



# GEOLOGICAL SOCIETY OF NEVADA NEWSLETTER

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



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Practical Geochemistry  
[patsy@practicalgeochemistry.com](mailto:patsy@practicalgeochemistry.com)

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**Feb. 9, 2022  
WEDNESDAY  
Via ZOOM**

### GSN WINNEMUCCA CHAPTER MEETING

The Winnemucca Chapter will hold its meeting via Zoom. **The speaker is: Joshua Miller, NV Exploration and his topic is the South Grass Valley project.** Please contact President, Chad Peters for more info: [cpeters@ridgeline minerals.com](mailto:cpeters@ridgeline minerals.com). Details on pg 4.

**Feb. 15, 2022  
TUESDAY**

### GSN SOUTHERN NEVADA CHAPTER MEETING

The Southern Nevada Chapter will be having an in-person meeting at their new location: The McCaw School of Mines, 57 Lynn Lane, Henderson, NV. It will also be on Zoom. Speaker and Topic to be announced. For more information please contact So NV President, Joshua Bonde at: [joshua.bonde@nvscicenter.org](mailto:joshua.bonde@nvscicenter.org). Details on pg 8.

**Feb. 17, 2022  
THURSDAY**

### GSN ELKO CHAPTER MEETING

The GSN Elko Chapter will hold their in-person meeting at the Western Folklife Center, 501 Railroad St. **Speaker: David Browning, Vice President Exploration, Westward Gold Inc. Title: "Update on the Toiyabe Gold Exploration Project, Lander County, Nevada". Food & Drink Sponsor: TonaTec Exploration, LLC.** Please contact Elko President Justin Milliard: [justin.b.milliard@gmail.com](mailto:justin.b.milliard@gmail.com) for more information. Details on pp. 7-8.

**Feb. 18, 2022  
FRIDAY**

### GSN REGULAR MEMBERSHIP MEETING

The GSN regular meeting will be held in-person at the Reno Aces 250 Lounge, 250 Evans, Reno. **Speaker: Gabe Aliaga, Ridgeline Minerals. Title: "From deep porphyry to shallow oxide and everything in between: A holistic approach to mineral exploration at the Selena project, White Pine County, Nevada". Drinks Sponsor: EM Strategies, A WestLand Resources Inc. Company.** Please register for dinner online and send RSVPs to Laura Ruud, [gsn@gsnv.org](mailto:gsn@gsnv.org). **ONLINE RESERVATIONS CAN BE MADE on the GSN WEBSITE by clicking this link: DINNER RESERVATIONS.** Dinner cost is \$35 per person. Details on page 3.

## GSN FEBRUARY Meeting Sponsor!



A WestLand Resources Inc. Company

**FROM THE PRESIDENT**  
**Patsy Moran, GSN President 2021—2022**  
**FEBRUARY 2022**



The first GSN Symposium was held 35 years ago, in 1987. After two years of covid-related delays, the eighth symposium scheduled for April 29<sup>th</sup> through May 8<sup>th</sup> is just around the corner. This symposium has the theme, **Vision for Discovery**, to highlight exploration in the Basin and Range province. Like past symposiums, the outstanding technical and social programs would not be possible without the planning committee, a dedicated group of volunteers led by Eric Struhsacker. They have worked diligently to attract world-class speakers, set up informative field trips and short courses, and make sure we have a great time too.

In the meantime, February is another excellent month for GSN members to hear about Nevada geology since each chapter is planning a meeting:

Winnemucca – Wednesday, February 9<sup>th</sup> – virtual only

Southern Nevada – Tuesday, February 15<sup>th</sup> – in-person and virtual

Elko – Thursday, February 17<sup>th</sup> – in-person only

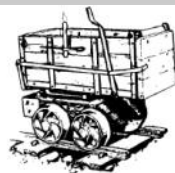
Reno – Friday, February 18<sup>th</sup> – in-person and virtual

Chapter updates and meeting details are provided throughout this newsletter. I'll be one of the virtual attendees this month, but I hope to see many of you in person in March. Until next time!

GSN Fall 2019 field trip, White Pine Co., NV.  
East of Eureka and south on Belmont Rd. Photo by L Ruud



***The G.S.N. wishes to  
thank MDA a division of  
RESPEC for sponsor-  
ing GSN's Meeting on  
January 21st in Reno!***



**MINE DEVELOPMENT  
ASSOCIATES**

A DIVISION OF **RESPEC**



**RESPEC**

## GSN MEMBERSHIP MEETING—FEBRUARY 18, 2022

### **Guest Speaker: Gabe Aliaga, Geologist Ridgeline Minerals**

**Title:** “From deep porphyry to shallow oxide and everything in between: A holistic approach to mineral exploration at the Selena project, White Pine County, Nevada”

**Date:** FRIDAY, FEBRUARY 18, 2022

**Time:** Drinks @ 6 pm, Dinner @ 6:30 pm, Talk @ 7:15 pm

**Sponsor:** EM Strategies, A WestLand Resources Inc. Company

**Where:** Reno Aces Ball Park, 250 Evans St.  
Upstairs at the 250 Lounge/Good Hops Restaurant

ONLINE RESERVATIONS CAN BE MADE on the GSN WEBSITE by clicking this link: [DINNER RESERVATIONS](#).

#### Abstract:

The Selena property is a shallow-oxide, silver-gold-lead-zinc discovery made by Ridgeline Minerals in 2020. The project is located within the historic Limousine Butte district of the south Carlin-Trend with the claim block comprised of 467 contiguous federal lode claims totaling 39km<sup>2</sup>. Historic and currently producing mines in the area include the Bald Mountain, Alligator Ridge, Yankee, Illipah and Golden Butte deposits. Preliminary trenching followed by four phases of drilling have defined a mineralized footprint that begins at surface and extends 1.3km E-W and over 2.0 km N-S with mineralization open in multiple directions. Follow-up drilling in 2021 confirmed the shallow oxide potential of the system while also intersecting higher-grade silver-lead-zinc zones at depth. The style of mineralization and proximity to a known copper-gold porphyry system located ~1km to the west of the property suggests the Au-Ag mineralization represents the outer halo of a zoned hydrothermal system, with potential to discover a previously unrecognized Carbonate Replacement (CRD) style deposit under relatively shallow cover.

Ordovician through Pennsylvanian rocks crop out in the southern Cherry Creek Range and dip 20-30° to the west. Hosts for replacement-style mineralization include the Devonian Guilmette Limestone and the contact between Mississippian Joana Limestone and overlying Chainman Shale. Folds and thrusts with approximately N-S strikes are recognized in geologic mapping and in drilling; silicified outcrops are largely controlled by thrusts. Other important controls include younger, NE-striking faults showing the most offset and older, WNW faults showing less offset but appearing to control high-grade replacement mineralization.

Undated quartz-feldspar porphyry intrusions crop out at the intersections of thrusts and west-northwest faults. Geometries of these intrusions appear to be irregular, discontinuous dikes and small plugs. Drilling thus far indicates the intrusions themselves do not carry grade, however they are spatially associated with mineralization and typically oxidized and argillized. Volcanic rocks 8 km north of the property give Eocene K-Ar ages and the Cherry Creek pluton 12 km to the northeast, along with its associated polymetallic mineralization, are also dated as Eocene. Intrusions at Selena are presumably Eocene, however the Butte Valley porphyry, adjacent to the property to the west, has a reported Cretaceous U-Pb zircon age of 98.5 Ma. The timing is similar to the Cretaceous copper porphyry of the Robinson Mining District 60 km south of Selena. (Continued on page 4)





#### G. Aliaga, Reno Abstract (cont. from page 3)

Further investigation may find overprinting magmatism and/or mineralization, but a zonation in metals has been demonstrated by Ridgeline at Selena. Prospects east and north of the defined mineralized footprint show a greater Au/Ag ratio. Drilling to the west in 2021 targeted the mineralization at depth and showed increased Ag, Pb, and Zn across all drill-holes. Highlight intercepts from the 2021 program include 4.6m grading 421 g/t Ag, 0.6 g/t Au, 4.4% Pb and 3.7% starting at 191m true vertical depth (TVD) in SE21-024, and 44.2m grading 123.2 g/t Ag, 0.1 g/t Au, 1.5% Pb and 0.6% Zn starting at 232m TVD in SE21-025.

Decarbonatization, silicification, and brecciation of carbonate rocks characterize alteration at Selena. Contacts between altered and unaltered rock are sharp and parallel to controlling faults and bedding. Banded calcite veins often bound zones of mineralization and can be involved in silicified breccias. Hydrothermal dolomitization occurs in some areas as margins to mineralized zones. Argentiferous manganese oxide mineralization (AMOM) occurs in most zones and can continue as veinlets into surrounding unaltered rock. All intercepts drilled by Ridgeline thus far are oxidized and hematite-rich, but the western-most hole demonstrated a significant increase in sulfide content as well as the first instance of unoxidized intrusions on the property. Vectoring towards the buried copper porphyry to target sulfide (CRD) replacement mineralization is Ridgeline's primary exploration focus in 2022 with a 5,500m drill program planned for mid-April.

#### Speaker Biography:

Gabriel Aliaga was born and raised in Chicago to Bolivian immigrants and completed his B.S. in Earth & Environmental Sciences at the University of Illinois at Chicago. After working three years in a hospital analytical lab, he desperately missed the rocks, and was convinced by his then-girlfriend, now-wife to apply to graduate school. Gabe moved out west and completed his M.S. in Geology at the University of Nevada, Reno, in 2018. His thesis under Dr. Mike Ressel characterized and age-dated the igneous rocks and associated alteration of the Keystone window in the Simpson Park Mountains of north-central Nevada, adding to the importance of the Eocene epoch to Nevada's gold endowment. After graduating, he worked for Nevada Exploration Inc. and helped advance the South Grass Valley project. Gabe is now with Ridgeline Minerals Inc. and busy merging boots-on-the-ground field work, 3D modeling, and drill targeting into an exciting adventure looking for the next big one. He lives in Sparks, NV, with his wife Naseem, dog Terra, and two cats, Astra and Luna.



## GSN WINNEMUCCA CHAPTER UPDATE

The GSN Winnemucca Chapter will be hosting a virtual meeting on **Wednesday, February 9th at 6:30 pm.**

**Speaker: Joshua Miller, NV Exploration**

**Topic: South Grass Valley project**

The title and abstract, along with Zoom login details, will be distributed prior to the meeting in a separate email to GSN members.

Cheers,

**Chad Peters, P.Geo.**

President & CEO

Ridgeline Minerals

GSN Winnemucca Chapter President

**Please contact Chad Peters, Winnemucca President, for more info.**

[cpeters@ridgelineminerals.com](mailto:cpeters@ridgelineminerals.com)

# **“FACES OF GSN”**

## **Janice Lopeman**

### **Carson City, Nevada**

Happy February! I'd like to introduce myself, I'm Janice Lopeman a fairly new GSN member. Although I'm new to GSN I'm not new to the geosciences. I'm from Creede, Colorado where my dad worked in the underground mines scattered in the mountains above town. When the mines closed due to the drop in silver prices, my family packed up and headed west to Winnemucca where Dad found a new job, this time above ground mining for gold. As a child my family spent our vacation time in Creede, always going back for the 4<sup>th</sup> of July and the annual Days of '92 mining competitions. Dad would judge the 1<sup>st</sup> day of competition and participate in the Machine Mucking event on the 2<sup>nd</sup> day. Meanwhile, my sister and I would climb around in the creek in the upper part of town collecting amethyst and other pretty rocks.



*Overlooking the Owyhee River during Field Camp*

Even though I grew up in the mining industry and had a decent sized rock collection, I didn't know what I wanted to do with my life and registered as "undecided" going into my freshman year at the University of Nevada, Reno. It wasn't till I took a simple Geology 100 course that I knew I wanted to be a geologist. After this realization I began looking into career options and discovered geothermal energy. I knew from growing up in Nevada that the state as a whole had high potential and I wanted to take advantage of the renewable energy sitting beneath my feet. Looking for student jobs on campus I learned about the Great Basin Center for Geothermal Energy (GBCGE) and they were needing a part-time student to collect spring and well samples throughout northern Nevada as part of a research grant. I reached out to them and immediately was intrigued about the position even though it meant giving up my Saturdays to go out in the field.

And so began my trek throughout northern Nevada sampling both hot springs and hot wells along with the all too common "cow shit seeps" as I like to call them. Those cold shitty seeps used for watering cattle and not clean pristine springs you'd want to soak in. I bought myself a pair of galoshes and trudged in to find the source of the seep and did my best to isolate the source from the manure in order to collect a clean sample for analysis. The field days were long but they only fueled my desire to

pursue a career in geothermal energy.

During my time at UNR, I didn't participate in too many extracurricular activities. I had met my now husband, Brian, during my freshman year and we continued to date throughout my time as a student. I primarily focused on school and continued to work at the GBCGE to put myself through college. During a day off in field camp just prior to my last week of mapping, Brian proposed to me on a beach at Lake Tahoe. Brian and I tentatively scheduled our wedding for the following year once I'd be out of college.

During my last semester I was awarded as the Westfall Scholar for the Geological Sciences and Engineering department. As part of the celebration, UNR held a luncheon for the scholars and their selected mentors. I chose Dr. McCormack as my mentor. I always enjoyed his classes and he never scoffed at a student wanting to learn more or for asking additional questions. After graduating, I applied for an internship with Ormat Nevada, a local geothermal company. Shortly after starting my internship I was hired on full-time. My initial role at Ormat was very similar to my role at the GBCGE, going out in (continued on page 6)



*Westfall Scholarship Luncheon with Dr. McCormack*





*Supervising a Well Test with Steam Flowing Out of the Flash Vessel*

the field collecting samples, mapping, and researching areas to assess their geothermal potential. I continued my exploration of Nevada but also branched out into California, Utah, Hawaii, and Oregon. I wore many hats in this role, geologist, flow test supervisor, conceptual modeler, GIS specialist, geochemist, geophysicist, seismologist, data manager, public representative, project manager, lands researcher, and well log analyst. I continued in this role for six years till I branched out into the drilling engineering aspect of the industry.

During my sixth year at Ormat I worked with a Rig Supervisor and fellow Ormat drilling engineers to plan and design my first two core holes exploring for geothermal in a relatively unexplored portion of Dixie Valley. Both wells were successful and I had found a new interest, a new role for me to fulfill and a new hat to wear. I continued to fulfill both the geologist and drilling engineer roles for a year before dropping the geologist hat (although it was never truly off) to pursue drilling engineering. I loved the challenges each day brought and the ability to successfully plan and complete a well that would utilize the energy beneath my feet. Not all wells were successful but they each brought challenges to overcome and taught me the benefits of having clear decisive contingency plans. Working with vendors, my fellow drilling engineers, service providers, rig crews, and drilling site managers provided socialization and an appreciation for the years of work each had put into the industry. Getting out of the office and out to a rig was a breath of fresh air. I even got out to the rig when I was 8 months pregnant! I don't think the crew expected a very

pregnant woman to meet them onsite for collecting and interpreting the casing collar log!

Our son, Liam, was born in February of 2019. Toshi, our Shiba Inu, wasn't too excited by this new addition but now that Liam is almost three they play and chase each other both inside and outside the house. Toshi is approaching 11 years old and prefers to sleep most of the day but he's as stubborn as ever and truly a toddler in his own sense. Having him before a child really did prepare us for the toddler we have now. Liam is obsessed with helicopters, fire trucks, and wildfires. We had a brush-fire near our house over the summer and we were right in the flight path of the two helicopters fighting the fire. We watched them fly back and forth to resupply and Liam loved every minute of it. I think he dreamed of helicopters that night and has every night since.

I continued working since having Liam but knew Ormat was no longer the right fit after 10 years. Even though I loved what I was doing I needed a change. I ventured into the world of geothermal energy consulting and started with Geologica Geothermal Group in September of 2021. In my new role I primarily wear a geologist hat but get to switch it out for my drilling engineer hat every once in a while. The consulting world is different than the private industry, I now need to meet my client's needs in a specified timeframe and sometimes with less data than I'd like. Each project and client is a new opportunity to apply my mixture of skills I've acquired throughout the years.

Outside of work, I enjoy quilting, remodeling our house and running around playing "helicopters" with my son, husband, and dog. Prior to having a toddler I enjoyed volunteering for an animal services nonprofit group called Carson Animal Services Initiative (CASI) raising funds to build a new animal shelter and to help spay and neuter dogs and cats of low-income families.

If you're interested in geothermal energy don't hesitate to reach out!



*Sitting in a Real Helicopter at the Reno Air Races!*

## **GSN Elko Chapter—February 2022 Update**

**Western Folk Life Center**

**Thursday, February 17th**

**Food and drinks @ 6 pm and talk to begin at 7 pm.**

**Title: Update on the Toiyabe Gold Exploration Project, Lander County, Nevada**

**Presenter: David Browning, Vice President Exploration, Westward Gold Inc.**

The Elko GSN Chapter is happy report that we set an in-person attendance record for the season with over 65 people enjoying David Ernst's talk on Bald Mountain last month. It was a great talk and event! Additionally, we kicked off the year by announcing the Elko GSN Scholarship for the 2022-2023 academic year, please direct students to <https://www.gsnv.org/chapters/elko/>. To keep the year rolling with excitement we are honored to have Dave Browning of Westward Gold Inc give an update on the Toiyabe Gold Exploration Project in Lander County, NV. The event is graciously sponsored by TonaTec Exploration, LLC.



### **Abstract:**

The Toiyabe Gold Exploration project is part of a recently consolidated land package by Westward Gold located approximately 75 miles southwest of Elko, NV, within the Battle Mountain-Eureka Trend in Lander County, Nevada. The district-scale land package covers a ~39 km<sup>2</sup> area consisting of the Toiyabe Exploration project, the Turquoise Canyon project immediately adjacent to the east, and the recently acquired adjoining East Saddle project to the south of the Toiyabe and Turquoise Canyon projects.

A carbonate window consisting of the Devonian Horse Canyon and Wenban Formations crops out at surface on the Toiyabe project and is juxtaposed against upper plate Valmy and Slaven Formations which extend east into the Turquoise Canyon project. The project is immediately north and east of the neighboring Toiyabe open pit mine, operated by Inland Gold and Silver which produced 89,000 oz Au between 1987 - 1991 via heap leach operation. A 2009 NI 43-101 report outlined a ~173k oz Au historical resource estimate at the Toiyabe Exploration project known as the Courtney resource.

Previous exploration in the area began in 1964 and was largely focused south of the current Toiyabe Exploration claim block. Drilling on the Toiyabe Gold Exploration project took place between 1979-1991 by various companies and 2005-2016 by Golden Oasis. Mineralization at the Toiyabe Mine and at the Courtney Resource consists of microscopic gold typical of Carlin-type gold deposits. The main host rocks are lower plate carbonate rocks of the Devonian Horse Canyon, Devonian Wenban, and Silurian Roberts Mountains Formations below, within, and above the Roberts Mountains Thrust. Alteration associated with mineralization includes silicification as both veins and replacement, decalcification, oxidation, and remobilized carbon.

Data from past exploration has been consolidated and integrated with modern exploration methods completed in 2021, including a new IP survey, hyperspectral core imaging, and a hyperspectral airborne survey. Upcoming field work and drill programs aim to further test mineralization at the Toiyabe project, while exploring the lateral extent of the buried lower plate carbonate host rocks. (continued on page 8)

**More information about our Elko speaker's company and our Elko Sponsor can be found below:**

**Westward Gold Inc.**

Westward Gold is a mineral exploration company focused on developing the Toiyabe, Turquoise Canyon, and East Saddle Projects in the Cortez Hills area of Lander County, Nevada

Westward has assembled a combined land package of 463 claims covering ~39km<sup>2</sup>, favorable host rocks, significant drill intercepts, a historical resource, permits in hand, and a robust pipeline of untested exploration targets. Our Nevada projects are on trend with some of the largest deposits in the world, in one of the most attractive jurisdictions for mining investment.

By combining modern exploration methods and an in-depth analysis of historical data, Westward's highly-experienced technical team – with a track record of Carlin-type discoveries in Nevada – has provided the foundation for our 2022 targeting efforts and maiden drill campaign.

The Company is also advancing the Mulloy Project in Northern Ontario.

<https://westwardgold.com/>

**TonaTec Exploration, LLC**

Registered in June, 2007, TonaTec has assembled a highly experienced technical management team to support the best field operations team in the industry. Our most valuable asset is our highly competent personnel who take pride in the job they do and are committed to restoring quality and professionalism to the drilling industry.

We will strive to develop and maintain long term working relationships with our customers and with our employees and build a team that is second to none in the Core Drilling industry.

<https://www.tonatec.com/>



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## Geological Society of Nevada Southern Nevada Chapter News

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The GSN Southern Nevada Chapter will be hosting the GSN Board of Directors at their **meeting on Tuesday, February 15th**. The meeting will be in-person **at an exciting new location, the McCaw School of Mines!** It is located at **57 Lynne Lane in Henderson, NV**. We will also Zoom the meeting for those interested.

Our speaker and topic for the meeting are to be announced.

Questions, Contact:

Josh Bonde

[Joshua.Bonde@nvscicenter.org](mailto:Joshua.Bonde@nvscicenter.org)

Southern Nevada Chapter President





Geological Society of Nevada, Elko Chapter:

## **SCHOLARSHIP OPPORTUNITY**



**WHO:** This opportunity is for any graduate or undergraduate student who intends to pursue or is currently involved with a research topic related to Nevada geology or regionally related to Nevada geology.

**WHAT:** The successful applicant will be awarded a tuition scholarship in an amount between \$500 - \$1,500 depending on tuition needs.

**WHEN:** We will be awarding this tuition scholarship for the 2022-23 academic year with a submission deadline of **March 31<sup>st</sup>, 2022.**

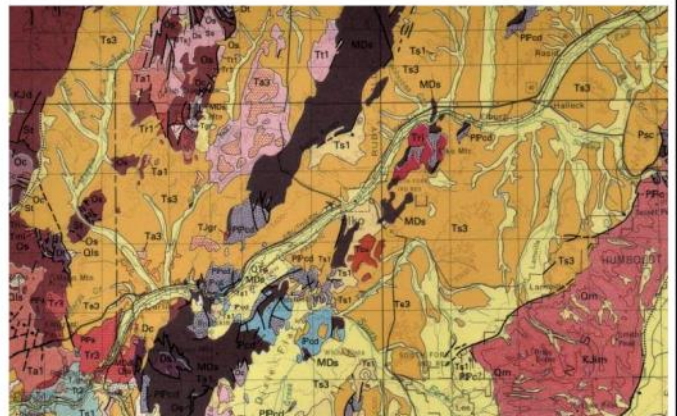
**WHERE:** Any undergraduate or graduate student with a project that involves Nevada-related geology is eligible to apply for this tuition assistance. Preference will be given to economic geology associated projects within Northern Nevada, but this is not necessary.

**WHY:** The successful applicant upon completion of their research will be invited to give back to GSN Elko in the form of a technical presentation at one of our regularly scheduled meetings to present your research.

**HOW:** Please submit an application to GSN Elko Executive Committee via mail, email, or online and you will be contacted as opportunities are formalized. You can find application details at: <https://www.gsnv.org/chapters/elko/>

For more details or to send in applications:  
GSN Elko Exec. Comm.  
P.O. Box 2591  
Elko, NV 89803-2591

Or email –  
Allison Mastenbrook, Secretary  
[mastenbrook.am@gmail.com](mailto:mastenbrook.am@gmail.com)



# Mining Activity Update

Mike Brady, DECEMBER 2021

[LMBrady@aol.com](mailto:LMBrady@aol.com)

## NEVADA

SSR Mining Inc. announced that recent drill results at the Marigold Project include 65.5-76.3 meters @ 7.88 gpt Au (MRA7249); 94.5-106.7 meters @ 6.53 gpt Au (MRA7264); 56.4-111.3 meters @ 3.45 gpt Au (MRA7266) and 237.7-266.7 meters @ 0.96 gpt Au (MRA7285). (reserve = 219,398,000 tonnes @ 0.49 gpt Au proven+probable) *Press Release: December 8*

Coeur Mining Inc. announced that recent drill results at the Nevada Packard Project include 385.57-390.14 meters @ 7.44 gpt Au, 64.8 gpt Ag (ROCR21-1011); 118.87-161.54 meters @ 0.03 gpt Au, 58.0 gpt Ag (ROCR21-1042); 108.2-140.21 meters @ 0.03 gpt Au, 51.2 gpt Ag (ROCR21-1044) and 140.21-178.31 meters @ 0.10 gpt Au, 122.9 gpt Ag (ROCR21-1045). *Press Release: December 14*

Coeur Mining Inc. announced that recent drill results at the Rochester Project include 91.53-140.82 meters @ 0.14 gpt Au, 21.8 gpt Ag (ROCC20-1005); 91.32-136.64 meters @ 0.14 gpt Au, 17.1 gpt Ag (ROCC20-1006); 54.25-121.92 meters @ 0.10 gpt Au, 23.9 gpt Ag (ROCC20-1010) and 36.82-124.36 meters @ 0.17 gpt Au, 40.9 gpt Ag (ROCC20-1011). (reserve = 4127,655,000 tonnes @ 0.10 gpt Au, 13.6 gpt Ag proven+probable) *Press Release: December 14*

Coeur Mining Inc. announced that recent drill results at the Daisy Project include 243.84-252.98 meters @ 1.71 gpt Au (CM21-03); 210.31-214.88 meters @ 1.02 gpt Au (CM21-04); 178.31-184.4 meters @ 1.88 gpt Au (D21-049) and 131.06-144.78 meters @ 0.58 gpt Au (D21-052). (resource = 2,556,000 tonnes @ 2.12 gpt Au inferred) *Press Release: December 14*

Treasure Hill Resources LLC. announced that it acquired the Treasure Hill Property from Silver Predator Corp. for \$145,000 cash. *Press Release: December 21*

Timberline Resources Corp. announced that recent drill results at the Eureka Project include 21.34-36.58 meters @ 10.09 gpt Au (BHSE-176); 65.53-

114.3 meters @ 1.0 gpt Au (BHSE-177); 3.05-62.48 meters @ 0.63 gpt Au (BHSE-178) and 48.77-67.06 meters @ 1.58 gpt Au (BHSE-182). (resource @ Lookout Mountain = 26,254,000 tonnes @ 0.62 gpt Au measured+indicated) *Press Release: December 1*

P2 Gold Inc. announced that recent drill results at the Gabbs/Sullivan Project include 103.63-185.93 meters @ 0.77 gpt Au, 0.35% Cu (GBR-014); 32.0-131.06 meters @ 0.45 gpt Au, 0.26% Cu (GBR-017); 35.05-120.4 meters @ 0.40 gpt Au, 0.32% Cu (GBR-020) and 13.72-167.64 meters @ 0.60 gpt Au, 0.36% Cu (GBR-022). (resource = 37,600,000 tonnes @ 0.58 gpt Au, 0.28% Cu inferred) *Press Release: December 1*

I-80 Gold Corp. announced that recent drill results at the Granite Creek Project include 26.8-73.5 meters @ 0.34 gpt Au (IGM21-02); 106.0-117.2 meters @ 0.96 gpt Au (IGM21-03); 32.0-157.3 meters @ 2.25 gpt Au (IGM21-08) and 14.8-63.4 meters @ 7.54 gpt Au (IGM21-09). (resource = 20,460,000 tonnes @ 1.95 gpt Au measured+indicated) *Press Release: December 8*

Millennial Precious Metals Corp. announced that recent drill results at the Mountain View Project include 61.9-74.1 meters @ 0.32 gpt Au (MVCD-08); 287.4-310.3 meters @ 0.58 gpt Au (MVCD-11); 70.7-283.8 meters @ 0.17 gpt Au (MVCD-12) and 114.3-278.9 meters @ 0.32 gpt Au (MVCD-13). (resource = 20,200,000 tonnes @ 0.62 gpt Au inferred) *Press Release: December 7*

Contact Gold Corp. announced that recent drill results at the Green Springs Project include 80.77-85.35 meters @ 0.37 gpt Au (GS2144); 62.48-80.77 meters @ 0.64 gpt Au (GS2145); 57.91-77.72 meters @ 0.36 gpt Au (GS2146) and 83.82-96.01 meters @ 0.19 gpt Au (GS2147). (resource = 754,500 tonnes @ 2.05 gpt Au inferred) *Press Release: December 8*

Gold Springs Resource Corp. announced that recent drill results at the Gold Springs/White Point  
(CONTINUED ON PAGE 11)



## Mining Activity Update

Mike Brady, DECEMBER 2021

[LMBrady@aol.com](mailto:LMBrady@aol.com)

CONT. FROM PAGE 10)

Project include 61.0-74.7 meters @ 0.62 gpt Au (WP21-02); 79.2-99.1 meters @ 0.50 gpt Au (WP21-03); 54.9-106.7 meters @ 0.32 gpt Au (WP21-04) and 27.4-64.0 meters @ 0.74 gpt Au (WP21-05). (resource = 35,657,000 tonnes @ 0.53 gpt Au, 9.4 gpt Ag measured+indicated) *Press Release:* December 17

Americas Gold Exploration Inc. announced that it acquired an option to earn a 51% interest in the Independence Property from Golden Independence Mining Corp. for \$50,000 cash, 500,000 shares and \$3,000,000 in exploration expenditures over 1 year. *Press Release:* December 13

Golden Independence Mining Corp. announced that based on recent studies at the Independence Project, resources aggregate 25,718,000 tonnes @ 0.39 gpt Au, 6.5 gpt Ag measured+indicated and 6,832,000 tonnes @ 0.31 gpt Au, 3.3 gpt Ag inferred oxide. (was 39,652,000 tonnes @ 0.42 gpt Au, 6.4 gpt Ag measured+indicated and 14,449,000 tonnes @ 0.32 gpt Au, 2.6 gpt Ag inferred) *Press Release:* December 20

Blackrock Silver Corp. announced that recent drill results at the Tonopah West Project include 132.6-134.1 meters @ 2.15 gpt Au, 67.3 gpt Ag (TW21-090); 221-224 meters @ 1.16 gpt Au, 127.0 gpt Ag (TW21-099); 488.6-492.1 meters @ 2.42 gpt Au, 258.3 gpt Ag (TXC21-020) and 446.8-449.9 meters @ 1.60 gpt Au, 162.5 gpt Ag (TXC21-030). *Press Release:* December 20

Summa Silver Corp. announced that recent drill results at the Hughes Project include 414.5-416.8 meters @ 1.2 gpt Au, 130 gpt Ag (SUM21-45); 401.2-407.8 meters @ 0.6 gpt Au, 55 gpt Ag (SUM21-46) and 351.9-364.3 meters @ 4.2 gpt Au, 282 gpt Ag (SUM21-47). *Press Release:* December 8

New Placer Dome Gold Corp. and Copaur Metals Inc. announced that they would merge on a 0.1182 share Copaur/1.0 share New Placer Dome exchange basis. *Press Release:* December 3

## BABY ANNOUNCEMENT

GSN Members **Justin and Ajeet Milliard** are happy to announce a new addition to their family.

**Imara Elvira Milliard** was born on December 31, 2021 at 7:25 a.m. weighing 8 lbs, 12 oz.

Mom and Baby are healthy and happy. **Big brother Caylen** and **big sister, Ayla** are happy to help hold + take care of their new baby sister!



## ROCK TALK

### NEW WESTERN US CLAIMS WEBSITE!

Great News! Lucia Patterson with the Nevada Division of Minerals just launched a new website of her own for all of the western US!!! This will be a very useful tool for minerals explorers of all kinds. Click on the link below if you'd like to check it out.

<https://claims-nvdataminer.hub.arcgis.com/>



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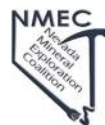
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The 2020 Proceedings are still available for purchase as a 2-volume hardbound set (\$250 + shipping), USB drive (\$100 ) or digital download (\$100). These can be ordered online through the GSN Symposium Website. Here is a direct link to the order page:

**<https://www.gsnsymposium.org/technical-proceedings-volumes/>**

**The Symposium Committee is very close to finalizing the details for the 2022 Symposium! We expect to re-open registration by mid-February, 2022.**

## OTHER UPCOMING EVENTS

**February 1, 2022: NWRA**—Nevada Water Resources Association—Advance Water Rights in Nevada Workshop. Click here to register: [ADVANCE WATER RIGHTS IN NV](#)

**February 1, 2022: NWRA**—Nevada Water Resources Association—NV Well Drilling Regulations & Forms Workshop. Click here to register: [NV WELL DRILLING REGS & FORMS](#)

**February 1, 2022: AGS**—Arizona Geological Society. Speakers: Michael F. Doe, C.G. Daniel, J.V. Jones III. Title: “A Revised Timing of the Mazatzal Orogeny in its Type Area: New Age Constraints From Detrital Zircon”.

Zoom window opens at 6:15 p.m. (MST) Talk begins at 6:30 p.m. (MST).

ZOOM: <https://arizona.zoom.us/j/83569941022>; PASSCODE: **AGS-2022**

**February 3, 2022: NPGS (CANCELLED) - the Nevada Petroleum & Geothermal Society.** In lieu of a meeting, our VP/President-elect, Robert Hopkins, will be having a short ZOOM meeting to answer questions and host a discussion about how to proceed for the rest of the meeting season. Additionally, Robert and John Tuttle have some project updates to discuss, so please feel free to join the conversation with any updates/ideas you may have.

ZOOM DETAILS: <https://zoom.us/j/93796146801?pwd=Uk4yaCtiaC9tRHZwV1dMOWxwU2xjdz09>

Meeting ID: 937 9614 6801 , Passcode: 24khVx, Contact: [robert@hot-inc.net](mailto:robert@hot-inc.net)

**February 7, 2022: SME Northern Nevada Chapter Meeting.** Circus Circus Mandalay Room, Reno, NV. **Speaker:**

**Steve Cochrane, Cyanco.** Click here to register: <https://nnewsme.square.site/>

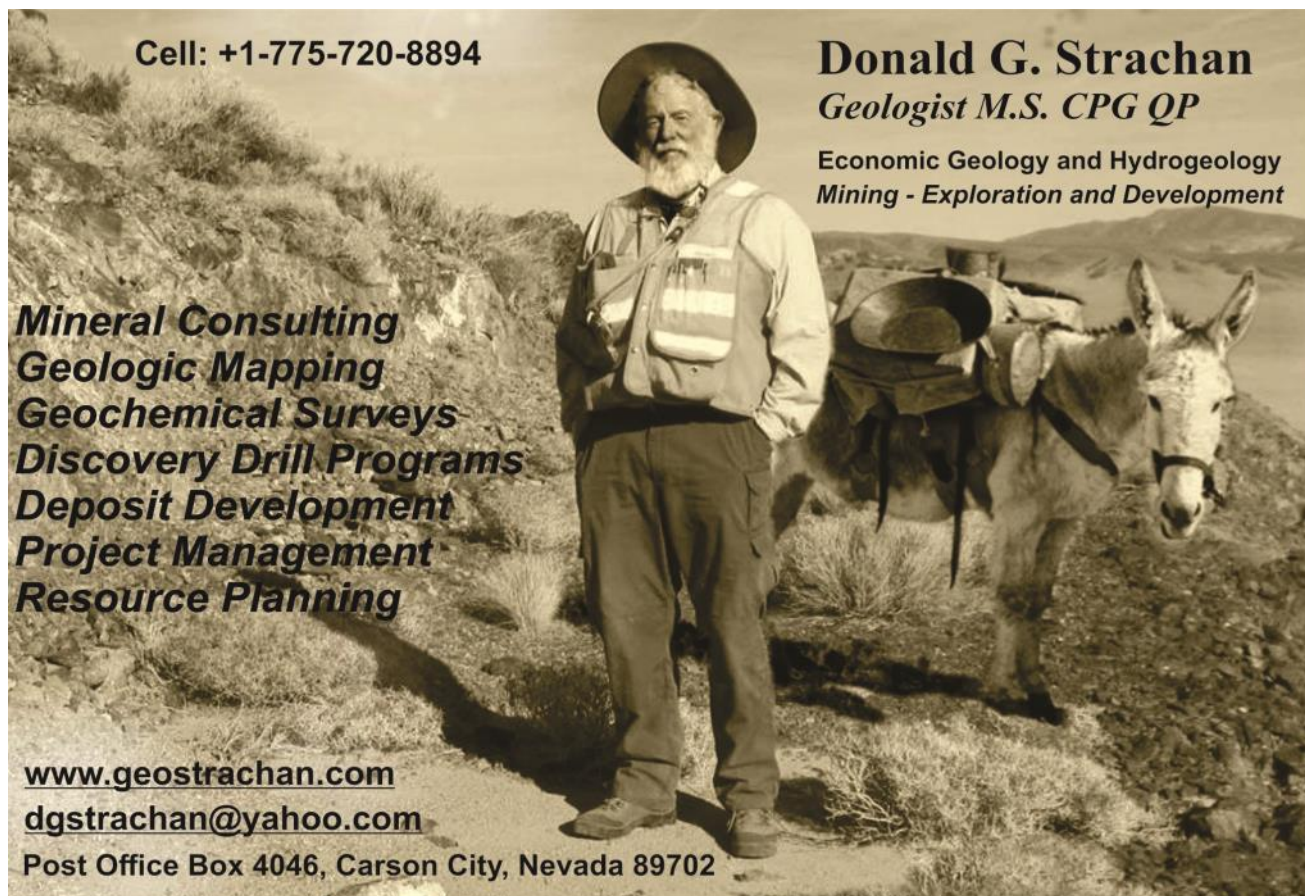
For more information contact: [NNevSME@gmail.com](mailto:NNevSME@gmail.com)

**February 10, 2022: AEG Great Basin Chapter.** The AEG meeting will be held at Courtyard by Marriott — Reno Downtown/Riverfront, 1 Ballpark Ln, Reno, Nevada, 89501 **SPEAKER:** Richard M. Wooten, P.G. Title: “Responding to Landslide Emergencies: Communicating with Stakeholders and the Feedback Loop of Preparation, Response, Analysis and Lessons Learned” .

Click here for more information: <https://nbmg.blog/2022/01/31/aeg-great-basin-february-meeting/>

**MARCH 17-26, 2022:** The Lowell Program in Economic Geology and the AGS at Univ. of Arizona announcing a NEW short course on Structural Geology for Exploration and Mine Geologist. Please contact **Rocio Brambila, Program Coordinator**, (520) 626-4962, [brambila@arizona.edu](mailto:brambila@arizona.edu)

**APRIL 28—MAY 8, 2022: GEOLOGICAL SOCIETY OF NEVADA’S SYMPOSIUM 2022! Nugget Resort, Sparks/Reno Nevada.** Technical Sessions, Pre and Post Meeting Field Trips & Short Courses, Exhibits, Luncheons, Parties! Visit the Website for more information: [WWW.GSNSYMPIOSIUM.ORG](http://WWW.GSNSYMPIOSIUM.ORG)



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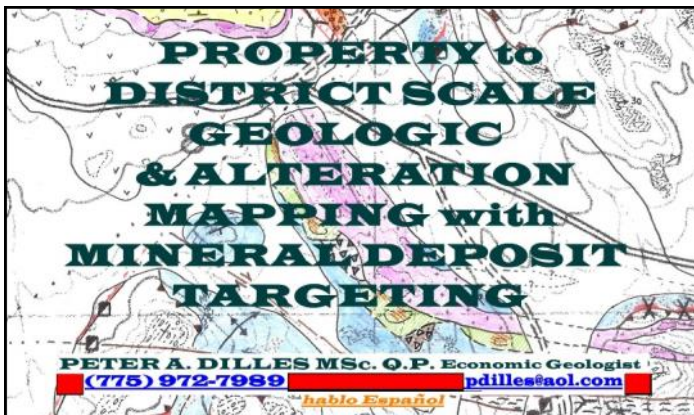
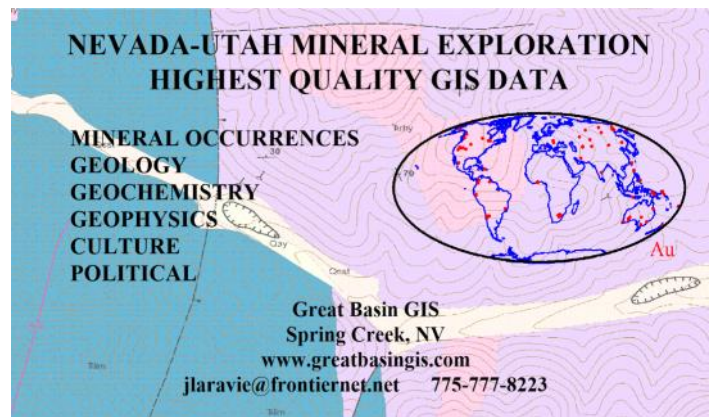
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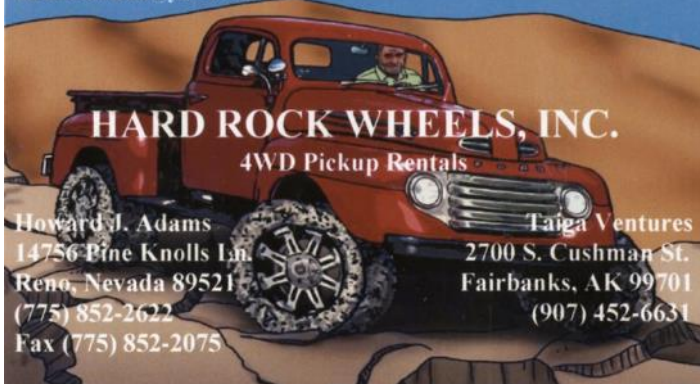
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***GSN has rescheduled the in-person meeting to Spring 2022 to assure the health and safety of our members and attendees. We appreciate your continued interest and support in the transition to the 2022 dates. There will likely be changes to the Technical Program, Field Trips and Short Courses. We have received support from those involved to accommodate changes.***