

GEOLOGICAL SOCIETY OF NEVADA NEWSLETTER

Geological Society of Nevada, 2175 Raggio Parkway, Room 107, Reno, NV 89512
(775) 323-3500 - Hours Monday -- Friday, 9 a.m. to 4 p.m.
Website: www.gsnv.org • E-mail: gsn@gsnv.org



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JULY 30, 2020 @ 7:00 PM Pacific Time! **GSN 2020 Symposium Update: 3rd Virtual Talk**

The GSN 2020 Symposium virtual talk series continues on July 30th with the third lecture presented by Chris Henry.

Chris expands upon Curtis Johnson's topic about gold mineralization and Eocene magmatism in the Great Basin, with a comparison of the Eocene deposits to those associated with older and younger magmatism in the Cortez Region and adjoining areas of the Great Basin. Chris' abstract appears on the symposium website. The Zoom meeting invitation with hyperlink follows:

Symposium Virtual Talk:

"Jurassic, Cretaceous, Eocene, and Miocene Magmatism and Mineralization: Cortez Region, Nevada, and Implications for Carlin-type Deposits"

Chris Henry, Nevada Bureau of Mines and Geology, University of NV, Reno
Time: Thursday, July 30, 2020 at 7:00 PM Pacific Time (US and Canada)
To Join Zoom Meeting, Click on the link and enter password below.

[https://us02web.zoom.us/j/86198078560?](https://us02web.zoom.us/j/86198078560?pwd=SWI4Z1Uwd2JuM3ppMUhHVlY0N1BpUT09)
[pwd=SWI4Z1Uwd2JuM3ppMUhHVlY0N1BpUT09](https://us02web.zoom.us/j/86198078560?pwd=SWI4Z1Uwd2JuM3ppMUhHVlY0N1BpUT09)

Meeting ID: 861 9807 8560

Password: Eocene

GSN Membership Renewal Notice!

Renew by September 30, 2020 to continue receiving the benefits of the Geological Society of Nevada membership. Dues can be paid online at <https://www.gsnv.org/membership-dashboard/membership-levels/>.

If you have paid your dues after May 1, 2020 then you are good through September 30, 2021. If you are a LIFETIME MEMBER you never have to pay again!

FROM THE PRESIDENT
Mary Stollenwerk, GSN President 2020-2021
AUGUST 2020

I will just say it – I sure miss the BBQ's and other events this summer, catching up with all the good people of GSN! Those of you who know me well can appreciate that this was not what I was expecting. At ALL! But we soldier on. At least our businesses, projects, and spirits are buoyed by the rising price of gold. Last year this time, gold was just over \$1400, and today we are bouncing around \$1950/oz, so a 36% increase. While it is not my part of this business to comment on where it goes from here, many of us are explorationists and therefore optimists by nature.

As we move forward in these times, our goal is to maintain benefits of membership. That includes increased digital and virtual options such as webinars, job announcements and job boards. Thank goodness that the previous Executive Committee had the idea to add a Digital Media Chair. Thank you, Peter O'Byrne. I am not sure you realized how key your chairmanship would be! The EC remains open to new ideas. Speaking of new ideas, I congratulate the Justin Milliard Elko Chapter for their Highway 227 cleanup efforts, I mean geologically themed scavenger hunt. Over 25 bags removed from just one side of the highway. Watch for announcements to join the efforts in August to get the other side to match.

I hope you are all out enjoying the Great Basin this summer.

Mary



1Wheeler Peak

Symposium Virtual Talk: July 30, 2020 at 7:00 PM Pacific Time

(see page 1 to join Zoom meeting)

“Jurassic, Cretaceous, Eocene, and Miocene Magmatism and Mineralization: Cortez Region, Nevada, and Implications for Carlin-type Deposits”

Chris Henry, Nevada Bureau of Mines and Geology, University of Nevada, Reno

Abstract

Most major precious and base metal deposits in the Great Basin formed in the Eocene, including porphyry systems (e.g., Battle Mountain, Bingham Canyon, and Mt Hope) and Carlin-type Au deposits (CTDs). A favored source of Au in CTDs is Eocene magma, which could have acquired Au directly from the mantle or through crustal assimilation. Yet Jurassic, Cretaceous, and Eocene magmatism in northern Nevada was similarly arc-related and transected the same crust. Why, then would only Eocene magmatism have generated CTDs?

The Cortez - northern Shoshone Range region, the second largest (and possibly the most interesting) concentration of CTDs, is a premier Great Basin example of multiple superposed magmatic and hydrothermal systems. Extensive geologic mapping, $^{40}\text{Ar}/^{39}\text{Ar}$ geo- and thermochronology, and U-Pb zircon dates show the region underwent major intrusive episodes in the Jurassic (162-160 Ma), Cretaceous (114-104, and probably to 72 Ma), Eocene (two periods at 40-39 and 36-34 Ma), and Miocene (~16 Ma), all with concurrent hydrothermal activity. Jurassic rocks are the Mill Canyon quartz monzonite - granodiorite and porphyritic rhyolite (quartz porphyry) and lamprophyre dikes. The only exposed Cretaceous rock is a dacite dike in Mill Canyon, but drilling has intersected Cretaceous granodiorite at Gold Acres (105 Ma) and in two locations near Cortez Hills (104 and 109 Ma). Zircon xenocrysts in Eocene rocks indicate additional non-exposed Cretaceous intrusions at 90, 84, and 72 Ma. 40-39 Ma granodiorite plutons and dikes are prominent in the northern Shoshone Range at Hilltop, Granite Mountain, and Tenabo. 36-34 Ma activity includes 36.3 and 35.7 Ma porphyritic rhyolite dikes focused around Cortez and forming a band from Tenabo to the northern Simpson Park Mts, scattered andesite – dacite lavas and minor tuffs, and the voluminous, 34 Ma Caetano Tuff and intrusions. Miocene rocks are extensive basaltic andesite lavas and dikes and one rhyolite lava dome of the northern Nevada rift.

Jurassic mineralization consists of Mo-rich, stockwork veins in quartz porphyry and some $\text{Ag}\pm\text{Au}$ +base metal veins in the Mill Canyon intrusion. The Cortez Ag district and at least one Ag-base metal replacement deposit (Berlin Mine) in Mill Canyon are Cretaceous based on $^{40}\text{Ar}/^{39}\text{Ar}$ sericite dates. The 40-39 Ma, northern Shoshone Range granodiorites generated minor to significant porphyry-related mineralization but no definite CTDs. The northern Nevada rift hosts several ~16 Ma, low-sulfidation epithermal veins.

Only Cortez Hills of the major Cortez area CTDs is well dated at 35.7 Ma, based on rhyolite dikes ranging from mineralized to unaltered in the deposit. An underlying pluton – not its shallow dikes – was the heat source for mineralization. Pipeline is proposed to be partly Cretaceous, and Cretaceous hydrothermal systems are spatially and temporally related to the adjacent Gold Acres intrusion, but the age of Pipeline CTD is unresolved. The age of the recent Goldrush discovery is unknown. A key question is whether Pipeline and Goldrush also formed at 35.7 Ma.

The possible restriction of CTDs to the 35.7 Ma magmatic episode in the Cortez region leads to two speculative contributions to the numerous factors that have been interpreted to influence CTD formation. CTDs may be associated only with deeply emplaced (6-10 km), high- SiO_2 Eocene plutons. In contrast, shallowly emplaced Eocene intrusions are mostly granodiorites associated with porphyry systems and lack or have only small CTDs.

Although CTDs are now almost universally considered to have formed in the Eocene in northern Nevada, some CTDs lack any evidence of Eocene magmatism. Most notably, the Getchell-Twin Creeks area has some of the strongest geochronologic evidence of Eocene CTD formation, but no Eocene rocks have been found despite intense search. An important lesson from the Cortez region is that lack of exposed intrusive rocks of any age does not preclude their presence even in the shallow subsurface. At Cortez these hidden intrusions are Cretaceous, but Eocene and other intrusions could also be present in places where they are unknown. The Pequop Mountains and the probably Eocene Long Canyon CTD are good examples. The Pequop Mts are tilted east ~40° from Cenozoic extension. Eocene rhyolite dikes (*Bedell et al., 2010*) are exposed only cutting Cambrian rocks in the deepest, most uplifted, western part of the range. The existence of Eocene intrusions would be unknown without Cenozoic tilting, although a local Eocene volcanic field is present north of Long Canyon. Other major Eocene intrusions would also be unknown without later exposure by extension. Two ways to identify hidden Eocene intrusions are analyzing younger igneous rocks for zircon xenocrysts and $^{40}\text{Ar}/^{39}\text{Ar}$ thermochronology that can test for heating of older rocks by Eocene magmatism.

“FACES OF GSN”

Rick Streiff (Consulting Geologist/QP), Reno, Nevada

EMAIL: augeologist@yahoo.com; PHONE: 775-842-5100

AVAILABLE FOR CONSULTING

Growing up in the San Francisco Bay area did not expose me to many geologists but it did foster a love for the outdoors. However, during high school I spent some time at a friend's small underground gold mine owned by his grandfather in the Northern Mines area of the Sierra Nevada near Foresthill, California. The mine, complete with a small stamp mill and 3 underground adit levels, certainly piqued my interest in gold mining and geology in general.

I attended one quarter at Oregon State University as a Forestry major and quickly realized this was not for me. I remembered the California gold mine and decided to transfer to University of Oregon to pursue a Geology degree under Mark Reed and have never looked back. Financing my way through school, I attended school until I ran out of money and then periodically worked to build my savings back up. I was a jack leg miner at the Star pocket mine and the President mine in the Bohemia epithermal district in Western Oregon as well as a Minerals Technician for the US Forest Service. I was also a jack leg miner/shift boss/engineer/VP of mucking at the Ruth mine in the North Santiam epithermal mining district of western Oregon. At the Ruth, I was involved in and testified at one of the last successful mineral patent hearings in the US before patenting was suspended. My wife learned about life with a geologist when we were snowed in at the North Santiam district for 2 ½ months at the Jawbone Flats mine camp.



**Rick Streiff on a jack leg at the Star Mine,
Bohemia district, Oregon (1975)**

My wife told me she would marry me but would never live in Africa, South America or Nevada. She also told me she would only live in a house attached to the ground: no mobile homes. I agreed and then promptly moved us directly from graduation to work at Round Mountain in Nevada for Echo Bay Mines. Moving from lush Western Oregon to near the geographic center of Nevada into a 26-foot travel trailer was quite a shock which we both managed to survive. Round Mountain was my introduction to bulk mining and I was responsible for the exploration decline as it was being driven, as well as open pit geologic mapping, ore control and infill drilling.

Echo Bay transferred me to McCoy/Cove. My wife thought a double wide mobile home in Battle Mountain was looking pretty good at that point. I arrived at Cove shortly after the downhole contamination fiasco caused a 1M ounce reserve write-down. I helped clean up the database and was responsible for the Cove underground intermediate sulfidation mine which was currently in development. I also assisted at the McCoy underground skarn mine and later took over responsibility for that mine as well. We were able to double the mining reserves at both underground mines. I also learned about water at Cove: lots of water! I spent a year as the dewatering geologist and drilled 11 24-inch cased dewatering wells to bring Cove up to a 30,000 gpm pumping capacity. I also spent a summer in Lincoln, Montana as part of a team drilling and evaluating the MacDonald low sulfidation deposit. Little did we know we were sharing the town with the Unibomber!

Echo Bay then transferred me to the Kettle River operation near Republic Washington to the K2 low sulfidation underground mine as the chief geologist just as the mine development started. We drilled off the K2 reserves from underground and shipped ore to the regional milling facility. This was also my first experience in district exploration. This move also served as pay back to my wife as we built and lived in a beautiful log home fronting the Kettle River. The drive over the 5000-foot pass in winter for an all-day grocery shopping expedition was a bit rough. We also would take our new daughter across the border once a week to Grand Forks BC for swimming in the city pool. (cont. on page 5)

Echo Bay Mines was looking unstable at this point so I took an opportunity to interview at Meikle in Nevada. While I was there, I called a friend at Newmont who suggested I come interview with Newmont as well. Next thing my wife knew we were moving to Elko to work at Newmont. The moving company refused to box our belongings so she hired some boxers out of the local Blue Cougar Saloon. She was impressed. Newmont hired me to oversee the development of the Deep Post underground which was approved for development but yet to be started. I was literally the last person hired at Newmont before a hiring freeze was put in place. Within 6 months the lay-offs started at Newmont during the dark days of 1998 and the big slump in gold. We drilled off Deep Post from underground and shipped high grade. Deep Post was a stunningly high grade mine.

Speaking of stunningly high grade, I was the first person sent to the Midas low sulfidation underground mine after it was acquired by Newmont as part of the Normandy merger. My wife and the moving truck arrived in Winnemucca just in time for a Mormon Cricket invasion in our new neighborhood. She was impressed. We built new geology systems at Midas, re-staffed the department and refocused a district-wide exploration programs which started paying dividends almost immediately. Getting up at 3:30 in the morning to make the drive to Midas was rough but geology at Midas were fun times. The staff would do weekend jeep trips together around Midas on our days off. My role was expanded to include the Twin Creeks mine and before long I was placed in charge of geology at all of Newmont's underground mines in Nevada. So, it was back to Elko, where our moving company driver went on a drunk driving rampage down Idaho street in the cab of the moving van and was arrested on the west end of town. Big front-page story in the Elko paper. Again....my wife was impressed. The Underground Geology Group initiated a Projects team that sifted through all the Newmont data looking for underground mining potential. The staff did great work which resulted in the Pete Bajo, Fence and the Exodus underground mines. During this period, I was involved in teams examining various potential acquisitions including site visits to Hollister Nevada, Bendigo Australia and El Penon in Chile.



(L to R) Jon Powell, Travis Schwartzfeger, Rick Streiff and Kevin Creel and at Newmont's Deep Post mine portal about 1999.



(L to R) Shannon Richards, Rick Streiff and Dave Rhys at a remote prospect in New Zealand (2008).

An opportunity came up to oversee the regional exploration program for Newmont at the Waihi mine in New Zealand. The family packed up suitcases and off we went to New Zealand and the famous epithermal Hauraki Goldfield. The regional program required rebuilding, training the largely inexperienced staff, acquiring new prospects and organizing the team effort. My family moved into a beach front flat and this time my wife really was impressed. New Zealand was a great experience. The Martha mine is world class and the Hauraki Goldfield is a classic low sulfidation epithermal district. The active Taupo Volcanic Zone is only an hour away which allowed me to compare active geothermal features with the fossil systems in the Hauraki district. It's also not often one gets to do geologic mapping on the beach. The Correnso discovery was made under the town while I was in New Zealand and we were infill drilling in town (cont. on page 6)

Faces of GSN, Streiff (cont. from pg. 5)

from empty lots, the Pony Club and the Elementary school yard. The Goldfield is a target rich environment and it wasn't long before we were getting underground grades in drilling across numerous prospects.

We felt as though we were getting close to a discovery somewhere in the district when Newmont began to wind down the regional program. I was transferred back to Elko. I spent time as the Geology Manager of the Carlin Trend open pits and then back to my old job of Underground Geology Manager for Nevada. I retired from Newmont in 2015 but that didn't last long. OceanaGold had purchased the Waihi operation and asked me to come back to New Zealand and restart the regional program. I moved back into my old office with my old files and the same leak in the roof. We constructed a budget, re-staffed the program and then started mapping, sampling and permitting. The first hole drilled into one of our previous prospects (WKP) intersected an eight-meter-wide vein running 10 g/t. Discovery! We quickly mobilized two helicopter supported drills and began to expand and infill the discovery. In February, 2020 OceanaGold reported over 1M ounces of resource grading better than 12 g/t with the strike limits of the deposit not yet defined.



Rick Streiff on a silicified outcrop at WKP in New Zealand (2017)

Suddenly it occurred to Oceana that I had experience in Nevada so I was tasked with opening an office in Reno. I staffed the office, acquired several prospects and drilled two. Oceana elected to close the office just as the effort was gaining momentum. So, Retirement 2.0. But not completely. I am enjoying working part-time as a consultant to continue to help geologists better understand low sulfidation epithermal vein systems and look for new opportunities.

It's been a long ride which has taken me places I never dreamed of visiting, much less living in, from Jawbone Flats to Battle Mountain to Waihi Beach. And although there have been plenty of days of frustration and problems, my love of geology has never waned and I still enjoy sharing my passion with others. My wife has been a great sport while I dragged her around to some real garden spots as well as a few socially redeeming locations. She still complains about rocks and then shakes her head at me.



Rick Streiff fly fishing in New Zealand (2011)

Elko Chapter Forecast

Justin Milliard, President 2020-2021

Elko, the city, county and GSN chapter, is adapting to the new label of being one of the "Red Zone" counties in the state with a positive slope to the new-case curve, albeit the death rate is effectively unchanged ($N = 2$). Our residents are more readily following the mandatory No-shoes, No-shirt, No-Mask, No-service mandate. Seemingly most businesses appear to be operating under the circumstances and striving to achieve the best hygiene practices feasible.

In one man's opinion, sadly the most tragic death in Elko County resulting from COVID is not one of the two counted by CDC statisticians. It is the death of NHP Trooper Sgt. Ben Jenkins whom was killed in the line of duty when stopping to assist a disabled motorist on Hwy-93. Unbeknownst to Sgt. Jenkins, whom only suspected a motorist needed help on a remote NV-road, the motorist also needed mental help. The motorist had been overly influenced by COVID-hysteria and the government's infringement on their civil liberties. The motorist's heightened suspicion and disdain of authority was acted upon by shooting and killing Sgt. Jenkins, stealing his uniform and patrol car to flee the scene. Sgt. Jenkin's life of service to his country and community (having served as a soldier, fire fighter and peace officer) was cut short, leaving behind his mother; wife, Jodi; children Jessica, Michael, Ashlie, and Cody; grandchildren Payson, Xander, Aydin, Devynn, Aspyn and Thomas.

<https://www.reviewjournal.com/crime/homicides/slain-nhp-trooper-remembered-for-his-devotion-to-public-service-2069786/>

May we all act with more compassion and kindness for our fellow human beings, and less prone to be guided by the media-driven hysteria to anger and suspicion.

If you have not heard Carl Sagan's Pale Blue Dot words or it has been a while, its always good to revisit them during times like these.

<https://www.youtube.com/watch?v=GO5FwsblpT8>

Following the policy recommendations for Red Zone counties, limiting social gathers to <10 people, the Elko Chapter is canceling all meeting events until the mandates are lifted. We are being a little more flexible with our volunteer events due to their limited attendance. The Adopt-A-Highway cleanup we did in July only had two members cleaning up 3 miles of Hwy-227. As field geologist we took social distancing to the extreme while conducting community service by having one person per ~2,000,000 sq ft!

Admittedly, next time it would be nice to cap out our clean-up crew at 10 volunteers. Even at this 5-fold increase in volunteer personal, each GSN member will statistically have a 113' radius.

If interested in helping clean up the Lamoille Highway for a few hours in August, please fill out the preferred availability Doodle Poll via the link:

<https://doodle.com/poll/aizzyw2ytua7ss82>

Thanks,

Justin

Please stay tuned to Elko GSN planning via <https://www.facebook.com/groups/GSNElko>



Mark Travis rocked >15 bags of trash along Lamoille Highway.

NEWS FROM THE FOUNDATION

By Cami Prenn, GSN Foundation Chair

August 2020 Newsletter

Keeping our washed and sanitized fingers crossed didn't work. We're still on semi-lockdown and very unsure what this next year looks like for the Foundation. Trying to predict seems like an endless task which would need contingency plans and frequent updates so let's relax, stay alert, and see how things proceed.

But last year did happen and recapping what the Foundation accomplished can give us hope that we will return to normal. The GSN Foundation funded our programs like this:

K-12 Field Trips	\$ 6,149.00
UNR Scholarship	\$ 2,000.00
UNLV Scholarship	\$ 2,000.00
UNR Field Camp Scholarships	\$ 5,250.00
Elko Grad Student Support	\$ 5,500.00_(combined Elko & Reno funds)
TMCC Mapping Support	<u>\$ 2,300.00</u>
TOTAL	\$23,199.00

Our income looked like this:

Member Donations	\$18,770.00
Elko Chapter Grad Student Support	\$ 2,750.00
Christmas Party Proceeds	\$18,598.00
Dividends & Interest	<u>\$ 5,102.00</u>
TOTAL	\$45,220.00

We also received a very generous donation of \$20,000 in sponsorship for the Foundation fundraising party to be held at Symposium 2021.

In addition, the three scholarship funds grew through a combination of donations, fundraising, and investment gains and the second round of scholarships will be funded in August for the fall semester, all at UNR. Those applications were reviewed and the students selected will be announced in August.

We finished the fiscal year in good shape financially with a very uncertain year ahead. We're in the process of formulating our budget for this year and right now we are not counting on being able to hold the Christmas fundraiser, nor are we expecting any K-12 Field Trip requests. As you all know, the Christmas party is our major fundraising event so its potential loss would leave a big hole in our budget. We will stay alert and see how things proceed and continue to keep our fingers washed, sanitized, and crossed.

Meanwhile, please keep the Foundation in mind when you renew your GSN membership this fall. Our commitment to students coming into the profession continues whether or not we can return to our normal activities. Thank you for all your support – it makes a huge impact.

GSN Membership Renewal Notice!

Renew by September 30, 2020 to continue receiving the benefits of the Geological Society of Nevada membership. Dues can be paid online by clicking this link and logging in to your account (see “My Account” under the Membership tab): <https://www.gsnv.org/my-account/>.

Tiered membership options include:

- \$25/year for student members
- \$50/year for regular members (*online newsletter option*)
- \$70/year for regular members (*print newsletter option*)
- \$1250/one-time-payment for a LIFETIME membership (*you will have scoff-ing rights toward those that continue the “annual-renewal-hustle”*)

Membership benefits include:

- Monthly membership meetings
- *To resume just as soon as this pesky pandemic is over*
- Fall and Spring field trip opportunities
- Access to the GSN Membership Directory with +1,000 contacts from throughout the mining industry
- Updates on job opportunities, education and safety courses, and other information pertaining to the mining and exploration industry of the Western Cordillera
- Networking opportunities throughout the year in Reno, Elko, Winnemucca, and So. Nevada





GEOLOGICAL SOCIETY OF NEVADA

2021

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Offices are located at NBMG's Great Basin Science Sample & Records Library at The Desert Research Institute

Office hours: Monday through Friday, 9:00 AM - 4:00 PM. Please call or e-mail for appointment.

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 organization is based in Reno with additional Chapters in Elko, Las Vegas and Winnemucca.

The GSN Membership year begins September 1st. **Annual dues are \$50.00, Students \$25.00 or \$1,250.00 for Lifetime Membership. Dues are due in September each year at the commencement of the fall meeting schedule.** The GSN conducts a Field Trip in the Fall and one in the Spring of each year. Monthly meetings are held September through May in Reno, Elko, Winnemucca, and Las Vegas. If you would like to receive email announcements from one of the G.S.N. Chapters (Elko, Winnemucca or Southern Nevada) please check a box below.

Please help support the GSN Foundation and its scholarship funds when renewing if you can. Foundation dollars are used for the Kindergarten through 12th grade Field Trip Earth Science Grant Program, Nevada Mapping Grants, Field Camp Grants, and scholarships at the University of Nevada, Reno, and University of Nevada, Las Vegas.

MEMBERSHIP APPLICATION

☐ Renewal ☐ New

Date: _____

Name: _____ Position/Title: _____

☐ **CHECK HERE if everything is the same as before, except as indicated below.**

☐ Consultant ☐ Consulting Geologist Company Name: _____

☐ Current Full-Time Earth Science Student University: _____ Alma Mater: _____

Address: _____ City: _____ State/Province: _____ Zip Code: _____

E-Mail: _____ Country: _____

Email address is required for Emailed Newsletter

Office/Work #: _____ Website: _____

Fax #: _____

Cell Phone #: _____ Home Phone # (optional): _____

(Your home phone number will not be listed in the Directory)

- ☐ I would like to have an asterisk by my name in the directory indicating I am available for consulting.
☐ I have met the licensing requirements and want "QP" (Qualified Person) by my name in the directory.

I authorize GSN to send to me, via email: GSN event announcements, publications updates, employment opportunities, etc.

Yes ☐ No ☐

Optional Chapter Affiliation (to receive Chapter announcements directly and Chapter voting rights):

☐ Elko Chapter ☐ Southern Nevada Chapter ☐ Winnemucca Chapter

☐ \$50.00 - Regular Membership Dues 2020 - Email newsletter (International or Domestic)

☐ \$70.00 - Regular Membership Dues 2020 - Hardcopy newsletter via postal service (Domestic Only)

☐ \$25.00 - Nevada Student Membership Dues 2021 ☐ \$25.00 - Non-NV Student Membership Dues 2021

☐ LIFETIME MEMBERSHIP - 25 X the Current Dues Rate (25 x \$50 in 2020 = \$1,250.00)

DONATIONS:..... ☐ I wish to donate to the GSN Student Field Camp Fund

☐ I wish to donate to the UNR Geology - D.D. LaPointe Scholarship Fund ☐ I wish to donate to the Brian Morris Scholarship Fund

☐ I wish to donate to the GSN Foundation General Fund (K-12 field trips; geology scholarships; mapping)

TOTAL: \$ _____

Payment Type: Check # _____ ☐ Cash

Card Number: If paying with a credit card we request that you please pay on the website at: www.gsnv.org
 We're sorry that we can no longer process credit cards in the GSN office unless you are here in person.

Print Form

Mail payments by check to: Geological Society of Nevada,
 2175 Raggio Parkway, Reno, NV 89512
 Fax to 775-323-3599, E-mail: gsn@gsnv.org
 Website: www.gsnv.org

Mining Activity Update

Mike Brady, May 2020

www.activityupdate.com

NEVADA

Eros Resources Corp. announced that the Bureau of Land Management approved its development plans for the Bell Mountain Project. Previously, the U.S. Navy confirmed that the Bell Mountain Property is within the Fallon Naval Air Station expansion plans but that it would allow the mineralization identified to proceed to eventual operations if justified. (resource = 2,781,000 tonnes @ 0.60 gpt Au, 15.9 gpt Ag measured+indicated) *E/MJ*: May 2020

Hochschild Mining plc. announced that it acquired an option to earn a 100% interest (less a royalty) in the Antelope Property from EMX Royalty Corp. for \$600,000 cash and \$1,500,000 in exploration expenditures over 5 years. *Press Release*: June 3

Gold Springs Resource Corp. announced that based on recent drill results at the Gold Springs Project, resources aggregate 35,657,000 tonnes @ 0.53 gpt Au, 9.4 gpt Ag measured+indicated and 5,634,000 tonnes @ 0.49 gpt Au, 7.0 gpt Ag inferred. (was 29,836,000 tonnes @ 0.55 gpt Au, 10 gpt Ag measured+indicated and 4,660,000 tonnes @ 0.46 gpt Au, 6.5 gpt Ag inferred) *Press Release*: June 19

McEwen Mining Inc. announced that recent drill results at the Gold Bar Project include 27.43-71.63 meters @ 1.2 gpt Au (GB650); 3.05-30.48 meters @ 3.4 gpt Au (GB651); 28.96-62.48 meters @ 1.5 gpt Au (GB658) and 96.01-152.4 meters @ 3.2 gpt Au (GB660). (reserve = 11,900,000 tonnes @ 1.16 gpt Au proven+probable) *Press Release*: June 17

AngloGold Ashanti Ltd. announced that it made the final payment of \$2,400,000 to Renaissance Gold Inc. to acquire a 100% interest in the Silicon Property. *Press Release*: June 3

Evrmin Resources Corp. and Renaissance Gold Inc. announced that they would merge on a 1.0 share Renaissance/1.2448 share Evrmin exchange basis. The new merged company will be called Orogen Royalties Inc. *Press Release*: June 10

Providence Gold Inc. announced that it acquired an option to earn a 100% interest in the White Rock Property from Nevada Select Royalties Inc. for \$250,000 cash over 4 years. *Press Release*: June 15

Gold Resource Corp. announced that it acquired the Golden Mile Property from private interests for \$550,000 cash and \$100,000 in shares. (resource = 890,700 tonnes @ 3.51 gpt Au inferred) *Press Release*: June 15

GSN WINNEMUCCA CHAPTER

Hello GSN and the Winnemucca Chapter. I hope that you are all staying safe and healthy during these times. We would normally be getting ready for our August BBQ around this time but will unfortunately have to cancel given the circumstances. We hope to resume virtual meetings in the fall and will look to start things up at the Martin again when safe to do so.

Cheers,

Chad Peters

Winnemucca Chapter President

GSN member Larry Martin has brought to our attention that, in order to comply with the restrictions associated with COVID 19, the BLM has updated its protocol for filing the annual claim maintenance fees and waivers (small miners exemption) for the upcoming 2021 assessment year which begins September 1st, 2020. As many of our members are keenly aware, the filing deadline is August 31st. In late June the Nevada BLM circulated the latest protocol for filing to owners of unpatented mining claims in Nevada, which is included below. This document describes the filing options for paying the fees and filing the small miners waiver. If you have claims to file and have not seen this, please read it carefully and allow yourself enough time to make a timely filing - **THE AUGUST 31 FILING DEADLINE HAS NOT CHANGED!** The virus has had an impact on everyone, and we don't want anyone's claims to be jeopardized because they were not aware of this filing protocol.

MINING CLAIM AND SITE FILING FOR 2021 ASSESSMENT YEAR SPECIAL CONSIDERATIONS DUE TO COVID-19

If you own unpatented mining claims or sites on Federal lands, your annual maintenance fee payments or maintenance fee waiver certification, Form 3830-2, (waiver) are due on or before September 1, 2020, in the **Bureau of Land Management (BLM) Nevada State Office**. Failure to timely pay the fee or file the waiver in the proper BLM office, will subject your claims or sites to forfeiture by operation of law.

As part of its response to the 2019 Novel Coronavirus (Covid-19), the BLM has continued to be open for business, but with some limitation on access to certain offices. Following guidance from the White House, Centers for Disease Control and Prevention, and state and local public health authorities, we are increasing access and services to BLM-managed public lands, offices and facilities in a phased approach based on regional, state and local conditions.

You may pay your maintenance fees online, or you may pay the fees or file your waiver by mail. We are encouraging individuals to submit all document's and payment through US Postal Service, courier (FedEx/UPS/DHL/etc.) whenever possible however if you wish to pay your fees or file your waiver in person, before visiting our BLM offices, please call the Nevada State Office Information Access Center at 775-861-6500 or send an email to nviac@blm.gov to get guidance on in person visits. The BLM Nevada State Office will be making appointment's for large filing or filings with multiple groups with multiple checks/payments on a case by case basis. In addition the BLM Nevada State office has a drop box located outside the main entrance doors if you wish to drop off your maintenance fees or waiver. The drop box will be available during the same office hours as the public room would normally be open (8:00 a.m. to 4:00 p.m.). If you choose to use the drop box any payment or waiver filing not deposited in the box prior to close of business on September 1st will not be accepted as timely filed. Updates about the overall BLM response to Covid-19 are posted at <https://blm.gov/alert/coronavirus-advisory>.

Conveniently pay your maintenance fee online! You may pay your maintenance fee with a credit card, debit card or ACH payment online (except for claims or sites in Alaska) at <https://www.blm.gov/payportal/home.html>. Payments made online must be made on or before midnight, September 1, 2020, Eastern Daylight Time. If paying online, there is no need to send any notification to the BLM State Office that manages your claims or sites. Treasury limits apply to credit card payments (http://www.uspto.gov/about/offices/cfo/finance/fee_processing_news.jsp) (the current Treasury limit for credit card payments is \$24,999.99). Even though there are no Treasury limits for debit card or ACH payments, you should contact your bank to verify any restrictions they may have for such payments. During the process of paying for your claims or sites online, you will have the opportunity to print a receipt of your order; please take that opportunity to print your receipt showing the claims and sites for which you have paid. After you complete your transaction you will receive confirmation of your payment, and the BLM State Office where your claims or sites are recorded will have a receipt of the transaction. Five days after you make your payment, you can also verify that your payment was recorded by running a report of your claims or sites at <http://www.blm.gov/lr2000/>.

GSN WEBSITE NEWS!

Hello GSN members,

I'm Peter O'Byrne your Digital Media Chair and I'd like to take some time to introduce some of the website features that are exclusive to GSN members only.

Immediately after you login to your "My Account" membership page, you'll see a splash page with several options on it. On the top of the list are two links. The first is a searchable online Membership Directory. This directory is like the printed directory that you all have but with fewer paper cuts! As a member with a login, you have access to this directory anywhere you have internet.

The second link is the library of recorded past meetings that we are starting to build up. These YouTube videos are recordings of the GSN presentations, and in most cases exclusively available to GSN members through <https://www.gsnv.org/my-account/>.

The final feature I'd like to draw your attention to is the Job Postings Board. As a member you can post a job on the board or search for available jobs that others have posted. Any member can post a job here whenever they want. Your posting will automatically expire after 30 days on the board.

This is just a small sampling of the things available to you as a member of GSN on the website. I encourage you to check out the website and discover for yourself the other things your membership has provided to you. If you have any recommendations on changes or additions to the website, feel free to reach out to me at peter.obyrne@outlook.com or find me in the directory.

Peter O'Byrne, GSN Digital Media Chairman



NEWS FROM THE GSN 2021 SYMPOSIUM

Proceedings:- The GSN 2020 Symposium proceedings on USB drives have arrived at GSN. Active registrants in the full technical program, as of June 1st, will receive the proceedings on a USB drive and, if previously ordered, in hard copy. The USB drives are being mailed this week. The hard copy volumes are en route to GSN and will be distributed by shipping or pickup by local recipients by mid-August. If your mailing or shipping address has changed, please contact Cheri Reimann at cheri.reimann@2020gsnsymposium.com.

Also, the proceedings will be available for purchase as hard copy and USB drive. Please use the order form, available on the home page of the symposium website, for purchases. The front matter for the Proceedings, including the Table of Contents and index maps will be posted on the website soon. (Here is a link to the GSN Symposium website: www.gsnsymposium.org)

Many thanks for your continued interest in the GSN 2021 Symposium.

Eric

Eric M. Struhsacker

GSN 2021 Symposium Planning Committee Chair

ROCK TALK

We are reprinting this article not for its geology content but to share a “feel good” story with you. It was pointed out that the little boy’s parents said that rather than sending money, he likes to collect rocks. People have been sending him rocks from all over the world! We’re guessing he might get a few from Nevada!

Best Big Brother: Wyoming Boy Rewarded For Saving Little Sister

Reprinted from an article written by Michael Abeyta, CBS4 Denver.
<https://denver.cbslocal.com/2020/07/25/wyoming-boy-sister-dog-bite/>

(CBS4) – A young boy from Wyoming found himself in the public spotlight after he saved his little sister from a dog. Bridger Walker’s aunt shared his story on social media – getting the attention of millions, including celebrities.

Bridger got to talk to many of the actors in the popular movie series The Avengers. He even got a shield from the movie from Captain America himself, actor Chris Evans.

To many, meeting a superstar is a dream, but we’ve all heard the phrase “like a kid in a candy store.” To a 6-year-old boy, not much else tops free candy.

Bridger and his siblings got \$400 from It’Sugar in Denver to spend however they want. They didn’t hold back.

“I got some jawbreakers and gummies and Sour Patch Kids head,” said Bridger.

If anyone deserves it, it is probably Bridger. Almost one month ago a dog lunged at his 4-year-old sister at a friend’s house.

He stepped in front of the dog to protect her. The dog bit his face requiring him to need surgery and a lot of stitches. Their parents, Robert and Teila, say that is just the kind of brother Bridger is.

“It didn’t surprise us at all. He’s always been very protective of his little girl,” said Robert.



Courtesy of Robert J Walker (CNN story)



Bridger Walker (credit: CBS)

This shopping spree is just the latest reward the family received after their story got international attention. Bridger loves rocks and has been getting rocks sent to him from all over the world.

“We never expected any of this to go viral the way it did,” Robert said.

His parents are thankful for all the love and support they’ve received, and now with this haul of candy Bridger is sure to stay sugared up all year long.

“I might let them go crazy today, but it will probably get put away for later,” said Teila.

Update from Bridger’s aunt: “.... For those who have inquired about sending Bridger some rocks, here’s the address to use:
Bridger Walker
P.O. Box 22141
Cheyenne, WY 82003

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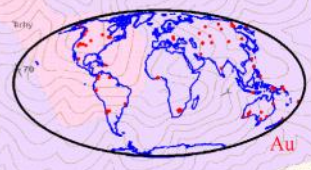
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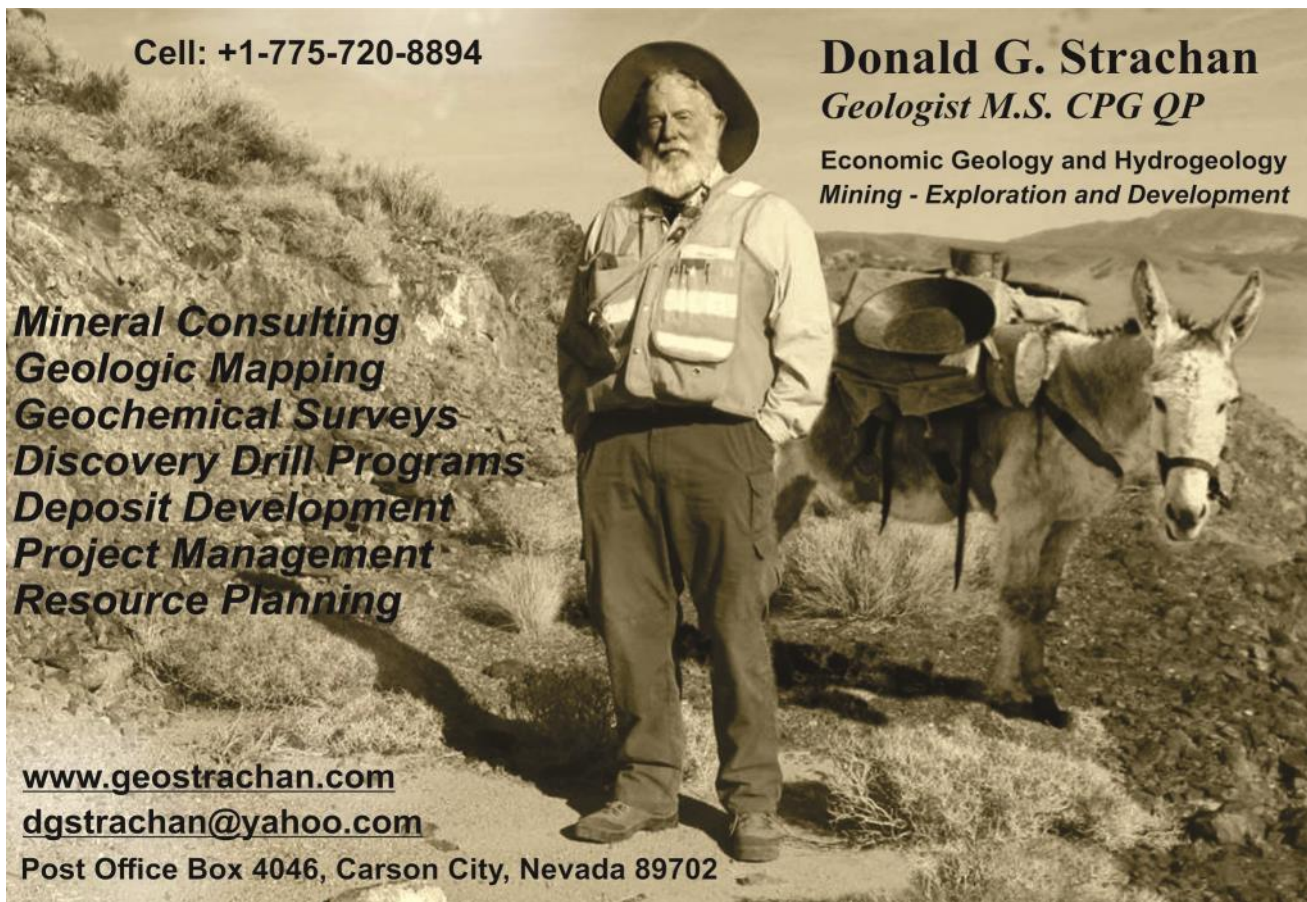
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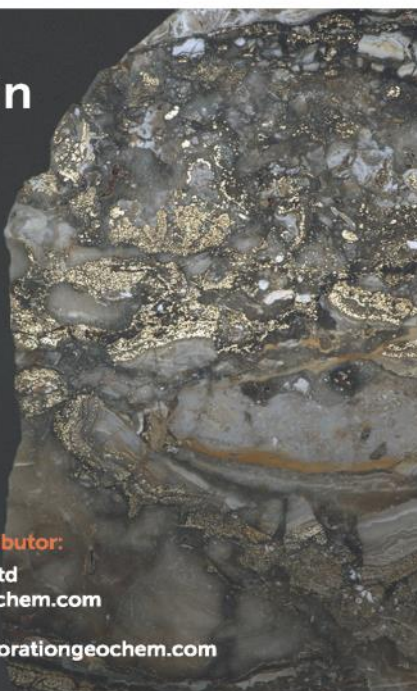
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