summer in interior Alaska permanently changed the direction of my career. Who could not love camping and jumping out of helicopters in the land of the midnight sun, joining generations of prospectors in the search for gold?

Armed with one season in the bush for mineral exploration experience, I was hired by Teck (now TeckCominco) in the Kamloops, BC office. Six months later, I was running a 4-drill program in the bush in Panama, and building a resource model for one of the largest copper porphyry deposits in the world (Petaquilla). I owe everyone at TeckCominco a huge debt of gratitude for trusting an inexperienced geologist with some of their best projects! Next on the slate was Pogo, a project I lived and breathed for four years, until it was delivered into the hands of the engineers. Perhaps the most exciting moment of my career was breaking into the ore zone with an underground drift, and finding that the model was correct and it was really there, as advertised! I had the pleasure of spending much of a year and a half in southern Mexico, baking in 45C heat in a small village while developing and testing a model for the 3.2 million ounce El Limon Au skarn deposit, as well as many shorter stints in northern Argentina, Peru and other far flung places. The privilege of visiting so many remote places, and getting to know and work next to some amazing colleagues and the people that live there, is another highlight of my career.

While living in Vancouver, I somehow got roped into being a director of the BC Yukon Chamber of Mines (AMEBC), on the advisory board of the MDRU, MEG speaker's committee, President of the Mineral Deposits Division of the GAC, Roundup Committee, various SEG committees and other organizations. Clearly, saying "no" is not one of my strong points!

Another change in my career trajectory happened three years ago when, as US Manager for Teck Cominco, I vis-



ited Nevada for the first time. I was there for a property exam with Dave Caldwell – he already had me tagged for GSN officership before I even moved there! He also introduced me to Dan Harmening (yes, I met my significant other in a bar) and the rest is history. I moved to Elko two years ago, trading my small apartment in cosmopolitan Vancouver for a big house, bigger yard, man, teenager and a menagerie of pets on the edge of the Ruby Mountains. After leaving TeckCominco, partly to get away from being "management", and a brief stint with private explorer Eclerum USA Ltd. (same issue), I started with Fronteer Development Group in early 2008. It's my dream job! I'm the "Senior Geoscientist" for Nevada, with input into our various projects and a portfolio spanning 600,000+ acres. It's meant travel to London and Istanbul, and lot's of detailed geological work at Long Canyon in the Pequops – look for lots of exciting news on that one this coming fall and winter!

Other hobbies include high altitude mountaineering, skiing, photography and gardening. I'm also your GSN Elko Chapter President this year!

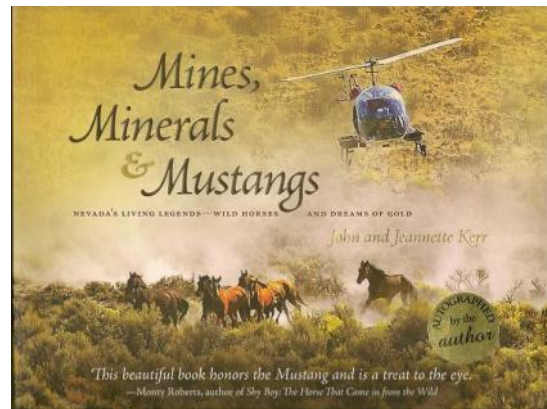
Geologic Society of Nevada > Home - Windows Internet Explorer
http://www.gsnv.org/ **Check out GSN's new website coming next month!**
File Edit View Favorites Tools Help

Foundations

John and Janette Kerr have donated two autographed copies of their new book, Mines, Minerals & Mustangs.

There will be a raffle or auction at an upcoming GSN meeting and the proceeds will be donated to the Foundation.

All GSN members will be notified by e-mail or in the next newsletter when the book "Mines, Minerals & Mustangs" will be raffled or auctioned.



Elko Chapter's Final Summer BBQ Series Event



More photos can be found on the new GSN Website, which will be published to the Internet next month.



Thanks to Geotemps, Inc. for hosting Elko's September Summer BBQ Series.



Tax Deduction

It is that time of the year to consider gift giving. If you have any geologic books that you are considering giving away please contact Clancy Wendt. GSN and the Tucson Gem and Mineral Society have given over 35,000 books to Universities in Mexico. This is a tax deductible item and anything you have will be greatly appreciated as Mexican Universities have very little in the way of reference books. 775-852-2513



WINNEMUCCA CHAPTER October 8th Meeting

GEOCHRONOLOGY AND GEOCHEMISTRY OF MID-MIOCENE BONANZA LOW-SULFIDATION EPITHERMAL ORES OF THE NORTHERN GREAT BASIN, USA

Derick Lee Unger

Ore petrography, geochemistry, and geochronology data collected for some low-sulfidation epithermal precious metal deposits in the northern Great Basin indicate that the mid-Miocene deposits have consistent ore mineralogy, geochemistry that varies between two end members, and a narrow range of ages. These deposits are coeval with bimodal volcanism and often classified as "volcanic-hosted." However, a number of deposits in this study are not hosted by volcanic rocks and it appears that the host rock may significantly affect gangue mineralogy. New high precision $^{40}\text{Ar}/^{39}\text{Ar}$ geochronology conducted on previously undated deposits (or deposits with older, less precise K/Ar dates only), indicates that low-sulfidation epithermal Au-Ag mineralization in the northern Great Basin began around 16.5 Ma and continued until at least 15.6 Ma. This time frame adds further support to the hypothesis that these deposits are genetically related to the emergence of the Yellowstone hotspot near the present day intersection of the Idaho, Nevada and Oregon borders. High-grade bonanza ores in these deposits consist of precious metal minerals inter-grown with quartz and adularia (KAlSi_3O_8). The intimate association of precious metals with adularia, an ideal mineral for use in $^{40}\text{Ar}/^{39}\text{Ar}$ geochronology, allows for unambiguous dating of the precious metal mineralization event. For this study, five adularia crystals from each sample location were analyzed individually rather than as a bulk sample. The effects of argon loss or gain are much more evident in single crystal analysis and thus can be mitigated during the final age calculation.

Deposits in or near the Slumbering Hills (Jumbo, New Alma, Sandman and Ten Mile) northwest of Winnemucca, Nevada as well as two locations on War Eagle Mountain, Silver City District, Idaho, were selected for geochronologic study. A new younger age of 16.53 ± 0.04 Ma at the 1σ confidence level was determined for the Jumbo deposit. Evidence for excess Ar was found in the

samples from Jumbo, which likely explains an anomalously old date of 17.3 Ma that was previously determined using K/Ar methods. The youngest deposit in the Slumbering Hills area is the New Alma deposit (16.03 ± 0.07 Ma), which sits just south of the Jumbo deposit. The Ten Mile and Sandman deposits fall in between with ages of 16.52 ± 0.04 Ma and 16.17 ± 0.04 Ma respectively. The presence of the recently mined Sleeper deposit and the Sandman deposit, which is a current exploration target, indicates the Slumbering Hills area may host other significant bonanza ores. War Eagle Mountain vein samples yielded ages of 16.31 ± 0.04 Ma and 15.61 ± 0.10 Ma. The geochronology data as a whole indicate that precious metal mineralization occurred in the region for a period of at least 1 Ma.

Suites of ore samples from several low-sulfidation deposits in the northern Great Basin were collected to examine similarities and contrasts in the mineralogy and geochemistry. Polished thin section petrography and geochemical data indicate that the most common precious metal minerals are electrum and Ag-selenides, Ag-sulfides, and Ag-sulfosalts. A new classification scheme, the "epithermal trilinear diagram," based on metal and metalloid contents in these ores, was devised to examine geochemical properties within and amongst deposits. Each geochemical sample plots as a point on a trilinear diagram based on certain metal (Au, Ag, Pb) and metalloid (As, Sb, Te, Se) molar ratios. For the sake of comparison, some low-sulfidation ores from Colorado and Japan were included in this portion of the study. This new classification scheme indicates deposits fall between two end members being either Ag-Se or Au-Te rich. The Colorado ores analyzed all fall in or near the Au-Te field, whereas samples from the northern Great Basin and Japan generally plot in or near the Ag-Se field. The greatest determining factor in where a sample falls in this technique is the metalloid content.



Members are encouraged to keep us informed about their own career related moves and awards, and deaths of GSN colleagues. Photos are always welcome.

Your information needs to be received by Kathy at P. O. Box 13375, Reno, NV 89507 or e-mail gsn@gsnv.org by the 20th of each month.

(Continued from Page 3)

Gateway Gold Corp. announced that recent drill results at the Santa Fe Project include 155-200 feet @ 0.104 opt Au, 1.9 opt Ag (SF08-01); 25-165 feet @ 0.069 opt Au, 2.18 opt Ag (SF08-02); 125-180 feet @ 0.036 opt Au, 0.88 opt Ag (SF08-03) and 380-575 feet @ 0.108 opt Au, 2.15 opt Ag (SF08-04). (resource = 1,718,000 tons @ 0.032 opt Au inferred) *Press Release: August 12*

Victoria Gold Corp. announced that it offered to acquire Gateway Gold Corp. through a 0.5 share Victoria/1.0 share Gateway share exchange. *Press Release: August 19*

Geologix Explorations Inc. announced that it terminated its interest in the OZ Property. *Press Release: August 25*

Golden Predator Mines Inc. announced that recent drill results at the Adelaide Project include 105-110 feet @ 0.047 opt Au, 2.13 opt Ag (GPA014); 60-70 feet @ 0.034 opt Au, 3.15 opt Ag (GPA015); 75-105 feet @ 0.032 opt Au, 1.40 opt Ag (GPA016) and 425-465 feet @ 0.048 opt Au, 0.74 opt Ag (GPA018). *Press Release: July 29*

Imperial Metals Corp. announced that recent underground drill results at the Sterling Project include 339-354 feet @ 0.143 opt Au (SU08-32); 75-91 feet @ 0.109 opt Au (SU08-46); 73-118 feet @ 0.256 opt Au (SU08-47) and 82-92 feet @ 0.621 opt Au (SU08-48). (resource = 214,100 tons @ 0.217 opt Au inferred) *Press Release: July 29*

Frontier Development Group Inc. announced, at the request of the British Columbia Securities Commission, it revised the resource estimate for the Northumberland Project to aggregate 40,169,800 tons @ 0.056 opt Au, 0.23 opt Ag indicated and 7,618,600 tons @ 0.102 opt Au, 0.18 opt Ag inferred. (was 12,998,000 tons @ 0.053 opt Au measured; 17,912,000 tons @ 0.076 opt Au indicated and 4,381,000 tons @ 0.091 opt Au inferred) *Press Release: August 17*

NEW MEXICO

Galway Resources Ltd. announced that based on recent drill results at the Victoria Project, resources aggregate 77,237,000 tons @ 0.09% Mo, 0.09% WO₃ measured+indicated and 77,222,000 tons @ 0.07% Mo, 0.09% WO₃ inferred. (was 67,000,000 tons @ 0.100% Mo, 0.10% WO₃ indicated and 42,000,000 tons @ 0.090% Mo, 0.09% WO₃ inferred) *Press Release: August 19*

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ANNOUNCEMENT AND CALL FOR PAPERS



2010 SYMPOSIUM
May 14 - 22

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GEOLOGICAL SOCIETY OF NEVADA 2010 SYMPOSIUM ANNOUNCEMENT and CALL FOR PAPERS

THEME: GREAT BASIN EVOLUTION & METALLOGENY

WHEN: MAY 14-22, 2010

**WHERE: JOHN ASCUAGA'S NUGGET
RENO/SPARKS, NEVADA**

The Geological Society of Nevada invites contributions for oral, poster, and core shack presentations covering a broad range of geological topics for its upcoming sixth symposium. This symposium's focus will be on aspects of Great Basin evolution and metallogeny and will maintain a tradition of excellent oral and poster presentations followed by published symposium volumes, which emphasize descriptive accounts of ore deposits, and new ideas of how deposits formed, why they occur where they do, and how to find them.

Oral and Poster presenters require preparation of an abstract and written paper to be peer-reviewed and later published in the Symposium Proceedings. Core shack presenters are welcome to submit abstracts and written papers, but are not required to do so.

Draft abstracts up to 500 words should be submitted **no later than April 30, 2009**. Written papers should be 4 to 25 typed pages including figures and tables. **Manuscripts are due August 31, 2009**.

Information for contributors is available on-line www.gsnv.org/symposium/author_guidelines/guidelines.aspx. Abstracts may be submitted on-line or via e-mail. Questions? Contact us at: symposium2010@gsnv.org

Technical Program - Sun-Wed, May 16-19

Great Basin:

- Rumors from the bush – Great Basin exploration update
- New mine developments
- Styles of Tertiary magmatism and metallogenesis
- Geology of Nevada
- Regional metallogeny
- Active or recent gold systems
- Intrusion-related deposits
- A stroll down Walker Lane – Geology and ore deposits
- Volcanic-hosted Au-Ag deposits
- Carlin-type gold deposits
- Out of the box, into the frying pan: Controversies in Great Basin geology
- Student research (competition for Best Student Paper award)
- Mining in the 21st Century – environmental and regulatory issues
- Great Basin tectonics
- Geothermal resources
- Case histories of Great Basin discoveries
- Molybdenum & tungsten

Other Topics:

- Exploration – Americas
- Exploration – International
- New exploration technologies
 1. Remote sensing
 2. Geochemistry
 3. Geophysics
 4. Mapping and logging

Field Trips (May 14-16 & May 19-22)

Pre-meeting:

- Introduction to Carlin-type gold deposits for geologists (3 days)
- Epithermal deposits of northern Nevada (3 days)
- Porphyry-related deposits of eastern Nevada (3 days)
- Industrial mineral deposits, southern Great Basin (3 days)

Post-meeting:

- Introduction to Carlin-type gold deposits for non-geologists (2-3 days)
- Recent advances in Carlin-type deposits, Nevada (3 days)
- Epithermal deposits of central Nevada (3 days)
- Porphyry-related deposits of western Nevada (2-3 days)
- Modern and ancient geothermal systems (2 days)

Short Courses

- Epithermal deposits: occurrences, models, and exploration criteria
- Structural systematics: applications for exploration
- Fundamentals of Canadian National Instrument 43-101
- Introduction to Carlin-type gold deposits
- Not all that glitters is gold I: porphyry copper occurrences, models, and exploration criteria
- Not all that glitters is gold II: molybdenum
- Getting the most from your data: database management, geostatistics, GIS, & modeling
- Sample collection, preparation, and analyses: methods and advice
- Isotopes and exploration: bringing the esoteric into the mainstream

Exhibits

An active exhibit hall will provide excellent industry exposure for your company or organization. Space will go fast for this popular venue, so please reserve your booth early! Contact us at symposium2010@gsnv.org for more information.

Meeting Sponsors



GSN Board of Directors



From left to right:

- Moira Smith, Elko Chapter President
- Dieter Krewedl, Board of Directors Chairman
- Cami Prenn, Elected Member
- John Marma, Winnemucca Chapter President
- Kathy Sestanovich, GSN Office Manager
- Dave Caldwell, Elected Member
- Greg Hill, Recent Past GSN President
- Marcus Johnston, GSN President
- Dave Shaddrick, Elected Member
- Josh Bonde, Southern Nevada Chapter President
- Fred Breit, Elected Member
- Not shown, Steve Green, Elected Member

GSN Board of Directors September Quarterly Meeting

The GSN Board of Directors held its first quarterly meeting for the 2008/2009 fiscal year on September 18 in Elko, Nevada at the Fronteer Development Group office. All eleven Board Members were in attendance including the Presidents of the Winnemucca, Elko and Southern Nevada Chapters except Steve Green who participated via a conference call. The meeting began with a review of the purpose of the Board for the new Members, which is to provide the overall direction of GSN, manage our investment funds, provide institutional memory and continuity, and promote communication within the GSN.

Highlights of the reports from the six Board Committees include the following:

Approval of the recommendation by the Fiscal Committee to allow up to 50% of the earnings from our investment funds to be used for the annual GSN operating budget

Commission the Policy Committee to recommend new procedures for nominating GSN Honorary Members for the Board and Executive Committee to consider

The Nominating Committee is beginning the process of finding and recommending candidates for the 2009/2010 GSN Executive Committee and its Chapters plus two Board Members by the February 2009 Board meeting

Initiate an audit of the 2006/2007 GSN expenditures by the Audit Committee

Review the status of the preliminary budget and planning for the 2010 GSN Symposium by the Symposium Committee

During the summer, the Foundation received donations totaling \$12,500 from the AIPG, golf tournament, sale of gold specimens and general membership contributions bringing the treasury to approximately \$230K

The Presidents of the GSN and its Chapters then shared their plans and goals for 2008/2009 with the entire Board. Members were also advised that a much more informative and user friendly GSN web site is expected to be functioning by next month.

The meeting was a great success in bringing everyone together to discuss mutual interests and issues thereby helping to make the GSN a better Society for its Members. The next Board meeting will be on November 21, 2008 in Reno. The Board would appreciate input from the Members of GSN on any issues they want to be discussed or are currently under consideration by the Board.





FOOD BANK
OF NORTHERN NEVADA

Back-Pack Kids

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

We will hold a food drive at our November 21st 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. Look for more details and a list of needed food items in the November newsletter. In the meantime, please be thinking about rounding up all of those rarely used canvas bags and briefcases from conferences you have attended over the years.

The Winnemucca Chapter will be holding their first food drive for the **Back-Pack Kids** program at their December 10th meeting.



Geological Society of Nevada 2008 Fall Field Trip Old and New Base Metal Deposits of Central Nevada October 3-5, 2008

Visits will be made to four mines and projects, including the Pumpkin Hollow copper skarn, Mount Hope porphyry Mo, the historic base-metal mines of the Eureka district, and the Robinson porphyry Cu-Mo-Au

Friday, October 3: Leave Reno (UNR) at 3 pm; overnight in Austin; evening talk/core display: Greg French (Nevada Copper) to review geology and developments at Pumpkin Hollow

Saturday, October 4: Morning: Mount Hope tour with Steve Rivera (General Moly); Afternoon: tour of historic Eureka District mines with Peter Vikre (USGS); evening talk of Eureka District history and geology (Peter Vikre)

Sunday, October 5: Morning: Tour of Robinson Mine and District with Jim Biggs (Quadra Mining)

**MACKAY
ROCKHOUNDS**
Mineral auction October 17, 2008
Proceeds benefit the Mackay
Rockhounds, a Student Chapter of the
American Institute of Professional
Geologists

The Mackay Rockhounds, the University of Nevada Student Chapter of the American Institute of Professional Geologists, would like to invite you to our mineral auction at the October 17th 2008 GSN meeting in Reno, Nevada.

The money raised at the auction will be used by the chapter for various activities including field trips, memberships to professional organizations, community service, and other activities to encourage student involvement in the mineral industry.

The Mackay Rockhounds look forward to your attendance.

We thank you in advance for your support.

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generous donors*

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UPCOMING EVENTS

Oct 2, 2008

Nevada Petroleum Society Speaker: John Louie, Professor of Geophysics, University of Nevada, Reno. "**Nevada Community Seismic Velocity Model and Earthquake Scenario Modeling**". Dinner Meeting held at Austin's Restaurant, Mt. Rose Room, 7671 S. Virginia St., Reno, Nevada at Cocktails begin at 6:30 PM, Dinner at 7:00 PM.

Oct 10, 2008

SME - Tim Casten, Director - Underground Planning, Freeport-McMoRan Copper and Gold, "**Underground Mining at PT Freeport Indonesia's Grasberg Operation**" Lunch meeting held at 12:00 noon at Denny's on Nugget Avenue, I-80 east, exit at East McCarran.

Oct 17, 2008

The Mackay Rockhounds, the University of Nevada Student Chapter of the American Institute of Professional Geologists, will have a mineral auction at the GSN monthly meeting in Reno, Nevada.

Oct 24, 2008

Jon Price, Nevada Bureau of Mines and Geology, UNR, "**Gold in Conglomerates – Observations from Society of Economic Geologists Field Trips in South Africa (Witwatersrand) and Ghana (Ashanti Belt)**"

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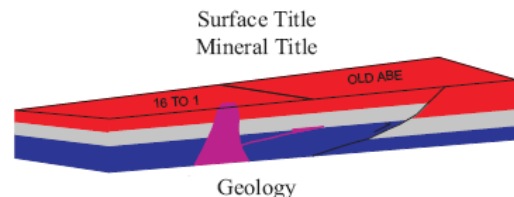
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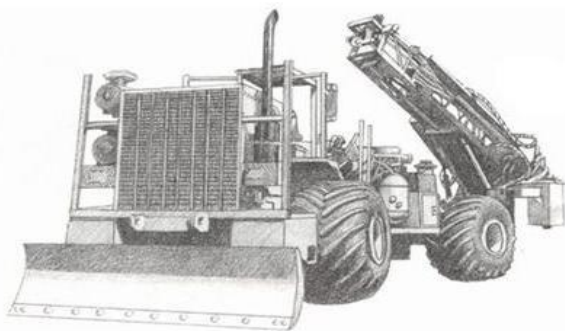
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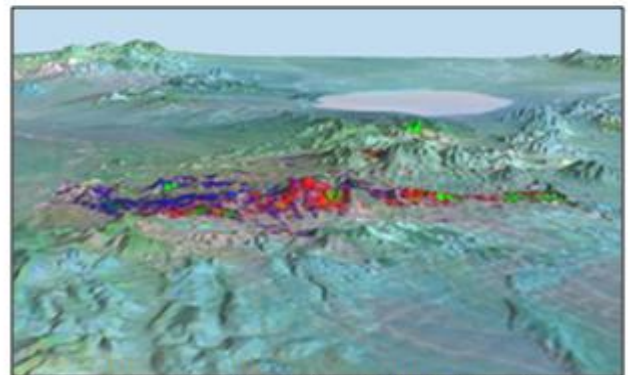


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