

GEOLOGICAL SOCIETY OF NEVADA NEWSLETTER

Geological Society of Nevada, 2175 Raggio Parkway, Room 107, Reno, NV 89512
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Website: www.gsnv.org • E-mail: gsn@gsnv.org



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CALENDAR OF GSN EVENTS

**Sept. 9
Friday**

GSN MEMBERSHIP MEETING—NOTE 2ND FRIDAY THIS MONTH!

The first meeting of the new season will be held at the Reno Elks Lodge, 597 Kumle Lane, Reno, NV. Drinks at 6:00 p.m., dinner at 7:00 p.m., and talk at 8:00 p.m. Sponsor for the evening will be **Boart Longyear**. Speaker for the evening is John Muntean, Nevada Bureau of Mines and Geology. His talk is titled "**Ferroan Carbonates in Carlin-type Gold Deposits: Real Time Detection of an Important Ore Control by Carbonate Staining**" (see abstract on page 3). Contact the GSN Office for dinner reservations at 323-3500 or gsn@gsnv.org.

**Sept. 14
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. Sponsors for the evening will be **Redcor Drilling**. Speaker for the evening will be Don Harris, Allied Nevada Gold Corp. His talk is titled "**Hycroft Deposit, Humboldt and Pershing Co., Nevada**" (see abstract on page 8). For more information contact Erin Gray at (775) 635-6420.

**Sept. 15
Thursday**

ELKO CHAPTER (Every 3rd Thursday of the month)

The Elko Chapter will be throwing a BBQ for its members this month! No speaker just food and drink sponsored by **Enviroscientists, Inc.** The festivities start at 6:00 p.m. at the Duncan Little Creek Wine Bar in Elko. For more information contact Doug Eck, Elko VP at deck@barrick.com. (see page 9 for more information)

**Sept. 22
Thursday**

SOUTHERN NEVADA CHAPTER (Every Last Thursday of the month)

The monthly meeting will be held at the Lilly Fong Geoscience building at UNLV, Room 101. Social hour begins at 6:30 pm with the speaker starting at roughly 7:15 pm. Speaker for the evening will be Paul Bowen and the title of his talk is "**The La Pitarrilla Project, State of Durango, Mexico**". For more information contact Paul Bowen at 702-247-7765. (see abstract on page 9)

**RENEW YOUR DUES NOW FOR
2012 MEMBERSHIP IN THE G.S.N.!**

GSN SEPTEMBER MEETING SPONSOR



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FROM THE PRESIDENT

Bill Howald, GSN President, 2011-2012

Hello Fellow GSN Members,

It was a long winter and I didn't think summer would ever come, but now it's already fall and time for you to mark the third Friday of every month – except mark September 9th and December 14th - for the GSN social, dinner and presentation. As your newly elected president of the GSN, I would like to take a moment to introduce myself and the important issues that I will pursue during the 2011 – 2012 year.

For those of you who do not know me, I am Bill Howald, President and CEO of Rye Patch Gold Corp. I was born on the “Richest Hill on Earth” in Butte, Montana, and have worked as a geologist in the Western United States and South America. I have had the opportunity to work for major and mid-tier mining companies, and most recently at a nano-cap exploration company, and have participated in the exploration/mining process from discovery to mine more than once. Along my career, there have been many individuals that have guided and mentored me. This brings me to my first plank in my platform for the GSN year – Mentoring. I am always happy to see the younger and student members joining and willingly participating in the GSN events and as GSN officers. I hope that **YOU** will consider mentoring some of them since they have selected the earth science profession as their passion. I know they will appreciate the opportunity to discuss geology, careers and opportunities to advance their intellectual, professional and financial experience. We are the silver backs now!

As I stated, I'm glad to see so many younger members joining GSN. However, during the spring field trip, I met a few geologists – young and old – that were not members of GSN. In fact when looking at our membership numbers, there has been a decrease in our membership revenues from the 2009-2010 year to the 2010 -2011, and the coming year shows a similar trend. If the projections are correct, there will be a 20% decrease in our membership from the 2009/2010 to 2011/2012 membership year – that is 1 in 5 have dropped out of the GSN over the past 3 years. During this time, when every commodity from aluminum to zinc is at all-time high price levels, our membership should also be growing, bringing me to my second plank - Membership. GSN does make a difference in the communities where we work - through the GSN Foundation, scholarships, and K-12 education about the mining industry. As our mission statement proclaims, “GSN is a scientific Society dedicated to promoting the geological sciences. GSN exists to benefit its members and provide opportunities to enhance their geologic knowledge.” However, the spirit of GSN has evolved to combine rigorous science and the camaraderie among our members. This amalgamation of friends, fun, and geologic thought makes GSN an exciting and fun professional organization. Please ensure your friends and colleagues are part of and participate in the GSN experience.

My third and final plank - Migration - continues the work started by Peter Vikre and revolves around making the GSN more digital. Last year, GSN field trip guidebooks from 1 to 10 were scanned and placed on CDROM for purchase. Soon guidebooks 11 to 20 will also be available. Guidebooks 1 to 5 are no longer available as a printed book. Coming soon, there will be changes to the website. Members will be able to find pertinent published information using an interactive map that will geographically show sources of information for sale through the GSN office. In addition, members will soon have the luxury of paying online for memberships, publications, and field trips using a credit card – welcome to the 21st century GSN!

To summarize, I hope to make progress for the GSN through

Mentoring, Membership and Migrating to digital over the next several months. It's your GSN so I hope you will help and contribute through mentoring, membership and being involved. Just as Rudyard Kipling wrote “For the strength of the pack is the wolf, and the strength of the wolf is the pack.”

I want to thank Doug Silver for a very enlightening and thought provoking talk at the last Silver Summer Series. It's hard to believe this event is ten years old.

I would also like to thank Doug for his generous contribution of \$5,000 to the GSN Foundation. This event would not be possible without the generosity of our members such as Dan Kappes and Clancy Wendt, and our unwavering sponsors - ALS Minerals, Inspectorate, CGS, Geotemps and Mine Development Associates.

I would like to recognize Kathy Sestanovich for her contributions to GSN over the last several years. As many of you know, Kathy has been battling some medical issues that have hindered her from performing the GSN office manager position in recent months. Kathy has decided to focus on getting better and left the office manager position at the end of July. I'd like Kathy to know we appreciate all her contributions to GSN and applaud her successes and wish her all the best for the future.

During Kathy's absence, the GSN could not have made it through the gap without volunteers working to fill in and pick up the ball. Please help me in saying **THANK YOU** to Mary Stollenwerk, Carmen Arbizo, John Hoskins and Dave Emmons for handling telephone calls, emails and information until our new office manager arrived.

Everyone, please join me in welcoming the return of Laura Ruud as the new GSN office manager. Laura worked intermittently through August and started full time on August 25th. I can already see the difference she is making and look forward to working with her this year. Laura knows the routine well but has been away from the office duties for some time, so give us a break as we figure out how to get the newsletter compiled and out to you. I am confident that Laura will be up and running quite quickly.

Remember our September meeting is on the 9th because of a conflict at the Elks Club. John Muntean from the Nevada Bureau of Mines and Geology will be our speaker. I've been lucky to work with John in the past and he is truly one of the best geoscientists that I know. John will describe and discuss the role of Ferroan Carbonates in Carlin-type Gold Deposits. Please see John's abstract in this newsletter.

A Mile High, A Mile Deep

**Thanks to Dan Kappes for again hosting
the 10th Annual
Doug Silver Summer Series!!**

**Thanks also to our generous
sponsors of this event:**

ALS MINERALS

CGS, INC.

GEOTEMPS, INC.

INSPECTORATE AMERICA

MINE DEVELOPMENT ASSOCIATES

GSN September 9, 2011 Membership Meeting

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

The reason we need reservations and also cancellations is because our caterer needs to know how many people to cook for.

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, September 7, 2011.
Social Hour: 6:00 PM – Dinner: 7:00 PM – Speaker: 8:00 PM
\$17.00 per person

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)

**Prepaid dinner reservations will only be accepted for the current monthly meeting.
Cancellations must be received two days before the meeting in order for your money to be refunded.**
Download the prepayment form from the GSN website: <http://www.gsnv.org/membership.html>

Ferroan Carbonates in Carlin-type Gold Deposits: Real Time Detection of an Important Ore Control by Carbonate Staining

John Muntean
Nevada Bureau of Mines and Geology
University of Nevada Reno

Michael Cassinerio
Barrick Gold Corp.

Lucia Patterson
Timberline Resources Corp.

Carbonate staining is an inexpensive, real time tool to detect ferroan carbonate, an important ore control in Carlin-type gold deposits. Studies are increasingly showing a close spatial association between ore and wall rocks containing ferroan dolomite or ferroan calcite. These ferroan carbonates are important in that when they are dissolved by acidic, gold-bearing hydrothermal fluids, they release iron which reacts with reduced sulfide in the fluid, destabilizing gold-sulfide aqueous complexes, resulting in deposition of gold-bearing pyrite. This process, known as sulfidation, is widely regarded as the principal depositional mechanism for gold in Carlin-type deposits. Carbonates can be stained by dilute hydrochloric acid containing both alizarin red S and potassium ferricyanide to differentiate between calcite, ferroan calcite, ferroan dolomite and dolomite. Staining needs to be done carefully in conjunction with a good hand lens, because other iron-bearing phases in the rock, such as pyrite and iron-bearing clays, can cause "iron-bleeding" and misleading results. Electron microprobe analyses of carbonates show the staining is sensitive down to 0.1 wt% Fe.

Detailed carbonate staining by the authors at the Turquoise Ridge deposit reveals a distinct spatial relationship between gold, ferroan calcite, and the southern margin of a thick Paleozoic basalt. High-grade gold ore in the HGB zone occurs exclusively within ferroan calcite-bearing host rocks. The transition from ferroan calcite (mainly 0.1-1 wt% Fe) to calcite (mainly <0.1 wt% Fe) occurs at the base of the HGB. Staining of carbonates at the base of the Roberts Mountain Formation along the Saval discontinuity in drill holes across the entire Jerritt Canyon district shows a close spatial association between the gold deposits and host rocks containing ferroan dolomite (mainly 0.5-2.75 wt% Fe). Others have reported a spatial association between ferroan dolomite and gold at Twin Creeks, Meikle, Storm, and Deep Star. At Twin Creeks, ferroan dolomite was interpreted to form during Cretaceous sericitization of Paleozoic basalts, which mobilized iron into interbedded carbonates. We envision an analogous process at Turquoise Ridge. At Meikle, ferroan dolomite was interpreted to form by either syn-sedimentary exhalative processes or by a late Paleozoic brine. Such a late Paleozoic brine event was probably also responsible for formation of ferroan dolomite at Jerritt Canyon. In every case, ferroan carbonate is interpreted to form prior to Eocene-age Carlin-type gold mineralization, and, in effect, is critical pre-ore chemical rock preparation for subsequent ore formation. We highly recommend routine carbonate staining of prospective host rocks in exploration for carbonate-hosted gold deposits of all types.

GSN FOUNDATION

News from the GSN Foundation

As a result of a successful 2010 GSN Symposium the Foundation received its largest single donation of \$74,813.88. Words cannot express my gratitude to the GSN Executive Committee for this very generous donation, and I also want to thank them for the continual support of the Foundation. Not to be overshadowed, as a result of Inspectorate America Corporation's support for the GSN Golf Tournament, the purchase of raffle tickets and mulligans raised almost \$1,500 for the Foundation. Last but not least, Doug Silver also was extremely generous in making a sizable donation to the Foundation at his August presentation. Thank you to both Inspectorate and Doug Silver for being part of the GSN summer programs and supporting the Foundation over the years.

The Foundation is on a sound financial footing (here comes the but), but we want to continue to expand our activities which requires continual support from the membership. As you review your membership this year please consider making a donation to the Foundation.

During the past fiscal year the Foundation was in the position to enhance our activities. The K-12 Field Trip Support Program funded 45 requests totaling \$10,199 for transportation for "earth science" related trips that went to schools in Reno, Sparks, Verdi, Fernley, Fallon, Gardnerville, Henderson, and Las Vegas. The program reached almost 3,000 students. We have additional funding available and would welcome more requests (see the GSN website for applications).

Another \$2,000 was contributed to the GSN Scholarship Endowment. Last year's income from the Endowment supported two students at UNR; Nicholas Steele and Kristin Kohls, both majoring in geology. Payouts from the endowment are used for two yearly scholarships.

The Foundation awarded \$1,250 scholarships each to Erica Romero, Eve-Marie Hirt, Elizabeth Benge, and Garrett Frey to help offset the tuition for their 2011 field camp program. The Foundation is planning to make this scholarship program a part of our yearly activities.

As I continue for another year as Foundation Chair I want to thank our other board members for their past service and for volunteering to serve another year. They are:

Dieter Krewedl	Vice Chair
Kel Buchanan	Secretary
Cami Prenn	Treasurer
D.D. LaPointe	Education Committee
Rachel Dolbier	Education Committee
Dan Rovig	Member

Again, thank you to the GSN members for its support of the Foundation.

Roger C. Steininger





Obituary: Dr. James Taranik

Dr James Vladimir Taranik passed away on Tuesday, June 21 at the age of 71. He was born on April 23, 1940 to Vladimir and Jeanette Taranik in Los Angeles, California. He graduated with a BSc in Geology from Stanford University in 1964 and earned his PhD in Geology from Colorado School of Mines.

Dr. Taranik has served the State of Nevada, the University of Nevada, Reno, The Mackay School of Earth Sciences and Engineering and the Desert Research Institute well in his illustrious career. After four years with NASA and the Space Shuttle Program, where Jim was a senior scientist and Chief of NASA's Non-Renewable Resources Branch, he came to Nevada in 1982 to serve as Dean of the Mackay School of Mines. As Dean of Mackay, he secured \$28 million for a new Mackay School of Mines building and the modernization of major teaching facilities. He led the School of Mines as its Dean until 1987, when he was appointed by the Board of Regents as President and CEO of the Desert Research Institute. At DRI from 1987 to 1998, Jim helped it grow to one of the world's foremost environmental research organizations with an international reputation. Again with his planning and fund raising prowess, he and his team secured \$38 million for two major new Science centers, one in Las Vegas and the other in Reno. He became DRI Emeritus President in 1998.

Dr. Taranik returned to Mackay in 1998 and served as Regent's Professor and the Arthur Brant Endowed Chair for Geophysics. During this time, Jim also founded and directed the Great Basin Center for Geothermal Energy at UNR. He brought in millions of dollars in research funding, taught numerous courses and mentored hundreds of students. In yet another time of change, in 2003, the University of Nevada and the Mackay School of Mines turned, once again to Dr. Taranik, asking him to serve as Acting Dean of the School. After major reorganization at the University in 2004, Jim became the first Director of the Mackay School of Earth Sciences and Engineering, where he again led the School until moving back into the academic department of Geological Sciences and Engineering in 2009. Dr. Taranik was planning to retire from the University of Nevada, Reno on June 30, 2011 as an Emeritus Regents Professor, and President Emeritus of the Desert Research Institute.

He began his career as a student at Stanford where he earned his BS in Geology. He received a varsity letter as Captain of the water polo team. He joined the Iowa Geological Survey where he created the Iowa Remote Sensing Laboratory. His next career posting was to the U. S. Geological Survey, Earth Resources Observation Systems Data Center in Sioux Falls, South Dakota, where he was Principal Remote Sensing Scientist for Geological Applications. He became Branch Chief for Non-Renewable Resources at NASA Headquarters in Washington, D. C., and was NASA's Program Scientist for the first two space shuttle flights, the second of which contained the first payload of scientific instruments ever flown on the Space Shuttle.

Dr. Taranik served as a Director of Newmont Gold Company from 1986 to 1998 and as a Director of Newmont Mining Corporation from 1998 to 2010. His tenure was the second longest serving Board member in Newmont's corporate history. He served as a Director of Earth Satellite Corporation from 1997-2002 and currently served as a director for Klamath Basin Geopower, Inc.

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National Geothermal Data System Seeking Company Data

From Nevada Bureau of Mines and Geology (NBMG) — NBMG seeks any geothermal data collected by geothermal exploration and development companies, which can be made publicly available for case studies and geothermal research. These data will be incorporated on an NBMG web server that is one of the main hubs for the National Geothermal Database System (NGDS). NGDS is being developed to provide easy access to geothermal and related data to help stimulate development of geothermal systems for power production in the United States. NBMG is particularly interested in paper copies and digital databases on geothermal systems in Nevada that may be lost as industry professionals retire. Please direct all correspondence to David Davis, 775-682-8767, ddavis@unr.edu. NBMG appreciates your assistance in preserving this vital geothermal data.

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2011 DOUG SILVER SUMMER SERIES: "THE FINAL CHAPTER"

"The Way Forward: Making Sense of the New World Order" Speaker: Doug Silver

The 10th annual and final talk by Doug Silver was presented at a GSN gathering at Dan Kappes' house in southwest Reno. Dan is the President of Kappes, Cassidy & Associates. He graciously opened his house and beautiful backyard to host the event. The event was attended by about 120 GSN members and other guests. The speaker was introduced by Bill Howald, GSN President, and Clancy Wendt, Max Resource Corp.

Doug is the founder of International Royalty Corp. and is now a portfolio manager for Red Kite Management.

A few of the highlights and "lowlights" of the presentation were:

The mining super cycle has stalled, certainly in base metals. However, gold has recently seen record high prices (late August high of \$1898 per ounce).

The gold price is expected to remain high until the US and world economies recover (2 to 5 years out).

In these unstable times, the role of gold as an international currency is increasing leading to strong demand for gold. Mining and exploration companies struggle to find qualified miners and geologists which negatively impact their ability to build new mines.

China is becoming an important factor in mining with the acquisition of mining properties worldwide. The metals are shipped to China.

The mining world is likely to be hit by higher royalties and taxes as governments struggle with their debt crises. And, of course more regulations.

Silver was quizzed by the audience for about a half an hour after his talk.

There is a more complete summary of the presentation available on the web, written by Dorothy Kosich, Friday August 26, 2011 (Google: Doug Silver Red Kite for the article or log in to www.Mineweb.com).

The festivities were sponsored by: **ALS MINERALS; CGS, INC.; GEOTEMPS, INC.; INSPECTORATE AMERICA; DAN KAPPES; MINE DEVELOPMENT ASSOCIATES; AND CLANCY WENDT.**

Thanks from the GSN members and others to Doug for another informative presentation and best of luck with the "fishy" research.



Doug Silver generously presented a personal check to GSN President, Bill Howald, for Geoscience Scholarships.



Doug kept the audience's attention with his witty presentation and educated predictions.

Just A Reminder



Mark
Your
Calendar

September 9, 2011

Meeting Date is the Second Friday this
Month due to a scheduling conflict with
the Reno Elks Lodge.

OTHER UPCOMING EVENTS

September 8, 2011: Nevada Petroleum Society
Dinner Meeting, 6:30 PM at the Ramada Reno Hotel*
*Speaker: Dr. Graham Kent; Director, Nevada Seismological Laboratory,
University of Nevada, Reno*
Subject: New Lidar data, Lake Tahoe, NV, implications for earthquakes, etc.

*The Ramada Reno Hotel & Casino is located one mile from the junction of Interstate 80 and Highway 395 on 6th Street.
From Interstate 80: Take Exit 14, Wells Avenue. Travel one block and turn left onto 6th Street.

Cocktails: 6:30 PM; Dinner Served at 7:00 PM

NPS Members \$20; Non-Members \$23; Students \$10

****RSVP by MONDAY, Sep 5th to Diane Phillips (775) 267-4663 or trailsend@pyramid.net**

September 12, 2011: Northern Nevada Chapter of the SME
Dinner Meeting & Social beginning at 6:00 PM at Circus
Circus Hotel Resort, Mandalay Room, Convention Center
Speaker: Elaine Herron, Corporate Development, Quest Geological Consultants
*Subject: CHINESE MONEY ON THE MOVE... How will this economic
"juggernaut" affect the U.S. minerals industry?*

Members \$22 and Non-Members \$25 payable at the door. Mackay students Free!

RSVP to Kaitlin Sweet 775-225-6147 or KCSweet@enviroincus.com by Sept. 8th.

**GSN WINNEMUCCA Chapter Meeting
September 14, 2011
6:30 p.m. at The Martin Hotel, 94 West Railroad St.**

**“HYCROFT DEPOSIT”
HUMBOLDT AND PERSHING CO., NEVADA
Don Harris
Allied Nevada Gold Corp.**

The Hycroft deposit is a world class gold-silver deposit located approximately 50 miles west of Winnemucca, Nevada. The deposit is a low sulfidation, epithermal hot springs system, with elevated gold, silver, and sulfur values. Gold mineralization is typically disseminated throughout the rock mass, with an average grade of 0.014 ozAu/st. However, high grade gold has been noted in upper level sulfide veins and deeper banded veins, with up to 8.8 ozAu/st reported. Silver mineralization is both disseminated, fracture controlled, and vein associated. Silver values average 0.71 ozAg/st; however, values up to 647.5 ozAg/st have been reported. Current proven and probable reserves are 196 Mt grading 0.013 ozAu/st and 0.25 ozAg/st (2.558 Moz Au and 49.289 Moz Ag). Total measured and indicated resources, exclusive of reserve are currently 620 Mt grading 0.014 ozAu/st and 0.71 ozAg/st (8.8 Moz Au and 438.017 Moz Ag), there is an additional 181.0 Mt grading 0.015 ozAu/st and 0.56 ozAg/st of inferred resource. Production on the Hycroft property was initiated in 1983, and life of mine production (through end of 2010) is 89.6 Mt ore placed, with 1.8 Moz gold and 1.7 Moz silver poured. All production has been through cyanide heap leaching of both crushed and ROM material, with life of mine pad recoveries estimated at 56% gold and 12% silver.

The deposit model is an epithermal hot springs system that vented to the surface approximately 4 million years ago. The Bay area contains evidence of upper level sinter and reed casts, where the system vented along a prehistoric lake shore. This material transitions downwards into intensely silicified and brecciated zones, which reflect continued hot springs activity, over pressuring, and subsequent brecciation. Multiple events of silicification and brecciation are noted in the Vortex area.

The mineralizing event was followed approximately 0.4 to 2.0 million years ago by an intense acid leaching event as a result of out-gassing of the hot springs system. This allowed the formation of sulfuric acid, which leached the upper portion of the deposit. The acid leach zone, noted at both Central and Brimstone, is underlain by a zone of intense silicification, with propylitic, and argillic alteration marginal to the deposit. The acid leach zone also contains large areas of native sulfur deposits. Oxidation of the original sulfide mineralization is variable in depth, depending upon the water table, proximity to faults, and extent of acid leaching. Sulfide content in the unoxidized material is variable, averaging 1.5-2.0% in mineralized material, with up to 11% sulfide sulfur in assays.

The deposit is hosted in both Tertiary Camel Conglomerates and Kamma Mountain Volcanics, which were formed during the Miocene to Quaternary. Jurassic aged Auld Lang Syne forms the underlying basement rock, and drilling has not penetrated out of this formation at depth. Lacustrine sediments associated with Lake Lahontan overlie the deposit along the west side. The stratigraphy is down dropped to the west, along a series of north to northeast trending normal faults, which served as both feeders and structural offset to mineralization. Discontinuous east-west trending normal faults intersect the north south fabric, and provide a series of horst and grabens within the deposit.

At present the Hycroft Mine has placed approximately 3.22 Moz gold and 13.8 Moz silver under leach since 1983, and the geologic resource is estimated at approximately 14 Moz gold and 588 Moz silver. Exploration continues to expand the resource with increase in gold and silver resources of approximately 90% and 77% respectively from 2009-2010.

**WINNEMUCCA CHAPTER
SEPTEMBER SPONSOR**



"GREAT VALUE WITH EVERY RIG"

585 Anderson Street
Winnemucca, NV 89445
(775) 625-1979



**GSN ELKO Chapter Meeting
September 15, 2011**

**BBQ sponsored by Enviroscientists, Inc.
6:00 p.m. at the Duncan Little Creek Wine Bar
Kick-off the new GSN year with colleagues and friends!!**



Enviroscientists, Inc.

Reno, Nevada Office: Ph (775) 826-8822 Fax: (775) 826-8857

Elko, Nevada Office: Ph (775) 753 9496 Fax: (775) 753 9499

**Notices, Plans of Operations,
Cost Estimates, TRI, Biological Surveys,
Air Quality Permits & Audits**

Info@enviroincus.com

www.enviroincus.com

**GSN SO. NEVADA Chapter Meeting
September 22, 2011
Lilly Fong Geoscience Building, Room #101, UNLV
Begins at 6:30 p.m.**

**The La Pitarrilla Project, State of Durango, Mexico
Silver Standard Resources Inc.
Paul Bowen**

The La Pitarrilla Project is a hydrothermal replacement deposit. The main commodities are silver-zinc with lesser lead values. There are two types of mineralization: a sulfide replacement deposit below the water table and an oxide deposit above the water table. The oxide deposit is the result of the oxidation of primary mineralization: pyrite, marcasite, sphalerite, galena and lesser arsenopyrite and chalcopyrite and some sulfates such as jamesonite, boulangerite and bornormite.

Host rocks for the sulfide mineralization are a carbonate cobble conglomerate possibly a fanglomerate overlain by a dense andesite layer. Where the conglomerate has been intruded by quartz feldspar porphyry dikes, the carbonate cobbles have been replaced by sphalerite and galena up to 50 m from the dike margins. Further away from the dikes the sulfide replacement changes to pyrite and pyrrhotite. By about 75 m or less the replacement is non-existent indicating that the period of mineralization was of short duration.

The oxide mineralized areas are more complex with the mineralized portions being largely hematite. The recoveries are also much less than the sulfide body and pose many problems that will be discussed.

A discussion of the geology, geochemistry, drilling program and preliminary mining studies will also be presented.

Activity Update

Mike Brady, July 2011
Nevada

www.activityupdate.com

Seabridge Gold Inc. and Golden Predator Ltd. announced that they would combine their respective Nevada properties into a new company called Wolfpack Gold Ltd. (resource @ Castle Rock = 16,170,000 tons @ 0.013 opt Au inferred) *N.M.*: July 4

Western Lithium Corp. announced that based on recent drill results at the Kings Valley Project, the Stage 1 Deposit aggregates 14,410,000 tons @ 0.42% Li measured; 26,620,000 tons @ 0.39% Li indicated and 26,620,000 tons @ 0.39% Li inferred. (was 11,000,000 tons @ 0.43% Li indicated and 11,000,000 tons @ 0.42% Li inferred) *Press Release*: July 14

International Minerals Corp. announced that recent drill results at the Converse Project include 119-175 meters @ 0.013 opt Au (CONV-01C) and 73-548 meters @ 0.023 opt Au (CONV-03C). (resource = 262,900,000 tons @ 0.015 opt Au measured+indicated) *Press Release*: July 5

Quaterra Resources Inc. announced that recent drill results at the MacArthur Project include 150-225 feet @ 0.38% Cu (QM-178); 190-220 feet @ 0.89% Cu (QM-180); 360-400 feet @ 1.37% Cu (QM-183) and 310-400 feet @ 1.66% Cu (QM-187). (resource = 143,700,000 tons @ 0.19% Cu measured+indicated) *Press Release*: July 19

Silver Predator Corp. announced that recent drill results at the Taylor Project include 42.67-48.11 meters @ 1.21 opt Ag (SPT11-020); 7.62-9.14 meters @ 2.02 opt Ag (SPT11-022); 54.86-60.96 meters @ 1.93 opt Ag (SPT11-023) and 18.29-24.38 meters @ 1.68 opt Ag (SPT11-025). (resource = 1,235,000 tons @ 2.51 opt Ag measured) *Press Release*: July 5

UraStar Energy Inc. announced that it acquired an option to earn a 100% interest in the Black Point Property from Mosquito Consolidated Gold Mines Ltd. for 1,500,000 shares and \$10,000,000 cash over 5 years. *Press Release*: July 15

Midway Gold Corp. announced that recent drill results at the Spring Valley Project include 77.7-94.8 meters @ 0.015 opt Au (SC10-501C); 184.4-199.6 meters @ 0.019 opt Au (SV10-502C); 350.5-409.7 meters @ 0.018 opt Au (SV10-505C) and 236.2-455.1 meters @ 0.080 opt Au (SV10-511C). (resource = 159,641,000 tons @ 0.014 opt Au measured+indicated) *Press Release*: July 13

Klondex Mines Ltd. announced that it now has completed 1,367 feet of underground development at the Fire Creek Project. (resource = 1,760,000 tons @ 0.582 opt Au indicated) *Press Release*: July 26

International Enxco Ltd. announced that it appointed former governor Jim Gibbons to its Board of Directors. *Press Release*: July 11

Bravada Gold Corp. announced that recent drill results at the Wind Mountain Project include 36.6-47.2 meters @ 0.005 opt Au (WM11-028); 15.2-21.3 meters @ 0.003 opt Au (WM11-029); 10.7-21.3 meters @ 0.007 opt Au (WM11-030) and 24.4-30.5 meters @ 0.007 opt Au (WM11-031). (total resource = 26,900,000 tons @ 0.012 opt Au) *Press Release*: July 25

Bravada Gold Corp. announced that recent drill results at the East Manhattan Project include 182.9-185.9 meters @ 0.018 opt Au (EM11-013C); 134.1-139.0 meters @ 0.053 opt Au (EM11-014C); 139.7-152.4 meters @

0.029 opt Au (EM11-015C) and 54.2-56.7 meters @ 0.019 opt Au (EM11-017C). *Press Release*: June 30

Entrée Gold Inc. announced that recent drill results at the Ann Mason Project include 138.8-496.0 meters @ 0.39% Cu, 0.004% Mo (EGAM11-05); 552-1,072 meters @ 0.37% Cu, 0.009% Mo (EGAM11-07) and 66-768 meters @ 0.41% Cu, 0.011% Mo (EGAM11-09). (resource = 891,000,000 tons @ 0.40% Cu, 0.004% Mo inferred) *Press Release*: July 14

Corvus Gold Inc. announced that recent drill results at the North Bullfrog Project include 83.8-219.5 meters @ 0.008 opt Au (NB11-87); 199.6-288.0 meters @ 0.013 opt Au (NB11-88); 83.8-385.6 meters @ 0.010 opt Au (NB11-91) and 323.1-371.9 meters @ 0.014 opt Au (NB11-92). (resource = 2,220,000 tons @ 0.026 opt Au indicated) *Press Release*: June 29

Boxxer Gold Corp. announced that recent drill results at the Boss Project include 20.3-35.6 meters @ 0.53% Cu (DDH07-11). *Press Release*: July 26

Renaissance Gold Inc. announced that it acquired an option to earn a 100% interest in the Spruce Mountain Project from Summit Mining Exploration Inc. (Sumitomo) for \$358,300 and \$2,300,000 in exploration expenditures over 3 years. *Press Release*: July 25

Orsa Ventures Corp. announced that it acquired an option to earn a 51% interest in the Ashby Property from Bridgeport Ventures Inc. for undisclosed terms. *Press Release*: July 15

Allied Nevada Gold Corp. announced that recent drill results at the Hasbrouck Project include 5-72 meters @ 0.029 opt Au (HSB11-064); 79-184 meters @ 0.015 opt Au (HSB11-065); 152-228 meters @ 0.067 opt Au (HSB11-068) and 0-105 meters @ 0.035 opt Au (HSB11-069). (resource = 20,240,000 tons @ 0.023 opt Au, 0.32 opt Ag indicated) *Press Release*: July 19

Allied Nevada Gold Corp. announced that recent drill results at the Hydroc/Vortex Zone Project include 38-284 meters @ 0.017 opt Au, 0.53 opt Ag (3834); 21-238 meters @ 0.035 opt Au, 0.66 opt Ag (3858) and 81-125 meters @ 0.017 opt Au, 0.79 opt Ag (3959). (resource = 1,536,000,000 tons @ 0.011 opt Au, 0.39 opt Ag measured+indicated) *Press Release*: July 6

Meadow Bay Gold Corp. announced that it acquired an option to purchase a 100% interest in the Atlanta Property from Atna Resources Ltd. for \$250,000 and 400,000 shares. *Press Release*: June 30

West Kirkland Mining Inc. announced that it acquired an option to earn a 51% interest in 351 square miles of mineral rights along the Long Canyon Trend from Rubicon Minerals Corp. for \$15,000,000 in exploration expenditures over 4 years. *Press Release*: June 27

NuLegacy Gold Corp. announced that recent drill results at the Red Hill Project include 190.5-202.7 meters @ 0.013 opt Au (RHM11-06). *Press Release*: July 5

West Kirkland Mining Inc. announced that recent drill results at the TUG Project include 31.69-47.17 meters @ 0.090 opt Au, 2.78 opt Ag (WT11-01). *Press Release*: July 19

The Nevada Mineral Exploration Coalition is Organized and Active

We are communicating with public officials, candidates and civic groups on behalf of the Nevada Exploration Community.

To find out more about the Coalition and to sign up for membership go to the website: www.nvmec.org.

G.S.N. Golf Tournament Winners!!! June 26, 2011



1ST PLACE TEAM
Gary Poland & Rusty Combest



2ND PLACE TEAM
Doug Hensen, Michael Naughton,
Mary Stollenwerk & Dan Smith



3RD PLACE TEAM
Roger Steininger, Marcus Johnston
& Bonnie Johnston

The G.S.N. had another great Golf Tournament this summer. Thanks to the hard work of Carmen Arbizio and Inspectorate America for their generous hosting and organization again this year. 80 Golfers enjoyed a beautiful day of golf and camaraderie at the Lakeside Golf Course in Reno, followed by an amazing dinner and a raffle with tons of prizes! Thanks to our generous donors:

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Thank you!!!

GSN Spring Field Trip Re-Cap

By: Bill Howald

Well the spring field trip was another fun-filled excursion across the wilds of Nevada. However, the trip started out on potentially hard ground, but thanks to Mary Stollenwerk's dog, Mandy, the trip was rescued from sleeping bags on Idaho Street to the grand opulence of the Winners Hotel and Casino. Good dog Mandy, good dog. The trip was held May 20 through 22.



On this trip, fortunately, no participant was left behind. Everyone was on the bus at the appointed hour, and the bus arrived at the mine sites on schedule. The first day, the trip visited Newmont's Phoenix mine near Battle Mountain and the Gold Corp's Marigold mine at Valmy.

At the Phoenix mine, the bus was left in the mine parking lot, and the group piled into vans to hear an overview of the mine property and visit the various field trip sites. The vans were jam-packed with geologists and an unbelievable amount of geologic prowess. At times, the vans looked like five-pound bags stuffed with ten pounds of stuff! Van ingress and egress was also a site to behold. Our field trip leader was Anna Gilmore who was assisted by Lisa Davenport and Brady Glass.

Our bus left Phoenix for Gold Corp's Marigold mine with a blustery lunch stop at the Valmy rest area. Jim Carver was our field trip guide along with Perseo Anaya, Dante Aguilar, Julio Pinero, and Andrew Smith. The overview and field visits were

instructive, and it looks like Marigold will mine its entire land package. Leaving the mine the back way, saved time and expedited refreshment hour.

After lots of Picon punches and the fantastic beans from the Martins Hotel (the night before), the field trip crowd was remarkably spry but not gaseous, and the bus had an on-time departure for Newmont's Twin Creek mine. Again the bus was left in the mine parking lot but this time we were treated to a Newmont rainbow bus – colorful as you can imagine. Erin Gray led the trip with help from the Twin Creeks geologic staff. From the bright yellow platforms, many interesting sites were seen, including the overturned limb of the Conelea anticline. In the core shack, everyone was treated to a sample of realgar/orpiment or stibnite – now that's just good hospitality!



The last stop of the day before heading to Reno was Golden Predator's exploration project in the Adelaide mining district. Mark Abrams led the trip assisted by Dave Hembree and Sam Bourque. A review of the geology, mineralization and assay results were completed the exploration way - on the hood of a pickup truck. Looking at high-grade gold veins is always a good way to end the day. Travel back to Reno was uneventful as it should be.



Dinners were back-to-back Basque thanks to **Boart-Longyear** sponsoring the dinner at Ormacheas, and **Drift Exploration Drilling Inc.** buying dinner at the Martins Hotel. Adult beverages flowed like cool water thanks to **Desert Ventures, Inc.** and **Legend Inc.**, and the lunches were fit for kings through the donations of **Golden Predator** and **Leach Drilling**. The guidebook benefited from the efforts of **Great Basin GIS** for contributing the geology, aeromagnetic, gravity and TM maps.

I can't speak for everyone, but I learned many interesting geologic facts, heard about critical exploration insights, and saw ore-controlling features associated with Carlin, porphyry and epithermal gold systems. You can find out these key learnings too by purchasing GSN Special Publication 52. (Contact the GSN Office to place your order – only \$45)



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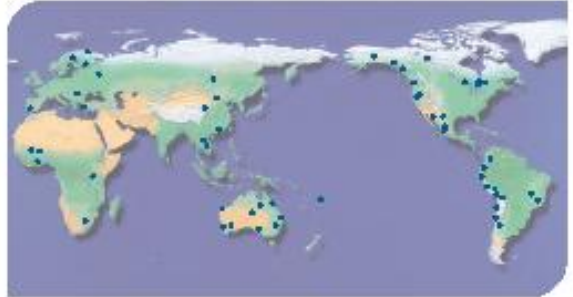
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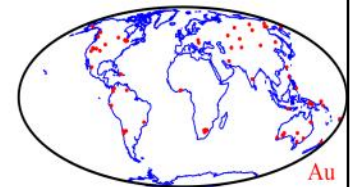
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