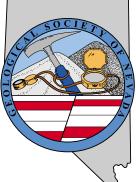
# **GSN NEWSLETTER**

#### November 2005, Vol. 20, No. 9

PRESIDENT Dieter Krewedl



#### CALENDAR OF GSN EVENTS

Dieter Krewedl Krewedl Mineral Exploration dkrewedl@usamedia.tv VICE PRESIDENT Ellie Davie Leavitt Consultant zoracdavie@aol.com	Nov 9 Wednesday	WINNEMUCCA CHAPTER MEETING. Speaker: Ellie Leavitt. Title: "Geochronology, Alteration, and Geochemistry of the Midas Epithermal Gold System, Elko County, NV". NOTE CHANGE OF VENUE: The Martin Hotel, Melarkey and Railroad Streets. Meeting begins at 6:30 pm, presentation at 7:00 pm. Contact Kim Craig, Chapter President, for more info, 775/529-5001 x1340, kim_craig@Placerdome.com.	
SECRETARY Leslie Olmstead Agnico-Eagle (USA) Limited lolmstead@agnico-eagleusa.com	Nov 17 Thursday	ELKO CHAPTER MEETING. Speaker and title to be announced. Western Folklife Center, Elko, NV. Drinks at 6:00 pm, talk at 7:00 pm. Contact: John Watson, Chapter President, for more info: 775/738-2062, jwatson@barrick.com.	
TREASURER Camille Prenn Mine Development Associates cami@mda.com MEMBERSHIP CHAIR Greg McN. French Consulting Geologist	Nov 17 Thursday	SOUTHERN NEVADA CHAPTER MEETING. Speakers: UNLV Graduate Students. Titles to be announced. Room 105 (note change!), Lily Fong Geoscience Building, UNLV, Las Vegas, NV. Social at 6:00 pm, presentation at 6:30 pm. Contact Robyn A. Howley, Chapter President, 702/895-5054, robynhowley@yahoo.com for more information.	
GMcNFrench@aol.com PUBLICATION CO-CHAIRS Elizabeth A. Zbinden Round Mountain Gold Corp. E_Zbinden@geology.reno.nv.us	Nov 18 Friday	GSN MEMBERSHIP MEETING. Speaker: Alan Wallace, Research Geologist, "Late Cenozoic Landscape Evolution in Northeastern Nevada and its Predictive Implications for Mineral Deposits and Ground Water". Reno Elks Lodge, 597 Kumle Ln, Reno, NV. Drinks at 6 pm, dinner at 7 pm, talk at 8 pm. Contact Laura Ruud for reservations, 775/323-3500, gsn@mines.unr.edu.	
Ruth Carraher Gold Summit Corp. racarraher@goldsummitcorp.com OFFICE MANAGER	Dec 14 Wednesday	GSN MEMBERSHIP MEETING. Speaker: Donald Hudson, Consulting Geologist, "A Brief Overview of the History and Geology of the Comstock District: 150 Years of Chicanery, Exuberance and Naivete".	
Laura Ruud gsn@mines.unr.edu	Don't forget to renew your membership. See page 11 for form.		

GSN Newsletter is published monthly except June and July Geological Society of Nevada, PO Box 13375, Reno, NV 89507 USA, 775/323-3500, www.gsnv.org Office location: Laxalt Mineral Research Center, Rm 266, UNR. Hours: Mon thru Fri, 9 am-12 noon

## FROM THE PRESIDENT

Dieter Krewedl. GSN President 2004-2006

The GSN had many activities during October beginning with the annual family picnic on October 2. Special thanks go to Rachel Dolbier and D.D. LaPointe for organizing the fun event and making it a great success.

The 2005 Fall field trip to Mammoth Lakes and the Long Valley Caldera from October 7 to 9 was organized by Ellie Leavitt and was nothing short of fantastic. The field trip focused on the Bishop tuff and the very young volcanic products of continued magmatic activity in the area. Steve Lipshie provided us with excellent observations on the geology throughout the trip and USGS geologists, Dave Hill and Chris Farrar, gave us great dinner talks. We were particularly pleased that out of the 47 participants

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continued on page 2



#### FROM THE PRESIDENT continued from page 1

attending the field trip, 10 were students and 8 of which were sponsored by industry. The excellent field trip guidebook contains important articles and well documented road logs for anyone interested in the geology of the region.

At the October 21 dinner meeting, Eric Seedorff gave us a great talk on the similar challenges facing economic geology programs and the minerals industry. Academia is becoming more dependent upon the minerals industry to financially support the economic geology programs in the United States, which are either being eliminated or rapidly decreasing in the number of professors and students. More cooperation is essential among the minerals industry and academia as well as government agencies and professional societies for our mutual survival and prosperity. For our part, the GSN has been actively encouraging students to enter the minerals business through various incentives including participating in GSN activities and finding industry sponsors for students on field trips. The GSN will also cosponsor and assist the Arizona Geological Society in their upcoming 2007 Symposium.

The **ballot of six candidates** for the newly established Board of Directors was also overwhelmingly approved by the GSN membership in October. Out of the 197 total votes, all but three votes were in favor of the proposed slate of candidates. GSN members have strongly endorsed not only the slate of elected Board members, but also the establishment of a Board of Directors, which will better represent the State wide interests and concerns of our members. Our first Board of Directors meeting will be on November 19 in Reno. It will be a wide ranging meeting and will lay the foundation for future decisions and directions of the GSN.

The speaker for the **November 18 dinner meeting** will be USGS research geologist, Alan Wallace, who will discuss "Late Cenozoic landscape evolution in northeastern Nevada and its predictive implications for mineral deposits and ground water." Alan will give us some exploration guidelines for discovering mineral deposits and help us to better understand the distribution of ground water in northern Nevada. Thanks to Mark Abrams and his team at **Agnico-Eagle (USA) Ltd for** sponsoring the social hour at the meeting. The GSN dinner meetings are always a good opportunity to socialize and interact with fellow geologists. It will also be an opportunity to introduce the new GSN Board of Directors attending the meeting.

On a final note, the **Nevada Division of Minerals' Exploration Survey 2004** reports exploration spending in the State increased by 15% over 2003 to \$79.7 million and is projected to increase another 40.4% to \$111.9 million during 2005. This is a very encouraging sign of a continuing recovery in the State's minerals industry. The GSN is planning to have a series of presentations during the first half of 2006 that will highlight some of the exploration successes in Nevada.

### **GSN BOARD OF DIRECTORS**

The GSN membership has overwhelmingly approved the proposed ballot of elected members to the newly established Board of Directors. Out of the 197 total votes, 194 were in favor and 3 were against the proposed ballot. The six elected Board members are as follows:

> Class A – 2005/2006 (Nominal One Year) Jean Cline, Steve Green Class B – 2005/2007 (Nominal Two Years) Dave Caldwell, Eric Ruud Class C – 2005/2008 (Nominal Three Years)

Dave Shaddrick, Richard DeLong

All of the elected member positions will ultimately be serving staggered three year terms. During May of each year, there will be a vote for two elected positions for the three year term beginning with Class A.

The 2005/2006 Board of Directors will consist of the six elected members plus the following five automatic members:

Current President of the GSN Dieter Krewedl Past President of the GSN Clancy Wendt

President of the Winnemucca Chapter

Kim Craig

President of the Elko Chapter

John Watson

President of the Southern Nevada Chapter Robyn Howley

The first meeting of the Board of Directors will be in Reno on November 19. We will be discussing important issues with the goal of making the GSN more inclusive and ultimately better meet the needs of a larger and more diversified Society. Stay tuned!

### NEVADA GOLD - 1993 TO 2004

The Nevada Bureau of Mines and Geology has released a research report by Mike Brady entitled "Nevada Gold - 1993 to 2004". The report discusses exploration and mining activity over the 12-year period, details tons and grade changes at the various mines and exploration projects, and suggests some exploration strategies that have proven successful. An attached appendix to the report also contains a lengthy press release archive covering the period under review. A copy of the article and appendix can be viewed at www.nbmg.unr.edu <http:// www.nbmg.unr.edu> within the online documents section as Open File Report 05-3.

Mike will present the results of his research at the January 2006 GSN membership dinner meeting. He also writes the monthly Activity Update.

Thanks to ATNA Resources Inc. for hosting the October meeting.

## GSN November 18, 2005 Membership Meeting

Date: Friday, November 18, 2005 Time: Social-6:00, Dinner-7:00, Meeting-8:00 Reservations: 775/323-3500; fax 323-3599, e-mail gsn@mines.unr.edu Deadline: Reserve by 11 am Thursday, November 17<sup>th</sup> Location: Elks Lodge, 597 Kumle Lane, Reno, NV

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

**Speaker/topic:** Alan Wallace, USGS See abstract below.

#### LATE CENOZOIC LANDSCAPE EVOLUTION IN NORTHEASTERN NEVADA AND ITS PREDICTIVE IMPLICATIONS FOR MINERAL DEPOSITS AND GROUND WATER

Alan R. Wallace, U.S. Geological Survey

Many basins and ranges in NE Nevada originally formed in the late Oligocene/early Miocene, were partially buried by middle Miocene sediments, and were exhumed by late Miocene and younger erosion. Miocene basin sedimentation began at ~16 Ma behind fault and volcanic dams, and sediments partially buried the highlands. Most basin margins were atectonic except for the detachment-controlled west flank of the Ruby-East Humboldt Ranges. Most dams were breached between 15 and 13 Ma; the Ruby-East Humboldt detachment sustained sedimentation until ~10 Ma. Post-sedimentation faults cut basins and highlands alike. After 10 Ma, streams reintegrated and carried newly formed sediments out of the region. In the Humboldt River basin upstream from Beowawe, as many as 16 strath terraces have been cut into Miocene sediments young downstream, indicating response to a basin-wide base-level drop. Erosion has preferentially removed >400 m of poorly consolidated Miocene sediments, exhumed buried basement-cored highlands, and produced a drainage system that mimics that in the middle Miocene. One of the lower terraces formed at ~2.3 Ma (Reheis et al., 2003), indicating substantial earlier erosion. The Humboldt River was regionally extensive before 2-3 Ma and then became restricted to northern Nevada; post-2 Ma sediments eroded from northeastern Nevada were deposited in fault-controlled basins in northwestern Nevada.

These post-Oligocene processes affected both mineral deposits and ground water. Many epithermal deposits formed near Miocene lakes, and the lake distributions provide exploration guides for these deposits. Supergene alunite dates at Eocene gold deposits reflect the pre- and post-sedimentation stages of exposure and erosion, each of which weathered the deposits. Mineral deposits in NE Nevada are being exhumed or eroded, whereas those in NW Nevada are being concealed, producing two regionally different exploration concepts. Miocene basins are important sources of ground water, and the complex basin facies, post-sedimentation faulting, and variable erosion and burial have produced compartmental-ized aquifers that strongly affect the properties and recharge of these reservoirs.

Raised in a USGS family and spending many childhood summers in the field (starting kindergarten in Lovelock), Alan Wallace's fate was sealed from the start. He received his BS and MS from the University of Colorado and PhD from Oregon State University. Early on, he worked for Woodward-Clyde Consultants and Homestake Mining Company, but a part-time job with the USGS in Denver somehow morphed into a 28-year career with the USGS in Denver and Reno. His principal research interests have been on the geologic settings of mineralized regions and mining districts, and much of his work has been in Colorado, New Mexico, and Nevada, with a brief foray into Bolivia. Alan currently is a member of the Graduate Faulty in the Department of Geological Sciences and the Hydrological Sciences Program at the University of Nevada, Reno.

#### WINE TASTING FUND RAISING EVENT

The Student Association for International Water Issues (SAIWI) from the University of Nevada, Reno and BK's Wine Storage & Accessories will be holding a fundraiser on Saturday November 12. The Association works on issues of water supply and quality in remote, underdeveloped areas internationally.

The event is a wine tasting that will be held between 1 and 3 PM and will feature South African wines. In addition, there will be a slideshow from SAIWI's recent trip to Kenya and a silent auction featuring wines and African crafts. Please RSVP to reserve your space for this special event. The cost is \$20 per person (and you get to keep the glass).

BK's Wine Storage & Accessories is located at: 2540 Sutro Street, Suite 6, Reno, NV 89512 (just south of Hug High School's football field on Sutro between McCarran and Oddie Blvd.'s). RSVP to: winestoragebks@sbcglobal.net or 775-786-4744.

#### **ACTIVITY UPDATE**

Mike Brady, September 2005 www.activityupdate.com

#### <u>NEVADA</u>

Quadra Mining Inc. announced that it will take over mining operations at the Robinson Mine from contract miner Washington Group International Inc. (reserve = 115,060,000tons @ 0.72% Cu, 0.008 opt Au proven+probable)

*M.J.:* August 19

Century Gold LLC announced that it acquired an option to purchase 21,000 acres of patented and unpatented claims from F.W. Lewis Inc. for undisclosed terms.

Press Release: September 7

Castleworth Ventures Inc. announced that recent drill results at the Pan Project include 35-75 feet @ 0.017 opt Au (05-27); 180-210 feet @ 0.018 opt Au (05-31); 175-185 feet @ 0.017 opt Au (05-50); 5-35 feet @ 0.020 opt Au (05-54); 55-70 feet @ 0.021 opt Au (05-55); 70-140 feet @ 0.005 opt Au (05-56); 75-105 feet @ 0.011 opt Au (05-70); 125-135 feet @ 0.015 opt Au (05-71); 5-30 feet @ 0.016 opt Au (05-73) and 90-130 feet @ 0.012 opt Au (05-75). (resource = 17,900,000 tons @ 0.019 opt Au indicated)

Press Release: September 19

GoldSpring Inc. announced that it completed the acquisition of the Justice, Woodville and Keystone patented claims at the Plum Mine from Comstock Gold LLC for undisclosed terms. *Press Release:* September 6

Coral Gold Resources Ltd. announced that recent drill results at the Robinson/39A Zone Project include 870-905 feet @ 0.013 opt Au (CT05-1); 950-975 feet @ 0.262 opt Au (CR05-1); 585-590 feet @ 0.232 opt Au (CR05-2); 850-1,000 feet @ 0.059 opt Au (CR05-2); 375-465 feet @ 0.069 opt Au (CR05-3); 410-500 feet @ 0.013 opt Au (CR05-4); 370-400 feet @ 0.049 opt Au (CR05-5); 130-175 feet @ 0.014 opt Au (CR05-6); 465-475 feet @ 0.164 opt Au (CR05-7) and 785-860 feet @ 0.069 opt Au (CR05-8). (resource at 39A = 4,700,000 tons @ 0.079 opt Au inferred) *Press Release:* September 7

Gold Summit Corp. announced that recent drill results at the Monte Cristo Project include 169.3-170.3 meters @ 0.170 opt Au, 0.26 opt Ag (MCC42); 185.2-186.8 meters @ 0.217 opt Au, 0.09 opt Ag (MCC43) and 234.3-235.3 meters @ 0.061 opt Au, 6.8 opt Ag (MCC44).

Press Release: September 14

Gold Summit Corp. announced that recent drill results at the Tip Top Project include 48.7-52.9 meters @ 0.120 opt Au (MCC17); 43.2-45 meters @ 0.117 opt Au (MCC18) and 21.1-22.4 meters @ 0.457 opt Au (MCC19).

Press Release: September 14

Midway Gold Corp. announced that recent drill results at the Spring Valley Project include 75-85 feet @ 0.103 opt Au (SV05-89); 185-200 feet @ 0.014 opt Au (SV05-93); 790-805 feet @ 0.014 opt Au (SV05-105); 170-200 feet @ 0.016 opt Au (SV05-106); 430-445 feet @ 0.010 opt Au \*SV05-107) and 625-665 feet @ 0.033 opt Au (SV05-108). *Press Release:* September 22 Miranda Gold Corp. announced that recent drill results at the Redlich Project include 360-410 feet @ 0.012 opt Au (R-50); 425-455 feet @ 0.013 opt Au (R-50); 435-545 feet @ 0.009 opt Au (R-52); 265-280 feet @ 0.017 opt Au (R-54); 135-345 feet @ 0.019 opt Au (R-56); 525-560 feet @ 0.010 opt Au (R-59) and 200-230 feet @ 0.016 opt Au (R-60).

Press Release: September 1

Nevada Pacific Gold Ltd. announced that recent drill results at the Cornerstone Project include 40-105 feet @ 0.023 opt Au (CSR05-02).

Press Release: September 21

New Sleeper Gold Corp. announced that it acquired an option to earn a 50% interest in the Jersey Property from Maximus Ventures Ltd. for \$25,000 cash and \$2,000,000 in exploration expenditures over 2 years.

Press Release: September 22

New Sleeper Gold Corp.(50%) announced that recent drill results at the Sleeper/West Wood Project include 306.3-310.9 meters @ 0.387 opt Au, 0.36 opt Ag (WW33-04) and 270.7-275.8 meters @ 0.483 opt Au, 0.44 opt Ag (WW33-04). (resource at West Wood = 150,000 tons @ 0.363 opt Au inferred) *Press Release:* August 31

Queenstake Resources Ltd. announced that it will scale back milling operations at the Jerritt Canyon Complex to 2,500 tpd ore (was 2,700 tpd) by closing one of its two roasters. (reserve = 3,000,000 tons @ 0.276 opt Au proven+probable) *Press Release:* September 26

## GSN MEMBERS' PERSONAL NOTES & NEWS

#### Career Related Moves

▶ Ann S. Carpenter has been named the President and Chief Operating Officer of U.S. Gold Corporation by Rob McEwen, Chairman of the Board of Directors. Ann is currently the Chairperson of the GSN Foundation and has over 20 years of experience in exploration, mineral evaluations and mine project developments. She has also been a strong advocate for the mining industry and is active with the Women's Mining Coalition.

▶ Susie Mason has discontinued her consulting business as an Independent Mineral Landman. On October 17th, Susie joined the staff of the Nevada State Office of the Bureau of Land Management. Her title is Supervisory Records Manager and Chief - Branch of Information Access and Customer Service. She has responsibility for the public room, reception area, cashier/dockets, warehouse and printing functions.

Members are encouraged to keep us informed about their own career related moves and awards, and deaths of GSN colleagues. Your information needs to be received by Laura at gsn@mines.unr.edu by the 21<sup>st</sup> of each month.

#### WINNEMUCCA CHAPTER NOVEMBER 9<sup>TH</sup> MEETING

The Winnemucca Chapter of the GSN will meet on Wednesday, November 9, 2005 at the Martin Hotel on Melarkey and Railroad Streets. The meeting begins at 6:30 and the presentation starts at 7:00. Ellie Leavitt is our guest speaker and her talk is titled "Geochronology, Alteration, and Geochemistry of the Midas Epithermal Gold System, Elko County, NV." Thanks to our generous sponsor this month - BSI Inspectorate!

#### ABSTRACT

The Midas epithermal system is one of the larger lowsulfidation epithermal vein systems discovered in the western US in recent years, containing in excess of 3 Moz of gold. The deposit is spatially and temporally related to bimodal basalt rhyolite magmatism in the northern Nevada rift; dates on igneous rocks (16-14.7 Ma) bracket the age of high-grade veins (15.4 Ma). Hydrothermal alteration at Midas is typical of epithermal systems, comprising proximal potassic through distal propylitic mineral assemblages. Mineral assemblages and geochemical patterns are zoned on the vein structures that served as focal planes for fluid upflow, and reflect effects of increasing temperature and water:rock interactions towards the main veins. Metals were deposited in open-space veins primarily as the result of boiling of hydrothermal fluids; multiple episodes of crustiform mineral deposition are documented in the vein textures. The major vein minerals include guartz, adularia, calcite, selenides and sulfides, with electrum as the primary ore mineral. REE patterns for vein material are similar to patterns for coeval rhyolites, but distinctly different from patterns of the host rocks. Stable isotope data are consistent with meteoric water as the dominant ore fluid. Combined REE and stable isotope data suggest a slight decrease in the pH of fluids between initial stages of vein formation to the following high-grade ore stage. This shift may reflect decreased buffering capacity of rocks along the flow paths with continued fluid flow.

## GSN FOUNDATION 2004/2005 REPORT

#### Ann S. Carpenter, Foundation Chairman

At the end of the 2004/2005 fiscal year, money in the GSN Foundation totaled \$64,711 with \$12,448 in Unrestricted Funds and \$52,263 in the Endowment Fund. This is an approximate \$38,000 increase over the previous year. Thanks to the efforts of DD LaPointe and Rachel Dolbier, the Christmas 2004 and Symposium 2005 raffles brought in a combined \$11,837. Cami Prenn's fine work on the books kept the accounting straight and up to date.

The GSN Foundation is in its second year of receiving funding from the AIPG Foundation. Many thanks go out to

Kel Buchanan for his leadership and to the AIPG for agreeing to donate \$4,000 annually for three years to the GSN Foundation, toward our K-12 Field Trip Grants program. As a stipulation, the GSN is to provide funds totaling \$2,000 each year we receive this donation.

The Foundation continues to fund geology related scholarships at both UNR and UNLV. As well, the Foundation helped to supply funds for approximately eighteen K-12 Field Trip Grants last year to mainly at-risk schools in Nevada, and we have reached out to over 60,000 students since this program was initiated. These two programs – Field Trip Grants and Scholarship – continue to be our most successful outreach tools.

We are well on our way to reach our minimum goal of \$250,000 in the Endowment Fund by 2009. The GSN Foundation thanks all of you, who have contributed and helped to make our efforts so successful.

## Thank you to our generous donors

#### **GSN Foundation**

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 Half page  $(4^{3/4} \times 7^{1/2''})$  300.00

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For an advertising form, call the GSN office at 775/323-3500 or fax 323-3599. Digital or text ads must be received by the 20<sup>th</sup> of the month to appear in the following month's newsletter.

## 2005 GSN FAMILY PICNIC

Our GSN Family Picnic on October 2 was a great success! Thanks to all of you who came bearing yummy side dishes and desserts that we all enjoyed. Special thanks go to Steve Castor for taking care of our carnivorous needs, and to Cami and Neil Prenn who brought the "Icky," which was duly drained by the end of the day! We had a great turnout with over 30 people of all ages! The games were overseen by Eric Ruud and the competition was tough. The following is a list of winners:

Gold Pan Toss - 1st Place Winner - Mario Desilets

Hammer Throw - 1st Place Winners -Greg Ekins & Laura Ruud (Tie)

3-Legged Race - 1st Place Winners -Alex Ruud & Grace Desilets

Sack Race – 1<sup>st</sup> Place Winner – Josh Nimsic

Egg Toss: 1st Place – Eric & Alex Ruud 2<sup>nd</sup> – Dave Mathewson & Tom Nimsic 3rd – Greg & Linda Ekins

Once again, thanks to everyone who made the 2005 Picnic such fun! I hope to see another great turn out in 2006. Start practicing your hammer and gold pan throwing techniques now in order to beat Laura next year!

## UPCOMING EVENTS

Oct 31-Nov 5 – Alaska Miners Association Convention and Trade Show, Anchorage, Alaska. Short course: Mon.-Tues., Oct. 31-Nov. 1; General Convention, Weds.-Fri., Nov. 2-4; Rock & Mineral Show, Fri.-Sat., Nov. 4-5. For more information, e-mail ama@alaskaminers.org; Web: www.alaskaminers.org.

Nov 3 – Nevada Petroleum Society – Larry Anna, USGS Energy Resources Team - "The Latest Federal Assessment of Oil and Gas Resources in the Eastern Great Basin." Austin's Restaurant, 7671 South Virginia Street in Reno, NV. Cocktails at 6:30 pm. Dinner is served at 7:00. The talk immediately follows dinner, 7:45 or 8:00 pm. Reservations are required; please contact Diane Phillips at trailsend@pyramid.net or 775-267-4663.

**Nov 4** – MACKAY SEMINARS IN ECONOMIC GEOLOGY – Mark Coolbaugh, Great Basin Center for Geothermal Energy, UNR -"Active Geothermal Systems and Young Gold Deposits in the Great Basin". Room 215, Mackay Science Building (on the SE side of the guad) University of NV, Reno campus, 3:00 pm.

Nov 16-17 – MineWest 2005, Denver, CO. Contact Mining Media: Tel. 800-225-0899; Web: www.mining-media.com.

Nov 18 - MACKAY SEMINARS IN ECONOMIC GEOLOGY -Jake Lowenstern, USGS - "Magmatic-Hydroithermal Evolution of Yellowstone" (exact title to be determined). Room 215, Mackay Science Building (on the SE side of the guad) University of NV, Reno campus, 3:00 pm.

Dec 5-9 - Northwest Mining Association, 111th Annual Meeting and Exposition, Spokane, WA. Contact: Pat Heywood, e-mail: pheywood@nwma.org; Web: http://www. nwma@nwma.org.

Dec 6-15 – The Lowell Program in Economic Geology at the University of Arizona is presenting a Short Course on Porphyry Deposits, which will be held in Tucson. For further information, please contact Eric Seedorff at seedorff@geo.arizona.edu or Lukas Zurcher at lzurcher@geo.arizona.edu.

Dec 13 - American Institute of Professional Geologists - 16th Annual Exploration Roundup – Focusing on Junior and Mid-Tier Companies; 10 speakers. Holiday Inn, 6th Street, Reno, NV. Cocktails @ 6:00 P.M. Sponsored by EKLUND DRILLING, Dinner at 7:00 pm and program at 8:00 pm. Students Sponsored by Eklund Drilling. Reservations required: Contact Kel Buchanan at 775-786-4515, fax 786-4324 or summitcrk@aol.com

**Premium Pages** 

## Advertise in the "Who's Who" of the Great Basin **GEOLOGICAL SOCIETY OF NEVADA MEMBERSHIP DIRECTORY**

Advertise your business, products, or services in the 2005-2006 GSN Membership Directory. Due for distribution in January 2006. A complimentary copy of the directory will be provided to all advertisers.

The following advertising space sizes are available:

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All advertisements must be camera ready, black and white or submitted as PDF, EPS, TIFF, or PICT digital format on a CD, or e-mailed to the GSN office. Please send your advertisement and check (payable to Geological Society of Nevada) by December 1, 2005.

#### **GSN FALL 2005 FIELD TRIP**

"Volcanic Geology, Volcanology, and Natural Resources of the Long Valley Caldera, California"



The Fall Field Trip to the Long Valley caldera set out bright, early, and on time (!) Friday, Oct 7<sup>th</sup>, with the planets aligned and spectacular weather. We made our first unscheduled stop at the Hilton to pick up forgotten MSHA forms from Laura Ruud (who is the reason everyone had motel rooms, great dinners, and space on the bus). On the way to our first stop, everyone snacked on muffins and drinks provided by Eklund Drilling Company, Inc. who by the way sponsored ALL of the refreshments along the way. We journeyed south to our lunch provided by BSI Inspectorate at Conway vista and met Steve Lipshie, trip leader extraordinaire (without whom this trip would not have taken place). Traveling in style on the bus, generously provided by GEOTEMPS and Boart Longyear/Lang Exploratory Drilling, Steve was able to provide an excellent summary of the geology and history of the area to the group. We moved on to Panum Crater (dome). By now, the bimodal age distribution of the 47 participants (including the bus driver) was apparent with 10 students from UNR a welcome part of this group. Many thanks to Placer Dome Exploration Inc., Zonge Geosciences, Boart Longyear/Lang Exploratory Drilling, Mark Coolbaugh, Roger Steininger and an anonymous sponsor for helping students attend this trip! Everyone hiked to the top of the tuff ring and dome. We then headed to the beach and surreal land-

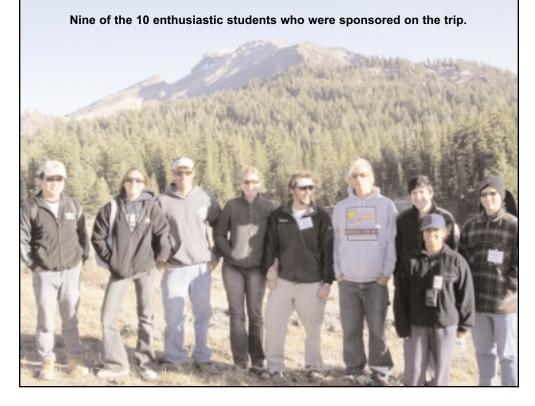
scape of South Tufa along the south shore of Mono Lake. Students were able to point out mating brine shrimp to the rest of us; some speculated on the source of "sea monkeys" and whether or not they were preserved Mono Lake brine shrimp offspring. With these inspiring thoughts, we headed to Mammoth Lakes with a stop to view the Sierra Nevada, glacial moraines, and more domes. We gathered at the Ocean Harvest restaurant and enjoyed drinks and an excellent dinner sponsored by **Eklund Drilling Company Inc.**, **Major Drilling** and **ALS Chemex**. **Dave Hill** of the USGS gave an excellent talk after dinner that summarized the geology, and ongoing magmatic and tectonic activity in the Long Valley-Mammoth area. Some were surprised to hear of the past (?) unpopularity of geologists in Mammoth Lakes due to predictions of volcanic hazards.

Saturday dawned another beautiful crisp fall day; aspens provided a show of colors in the foreground, and the early morning light shown beautifully on the peaks of the Sierra as we made a quick trip up to the Hilton Creek Fault. By now the bus driver, Brent, was clearly hooked, and willing to use whatever it took to get us to our stops. We headed south to a pumice quarry in the Bishop Tuff. During a driverrequested moment of silence, we successfully crossed a deep rut and headed back north where, still outside the caldera, we hiked into the Owens River gorge, and then had lunch sponsored by **Enviroscientists, Inc.** at a river overlook. As the planets would have it, a surprise speaker appeared, Joe Kurtak, author of the book, *Mine* 



Steve Lipshie, LA Dept of Public Works, shares his knowledge of the history and geology of the area at Conway Summit as Ellie Leavitt assists with the megaphone.

in the Sky. Not only did he give an interesting overview of the Pine Creek tungsten mine, but also had ore and concentrate samples to lend a, by now, oredeprived crowd. We headed on, back into the caldera, wondering what might come our way next. Due to measurements of the top curve along the road to the top of Lookout Mountain by the USGS, and consultation with the bus company, that stop had been cancelled. We proceeded to Inyo Craters, where we hiked up and around them. Our resident biologist suggested the green color of one of the crater lakes was due to algae, not a secret government experiment. We went for a late afternoon view to the west of the Sierra from Minaret Summit, only to see a silhouette, allowing us to fill in geology, followed by a quick dig in nearby tephra, and





Terri and Larry Garside of the NBMG pose for a quick photo before the trek down to Hot Creek.

then to Mammoth Lakes and dinner, amazingly still on time. We enjoyed drinks and another great dinner at Whiskey Creek, sponsored by **Eklund Drilling Company Inc.** and **Newmont Mining Corporation**. **Chris Farrar** of the USGS gave an informative talk on the hydrology and geothermal resources of the Long Valley caldera. In spite of the option of a later bus trip to the motel, everyone seemed willing to call it a day, to resume discussion of isotopes and anything else left on their minds on Sunday.

Sunday dawned another beautiful crisp Fall day. Following a more leisurely start, we proceeded to the ORMAT/Mammoth Pacific geothermal plant where **Bob Sullivan** provided an overview and tour of the plant. Our group was full of questions and suggestions. One suggestion was to improve efficiency by redesigning the plant with a "recuperator." Now that we had this place figured out, we headed to Hot Creek. Those inspired and prepared took a dip, while the rest of us cast longing looks at those luxuriously soaking in the enriched water. From here, racing to stay on schedule, we made a record short stop at the marsh fossils, where no one complained of not finding one. We zoomed on to tour the Kaolinite Mine, thanks to **Richard Harmon**, of Standard Industrial Minerals. We donned sunglasses, and gener-

ated numerous theories about the host rock. Last but not least, we headed to the Long Valley Gold resource, where we enjoyed lunch provided by the **Nevada Mining Association**. **Roger Steininger** provided an overview of the resource/deposit. At last, somewhat behind schedule, Brent, also anxious to see the last outcrop of the day, backed us about <sup>1</sup>/<sub>2</sub> mile or more down a dirt road. With one last hammer of the outcrop, and a view of the caldera margin to the east, we retraced our tracks. In the tradition of past GSN bus field trips, we enjoyed and endured jokes and stories along the ride home.

THE GSN IS ANNOUNCING IT WILL BE A PROUD CO-SPONSOR OF THE ARIZONA GEOLOGICAL SOCIETY'S SYMPOSIUM "ORES AND OROGENIS" TO BE HELD SEPTEMBER 24-30, 2007. WATCH FOR DETAILS IN FUTURE GSN NEWSLETTERS!



## **GEOLOGICAL SOCIETY OF NEVADA**

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

The GSN membership year begins in June. Annual dues of \$30.00 (\$15.00 for full time students) are due in the fall. The GSN sponsors a Field Trip in the Fall and one in the Spring of each year. Monthly meetings are held on the third Friday of each month, September through May. The following are sanctioned Chapters of the GSN: Elko Chapter, based in Elko; Southern Nevada Chapter, based in Las Vegas, and the Winnemucca Chapter, based in Winnemucca. Additional dues to these Chapters are \$5.00 annually. The \$5 Chapter dues are matched by \$5 from the GSN and go directly to the respective Chapter.

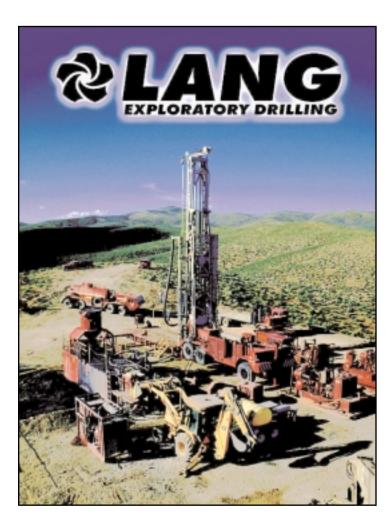
Please remember the GSN Foundation when renewing. Foundation dollars are used for the Kindergarten through 12<sup>th</sup> grade Field Trip Grant Program, Nevada Mapping Grants and University of Nevada scholarships.

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