

GEOLOGICAL SOCIETY OF NEVADA NEWSLETTER

Geological Society of Nevada, 2175 Raggio Parkway, Room 107, Reno, NV 89512
(775) 323-3500 - Hours Monday -- Friday, 8 a.m. to 4 p.m.
Website: www.gsnv.org • E-mail: gsn@gsnv.org



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CALENDAR OF GSN EVENTS

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**Feb. 13 2013
Wednesday**

WINNEMUCCA CHAPTER MEETING (Every 2nd Wednesday).

The meeting will be held at the Martin Hotel, 94 West Railroad St. Refreshments @ 6 PM; Appetizers @ 6:30 PM, Talk @ 7:00 PM. **SPEAKER: Brian Morris, Premier Gold Mines Limited, TITLE: "Cove Gold Project, Lander Co., NV"** (Abstract on pg 6). **Sponsor: MAJOR DRILLING**. For more information contact Leann Graf at leann.graf@newmont.com.

**Feb. 15, 2013
Friday**

GSN MEMBERSHIP MEETING (Every 3rd Friday)

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: Julia Lane, Archer, Cathro & Associates (1981) Limited, TITLE: "Recent Carlin-Type Gold Discoveries by ATAC Resources Ltd. on the Rackla Gold Project in central Yukon"**. (See abstract on pg. 3) **Sponsor: KAPPES, CASSIDAY & ASSOCIATES**. Dinner reservations must be made by 4 P.M., Wednesday, February 13th. Contact Laura Ruud at (775) 323-3500 or e-mail gsn@gsnv.org for reservations.

**Feb. 21, 2013
Thursday**

ELKO CHAPTER MEETING (Every 3rd Thursday)

The monthly meeting will be held at the Western Folk Life Center, 501 Railroad St. Refreshments at 6:00 PM, Talk begins at 7:00 PM. **SPEAKER: Chris Cottingham, Newmont Mining Corp. Topic: "Using Fiber Optics and Vibrating Wire Piezometers to Characterize an Aquifer during Ground and Aquifer Freezing"**. **Sponsor: GOLDER ASSOCIATES**. For more information contact Jared Townsend at jtownsend@barrick.com.

**Feb. 27, 2013
Thursday**

SOUTHERN NEVADA CHAPTER (Every last Thursday of the month)

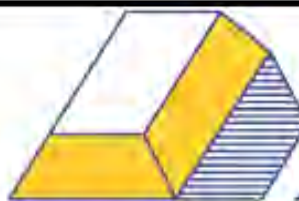
The monthly meeting will be held at the Lilly Fong Geoscience Bldg, Room 105. Social @ 6:45 PM and talk @ ~ 7:15 PM. UNLV. **SPEAKER: TBA. Title: TBA**. For more information contact R. Paul Bowen, 702-247-7765.



GSN FEBRUARY MEETING SPONSOR

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FROM THE PRESIDENT
David Emmons, G.S.N. President 2012—2013

Dear GSN Members,

We started off 2013 with an excellent presentation by John Muntean titled, "Exploration for Gold in a Mature Terrain: Maintaining Nevada's Gold Rush." The theme of John's talk was exploring for Carlin systems in mature areas. He highlighted topics such as, where to explore, and how to detect Carlin gold systems. As many of you know, John was recently appointed the Director of the CREG program. GSN wishes John success with his new position at CREG.

Our speaker for February will be Julia Lane, Senior Project Geologist, with Archer, Cathro & Associates (1981) Limited (ATAC). Her presentation will be on the Carlin-type gold discoveries that ATAC has made in the Yukon. The discoveries were made by good geochemical exploration and geology in a frontier area. These deposits share several similarities with the deposits on the Carlin Trend and have high-grade gold intercepts. Her talk should be very interesting for the Nevada geologists that are working on sediment-hosted gold deposits. Julia will be interested in what they think about the ATAC discoveries in the Yukon.

2012 and maybe 2013 have been (and will be?) difficult times for the junior exploration companies. On an upbeat note, one Nevada junior, Gold Standard Ventures, stands out from the pack with its success at the North Bullion Fault zone at its Railroad project. They reported several promising gold intercepts from their drilling in 2012 and are well funded to continue the exploration drilling this year. Their success is good for all exploration companies hoping to see the "elephant" in the Great

Basin. And, it shows that there is more gold to be found in Nevada.

Tommy Thompson, GSN Vice President, is planning the spring field trip and it is one that many of you will want to attend. Further announcements regarding the field trip will be forthcoming. As I write this column, many of you are attending the Round Up in Vancouver, catching up with colleagues, visiting the core shack and attending the many presentations. GSN does not have a booth in Vancouver; however, GSN will have a booth at the PDAC in Toronto this March. If you attend, please stop by and see Laura Ruud and the other volunteers.

The Executive Committee and Board of Directors says thank you to all of the GSN members that renewed their membership and we welcome the new members. The new membership directory will be available in February.

Another quote –

*To me there has never been a higher
source of earthly honor or distinction than
that connected with advances in science.*

Sir Isaac Newton

Signing off for now – see you at the February meeting.



Friday, February 15, 2013 Membership Meeting

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

GSN CANNOT GUARANTEE DINNER SEATING WITHOUT ADVANCE RESERVATIONS.

Please call 775-323-3500, Fax 775-323-3599 or e-mail gsn@gsnv.org by **4 p.m. on Wednesday, February 13, 2013.**

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

\$25.00 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)

Recent Carlin-Type Gold Discoveries by ATAC Resources Ltd. on the Rackla Gold Project in central Yukon

Julia Lane – Project Manager, Archer, Cathro & Associates (1981) Limited

Rob Carne – President, ATAC Resources Ltd.

Jordan McDivitt – Project Geologist, Archer, Cathro & Associates (1981) Limited

The Rackla Gold Project encompasses over 1800 square kilometres in east central Yukon. The property was acquired by staking and is 100% owned by ATAC Resources Ltd., with exploration programs conceived and conducted by Archer, Cathro & Associates (1981) Limited.

The 185 km long property covers Neoproterozoic to Mississippian marine clastic, carbonate and volcanic rocks deposited along the fault-controlled paleo-continental margin. ATAC made a grass roots discovery of carbonate-replacement style gold mineralization in the west part of the current property in 2006, based on research that targeted gold pathfinder element stream sediment anomalies in a structural and stratigraphic setting which bears remarkable similarity to north-east Nevada. During 2008 to 2010, 25,900 metres of drilling in 132 holes delineated an initial NI 43-101 compliant indicated and inferred resource totaling 798,000 ounces of gold at the Tiger deposit.

The primary focus of exploration in late 2010 moved 100 km to the east along the continental margin corridor, where seven areas of significant Carlin-Type gold mineralization have subsequently been outlined by surface sampling and 65,598 m of diamond drilling along a 25 km long segment of the Nadaleen Trend.

Nadaleen Trend gold mineralization occurs within many lithologies but it is best developed within silty limestone sequences where alteration is characterized by decalcification, silicification and occasional solution collapse breccias that are accompanied by peripheral secondary calcite flooding. Mineralization within non-calcareous rocks is typically associated with fault breccias and/or intense fracture development. Apart from primary fluid conduits such as fault and shear zones, features controlling gold distribution in calcareous rocks are primarily stylolitic dissolution structures and fold hinge zones. Gold mineralization appears to be specifically hosted within arsenic-rich pyrite growth rims around pre-existing pyrite. Significant late stage realgar, orpiment, fluorite and trace stibnite are found as associated open space fillings.

The setting, mineralization and alteration of the Nadaleen Trend showings are completely consistent with their classification as Carlin-Type gold deposits.

***Thanks to ENVIROTECH DRILLING LLC
For Hosting the January 18, 2013 Meeting in Reno!***

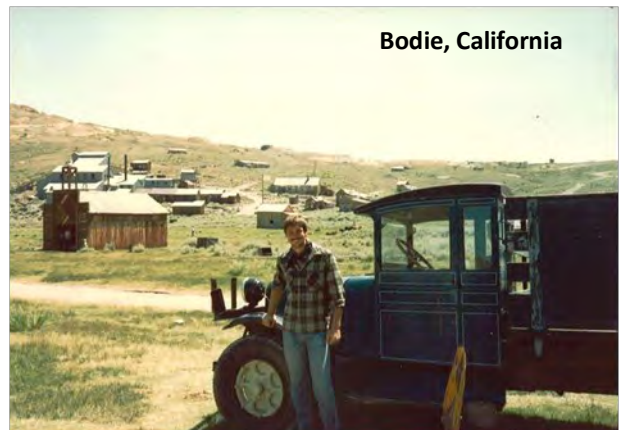
“FACES OF GSN”

Brian Morris

My interest in geology was first sparked by our family camping trips into the Eastern Sierra Mountains in California between Lone Pine and Bridgeport. The rugged snowcapped peaks and spires and the numerous trout filled streams and lakes immediately attracted me like a moth to light. Growing up, every chance I had, I was exploring mountain trails as well as the deserts to the east.

Instead of starting college right out of high school, I began a landscaping business in Southern California. I ran my business for about 4 years, then decided to give law enforcement a try and joined the Orange County Sheriff Department. I soon found out that the requirement to work in the jail for 3 years before going out on the streets wasn't going to work for this outdoor guy, and I started considering other options. During those years, I was always out jeeping at or around my grandfather's property in the Mohave Desert, or exploring in my beloved Eastern Sierra's.

It was during one of my jeep trips east of the ghost town of Bodie, California that I made the decision to pursue a career in geology. I was camping at the old town site of Aurora, Nevada (now called Esmeralda by Great Basin Gold). I was fascinated by the old timer's decisions of where they dug their prospect pits and drove their adits and I had to find out why. I started going to a local junior college in Southern California and eventually transferred to Humboldt State in Northern California where I received my bachelor's degree in geology.



During my education, the more I learned about geology the more my passion grew for the science. The ultimate for me was our field camp at Cerro Gordo in the Inyo Mountains just outside of the town of Lone Pine, California. My view each morning when I opened my tent was Mount Whitney. I couldn't believe it! Training in my favorite place in the world! What joy that was for me!

Since I started college later in life than the traditional students, I was focused on making a living after graduation and was constantly pestering my professors, especially my advisor, about getting practical summer employment. It finally worked. I was given a name and a number and landed my first summer job as a geologist with American Gold Resources in Salmon, Idaho. I spent the summer with a company truck mapping and sampling prospect pits and adits. I thought I died and went to heaven! I was being paid to do what I used to do for fun in my spare time!



After college I continued to work in Salmon, Idaho then Montana and eventually Nevada.

In 1992 I married Jan whom I met in college. She wanted me to be at home more so she asked me to consider one of those environmental consulting jobs like my buddies went to do after they graduated. Well, I did that and found a job in Eureka, California. However two years of drilling out hydrocarbon plumes at gas stations and old logging mills was enough for me. After experiencing gold exploration, it was in my blood and nothing else would satisfy that passion. Jan knew I was unhappy with that career path, and we decided it was time for me to get back into gold. I was out in Nevada working for Santa Fe Pacific almost two weeks to the day of our decision! We eventually made the big move and relocated our family to Winnemucca in 1996.



I continued to work for Santa Fe Pacific on several projects in Nevada and Montana until Newmont purchased the company in 1997. Then I (cont. on p. 5)

Faces of GSN, B. Morris (cont.)

moved on to a couple of junior companies working on various projects around the Winnemucca area.

One of the milestones in my career was accepting a position with Hecla Mining at their Rosebud Mine in February 1998. There my geologic skills were honed by the thousands of feet of underground mapping and interpretive work. I was also exposed to sampling theory which was critical to managing ore control. It's interesting how my experience working in the county jail prepared me years later to work with the underground miners. The mine shut down early due to the low gold prices in July of 2000, and I moved on to work as a contract geologist on various short projects including Long Canyon in the Pequop Mountains.



In February 2001 I accepted a position as an ore control geologist with Barrick at their Meikle and Rodeo mines. That gave me excellent experience working up close and personal in a Carlin-style deposit. My underground experience continued at Newmont's Midas Mine. I spent 5 years with Newmont, 4 at Midas managing ore control, underground drilling and district surface exploration. My last year with Newmont I was working on a Nevada epithermal vein exploration program. That truly was a fun job!

The second major milestone in my career was when I moved on with Great Basin Gold (GBG) to help put the Hollister property into production. I was hired to be the Chief Geologist, but that lasted only a couple of months and I was promoted to North American Exploration Manager. That position greatly changed the course of my career. Instead of focusing on rocks, now my job was mostly honing my presentation skills, giving numerous presentations to analysts, financial institutions and convention participants. This new direction introduced me to the financial side of the business.

Life has its way of coming full circle. During my stint with GBG I brought Esmeralda (Aurora) to the table and eventually GBG purchased the property. I was back where I started over 20 years earlier, with a little better idea of why the old timer's dug where they did. After all these years of exploration and mining I have a whole new respect for the old prospector's mostly self-taught knowledge.

In 2010 Hecla Mining Company offered me a position as VP for their subsidiary company, Rio Grande Silver, to manage their JV project in Creede, Colorado. I was there for 18 months working with an outstanding team. Not only did we have great exploration success, we also managed to reopen the Equity Mine for underground exploration and permit a new decline at the former Homestake's Bulldog Mine.



Wanting to get back closer to home, in 2011 I accepted a position with Premier Gold Mines Limited as their US VP of Exploration. Shortly after accepting the position I found myself managing the Canadian projects as well. It has been a whole new world up there driving on ice roads to the camp jobs, building drill pads on frozen lakes, and the dangers of the muskeg! I found out about how fast the Muskeg can swallow an excavator. It has been an exciting experience working with Premier Gold building a company and especially growing our US assets.

All of those years ago, there is no way I could have realized what a life changing trip to the Aurora District would be for me. I'm happy that I pursued a career in geology to answer my curiosity of why the old prospectors dug where they did.

For the past 18 years I have been a member of the GSN and have held an officer's position with the Winnemucca chapter. I want to thank GSN for the excellent educational opportunities, professional contacts and close friends I have made through my involvement with the organization.

G.S.N. WINNEMUCCA CHAPTER MEETING

WEDNESDAY, FEBRUARY 13, 2013

Location: The Martin Hotel, 94 West Railroad St. Winnemucca, NV

Time: Refreshments @ 6 pm, Appetizers @ 6:30, Talk @ 7:00

Drinks & Appetizers Sponsor: MAJOR DRILLING

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Drilling America, Inc.

Cove Gold Project, Lander County, Nevada

Brian Morris, VP Exploration, Premier Gold Mines Limited

The Cove Gold Project is located along the prolific Battle Mountain/Eureka gold trend in the Fish Creek Mountains approximately 35 miles south of Battle Mountain, Lander County, Nevada.

Echo Bay Mines, Ltd. first conducted mining at the McCoy/Cove Mine from 1987 to 2001 producing 2.6 million ounces of gold and 100 million ounces of silver from polymetallic veins of sphalerite and argentiferous galena associated with strongly argillized felsic porphyry-filled fault structures and fractures. In 2003, Newmont acquired the mining claims and conducted limited exploration activities. Victoria Resources (US), Inc. entered into an exploration joint venture agreement with Newmont in 2006 which subsequently led to the discovery of the Helen Zone in 2007. June 2012, Premier Gold Mines USA purchased the entire Victoria Resources (USA) claim position at Cove and continued with Victoria's ongoing surface exploration drilling program. The Helen Zone is comprised of horizontal bedding replaced disseminated Carlin-style mineralization and steeply dipping structurally-controlled higher grade ore shoots. Preliminary information indicates that the Helen Zone is a potential high-grade deposit amenable to underground mining. The Helen Zone, as defined by Victoria Resources (US), is located approximately 2,000 feet northwest of the Cove Mine open pit. The Helen Zone is overlain by approximately 600 feet of volcanic rocks and an additional 1000 feet of Triassic sediments. Recent exploration drilling by Premier Gold Mines USA has shown strong continuity of gold mineralization between the currently defined Helen Zone and the historic deeper drilling in the Cove Mine open pit.

The mineralization at the Cove Gold Project is hosted in Triassic carbonate and siliciclastic sedimentary rocks that define an overlap sequence deposited over the Late Permian-age Golconda Allochthon. Late Mesozoic compressive stresses formed NW-striking, low-amplitude folding and NS-, NNE-, and NW-striking deep-seated normal fault structures. Granodiorite was intruded into the existing structural fabric within the sedimentary package during the Jurassic. Continued intrusive activity occurred in the Middle to Late Eocene, using this existing structural fabric. Long-lived, pulsing, porphyry-style igneous and coeval hydrothermal activity in the Cove area gave rise to proximal economic gold skarn, gold/silver base metal veins, and more distal Carlin-type, disseminated, carbonate replacement gold deposits. Post-gold mineralization igneous activity in the area included Oligocene felsic welded ash-flow tuffs, culminating with more recent spatter cones localized over the basin-bounding range front faults.

Property wide, the Cove Gold Project offers similar setting of favorable host rocks in contact with highly prospective feeder structures creating a target rich environment poised for new multi-million ounce gold and/or silver discoveries.

Thank you to LEGARZA EXPLORATION
For Hosting the January 9, 2013 Meeting in Elko!

G.S.N. ELKO CHAPTER MEETING **THURSDAY, FEBRUARY 21, 2013**

Location: Western Folklife Center, Elko Nevada

Time: Refreshments @ 6:00 p.m. and Talk @ 7:00 p.m.



Sponsored by: Golder Associates



Speaker: Chris Cottingham

Title: "Using Fiber Optics and Vibrating Wire Piezometers to Characterize an Aquifer during Ground and Aquifer Freezing"

Thank you to REDCOR DRILLING INC.

For Hosting the January 17, 2013 Meeting in Elko!



NBMG/GSN "2014 Nevada Geology Calendar Photo Contest !!!

ENTRIES BEING ACCEPTED NOW FOR THE NEVADA GEOLOGY 2014 CALENDAR CONTEST!

Who better than Geologists to take photos of the endless grandeur of the Geology in Nevada?

- 1. Deadline for entries is March 31, 2013.**
- 2. Photos need to be taken in Nevada. A location description and/or GPS coordinates should accompany submissions along with description.**
- 3. High quality, high resolution photo files of at least 300 dpi are required for quality printing.**
- 4. E-mail submissions to gsn@gsnv.org**

**FABULOUS PRIZES WILL BE AWARDED FOR
1ST, 2ND AND 3RD PLACE WINNERS!
(NBMG Cartographers will have final say on 2014 calendar photos)**

WE ONLY HAVE ONE ENTRY SO FAR! PLEASE SUBMIT YOUR PHOTO TODAY!!

ROCK TALK

Book Review by John Hoskins, GSN Secretary, 2012-2013

“Hard Road West” by Keith Heyer Meldahl

University of Chicago Press, 2007, paper, \$17.00 retail, \$13 on Amazon.com.

Got a birthday coming up in 2013? Here's a good read you might think about requesting. (Try leaving a print-out of this review in a conspicuous location.) Meldahl combines extracts from diaries and letters of emigrants crossing America from East to West by wagon in the gold rush era (“America's greatest adventure”) – along with a geologist's description and explanation of the amazing country these Easterners and Midwesterners were walking through. The book's central argument is that North America's geologic history – the multimillion-year history of a continent heading west – guided the course of America's own history of westward migration.

In the best chapters, Meldahl summarizes Nevada's geologic and emigrant history:

“Farther west, the emigrants encountered the Basin and Range and the Great Basin. When North America's westward migration finally snuffed out the Farallon Plate, compressive mountain building came to an end, and hot mantle rock welled up beneath much of the southwest. In response, the crust stretched some 250 miles east-west to make the north-south mountains of the Basin and Range, while sagging in the center to form the Great Basin. This contingency condemned the emigrants to the route of the Humboldt River – the only stream that flows west for any appreciable distance through the north-south grain of the Basin and Range landscape.”

The California-Oregon Trail diverged in southern Idaho where the (now-pumped-dry) Raft River joins the Snake River. Emigrants to California followed the California Trail for 500 miles through Nevada (which changed hands from Mexico to the United States in February 1848), entering via Pinnacle Pass at the northeast corner. “For the emigrants, the Basin and Range/Great Basin would dish out the harshest tribulations of the westward journey. Here, geologic circumstances would mate with summer's heat to spawn misery, thirst, hunger, abandonment, and death in frightful abundance.”

Emigrants followed Thousand Springs Valley for 100 miles southward to the Humboldt River at Humboldt Wells. “Thousand Springs Valley served as a fine introduction to the dessicated tramp across the Great Basin. The name conjures up an image of a bucolic valley overflowing with cool gushing springs. Reality is starkly different.... “The springs are few and far apart. A few are quite pretty, but most are wretched, cattle-tramped wallows, splattered with cow turds and buzzing with flies – a condition that probably mimics their appearance during the heavy traffic of the gold rush years.”

The way was strewn with stinking bodies of dead livestock, broken wagons and discarded property. Food ran short. They had water (of a sort) for sixteen days and 350 miles along the Humboldt River, dropping 1,730 feet. Upon reaching the Humboldt Sink, one emigrant was moved to this poetic thought, oozing with loathing: “Farewell to thee! Thou stinking turbid stream ... “. Another wrote: “Meanest and muddiest, filthiest stream, most cordially I hate you; ... “. A third described the water as “detestable; it is fairly black and thick with mud and filth“ but added on a positive note : “there is one advantage one has in using it – it helps to thicken the soup which would be rather thin without it.”

Meldahl explains: “Drink its water and you taste a bit of emigrant life on the California Trail. It's not pleasant. After a fresh rain, or in the upper reaches of its valley, the river is palatable. Most of the time, though, it's worse than awful – distinctly salty, leaving your mouth with a slippery, soapy aftertaste. The surface is often dotted with clusters of bubbles, like seepage from an old Laundromat. Its banks are impossibly muddy. Just to reach the water often means floundering through yards of muck – slurping, fetid muck served up scalding hot under the Great Basin sun.”

“No one loved the Humboldt River, but no one could leave it either. There was no better way west.... The Humboldt route was the only road that could support large numbers of people and livestock through the heat and aridity of a Great Basin summer. It was also the most direct route from South Pass to California....More than a quarter million emigrants funneled west along the river from 1841 to 1869.”

And then there were mosquitoes breeding in the cut-off meanders. Meldahl writes: “[I]f you want a “period rush”, as history buffs call it – meaning that you want to transcend time and touch the past in a personal way – then wait for dusk on a summer evening along the banks of the Humboldt River. As the sun slides below the horizon, the keening mosquito hordes emerge from the thickets proboscices armed and ready. That's when any spark of romance that you might feel about the westward journey winks out, and you feel only profound gratitude for living in an age of sealed windows and insect repellent.”

Emigrants had a choice of trails 260 miles downstream from Humboldt Wells, at Lassen Meadows where the river makes a right-angle turn for its last 90 miles: take the northern, one-month longer, Appleton-Lassen trail via the Black Rock Desert and lower Sierra passes, or continue to follow the Humboldt and then cross the 40 Mile Desert to the Truckee or Carson routes. Most chose to stick with the Humboldt. “Everyone hated the Humboldt, but it did promise 90 more miles of water – even if it was Humboldt water.”

Interstate 80 follows the Humboldt River along its valley. At 70 miles per hour, it takes 15 minutes to cover the distance the emigrants made each day. The shrinking river spread out to nourish the Great Meadow a few miles before it finally petered out in the Humboldt Sink (20 miles west of Lovelock). The emigrants usually spent several days cutting and drying grass to feed their animals in the upcoming trek across the 40 Mile Desert.

Mark Twain described his travel by stagecoach in 1861 along this section of the trail: “From one extremity of the desert to the other, the road was white with the bones of oxen and horses. It would hardly be an exaggeration to say that we could have walked the forty miles and set (cont.)

ROCK TALK

Book Review (cont.)

our feet on a bone at every step! The desert was one prodigious graveyard. And the log chains, wagon tires, and rotting wrecks of vehicles were almost as thick as the bones.”

It was about 40 miles to the Truckee or Carson rivers either way. “More suffering and animal death occurred in these 40 miles than on any other part of the journey, mostly in the sand dunes that block the final miles to either river.” The most beautiful sight for an emigrant along the entire 2000 mile California Trail was the first glimpse of the cottonwoods along the Truckee or Carson Rivers. We now know that the emigrants passed by far more gold as they hurried across Nevada than would ever be mined in California.

You may wish to jump in your air-conditioned vehicle of choice and follow the Oregon-California Trail with Meldahl's book in hand. Excellent maps show where modern roads parallel or get close to the emigrants' trails and cutoffs. The author tempts you to become a “rut-nut”, wandering the sagebrush flats, wiping sweat from your eyes, searching for wispy traces of old wagon trails.

If any of you are progeny of these courageous, optimistic, foolhardy, tough, tough, TOUGH pioneers, you will gain renewed appreciation for their struggles in heading West. (Did I mention that it was tough going for them?)

The author provides a Glossary and an extensive Bibliography. If you like Meldahl's style in *Hard Road West* going east-west, you will probably also like his *Rough-Hewn Land* which goes west-east.

A WHOPPING 5.5kg gold nugget worth up to \$300,000 has been found in bush near Ballarat

(reprinted from the Herald Sun, Jan. 21, 2013)

The “incredibly rare” nugget was found 60cm underground by a prospector, who wishes to remain anonymous, on Wednesday (Jan. 16). Ballarat Mining Exchange Gold Shop owner and dealer Cordell Kent said the prospector heard a faint noise on his detector and removed a dense pile of leaf mulch before he started digging. “He thought he had detected the bonnet of a car when he saw a glint of gold,” Mr Kent said. “He cleaned the top of it and the gold kept expanding and expanding ... he saw more and more gold ... he couldn't believe what he was seeing.”

The nugget is worth about \$282,000 in weight, but has an added premium because it is rare to find one over a kilogram, Mr Kent said. I have been a prospector and dealer for two decades, and cannot remember the last time a nugget over 100 ounces (2.8kg) has been found locally. “It's extremely significant as a mineral specimen. We are 162 years into a gold rush and Ballarat is still producing nuggets - it's unheard of.”

The nugget was found with a state of the art metal detector called a Minelab GPX-5000, marketed as the best in the world, which Mr Kent said made the find possible.

“There have been many prospectors that have walked past the exact place where the nugget was found and have missed it with an ordinary detector and did not have the technology to

find it...that's why this guy found it. “This detector he used is the best there is, it goes deeper and further into the ground, better than others.”

Mr Kent said the find was unique with the nugget measuring at its longest 220mm, 140mm wide and 45mm at its deepest point. He said the find would increase the enthusiasm of existing and new prospectors to Ballarat and the central Victorian goldfields. Mr Kent said the prospector's new fortune would be well spent. “He's a person that really deserves it. He rushed to tell his wife when he found it and she didn't believe him at first. He is going to pay off a lot of bills and pay off his house - it's a real life changer. “We've got 800 local prospectors on our records. I cannot remember the last time we saw a nugget of this size.”

UNCLAIMED REFUNDS OF MINING CLAIM FEES

The Nevada Board of Examiners approved mining claim refunds of \$109,200 pursuant to Senate Bill 493 at their meeting of January 8, 2013. This brings the total refunded to \$17,448,688 of the \$18,158,531 originally collected. This means that \$709,843 paid in additional claim fees remains unclaimed. Any person who paid the fee must apply to the Department of Taxation for a refund on or before June 30, 2013.

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website: minerals.state.nv.us

MORE MEXICAN METALLOGENY

(Submitted by Kenneth F. Clark and David C. Fitch)

The links to two Mexico papers referenced in last month's Rock Talk (Jan, p.12) *Mexico's Metallogeny* are:

<http://www.geo.utep.edu/pub/Clark-Fitch/ClarkandFitchJan2013.pdf>

(paper by Clark and Fitch entitled: *Evolution of metallic deposits in time and space in Mexico*), and:

<http://www.e-sga.org/index.php?=1284>

(paper by Camprubi entitled *Major metallogenic provinces and epochs in Mexico*). <Click on link



Michael A. Measures, B.S., M.S., CPG: A Remembrance



That “nothing is inevitable or permanent” fills my ears with the news of the passing of Mike Measures. So it is with both much gratitude and a shocked, painful heart that I write the following to celebrate the unexpected loss and the beautiful life of my friend and mentor Mike

Measures who passed away suddenly on December 17th, 2012, at the age of 45, while vacationing in Zanzibar before visiting his parents for the Christmas Holidays. He is survived by his parents, 3 sisters, a fiancé, and many friends.

Mike had been working in Tanzania Africa for Africa Barrick Gold for over three years, first at the Bulyanhulu mine, then as Senior Project Geologist for exploration. Prior to that Mike worked for Barrick Gold in the Osgood Mountains area. He also worked for Mexivada in the U.S. and Mexico. Mike performed geotechnical work for Black Eagle Consulting and Stantec Engineering in the western U.S. He also worked for Homestake Mining Company for several years where he did regional exploration work throughout Nevada, and also project work at Tonkin Springs, and Ruby Hill. Mike also did a stint with Cornucopia-Mineral Ridge at the Mary-Drinkwater mine in Silver Peak.

Mike Measures was a great many things: Son, baby brother, groom, friend, geologist, prospector, paleontologist, drummer, guitarist, song writer, band member, skier, outdoorsman, generous soul, and mentor. He was these and many more to the many people who had the privilege of spending time with him. Of all the things that I admired about him, his ability to listen, and think through what you said, providing a thoughtful response, mattered the most to me. Mike was very knowledgeable and was willing to share and help anyone who asked. Mike was also a very dedicated geologist and always pushed a high level of professionalism in his work.

I first met Mike in an exploration geophysics class at Chico State. He later went on to get his M. S. degree in structural geology at San Diego State. It was our shared love of geology, the outdoors, paleontology, and a good time that kept us friends over the years. Mike helped me get my first job in geology at Homestake's Tonkin Springs project in the summer of 1991. Years ago my wife and I were going to visit Mike while he was working in Pioche, Nevada. He insisted we arrive on a certain day, but would not tell us why. We drove all day from Reno, nearly flying past Rachel to get to Pioche on the day he said. When we pulled off the main road to Pioche we were met by road flares and police cars. The town was having an electric parade, and Mike wanted to surprise us, he sure did. I appreciate and have gratitude for the time I shared with him. I selfishly long for more, and will work at reminding myself of his zeal for geology, and life.

Jesse D. Wellman

OBITUARY

Stephen Kulinski, 44, formerly of Denver, Colorado, and residing in Kamloops, British Columbia passed away unexpectedly on January 6, 2013, in Canada. He is survived by his loving wife, Kristel Leia Kulinski; their two children, Cerra Jordan and Zachary Stephen; his parents, Phillip Jerome and Kathryn Louise Kulinski; and his grandmother, Felima Kulinski.



It is with shock and great sadness that we forward the news from Steve Kulinski's wife of his death in a car accident on an icy highway in British Columbia on January 6, 2013. She was also in the vehicle but escaped serious injury. A link to a PR from the Kamloops paper is provided below:

News report: <http://www.kamloopsthisweek.com/news/185939571.html>

(Excerpted from David Caldwell's email)

“...Steve was a long time GSN member and former President (among other posts) of the Elko Chapter. He was among the crew that hoisted a Jolly Roger over the GSN organization in Elko and helped propel action that ultimately helped lead to the formation of a BOD for GSN and the tighter and more integrated organization that we enjoy today. Steve was also instrumental in the start-up of the Elko Peace Park, and was the spearhead of the concept to build an interpretive geologic rock wall as one of the features in the park. When he left to take a job at a copper mine in the Canadian Yukon that project was put on hold. Its future now appears uncertain with the loss of Steve's drive, energy and enthusiasm to make things happen.

I wish I knew more about Steve's career to share with the Membership, but those who knew Steve personally will feel a great loss of spirit with his passing at only 44 years of age. He had formerly worked for Barrick in Elko, and I know he desired to return to Nevada after rounding out his professional experience in Canada. His big and shockingly purple house on West Oak Street has been waiting for his family to return now for several years, and I drive past it most days when I am home. It is sad to think that this will now be a reminder of how fragile and short our existence really is.

Steve leaves behind his wife, Kristel, and their children Zachary and Cerra. ...”

DC

Services were held in Denver on January 17, 2013.

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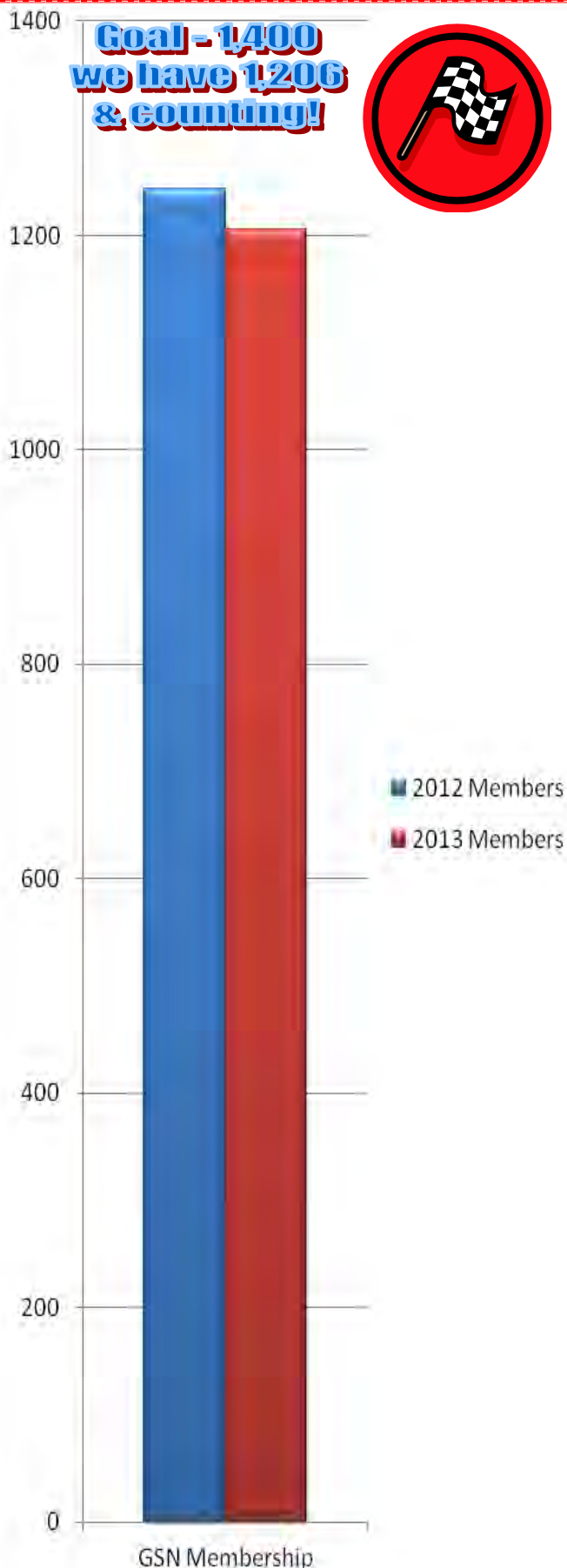
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Activity Update

Mike Brady, December 2012

www.activityupdate.com

NEVADA

Atna Resources Ltd. announced that recent drill results at the Pinson Project include 0-13.7 meters @ 31.2 gpt Au (PRC12-017); 9.1-15.2 meters @ 23.2 gpt Au (PRC12-018); 0-9.1 meters @ 27.5 gpt Au (PRC12-023) and 0-9.1 meters @ 20.2 gpt Au (PRC12-027). (resource = 2,654,000 tonnes @ 12.56 gpt Au measured+indicated) *Press Release:* December 11

Columbus Silver Corp. announced that it acquired a package of properties (including the Bolo Property) from Columbus Gold Corp. for \$700,000 in exploration expenditures and 18,750,000 shares. *Press Release:* December 14

Solitario Exploration + Royalty Corp. announced that recent drill results at the Mt. Hamilton/Centennial Project include 123.8-167.4 meters @ 1.46 gpt Au, 11.4 gpt Ag (MH12-07); 154.7-200.2 meters @ 1.82 gpt Au, 18.5 gpt Ag (MH12-10); 209.3-231.1 meters @ 1.0 gpt Au, 24.2 gpt Ag (MH12-18) and 214.5-223.9 meters @ 0.83 gpt Au, 135.0 gpt Ag (MH12-43). (reserve = 20,479,000 tonnes @ 0.75 gpt Au, 4.7 gpt Ag proven+probable) *Press Release:* December 10

MRD Copper LLC. announced that it would acquire a 100% interest in the Big Springs Property from Victoria Gold Corp. for \$6,000,000. (resource = 14,000,000 tonnes @ 2.66 gpt Au inferred) *Press Release:* November 27

Pershing Gold Corp. announced that recent drill results at the Relief Canyon Project include 151.1-160.1 meters @ 0.31gpt Au (RC12-087R); 16.4-27.3 meters @ 0.38 gpt Au (RC12-091R); 0-14.6 meters @ 0.96 gpt Au (RC12-095R) and 3.6-23.7 meters @ 0.27 gpt Au (RC12-100R). (resource = 4,232,000 tonnes @ 0.75 gpt Au indicated) *Press Release:* December 4

Nevada Copper Corp. announced that recent drill results at the Pumpkin Hollow/North Project include 210.3 meters @ 1.17% Cu (NC12-34). (resource = 485,840,000 tonnes @ 0.45% Cu, 0.03 gpt Au measured+indicated) *Press Release:* December 5

Corvus Gold Corp. announced that recent drill results at the North Bullfrog/Yellow Jacket Project include 80.3-128.9 meters @ 1.9 gpt Au, 4.3 gpt Ag (NB12-183). (resource @ North Bullfrog = 15,230,000 tonnes @ 0.37 gpt Au, 0.44 gpt Ag indicated) *Press Release:* November 28

Denison Mines Corp. announced that it purchased a 13.9% interest in International Enxco Ltd. for \$1,800,000. (resource @ Contact = 196,100,000 tonnes @ 0.25% Cu measured+indicated) *Press Release:* November 29

Barrick Gold Corp. announced that reserves at the Goldstrike Open Pit Mine aggregate 88,477,000 tonnes @ 3.28 gpt Au proven+probable. (was 87,150,000 tonnes @ 3.45 gpt Au proven+probable) *2011 Annual Report*

Barrick Gold Corp. announced that reserves at the Goldstrike Underground Mine aggregate 10,814,000 tonnes @ 8.70 gpt Au proven+probable. (was 9,884,000 tonnes @ 9.28 gpt Au proven+probable) *2011 Annual Report*

Barrick Gold Corp. announced that reserves at the Cortez Mine aggregate 278,980,000 tonnes @ 1.60 gpt Au proven+probable. (was 288,255,000 tonnes @ 1.57 gpt Au proven+probable) *2011 Annual Report*

Barrick Gold Corp. announced that reserves at the Ruby Hill Mine aggregate 15,253,000 tonnes @ 1.98 gpt Au proven+probable. (was 15,620,000 tonnes @ 2.22 gpt Au proven+probable) *2011 Annual Report*

Upcoming Events

OTHER UPCOMING EVENTS

2 February, Mackay Muckers Mineral Sale, W.M. Keck Museum, University of Nevada, Reno campus. 10 am to noon!! (see flyer >>>>)

4 February, DREGS meeting, Speaker: Stephen Zahony, Consulting Mining Geologist, Topic: Mother Lode Type Gold Deposits Exemplified by the Lincoln Mine of Sutter Gold Mining Inc.. Colorado School of Mines, Golden CO, Berthoud Hall Room 241. Social at 6 pm, Presentation at 7 pm.

5 February, Arizona Geological Society, Speaker: Peter G. Vikre, U.S. Geological Survey; Title: Gold-silver deposits and alteration zones in the Miocene Bodie Hills volcanic field, CA-NV, and comparison among Miocene gold-silver deposits in the western Great Basin. Sheraton Hotel, Oasis Room, 5151 E. Grant Rd, Tucson, AZ. Drinks @ 6 pm, Dinner @ 7 pm, Talk @ 8 pm. Reservations required by Feb. 1, 2013. For more info go to:

<http://www.arizonageologicalsoc.org/>

7 February, Nevada Petroleum & Geothermal Society, Reno, Nevada.

Speaker: Lowell Price, Nevada Division of Minerals.

Topic: "Oil & Gas Exploration, Summary, 2012".

6:30 PM, Ramada Reno Hotel; 1000 East 6th Street, Reno, NV 89512

15 February, G.S.N. 2015 Symposium Organizing Committee Meeting. Noon—1:30 p.m.

Room I-204 at 4600 Kietzke Lane . Theme "New Concepts and Discoveries". All volunteers welcome!

Submit Logo contest entries to mollymhunsaker@aol.com or to gsn@gsnv.org.

14-17 February, 59th Annual Tucson Gem and Mineral Show, "Flourite Colors of the Rainbow".

Tucson Convention Center, 260 South Church Avenue, Tucson AZ.

For more info go to: <http://www.tgms.org/2013showinfo.htm>

22-24 February, Denver Gem and Mineral Show, Jefferson County Fairgrounds Exhibit Building, Golden, CO.

For more info go to: <http://denvergem.org/Shows.html>

24-27 February, SME Annual Meeting & Exhibit and CMA 115th National Western Mining Conference, "Mining: It's About the People". Colorado Convention Complex, 700 14th Street, Denver, CO.

<http://www.smenet.org/public/Core/Events/eventdetails.aspx?iKey=AME2013&TemplateType=A>

3-6 March, PDAC, Prospectors and Developers of Canada Convention, Toronto, Ontario, CANADA.

Come visit Laura in the GSN Booth #1624, Tradeshow side.

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Your 2013 G.S.N. Membership Directory is at the Printer!!!



Inspectorate—Exploration & Mining, Bureau Veritas is hosting a “Directory Pick Up Party” on Friday, February 8th from 4 p.m. to 7 p.m. at their office in Sparks NV, 605 Boxington Way, Suite 101. “Refreshments” will be served!!!

INSPECTORATE

The Directories will also be available for pick-up at:

- ⇒ Mine Development Associates, 210 So. Rock Blvd., Reno from Feb. 11 – 22, 2013
- ⇒ the Winnemucca Chapter Meeting on Feb. 13, 2013
- ⇒ the Membership Meeting in Reno on Feb. 15, 2013
- ⇒ the Elko Chapter Meeting on Feb. 21, 2013



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For those who can't pick them up, we will get them shipped by the end of February!



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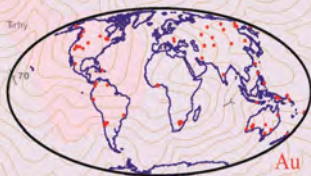
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