

# GEOLOGICAL SOCIETY OF NEVADA **NEWSLETTER**

Geological Society of Nevada, 2175 Raggio Parkway, Reno, NV 89512 (775) 323-3500 - Hours Monday -- Friday, 10 a.m. to 5 p.m.

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OCT. 10, 2024 THURSDAY (NOTE NEW DAY OF THE WEEK!)

**GSN WINNEMUCCA CHAPTER** 

The GSN Winnemucca Chapter meeting will be held at the Martin Hotel, 94 W. Railroad St. SPEAKER: Silas Goetz, UNR Graduate Student. TITLE: "Characterization of the Gold Hill Low-Sulfidation Epithermal Au-Ag Vein System, Nye County, Nevada; Implications for Continued Brownfield Discoveries in Well Established Mining Districts". SPONSOR: NEILSEN EXPLO-RATION. For more information, please contact Chapter President,

Kris Alvarez at: kalvarez@i80gold.com. Details on page 6.

OCT. 17, 2024 **THURSDAY** 

**GSN ELKO CHAPTER** 

The GSN Elko Chapter will hold their meeting at the Western Folklife Center, 501 Railroad St. Elko. SPEAKER: Curtis Johnson, President & CEO, Scout Discoveries Corp. TITLE: "In Pursuit of Tier One Precious and Base Metal Deposits in Idaho". SPONSOR: STOCKHOLM PRECISION TOOLS. Please contact Elko President, Ajeet Milliard Ajeet@megllc.net for more infor-

mation. Details on page 8.

OCT. 18, 2024 **FRIDAY** 

**GSN REGULAR MEMBERSHIP MEETING** 

The GSN meeting will be held at the Atlantis Hotel & Casino, Reno, NV. SPEAKER: Derick Unger, VP of Exploration, NevGold Corporation, TITLE: "Geology of the Zeus Copper Project and Hercules Copper Trend, Western Idaho". SPONSOR: RUEN **DRILLING.** Dinner cost is \$60. Please register for dinner online or RSVP at this link: **RSVP/DINNER** Details on pg. 3. **PLEASE RSVP** 

BY 5 PM ON MONDAY, OCTOBER 14th.

OCT. 11-13, 2024 GSN FALL 2024 FIELD TRIP

FRI, SAT. & SUN. This trip will be touring the Hog Ranch mine on Saturday, overnighting in Alturas, CA, then touring Hayden Hill on Sunday. See page 7 for details and registration link. Only 3 seats left!

OCT. 26, 2024 **SATURDAY** 

4TH ANNUAL BRIAN MORRIS TRAPSHOOT FUNDRAISER

2-Buddy Shoot at the Winnemucca Trap Club. See page 13 for more details. REGISTER or DONATE HERE!

# GSN OCTOBER RENO MEETING SPONSOR

# CONGRATS ON 50 YEARS!





# FROM THE PRESIDENT—OCTOBER 2024 Patty Capistrant GSN President June 1, 2024-May 31, 2025



Dear GSN Members,

I love doing field work in Nevada, particularly having the opportunity to visit places that are off-the-beaten-path. Although the geology of the Silver State is captivating, it's the dynamic landforms that truly inspire my weekend adventures. Here are five of my favorite off-the-beaten places in Nevada, listed by rocks exposed from oldest to youngest.

- 1. Lamoille Canyon (pre-Cambrian rocks exposed in the center of the range) During the Covid lockdown, I ran the Ruby Crest Trail with three other cabin-fevered friends. We started at Harrison Pass and ran to the Lamoille Trailhead. I wish I could say that my companions were as interested in the metamorphic core complex and ductile mylonitic shear textures as I was, but to be honest, the main focus was WATER in the dry 14 miles between Overland Lake and Liberty Lake. However, the glacial landforms of Lamoille Canyon captured everyone's attention during the final miles of our trek!
- 2. **Eagle Valley Canyon** (lower Cambrian sediments exposed locally) I discovered this gem a couple of years ago when a friend invited me elk hunting in the remote Wilson Creek Range, east of Pioche, NV. As we entered Eagle Valley Canyon, the desert landscape turns to a lush, green oasis! Here, lower Cambrian sediments are overlain by dramatically bright Tertiary volcanics and lacustrine beds, all exposed within a steep canyon. The area is magical, offering camping, hiking, and fishing... but alas, the hunting portion of the trip was a bust.
- 3. **Trail Canyon and Boundary Peak, White Mtns** (Cretaceous plutons in the high peaks) North of Dyer, Trail Canyon winds westward through a developing rural housing community that abuts the easternmost Sierra Nevadan mountain range (or perhaps it's the westernmost Basin and Range mountain range...). In any case, the road up Trail Canyon offers several dispersed campsites in the sandy pinyon-juniper forest. And of course, the real draw is the opportunity to summit Boundary Peak, the highest peak in Nevada at 13,147 feet.
- 4. **Rainbow Canyon** (mid-Miocene volcanics) Located just south of Caliente, NV, Rainbow Canyon winds southward through high canyon walls that expose Miocene tuffs and flows of the Indian Peak caldera complex. Areas affected by ancient hydrothermal alteration display stunning red and white canyon walls. It's hard to say when you'll be in the area, but if you're ever nearby it's worth an excursion.
- 5. **Bog Hot Springs** (late Miocene to Quaternary volcanics and playa sediments) This hot spring creek, located west of Denio, NV, sits in a valley surrounded by young Tertiary to Quaternary basalts. The creek offers a relaxing and remote camp spot, or a place to wash off the dust of a few-too-many days in the field. Overall rating is 9/10, but only because I once got red spider mites!

If you're not out exploring, I hope you will join the GSN for one of its many events planned for the month of October. The Annual GSN Fall Field Trip will take place October 11<sup>th</sup> -13<sup>th</sup>. The field trip will explore the Miocene geology of northwestern Nevada and eastern California, including a visit to the Hog Ranch and Hayden Hill epithermal systems. The GSN Winnemucca chapter will hold its monthly meeting on October 10, with speaker Silas Goetz on the geology of the Gold Hill deposit. The Elko Chapter welcomes Curtis Johnson on October 17, who will be speaking about Scout Discoveries exploration projects in Idaho. And in Reno, we will host the GSN General Meeting on Friday, October 18, with speaker Derick Unger, who will be speaking on the geology of the Triassic porphyry potential in southwestern Idaho at NevGold's Zeus project.

The 2027 GSN Symposium Committee will meet again on October 14<sup>th</sup> to discuss developments in planning. Please join in person or via Zoom. And don't forget to submit your theme nomination to Christine Ballard by October 7 for the chance to with \$200! Details on page 10.



The Ruby Crest running crew happy to find water!



Boundary Peak summit, June 2023.

# GSN MEETING in RENO—FRIDAY, OCTOBER 18, 2024

# GUEST SPEAKER: DERICK UNGER, VP of Exploration, NevGold Corporation

TITLE: "Geology of the Zeus Copper Project and Hercules Copper Trend, Western Idaho"

**Sponsor: RUEN DRILLING** 

TIME: Drinks @ 6:00 pm, Dinner @ 6:30 pm, Talk @ 7:30 pm

WHERE: Atlantis Hotel & Casino, 3800 S. Virginia St., Reno, NV

DINNER COST: \$60. Please RSVP online by 5 PM on Monday, October 14th at: DINNER RESERVATION

# Abstract:

Western Idaho, in and around Washington County, has received significant exploration attention since Hercules Metals Corporation announced the discovery of a new porphyry copper deposit, the Leviathan Porphyry, in October 2023 at their Hercules Project. This discovery led to a substantial investment by Barrick Gold Corporation and triggered a staking rush for nearby properties in what is now informally known as the Hercules Copper Trend. Following the discovery by Hercules Metals, NevGold Corporation announced it had staked the Zeus Copper Project in the Hercules Copper Trend.

The Hercules Copper Trend is hosted in the Blue Mountain Province, a series of accreted terranes of Permian-Triassic plutons and Triassic-Jurassic volcanic and sedimentary rocks. The Triassic-aged plutons are believed to be the source of porphyry copper mineralization, which is primarily hosted in the lower Huntington Formation and the underlying plutons. Historical production in the trend is limited to the mining of silver-base-metal veins hosted in Jurassic-Triassic volcanic and sedimentary rocks of the upper Huntington Formation, including the Hercules Rhyolite.

NevGold's Zeus Copper Project offers significant porphyry copper potential, with its location and geological similarities to the successful Hercules Project. The ongoing field program in 2024 aims to build on these findings, potentially uncovering a major copper deposit in this historically underexplored region. The project is seen as highly strategic within the Hercules Copper Trend and positions NevGold as a key player in this emerging copper district.

**Speaker Bio**: Derick Unger is the Vice President of Exploration for NevGold Corporation. He has worked in exploration and resource estimation for over 15 years on projects in North America and South America.

# "FACES OF GSN"

# Michael Say, Reno, Nevada

Throughout my short time as a geologist, I have realized this is a profession that most people stumble into and that was certainly the case for me. I grew up in the Central Valley of California and, although I was in the heart of premier farmland, I preferred the nearby Sierras or the rugged coastline. At an early age, I started a rock collection which I now know was a sign of early onset geology-ism. Growing up, my family would camp, fish, and go on many road trips to state and national parks throughout the west, and I like to think that's where my interest in the natural world began.

After high school I began my undergraduate career at UCLA, not as a geologist, but as astrophysics major. Realizing almost immediately astrophysics was not for me, I began hunting for a major that fit my interests. One day a friend of mine mentioned a geology class he was taking, and it piqued my interest. So much so that the following day I went to the department's counselor to see if people actually majored in such a thing as geology. After one conversation I was sold and switched my major toward the end of my freshman year.

At UCLA, I learned all of the fundamentals of geology. Frequent field trips to the nearby desert for geologic mapping and hands on lectures cemented my interest. I was intrigued by every aspect of geology, neotectonics, geomorphology, structure, sedimentary petrology – you name it. I worked in the Luminescence Dating Laboratory (OSL) at UCLA which was great hands-on lab experience even though I had to work in a darkroom with only the faintest of red light. Summer field camp at the Poleta folds was the highlight of my undergraduate experience all while exploring the numerous geologic environments that eastern California has to offer.

I never was a fan of the desert, but the countless weekend field trips to the Mojave during my undergrad changed my perspective. I think having an excuse to leave Los Angeles for the weekend certainly helped. After I graduated UCLA in 2017, I knew I wanted to go to graduate school, but I wanted to take a year or so off in between. I was lucky enough to get an internship at Ormat in Reno, NV for the following year and I thought Reno was perfect; desert on one side and mountains on the other (and not to mention the world class fishing spots) all while starting my professional career with a top tier geothermal company.

During my internship at Ormat I learned what it meant to be a professional geologist in a specialized industry. I had the opportunity to see every aspect of the geothermal industry from greenfield exploration to production. My coworkers mentored me through the process, helping me grow as a geologist and a professional.

Following my internship, I took advantage of the few months I had off before starting my master's degree at the University of Nevada, Reno with Dr. Andrew Zuza as my research advisor. I traveled to Baja Mexico with some colleagues collecting luminescence (OSL) samples and eating fresh fish tacos (cont. on pg. 5)



Admiring a silicified outcrop in the Pine Nut Mountains.

# Michael Say, Faces of GSN (cont. from pg. 4)

every day. I then went on a trip to Germany with my brother. Then it was back to work.

For my master's research, I completed geologic mapping, sampling, and geochronology in the northern Pine Nut Mountains to determine the timing and amount of Basin and Range and Walker Lane deformation. With the help of my advisor and many days camping in the field, I was able to complete a geologic map of the range and bracket the timing and amount of deformation. Throughout my master's degree I was continuously exposed to the wider Nevada geology community through GSN and other organizations. I had the incredible opportunity to publish my master's thesis in GSN's 2020 Symposium Proceedings and won best student paper. Along with a paper, I published my geologic map for the Como Quadrangle as state map with the Nevada Bureau of Mines and Geology.

After graduating UNR in spring of 2020, I had an interesting time deciding on what my next chapter would be in the midst of the pandemic. Luckily, I had the privilege to work with Dr. Steve Wesnousky that summer helping with paleoseismology studies in beautiful locations throughout Nevada and the Sierra Nevada. During that summer a friend called me asking if I would be interested in a job as a consulting geologist for a company exploring for gold in my thesis area and I immediately said yes while simultaneously thinking, "I knew those quartz veins I saw while mapping looked good!" I joined the consulting group Extrados Exploration towards the end of summer 2020.



Getting ready for field work with Pixie the field assistant.

Since joining Extrados, I have had the opportunity to work on various gold, copper, cobalt, and lithium projects ranging from early to advanced-stage exploration. I currently work as a Project Geologist alongside a great team of talented and ambitious geologists where we focus on boots-on-the-ground exploration for projects at all stages. Traveling across Nevada and the western US has been a great experience all while being able to work on exciting projects and collaborate with the wider geologic community. I look forward to continuing to grow as a geologist through consulting and participating in all that GSN has to offer.

GSN wishes to thank our SEPTEMBER MEETING sponsors in Reno, Elko and Winnemucca!





Partners on the Ground





# **GSN WINNEMUCCA CHAPTER NEWS**



# Please join us for the Winnemucca GSN October Meeting

Thursday, October 10, 2024
The Martin, 94 W. Railroad St.
Food and Drinks at 6 pm
Talk at 7 pm

Speaker: Silas Goetz, UNR Graduate Student



Talk: "Characterization of the Gold Hill low-sulfidation epithermal Au-Ag vein system, Nye County, Nevada; Implications for Continued Brownfield Discoveries in Well Established Mining Districts"

# FOOD AND BEER SPONSOR: NEILSEN EXPLORATION

### **ABSTRACT:**

Characterization of the Gold Hill low-sulfidation epithermal Au-Ag vein system, Nye County, Nevada; Implications for Continued Brownfield Discoveries in Well Established Mining Districts

The Gold Hill low-sulfidation epithermal (LSE) vein system is an exceptionally well-preserved and extensive Oligocene-age vein deposit located within the Round Mountain mining district of northern Nye County, Nevada, USA. Gold Hill is seven kilometers north of the world-class Round Mountain LSE deposit, which has produced > 16 million ounces of gold to date. Although there is a close spatial and temporal relationship between Gold Hill and the giant Round Mountain deposit, the genetic relationship (if any) between these two systems remains enigmatic. This study presents new data that characterizes the ore and gangue mineralogy of at least three stages of mineralization at Gold Hill as follows: Stage I), Polymictic-monomictic pyrite-breccias, with angular subangular 2 cm- 0.2 m, quartz- adularia- K-feldspar± altered clasts of Tuff of Mt. Jefferson (Tmj) and varying intensities of silicification in the matrix, which includes up to 10% pyrite with Asenriched rims, up to 1.5% locally. Stage II), white-tan-pink medium-coarse grained, massive-ghost-bladed-saccrodial- quartz veins with pyrite± marcasite± electrum± Cu-Zn metal± chalcopyrite, (continued on pg. 7)

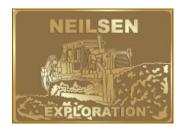
Goetz abstract,, Winn. (cont. from pg. 6)

and Stage III), fine-medium grained crustiformcolloform quartz-chalcedony veins with pyriteelectrum- proustite-pyrargyrite, Ag- tetrahedrite (freibergite), and trace arsenopyrite. Economic Au-Ag mineralization is restricted to the base of the boiling zone ~400 m below the base of the sinter. Wallrock alteration in Tmj envelops high grade portions of the vein-hosted orebodies and typically consists of quartz-adularia-illite-pyrite assemblage that replaces primary feldspars and variably alters the groundmass of Tmj. This alteration transitions to a K-feldspar-interlayered illite/smectite-quartz± sericite assemblage adjacent to inferred upwelling zones. Pyrite, chalcopyrite and acanthite samples from the Gold Hill deposit have  $\delta^{34}$ S values that range from -14.4% to +16.6%, including a pyritechalcopyrite mineral pair that yielded a temperature estimate of 226°C. Gold Hill appears to be a unique LSE vein system, outboard of the giant Round Mountain deposit, that displays distinct ore forming fluid characteristics, evidenced by ore/ gangue mineral paragenesis and alteration assemblages. New data collected during this study indicates that the system may have been formed during progradation of the paleowater table, and the close spatial association of intrusive dikes to ore mineralization may have provided a heat source for circulation of ore-forming fluids. Genetic characteristics of the Gold Hill LSE deposit indicate potential for unique vein systems hosted in similar tectonic regimes to the giant Round Mountain deposit and may indicate prospectivity, both at the regional and district scale, for additional new brownfields discoveries in the Round Mountain mining district.

#### BIO:

Silas Goetz is a UNR Graduate student who is just finishing his MS degree. He did his undergraduate studies at the University of Wyoming where he worked with Dr. Simone Runyon studying the Pumpkin Hollow. This research experience coupled with his industry experience working as a Geotech for Hard Rock consulting motivated him to pursue a master's degree at UNR. Silas is the former President of the Reno SEG Student Chapter.

If you have any questions, contact Kris Alvarez at kalvarez@i80gold.com or 775-621-6195



# 2024 GSN Fall Field Trip ALMOST FULL!

The GSN's 2024 Fall Field Trip will take place October 11<sup>th</sup> – 13<sup>th</sup> with visits to the Miocene, low-sulfidation, epithermal gold deposits of the past-producing Hog Ranch and Hayden Hill mines in northern Washoe County, NV, and Lassen County, CA, respectively. We plan to depart from the Gold Building at DRI in Reno during the afternoon on Friday the 11<sup>th</sup> with an overnight stay in Gerlach. On Saturday the 12<sup>th</sup> we will visit the Hog Ranch mine area, held by Rex Minerals Ltd., and traverse the Cottonwood Creek volcanic center/caldera(?) before heading to Alturas, CA for the night of the 12<sup>th</sup>. On Sunday the 13<sup>th</sup> we will visit the Hayden Hill mine of Four Nines Gold Inc. and then return to

Please join us for the first GSN trip to these interesting deposits in more than 30 years! Registration ends October 3rd! **REGISTER HERE** 





# THANK YOU TO OUR GENEROUS SPONSORS!

















# GSN ELKO CHAPTER NEWS



# Please join us for the

**Elko GSN October Meeting** 

Thursday, October 17, 2024

Western Folklife Center, 501 Railroad St., Elko, NV

Drinks and Appetizers at 6 pm; Talk at 7 pm

Speaker: Curtis Johnson, President & CEO, Scout Discoveries Corp.

Talk: "In Pursuit of Tier One Precious and Base Metal Deposits in Idaho"

# FOOD & DRINKS SPONSOR:



#### Abstract:

Scout Discoveries Corp. is a U.S. exploration company headquartered in Coeur d'Alene, Idaho with 100% ownership of five precious and base metals projects in Idaho, and an option to acquire 100% of nine additional projects, comprising the largest unpatented claim holdings in the state. Scout is a newly established private company spun-out from EMX Royalty Corp. in early 2023, which combines the Idaho-based business unit, Idaho precious-base metal project portfolio, and the wholly owned core drilling subsidiary, Scout Drilling.

Our strategy is to focus on the jurisdiction of Idaho over the long term, with the goal of discovering a tier one – large, long-life, and low cost – mineral deposit. We believe Idaho is the ideal jurisdiction to focus our efforts as the state has a long history of mining, is supportive of new development, and has multiple known tier one districts including the Silver Valley (Ag-Pb-Zn) and Stibnite (Au-Sb). From the technical standpoint, Idaho is geologically analogous to Nevada in the southern portion, and British Columbia in the northern portions and represents similar mineral potential to both jurisdictions. What is most appealing, however, is the near complete lack of early-stage exploration in the state from the late 1980s until present. Thus, we believe Idaho holds the near surface discovery potential, particularly for precious metals, as Nevada did 40 years ago.

Even when focused on the right jurisdiction, making discoveries is hard. Making tier one discoveries is even harder. To overcome these long odds, Scout maintains a large stable of properties ranging from early-stage through resource delineation. Our intention is to drill the most advanced projects with our internally operated core rig for a fraction of the typical cost, while we complete targeting and permitting work on earlier stage projects. This allows for a steady pipeline of projects ready for drilling as we inevitable drill and "kill" some projects in the portfolio.

We believe the combination of the right jurisdiction, the right team, and a focused strategy of systematically advancing a large portfolio through drilling will allow Scout to overcome the long odds of a tier one discovery. In this talk, we will outline our primary projects of interest and focus particularly on the strategy of moving the company and projects forward towards this goal.

If you have any questions, please contact GSN Elko Chapter President, Ajeet Milliard, ajeet@megllc.net

# NEW ICHTHYOSAUR EXHIBIT AT THE NEVADA MUSEUM OF ART

Steve Weiss

GSN would like to give a big thanks and shout-out to our friends at Great Basin Brewing, Tom and Bonda Young, for their extraordinary contributions to the making of the new exhibit at the Nevada Museum of Art titled "DEEP TIME: SEA DRAGONS of NEVADA". This incredible blend of paleontology and art showcases the Ichthyosaurs of Nevada's Triassic seas, and the people who discovered and studied these enormous marine reptiles from 250 million years ago.

The exhibit is running **now** through January 11, 2026, on the 3<sup>rd</sup> floor at the NMA, 160 West Liberty Street, Reno, Nevada. You can also check out the highlights of DEEP TIME: SEA DRAGONS of NEVADA at: https://www.nevadaart.org/art/exhibitions/deep-time-sea-dragons-of-nevada/



Triassic-period ichthyosaur skull collected in the Humboldt Range of Nevada in 1905



Charles Camp working at an ichthyosaur quarry, West Union Canyon near Berlin, Nevada, circa 1954

# USGS ANNOUNCES \$4.7 MILLION TO COLLECT DATA IN NEVADA'S GREAT BASIN



**RESTON, Va.** – The U.S. Geological Survey has announced it will invest approximately \$4.7 million in Bipartisan Infrastructure Law funding to collect high-resolution geophysical data focused on areas with the potential for critical mineral resources across the eastern portion of Nevada's Great Basin.

The data collection will be conducted through the <u>USGS Earth Mapping Resource Initiative (Earth MRI)</u>, a partnership between the USGS and state geological surveys that is revolutionizing our understanding of the nation's geology and critical mineral resources that are vital to the U.S. economy, national security, and low-carbon energy technology.

"Earth MRI is delivering an unprecedented volume of foundational data that is crucial to identifying potential sources of critical and industrial minerals," said **David Applegate**, **USGS director**.

USGS geophysicists collaborated with the Nevada Bureau of Mines and Geology in designing the survey footprint. While the region contains several geologic systems known to host a range of mineral commodities, it has never been mapped with the quality or resolution delivered by Earth MRI data. The airborne magnetic and radiometric data being acquired during this survey allow for the detailed identification of bedrock geology at and beneath the Earth's surface.

"The data that come from this survey will complement the data we've acquired through other Earth MRI surveys and our own research efforts in the state, providing new information in areas we know are highly prospective for metals and minerals but where more information is needed to actually enable the discovery of mineral deposits, geothermal energy and other natural resources," said Simon Jowitt, an economic geologist and director of the Ralph J. Roberts Center for Research in Economic Geology at the Nevada Bureau of Mines and Geology.

In addition to mapping potential for critical minerals still in the ground, recent Earth MRI investments have also accelerated mapping in areas where metals and minerals may have been left behind during previous mining. Earth MRI is mapping and inventorying mine wastes including tailings that could contain minerals that were not the original mineral produced from the mine site. Surveys such as these in the Great Basin highlight the potential to find new sources of the commodities we require today at these historic sites.

Given Nevada's nearly 150-year history of mining activity, it's possible this survey could offer insight into such prospective secondary resources.

"Data we acquire here will allow us to catalog and characterize the waste for its mineral potential and may enable us to identify potential areas to extract minerals from mine waste, creating wealth from waste," said Jowitt. ....

Read the entire article here: <a href="https://www.usgs.gov/news/state-news-release/bipartisan-infrastructure-law-helps-remap-nevada-critical-minerals">https://www.usgs.gov/news/state-news-release/bipartisan-infrastructure-law-helps-remap-nevada-critical-minerals</a>

# **GSN Geological Symposium Update—27GSNS**

Symposium Event Dates: Thursday 22 April to Saturday 1 May 2027

Location: The Nugget Casino, Reno/Sparks, Nevada USA

The 27GSNS Volunteer Steering Committee is seeking a **TOPIC OR THEME NOMINATION** for the **2027 Symposium** from its GSN members and affiliate groups. If you have a great idea for a topic or theme for the next Geological Symposium, we would love to hear your idea in the form of a nomination. Kindly submit your written nomination to our proficient Secretary Ms Christine Ballard and use the subject heading 27GSNS Nomination to cballard@kcareno.com

The winning nomination shall receive \$200 in cash, kindly sponsored by the GSN!

The Symposium Committee will accept nominations up until Monday 7th October 2024 1700hrs PT.

For reference, past nominated Symposium Titles 1987 – 2022 include:

Symposium	Title	Co-Chairs	Dates
Symposium #1 - 1987	Bulk Mineable Precious Met- al Deposits of the Western United States	Irwin & Vikre	April 6 - 8, 1987
Symposium #2 - 1990	Geology and Ore Deposits of the Great Basin	Cuffney & Raines	April 1 - 5, 1990
Symposium #3 - 1995	Geology and Ore Deposits of the American Cordillera	Hatch & E Ruud	April 10 - 13, 1995
Symposium #4 - 2000	Geology and Ore Deposits 2000: The Great Basin and Beyond	Adams & E Ruud	May 15 - 18, 2000
Symposium #5 - 2005	Window to the World	Price & E Ruud	May 14 - 18, 2005
Symposium #6 - 2010	Great Basin Evolution & Metallogeny	Wolverson & E Ruud	May 14 - 22, 2010
Symposium #7 - 2015	New Concepts & Discoveries	Hunsaker & Harris	May 14 - 23, 2015
Symposium #8 - 2020/22	Geology and Ore Deposits of the Basin and Range - Vision for Discovery	Struhsacker & E Ruud	May 2 - 5, 2022
Symposium #9 - 2027	???????	Molloy & Travis	April 22 – May 1, 2027

(continued on page 10)

# 27 GSNS (cont. from pg. 9)

**Wanted:** <u>Symposium Steering Committee Treasurer.</u> We are still seeking a Treasurer to serve on the Steering Committee and whose role will be to manage budget forecasts and expenditure reconciliation (via a bookkeeper using QuickBooks software), financial reporting, co-ordination of expenditure and funds in and out of the Symposium bank account. It's a great opportunity to contribute to your professional association and diversify your professional network. No prior Treasurer experience is necessary, we will work with eager and interested candidates who want to step up and learn.

The most recent 27GSNS meeting was held 16 September 2024. The next meeting is scheduled 14 October 2024. Monthly meetings are scheduled every 2<sup>nd</sup> Monday @ 1600-1700hrs PT and the meeting agenda is set a week prior by the Steering Committee. If you want to get an item onto the monthly meeting Agenda please submit one week in advance of the monthly meeting. Meetings are hybrid and recorded on Zoom and future meetings will be scribed using Zoom AI Companion.

Upon finalization of the Symposium theme or topic in the October 2024 meeting, the Steering Committee will seek committee endorsement at the 14 November 2024 quarterly GSN Board meeting which will ratify the Steering Committee as a subcommittee of the GSN Executive.

Also scheduled in November will be the finalization of sub-committees and nomination of their respective leaders. This will enable a timely start to CAL2025 for those volunteers to take charge of their roles and responsibilities to ensure an OAR-SOME and smooth Symposium takes place in 2027. There is plenty of work to be done however it's more pleasant and enjoyable for volunteers when completed in a timely manner 2. Also to note digital media and platforms will be adopted and used throughout the Symposium preparation and event, so stay tuned as we step through these processes in 2025.

Thank-you to all who have contributed so far, it's been fun.

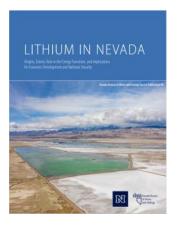
From the 27GSNS Symposium Steering Committee

Regina Molloy - Chairperson Mark Travis - Deputy Chairperson Christine Ballard - Secretary

**Treasurer - VACANT** – we are seeking to fill this position, it's a wonderful opportunity to contribute to your professional organization and develop your network. Regional Nevadans are encouraged to apply.

# NEVADA BUREAU OF MINES & GEOLOGY PUBLISHES NEW REPORT ON LITHIUM IN NEVADA





A new report from NBMG might be of interest to GSN members; the report outlines current knowledge of lithium resources and reserves in the state, the type of deposits present, the likely demand from the lithium ion battery sector, and the geological processes involved in the formation of these systems: <a href="https://pubs.nbmg.unr.edu/Lithium-in-Nevada-p/sp040.htm">https://pubs.nbmg.unr.edu/Lithium-in-Nevada-p/sp040.htm</a>. The report is free to download.



# NEWS FROM THE FOUNDATION

VI THE FOUNDATION
October, 2024
Bob Felder



We are beginning the planning for the annual holiday party and fundraiser, which will be held this year at the <u>Atlantis on Wednesday</u>, <u>December 18</u>. Mark your calendars!! We couldn't do this without the continuing generous support of our members, so it's time to start thinking about donations for the fundraiser. Items such as mineral specimens, gift baskets, wine, spirits, jewelry, books and maps, usable field gear and clothing are all good ideas, but we welcome any quality item that you think would be desirable for auction or bid. **Paragon Geochemical** has once again agreed to store donated items at their office.

NOTE NEW ADDRESS! 1545 Industrial Way, Sparks, NV 89431.

Hours for dropoff: 9AM to 3 PM

See Carol Flores or Doug Hensen, 775-433-1181

This is the biggest fundraiser for the Foundation. Thank you!!



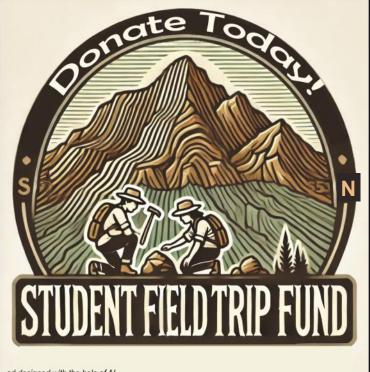








The mission of the GSN Foundation is to provide funding for the Geological Society of Nevada's philanthropic contributions around Nevada. This work is not possible without the donations GSNF receives throughout the year, during the holiday party fundraiser and from generous donations from our members. Thank you!!



Please consider donating to the Student Field Trip Fund, which is nearly exhausted. Donations will allow the GSN to continue offering field trip experiences to the next generation of geoscientists. Donations, can be made here:

Student Field Trip Fund

\*please note that Student Field Trip Fund donations are NOT tax deductible







2 PM
START TIME

# 5TH ANNUAL

# BRIAN MORRIS MEMORIAL TRAP SHOOT

OCTOBER 26, 2024
WINNEMUCCA TRAP CLUB

5001 E SECOND STREET, WINNEMUCCA

# **DINNER INCLUDED**

CATERED BY THE MARTIN HOTEL

12 GA. AMMUNITION

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**SPONSORSHIPS** 

AVAILABLE

\$50 non-shooter dinner tickets available

to register your team or for info on sponsorship please email

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**REGISTRATION** (or Donation) IS NOW OPEN AT THIS LINK:

https://www.gsnv.org/events/5th-annual-brian-morris-memorial-trap-shoot/?date=1729900800

# **IT'S GSN DUES RENEWAL TIME!**

# DUES ARE STILL ONLY \$50/YEAR (\$80 for the hardcopy) LIFETIME DUES ARE \$1,250-NEVER WORRY ABOUT PAYING AGAIN!

Thank you in advance for renewing your membership in the GSN for FY 2024! Dues are due on October 1st each year to ensure your listing in the GSN directory. You can find out your actual renewal date by going to the GSN website (<a href="https://www.gsnv.org/membership/">https://www.gsnv.org/membership/</a>) and clicking on "My Account" to login, then clicking on "Membership Details". The site gives you the option to reset your password if you don't know it. Please contact the GSN office if you don't know your user name. If your dues expire, it does not automatically take you off the email list. That happens on November 1st each year so please make sure you renew by then. THANK YOU!

MEMBER DIRECTORY ADS CAN BE PURCHASED ON THE WEBSITE HERE: 2025 DIRECTORY AD

#### OTHER UPCOMING EVENTS

October 1, 2024 Arizona Geological Society Speaker Series 2024 via Zoom. Speakers: Ann Youberg and Rebecca Beers, Arizona Geological Survey. Title: "Postfire Debris-Flow Research at the Arizona Geological Survey: Efforts to Improve Hazard Assessments and Mitigation Options". More information and online registration: Postfire Debris-Flow Research at the Arizona Geological Survey Efforts to Improve Hazard Assessments and Mitigation Options. Remote Broadcast begins at 6:35 PM. Here is the URL for Tuesday Night's Meeting

October 3, 2024 Nevada Petroleum & Geothermal Society meeting, 13101 S. Virginia St., Reno, Nevada. Speaker: Josh Gossanyi, Principal Drilling Engineer at Ormat Technologies. Title: "Exploring Smarter: Cutting Geothermal Exploration Costs by 75%". Bar opens @ 6:30 pm, Dinner @ 7:00 pm, Presentation @ 7:30 pm. click here to register: Register Now

October 14, 2024 - Utah Geological Association lunch meeting. Speaker: Keilee Higgs, UGA President Elect. Topic: Geology of Bears Ears National Monument. <a href="https://utahgeology.org/events/">https://utahgeology.org/events/</a> SEPTEMBER-2024-UGA-LUNCHEON. Google Meet Info: <a href="meet.google.com/eqc-ttho-wwq">meet.google.com/eqc-ttho-wwq</a>

October 21, 2024 SME Northern Nevada Chapter Meeting, Circus Circus Mandalay Room, Reno, NV. Drinks 6 pm, Dinner 6:45 pm, Talk 7:30 pm. Speaker: Chris Nyikos, Barr Engineering. Title: "Langbeinite: Down to Earth Source of Three Important Plant Nutrients". Email: <a href="mailto:NNevSME@gmail.com">NNevSME@gmail.com</a>. email us about the details. Visit the website for more information and to RSVP: NNVSME Website

<u>December 1-5, 2024:</u> AEMA Convention, Nugget Casino, Sparks, NV. GSN in Booth #314! <u>AEMA Convention</u> Website

**December 10, 2024:** AIPG Exploration Roundup, 6:00 PM to 9:30 PM Atlantis Hotel, Reno, NV.

<u>December 12, 2024 (tentative)</u>: GSN Winnemucca Chapter Holiday Party, Auction Fundraiser, The Martin Hotel, Winnemucca, NV.

**December 18, 2024**: GSN Foundation Fundraiser Holiday Party, Auction and Raffle. Atlantis Casino, Reno, NV.

December 19, 2024: GSN Elko Chapter Christmas Party Auction Fundraiser, Western Folklife Center, Elko, NV.



LeadershipSpeakerSeries(LSS)DinnerMeetingFeaturing

Women's Mining Coalition Founders 'Profiles in Courage - A Nevada Leadership Legacy' Wednesday, October 23, 2024

# PleaseJoinUs-GetTicketsNow!











Kathy Benedetto

Debra Struhsacker

Ruth Carrahe

Our next Leadership Speaker Series features Kathy Benedetto, Debra Struhsacker, and Ruth Carraher. As professional geologists, experts in mining law, regulatory process, mine permitting, and industry advocacy, they are the epitome of Women Leadership Champions. As the mining sector was under assault in 1993, they noticed women were particularly persuasive in Congress and state legislatures. So, with a 'lead, follow, or get out of the way' attitude, they founded the Women's Mining Coalition (WMC) in Nevada. Today it is a thriving nationwide, trusted, advocacy powerhouse. NWLA holds WMC up routinely as the greatest example in Nevada of a successful, effective volunteer advocacy group. NWLA is proud to honor the historical legacy of these amazing women as we showcase their leadership journeys.

When: Wednesday, October 23, 2024, 5:30 pm to 8:30 pm

Where: TheElmEstate,1401W.2ndSt, Reno,NV

Tickets: \$50AdvancepurchaserequiredbyOct.21,2024

Get Tickets Here: https://www.nvwla.org/events/

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Questions: Email Liz Arnold at liz.arnold@nvwla.org or Call 775-800-1268.

#### OTHER UPCOMING EVENTS



# Nevada Mineral Exploration Coalition (NMEC) 14<sup>th</sup> Annual Mineral Exploration Summit (AMES) October 24<sup>th</sup>, 2024, Atlantis Casino in Reno, Nevada

# FIRST ANNOUNCEMENT - SAVE THE DATE

WHO SHOULD ATTEND? Anyone involved or interested in any facet of Nevada's mining industry.

WHAT IS THE Nevada Mineral Exploration Coalition (NMEC)? A not-for-profit, non-partisan coalition of small businesses and individuals engaged in, or in support of, mineral exploration and development activities in the State of Nevada. Our mission is to <u>Preserve and Promote</u> the mineral exploration industry of Nevada.

WHAT IS THE PURPOSE OF THE ANNUAL MINERAL EXPLORATION SUMMIT? The Summit brings together industry, legislative and regulatory decision makers as well as representatives of other non-governmental organizations to discuss topics of critical importance to the exploration industry of Nevada.

**REGISTRATION:** Your registration includes continental breakfast, plated lunch with keynote speaker, and an afternoon reception with hosted hors d'oeuvres and bar. You are encouraged to register for the Summit on-line at <a href="https://nvmec.org">https://nvmec.org</a> or by downloading and completing the registration form on the same link. You are also encouraged to take advantage of the cost savings by registering early.

# **Early Registration**

Members \$250 Non-members \$400

# Late registration (after October 17)

Members \$350 Non-members \$500

**SPONSORSHIP OPPORTUNITIES:** The AMES is the primary fund-raising event for the NMEC and we encourage you to support our efforts through a contribution as a sponsor of the event. Being a Sponsor will help defray the cost of the Summit and insure NMEC's continued ability to benefit the Nevada exploration industry. Sponsors will have their company's name and logo prominently displayed on the Sponsor Board at the meeting and in the printed event program.

#### SUPPORT LEVELS

# https://nvmec.org/event-sponsorship

**Any \$ Amount** 

**Platinum:** \$5,000 (includes two complimentary registrations and expanded display space) **Diamond:** \$1,500 (includes one complimentary registration and expanded display space)

**Gold:** \$1,000 (includes complimentary expanded display space)

**Silver:** \$750 **Bronze:** \$500 **Copper:** \$250

Contact Dave Shaddrick for additional display/promotion opportunities (**dshaddrick@aol.com**)

<sup>\*</sup>Note: non-member registration fee includes membership in NMEC through 2025.

# Mining Activity Update

# AUGUST 2024, Mike Brady

LMBrady@aol.com

### **NEVADA**

Southwest Critical Minerals LLC. announced that it offered to acquire essentially all of the assets of Nevada Copper Corp. (now bankrupt) for \$128,000,000. *Press Release:* August 12

I-80 Gold Corp. announced that recent drill results at the Cove Project include 112.8-115.2 meters @ 10.2 gpt Au (iCHU23-45); 253.8-257.9 meters @ 12.0 gpt Au (iCHU24-01); 283.6-288.4 meters @ 13.3 gpt Au (iCHU24-2) and 284.7-298.2 meters @ 14.3 gpt Au (iCHU24-4). (resource = 1,007,000 tonnes @ 10.9 gpt Au, 20.1 gpt Ag indicated) *Press Release:* August 12

South 32 Ltd. announced that it acquired an option to earn a 60% interest in the Selena Property from Ridgeline Minerals Corp. for \$100,000 cash and \$10,000,000 in exploration expenditures over 5 years. *Press Release:* August 22

Surge Battery Metals Inc. announced that it acquired an additional 50% interest (to hold 100%) in the Texas Springs Property from M3 Metals Corp. for 1,200,000 shares. (resource @ Nevada North = 309,300,000 tonnes @ 0.611% Li2O inferred) *Press Release:* August 22

Lithium Americas Corp. announced that all major earthworks at the Thacker Pass Project are now complete. Actual mill construction is awaiting the "Formal Notice to Proceed", now anticipated for the second half of 2024. (reserve = 217,300,000 tonnes @ 0.680% Li2O proven+probable) *Press Release*: August 14

Lahontan Gold Corp. announced that recent drill results at the Santa Fe Project include 120.4-169.2 meters @ 0.44 gpt Au (CAL24-07R); 207.3-228.6 meters @ 0.23 gpt Au (CAL24-08R) and 76.2-83.8 meters @ 2.06 gpt Au (CAL24-09R). *Press Release:* August 27

Crestview Exploration Inc. announced that it terminated its interest in the Divide and Castle Mountain claims near Tuscarora. *Press Release:* July 29

Nevada King Gold Corp. announced that recent drill results at the Atlanta Project include 323.2-396.3 meters @ 1.48 gpt Au, 5.5 gpt Ag (AT24WS-69); 373.4-408.4 meters @ 2.66 gpt Au, 6.3 gpt Ag (AT24WS-80); 387.1-429.8 meters @ 4.67 gpt Au, 25.3 gpt Ag (AT24WS-83) and 247.0-297.3 meters @ 1.29 gpt Au, 19.2 gpt Ag (AT24NS-193). (resource = 11,000,000 tonnes @ 1.3 gpt Au measured+indicated) *Press Release:* August 19

Lion Copper and Gold Corp. announced that recent drill results at the Bear Project include 704.4-1,023.8 meters @ 0.26% Cu (B-54) and 377.0-1,101.2 meters @ 0.40% Cu (B-56A). (resource = 413,200,000 tonnes @ 0.40% Cu inferred) *Press Release*: August 21

Calibre Mining Corp. announced that recent drill results at the Pan Project include 59.44-68.58 meters @ 1.38 gpt Au (PR23-181); 16.76-27.43 meters @ 0.43 gpt Au (PR24-09); 13.72-47.24 meters @ 0.50 gpt Au (PR24-40) and 32.0-42.67 meters @ 0.44 gpt Au (PR24-66). (reserve = 24,634,000 tonnes @ 0.34 gpt Au proven+probable) *Press Release:* August 27

Surge Battery Metals Inc. announced that recent drill results at the Nevada North Lithium Project include 30.5-35.1 meters @ 0.23% Li (NNL-27) and 71.6-97.5 meters @ 0.47% Li (NNL-28). *Press Release:* August 14

Newmont Corp. announced that it terminated its interest in the Midas North and Mahogany properties of Headwater Gold Inc. *Press Release:* August 16

Integra Resources Corp. announced that it offered to acquire Florida Canyon Gold Inc. through a 1.0 share Integra/0.467 share Florida exchange ratio valuing Florida Canyon Gold at \$95,000,000. (resource @ Florida Canyon = 84,570,000 tonnes @ 0.34 gpt Au measured+indicated) *Press Release:* July 29

Sun Silver Ltd. announced that based on recent drill results at the Maverick Springs Project, resources aggregate 195,735,000 tonnes @ 40.25 gpt Ag, 0.32 gpt Au inferred. (was 125,340,000 tonnes @ 43.5 gpt Ag, 0.34 gpt Au inferred) *Press Release:* August 27

Thank you to the Society for Mining, Metallurgy and Exploration's (SME's) Minerals Education Coalition for providing this fun and informative graphic every year,!



\*only partial use amount made public

# What is the Age of the Oldest Rock on Earth?

The oldest rock on Earth is a granite protolith that has been dated to 4.03 Ga (billion years). There are reports of a possibly older rock (a faux-amphibolite) dated up to 4.28 Ga, but there is some controversy about those rocks. Both of these rocks have been found in northern Canada.

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Business Card size  $(3 \frac{1}{2} \times 2^{n}) = \$50.00$ Quarter Page  $(3 \frac{1}{2} \times 4^{3}) = \$150.00$ Half Page  $(4 \frac{3}{4} \times 7 \frac{1}{2}) = \$300.00$ 

Classifieds ads = \$10.00 per line (approx. 9 words in a line).

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\*<u>FIELD EXPLORATION SUPPLIES</u> – soil/rock chip, cloth/polyester fabric sample bags, tags, notebooks, flagging/wire stakes with flags, gold pans, sample sieves, aluminum map holders, plastic scales and metal tags, plastic vials and string boxes for claim staking.

\*FIELD EQUIPMENT – backpacks, vests, rain gear, geo picks, hammers, shovels, hard hats, hiking boots (12 - 13), GPS, altimeter and compasses.

# \*AND MUCH MORE DATA

# EVERYTHING MUST BE GONE BY NOVEMBER 30, 2024. FIRST COME / FIRST SERVED

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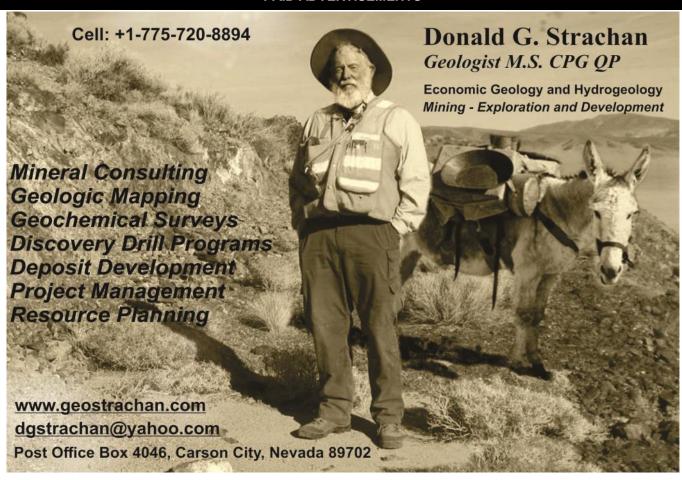
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7" x 10"	(Full Page - Vertical Format)	\$450.00

Don't miss this opportunity to advertise your company or yourself in the GSN 2024 Membership Directory Gold Pages! Hundreds of GSN Members rely on this directory year-round to find contact information for colleagues, vendors, services, etc. Please submit your ad copy by Dec. 1st to Laura Ruud at: gsn@gsnv.org

# **PAYMENTS CAN BE MADE ON THE GSN WEBSITE:**

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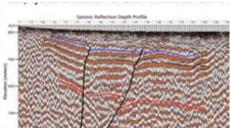


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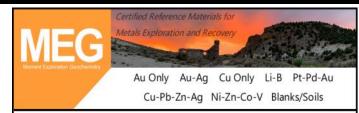


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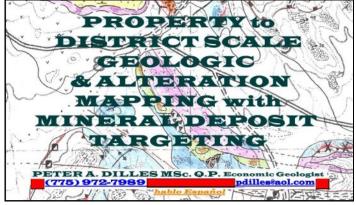
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# GSN TRAVELLING BACKPACK PICTURES (Submit your photo to gsn@gsnv.org!)

Thanks to Richard Bedell for sending in this great GSN backpack photo all the way from Namibia where he was attending the SEG 2024 Conference.

