## **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 4 p.m. Website: www.gsnv.org • E-mail: gsn@gsnv.org

#### JANUARY 2023 ISSUE, Vol. 39, No. 1

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PRESIDENT JAN. 11, 2023 **GSN WINNEMUCCA CHAPTER** WEDNESDAY The GSN Winnemucca Chapter meeting will be held at the Martin summitcrk@aol.com Hotel, 94 W. Railroad St., Winnemucca. The speaker and title are TBA. JANUARY SPONSOR: IDS, A GRANITE COMPANY. For more information, please contact Chapter Co-Presidents: Nancy Wolverson at: nancyjeanw@aol.com or Pat Donovan at: pdonovan20@icloud.com. JAN. 19, 2023 **GSN ELKO CHAPTER** THURSDAY The Elko Chapter will hold their meeting at the Western Folklife Center, 501 Railroad St. Elko. SPEAKER: Alexander Holmwood, UNR. Title: "Temporal Evolution of the Majuba Hill Cu-(Mo)-(Sn) Deposit, Pershing County, Nevada". **SPONSOR: ORLA Mining.** Please contact Elko President Justin Milliard: justin.b.milliard@gmail.com for more information. Details on pg. 7. **JAN. 27, 2023 GSN REGULAR MEMBERSHIP MEETING** FRIDAY The meeting will be held at the temporary location of the Atlantis (Note! 4th Friday

Casino & Resort while the HVCC undergoes some renovations. & at the Atlantis Guest Speaker: Tyler Hill, i-80 Gold Corp. Title: "Exploration this month only!) update on Carlin-Type and CRD mineralization at the Ruby Hill Mine, Eureka, Nevada". Sponsor: EM STRATEGIES, A WestLand Resources Inc. Company. Dinner cost is \$50. Please register for dinner online. Laura Ruud will be at Roundup so please prepay or RSVP at this link: RSVP/DINNER Details pg. 3. PLEASE RSVP BY FRIDAY, JANUARY 20TH!

## **GSN JANUARY 2023 RENO MEETING SPONSOR**



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#### FROM THE PRESIDENT Kel Buchanan, GSN President 2022-2023 JANUARY 2023



Your society has come through 2022 with flying colors, membership has increased, and 2023 is shaping up nicely. After an enthusiastic Christmas party at the Nugget, we are kicking off the New Year at a temporary new venue, the Atlantis, for our January 27<sup>th</sup> meeting, while HVCC undergoes some renovations. Our speaker, Tyler Hill of I-80 Gold, will be discussing the Ruby Hill project.

For those 2023 prognosticators, maybe on the wish list for those geologists who have the opportunity to escort investors to an operating drill rig off the grid, a nice new seven passenger Rivian SUV would be just the item needed. After all, with adjustable fifteen inch clearance, a three hundred mile range, and 0-60 acceleration of three seconds, what's not to like. All you need to do is convince your boss to spend north of \$90K to get those investors to the site in record time.

If the geologist in question is searching for mineral components that power said SUV, maybe the marketing aspect wouldn't be that difficult. Geopolitical considerations may dictate that even sub-standard economic grades of exploration prospects in this country are considered, and this one component by itself could be incentive enough to pump exploration budgets. You may read similar opinions in current trade journals.

I've always been interested in winter weather storms, especially as they relate to the western snowpack, and how the number of storms each year will affect my recreational activity of skiing. Mining economics in Nevada requires an adequate water supply as well, and I was curious as to what experts are predicting for the western states this year, given that we are suffering through a reported twenty-year drought. I typed in "long-term drought" and a long list popped up, of course. One article I looked at began with a sentence discussing the sixyear drought in Africa, which was clearly off the topic of what I was looking for. However, as I scrolled down past how Canada's wheat belt had a rainy spring that delayed planting, how the normally rainy UK had suffered from uncharacteristically dry springs over the past few years, and how New England had recently experienced the mildest winters within anyone's recollection, I know something wasn't right. As it turned out, the reference for the article was a Time Magazine Essay, dated June 24, 1974. The title of the essay was <u>Another Ice Age?</u>.

Kel Buchanan



**GSN MEETING in RENO–JANUARY 27, 2023** 

## GUEST SPEAKER: Tyler Hill, i-80 Gold Corp. TITLE: "Exploration update on Carlin-Type and CRD mineralization at the Ruby Hill Mine, Eureka, Nevada."

## Sponsor: EM STRATEGIES, A WestLand Resources Inc. Company

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

### WHERE—NEW LOCATION FOR JANUARY 27 ONLY! - ATLANTIS CASINO

### **DINNER COST: \$50.00**

Laura Ruud will be at Roundup Jan. 23-27 so please prepay or RSVP at this link:

### **<u>RSVP/DINNER</u>**. PLEASE RSVP BY FRIDAY, JANUARY 20TH!

#### Abstract:

The Eureka district located in central Nevada was one of the first significant mining districts in the state with ore discovered in 1864. The ore bodies consisted of oxidized Au-Ag-Pb carbonate replacement deposits (CRD) hosted in Ordovician to Cambrian carbonates. Production of these ores continued through the mid-1900s with an estimated 1.65 Moz of Au, 39 Moz of Ag, and 625 Mlbs of Pb produced from just 2.0 Mt, however, this production is likely understated. Exploration by Homestake Mining in the 1990s resulted in the discovery of oxidized distal disseminated ore at Mineral Point and oxidized Carlin-Type ore at Archimedes. Ultimately a combination of Homestake, Barrick, Waterton, and i-80 Gold have produced ~1.5 Moz Au from the Archimedes pit. Additional exploration by Homestake and later Barrick, identified highgrade sulfide Carlin-Type mineralization at depth (Ruby Deeps), as well as a zinc skarn deposit (Blackjack). i-80 Gold acquired the Ruby Hill property from Waterton in October of 2021 and has conducted significant exploration since that time. A 25,000-meter exploration campaign has focused on infill and step-out drilling of the Ruby Deeps, 426 zone, and additional targets across the property. Follow-up drilling on historic Homestake and Barrick holes south of the Archimedes pit has resulted in the discovery of new CRD mineralization, with the discovery hole intersecting 28.3 m of 515 g/t Ag, 28.9% Pb, and 10.5 % Zn immediately beneath alluvium. Additionally, a new zone of zinc skarn has been discovered 400 m south of the Archimedes pit with an intercept of 39.6 m of 12.3% Zn. A revised resource estimate for the property is expected to be published in Q1, 2023 and permitting is underway for an exploration decline out of the Archimedes pit.

#### Bio:

Tyler Hill is a Senior Geologist with i-80 Gold Corp. He received a B.S. degree in geology from Ball State University and a M.S. degree from the University of Nevada – Reno where he studied time-space relationships between Eocene magmatism and Carlin-style mineralization at Kinsley Mountain in eastern Nevada. After graduating, he worked with Premier Gold on the McCoy-Cove property during the discovery of the Gap deposit and also worked on the Goldbanks-Rye low sulfidation epithermal system in a joint-venture with Kinross. Since the formation of i-80 Gold, he has overseen exploration at the Granite Creek, Ruby Hill, McCoy-Cove, and Lone Tree properties.

## Faces of GSN Paul Fix, Carson City, Nevada

I grew up in Cedarburg, a suburb of Milwaukee in southeast Wisconsin. Growing up I was surrounded by the ultimate playground - a backyard of farm fields, forests, and ponds. One of my earliest memories is 'fossil hunting' on a gravel driveway made of crushed Devonian limestone. My parents always supported my interests, and at one point helped me enter a fossil contest for kids at a local 'rock shop' called The Gem Shop. As a first grader, I entered a small fossil coral I found nearby in Port Washington, Wisconsin, and won the first-place prize - a trilobite fossil.

As I grew up, I became less interested in fossils, and more interested in fishing, hunting, cars, and staying out too late. Just before starting freshman year of college at University of Wisconsin – La Crosse, my dad, a few buddies and I drove to Canada for a week-long fishing trip. We had been to the area several times before, but this time a booming mineral exploration industry was generating a lot more activity in the area. Around the general store/gas station in Geraldton, Ontario dented, muddy trucks were being filled by guys with reflective vests, helicopters with survey loops were flying just above the trees, and claim-stakers were blazing trees around the lake (and doing a little fishing on the side). I just remember thinking how exciting 'mineral exploration' jobs looked.

I started college at UW-La Crosse as an economics major, but halfway through freshman year I decided I needed a change. A few of my friends were attending UW- Stevens Point and had great things to say about the Natural Resources department so I decided to transfer. I had to declare a major on my first day on campus. Thinking back to that fishing trip in Canada, I made my pick - Geology. I finished my BS in Geology with a focus on hydrogeology and water chemistry and a minor in Economics and applied to grad schools looking for a research topic related to water chemistry and mining.

In 2013 I moved to Duluth, Minnesota and started my M.S at University of Minnesota – Duluth (UMD). My advisor Dr. Tamara Diedrich secured full funding from Teck American for my thesis on secondary minerals (weathering products) on Duluth Complex rocks and how they relate to metal mobility. At that time, advanced exploration of the Duluth Complex for Cu-Ni-PGE deposits had been ongoing for about 10 years, and Teck American was collecting data to support possible up-coming permitting work. A couple of highlights include running samples at the Stanford University synchrotron lab and presenting research at a conference on acid rock drainage (ICARD) in Chile. Also, while at UMD, I became involved in the SEG student chapter and worked as an intern at Barr Engineering. I was fortunate to attend UMD during a time when economic geology/industry collaboration was a focus within the geology department (credit to my co-advisor Dr. Jim Miller).

I graduated from UMD in 2015 in an industry downturn which made job hunting a challenge. To make ends meet, I took a job as a substitute teacher in the Duluth Public Schools and worked as a water/ wastewater plant operator. I remained involved in the local geological society (Mesabi Range Geological Society) where I connected with Phil Larson, who was consulting for AngloGold Ashanti (AGA) on their newly acquired Minnesota state mineral leases. Phil needed (cont. on pg. 5)

Face of GSN, P. Fix (cont. from pg. 4)

a field assistant, so I applied and started as a contractor in the summer of 2016. Later that year, AGA hired me as a staff geologist on the small US greenfields team led by Andrew Tyrell. Over the next three years we explored the Wawa Subprovince north of the Iron Range in Minnesota. Because the area is almost completely covered by glacial drift, we targeted orogenic gold systems using geophysics and basal till sampling as the primary methods.

While the Minnesota greenfields gold exploration results were uninspiring, the opposite was true for the Silicon Project near Beatty, Nevada. In 2019 the Minnesota project closed, and I started working on the Beatty District projects, flying in from Minnesota for work rotations. Around the same time, I met my now wife, Jenny in Hibbing, Minnesota. In September 2021 we bought a home in Carson City and moved from Minnesota, where we got married last June. We are enjoying life in Nevada and stay so busy. Jenny is working as a pharmacist at Walgreens in Gardnerville, and I am working in Beatty as a Senior Geologist with AGA and serving as GSN Publication Chair. When we get time to get out hiking or fishing, we do not miss the clouds of mosquitos or -40° windchill we left back in Minnesota!

Jenny and I thank all the folks we have met through GSN – everyone is so welcoming! This past year we made many new memories and friends at GSN events and are looking forward to every-thing in 2023. Happy New Year!



Jenny and Paul out fishing



Paul Fix (left), Matt Grotte (right, GSN Elko Chapter member) near a rotasonic drill rig in northern Minnesota

## **GSN WINNEMUCCA CHAPTER NEWS**



#### The GSN Winnemucca Chapter

Our next meeting will be January 11, 2023. SPONSOR: IDS, A GRANITE COMPANY. **SPEAKER AND TITLE: To be announced.** For more information, please contact Chapter Co-Presidents: Nancy Wolverson at: nancyjeanw@aol.com or Pat Donovan at: pdonovan20@icloud.com.



## Meet the REST of your GSN Executive Committee for 2022-2023



#### Melissa Boerst, GSN Membership Co-Chair

My name is Melissa Boerst and I have been a member of GSN since 2012. Kaitlin Sweet and I are membership co-chairs for GSN. Our duties include the faces of GSN for the news letters, helping to get advertising for the GSN directory, and obviously encouraging membership in GSN.

I have a BBA & BS Geology degree from University of WIsconsin-Eau Claire and started my career at ALS Geochemistry in 2012. I moved on to exploration geology in 2015 and have been in the field ever since. I have worked in Nevada, Arizona, Oregon, South Dakota, and most recently Alaska. I also own a longhorn ranch, Silver Summit Ranch.



#### Kaitlin Sweet, GSN Membership Co-Chair

#### GSN member since 2005

GSN Membership Co-Chair 2022 - 2023; duties include the faces of GSN for the newsletters, GSN directory advertising support and distribution, supporting Laura, and encouraging membership/participation in GSN.

Academic Background: BSc Hydrogeology - UNR 2009.

Professional: I've worked in the environmental sector specializing in permitting and compliance since 2007. I started as part of the Enviroscientists Inc. group which evolved into EM Strategies, Inc., and has now merged with Westland Resources, Inc. I've gained most of my experience in the exploration and mining industry, literally cutting my teeth in Nevada, and have worked with many members of the GSN community, primarily on projects in the Great Basin.

### **GSN ELKO CHAPTER NEWS**



The Elko GSN Chapter is excited to kick off 2023 with our first meeting of the year to be held at the Western Folk Life Center on Thursday January 19<sup>th</sup>. Thanks to all 95+ people that participated in our Christmas Party Silent Auction, we were able to raise >\$6,000 for the Elko Chapter Scholarship Fund! Your participation and contribution are invaluable in keeping this scholarship opportunity funded for another year.

Alexander Holmwood of the University of Nevada, Reno will be presenting on his MS research on the Temporal evolution of the Majuba Hill Cu-(Mo)-(Sn) deposit, Pershing County, Nevada. The event is graciously hosted by our sponsor Orla Mining.



## Food and Drinks @ 6 p.m., Talk to begin @ 7 p.m.

## **Presenter:** Alexander Holmwood

## <u>Title:</u> "Temporal Evolution of the Majuba Hill Cu-(Mo)-(Sn) Deposit, Pershing County, Nevada"

#### Abstract:

The Majuba Hill intrusive complex of Pershing County, Nevada, is an atypical example of a polymetallic Cu-(Mo)-(Sn) mineral deposit hosted in hypabyssally-emplaced rhyolites. The objective of this graduate research project is to evaluate the possibility that Majuba Hill is a rhyolite-hosted Sn deposit that has been overprinted by a porphyry Cu-(Mo) system. Completing this project will rely on determining the paragenetic sequence of alteration and mineralization events, performing whole-rock geochemistry, and performing geochronology of representative intrusives and mineralization events. Observations collected by transmitted light microscopy indicate that at least three hydrothermal stages are responsible for the alteration and mineralization assemblages present at Majuba Hill: 1) an early tourmaline-cassiterite-quartz±fluorite stage followed by tourmaline-quartz-fluorite crystallization, 2) a protracted hypogene pyrrhotite, chalcopyrite, pyrite-marcasite, and sphalerite stage, and 3) a supergene digenite, covellite, and hematite stage accompanied by various Cu-bearing and U- bearing secondary minerals. Whole-rock geochemical data collected from rhyolitic host rocks indicate they are strongly fractionated and were hydrothermally altered by alkali leaching and silicification. These data support the hypothesis that Sn is derived from the intrusive rhyolite complex and that hypogene Cu and Mo are sourced from a less evolved intrusion at depth.

#### Please see the sponsor's website for more information:

#### Orla Mining-https://orlamining.com/

Value growth through development of low-risk, low capital intensity heap leach projects with strong exploration upside.

7

#### Camino Rojo, Mexico

Cerro Quema, Panama

South Railroad, Nevada

## NEWS FROM THE FOUNDATION By Cami Prenn, GSN Foundation Chair January 2023 Newsletter

# **HOLY SMOKES FOLKS!**

We had a smoking-hot Christmas party, again raising the most money ever - \$37,000!

The live auction contributed \$23,000 to that total with the auction of 4 gold specimens donated by **Enviro**tech Drilling and Neilsen Exploration who shopped at Miner's Lunchbox for those beautiful pieces. A Creedmor rifle was also donated by Neilsen Exploration and an M24 custom rifle made and donated by **Devin** Huhta. And don't forget the coveted Christmas hat which gets more popular every year!

The raffle and silent auction also featured many interesting, artistic and valuable items that were won. The list of donors appears separately. We had about 220 people attend the dinner – THANK YOU to all of you.

An exceptional donation was a quilt made by D.D. LaPointe specially earmarked for the GSN Christmas party. She started this raffle/auction in the year 2000 and we raised \$1,600 at that first event. How far we have come! All these funds have gone into the Foundation's programs and will continue to do so.

Several folks deserve a heavy dose of gratitude for lending their help in putting on the event:

- Mario Desilets Bob Thomas Debbie Schneider Bob Kastelic Kel Buchanan
- JoAnn Newbury Bob Felder Opal Adams Laura Ruud Scott Wershcky
- Steve Green Marilyn Miller Peter O'Byrne Greg French Eric Ruud

Our bar sponsor deserves so much more thanks than we can give them here. **Envirotech Drilling** provided us with the open bars. Please thank them often when you see these fine folks!

**Paragon Geochemical** deserves our gratitude for, again, being the drop-off point for donations. There was a big pile of donations crowding the office and they were incredibly helpful to folks dropping off items.

Thank you to all GSN members for your support this last year-it's been very fruitful for the Foundation!



GSN President, Kel Buchanan, with our sponsors from Envirotech Drilling, Shawn and Brian Mikelson





Our live auctioneer, Greg French, with bid spotters, Eric Ruud and Scott Werschky.



The GSN Christmas Hat on its new owner for this year! Thanks Dan!



The GSN Foundation wishes to thank all of our fabulous donors who made the Holiday fund-raiser a huge success!



## With Special thanks to our 2022 Live Auction Donors: Envirotech Drilling | Neilsen Exploration | Devin Huhta

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## Mining Activity Update NOVEMBER 2022, Mike Brady

LMBrady@aol.com

#### NEVADA

First Majestic Silver Corp. announced that recent underground drill results at the Jerritt Canyon Project include 171.6-189.3 meters @ 6.95 gpt Au (SSX-D01-0615); 108.8-116.4 meters @ 5.12 gpt Au (SMI-D10-EXP22-1076) and 36.3-44.5 meters @ 7.14 gpt Au (SMI-D10-EXP22-1078). (resource = 5,207,000 tonnes @ 7.17 gpt Au measured+indicated) *Press Release:* November 1

Nevada Gold Mines LLC. announced that it acquired an option to earn a 100% interest in the Maggie Creek Property from Orogen Royalties Inc. for \$5,000,000 cash and \$6,000,000 in exploration expenditures over 5 years. *Press Release:* November 10

SSR Mining Inc. announced that recent drill results at the Marigold Project include 117.3-143.3 meters @ 4.2 gpt Au (MRA7621); 120.4-137.2 meters @ 2.7 gpt Au (MRA7623); 231.6-254.5 meters @ 1.7 gpt Au (MRA7629) and 108.2-129.5 meters @ 1.4 gpt Au (MRA7755). (reserve = 219,398,000 tonnes @ 0.49 gpt Au proven+probable) *Press Release:* November 28

White Pine Precious Metals Inc. announced that it acquired the Taylor Property from Silver Predator Corp. for \$1,750,000 cash and 5% of its outstanding shares. (resource = 3,444,000 tonnes @ 98.6 gpt Ag measured+indicated) *Press Release:* November 23

Timberline Resources Corp. announced that recent drill results at the Eureka Project include 332.8-338.9 meters @ 1.83 gpt Au (BHSE-221C); 178.9-195.7 meters @ 2.64 gpt Au (BHSE-238C) and 194.5-214.0 meters @ 1.09 gpt Au (BHSE-239C). (resource @ Lookout Mountain = 26,254,000 tonnes @ 0.62 gpt Au measured+indicated) *Press Release:* November 9

Angold Resources Ltd. announced that recent drill results at the Iron Butte Project include 153.9-173.7 meters @ 0.45 gpt Au (AAU22-02) and 0-94.5 meters @ 0.81 gpt Au (AAU22-04). (oxide resource = 13,347,000 tonnes @ 0.66 gpt Au inferred) *Press Release:* November 7 Nev Gold Corp. announced that recent drill results at the Limousine Butte Project include 64.5-147.2 meters @ 0.21 gpt Au (LB21-05) and 91.4-166.1 meters @ 0.53 gpt Au (RR22-01). (resource = 9,600,000 tonnes @ 0.78 gpt Au measured+indicated) *Press Release:* November 10

I-80 Gold Corp. announced that recent drill results at the Ruby Hill Project include 189.0-203.6 meters @ 3.1 gpt Au, 683.3 gpt Ag, 37.6% Pb, 0.2% Zn (IRH22-51); 187.5-205.7 meters @ 1.9 gpt Au, 631.3 gpt Ag, 33.0% Pb, 7.4% Zn (IRH22-53); 173.8-194.6 meters @ 0.6 gpt Au, 374.1 gpt Ag, 20.2% Pb, 3.9% Zn (IRH22-54) and 199.4-209.4 meters @ 60.2 gpt Au, 908.7 gpt Ag, 15.7% Pb, 1.1% Zn (IRH22-55). *Press Release:* November 14

I-80 Gold Corp. announced that recent underground drill results at the Granite Creek Project include 86.3-93.3 meters @ 10.7 gpt Au (GU22-43B); 295.9-313.6 meters @ 28.2 gpt Au (IGU22-47); 173.3-180.9 meters @ 16.3 gpt Au (IGU22-50) and 224.0-233.5 meters @ 39.0 gpt Au (IGU22-52). (resource = 562,000 tonnes @ 10.49 gpt Au measured+indicated) *Press Release:* November 1

Getchell Gold Corp. announced that recent drill results at the Fondaway Canyon Project include 59.3-159.0 meters @ 3.0 gpt Au (FCG22-22). (resource = 2,050,000 tonnes @ 6.18 gpt Au indicated) *Press Release*: November 15

Hycroft Mining Holding Corp. announced that recent drill results at the Hycroft Project include 195.1-228.6 meters @ 0.40 gpt Au, 9.9 gpt Ag (H22R-5648); 1.5-82.3 meters @ 0.48 gpt Au, 50.1 gpt Ag (H22R-5649); 93-157 meters @ 0.39 gpt Au, 12.8 gpt Ag (H22R-5652) and 91.4-111.3 meters @ 1.04 gpt Au, 20.9 gpt Ag (H22R-5653). (reserve = 669,680,000 tonnes @ 0.34 gpt Au, 14 gpt Ag proven+probable) *Press Release:* November 2

Phenom Resources Corp. announced that recent drill results at the Carlin Project include 36.58-44.2 meters @ 0.44% V2O5 (RCV22-74); 21.34-45.72 meters @ 0.34% V2O5 (RCV22-92); 0-16.76 meters @ 0.45% V2O5 (RCV22-94) and 16.76-32.0 (cont. pg. 11)

### Mining Activity Update (cont.) NOVEMBER 2022, Mike Brady LMBrady@aol.com

<u>Embrady@doi.com</u>

meters @ 0.49% V2O5 (RCV22-97). (resource = 24,640,000 tonnes @ 0.61% V2O5 indicated) *Press Release:* November 23

Atoka Gold Corp. announced that recent drill results at the Red Rock Property include341-345 meters @ 0.22 gpt Au, 0.30% Pb, 0.27% Zn, 0.02% Cu (RRC-22C) within a broad zone of skarn development. *Press Release:* November 30

Lion Copper and Gold Corp. announced that recent drill results at the Mason Valley Project include 0-113.1 meters @ 0.16% Cu (QM-329); 7.5-21.5 meters @ 0.34% Cu (QM-330); 40.2-154.2 meters @ 0.12% Cu (YM-046) and 14.8-21.9 meters @ 0.49% Cu (MY-01). (resource @ MacArthur = 273,000,000 tonnes @ 0.17% Cu measured+indicated) *Press Release:* November 10

Calibre Mining Corp. announced that recent drill results at the Gold Rock Project include 198.73-203.91 meters @ 4.12 gpt Au (GC22-08); 128.63-139.75 meters @ 4.84 gpt Au (GC22-15); 182.88-226.77 meters @ 3.15 gpt Au (GC22-18) and 68.88-88.09 meters @ 3.00 gpt Au (GCM22-01). (resource = 10,000,000 tonnes @ 0.66 gpt Au indicated) *Press Release:* November 22

American Pacific Mining Corp. announced that recent drill results at the Tuscarora Project include 82.3-181.36 meters @ 0.16 gpt Au (TS22-06); 77.72-80.77 meters @ 1.39 gpt Au (TS22-07); 57.91-60.96 meters @ 1.18 gpt Au (TS22-23) and 120.39-132.58 meters @ 2.10 gpt Au (TS22-32). (resource = 1,186,000 tonnes @ 1.22 gpt Au inferred) *Press Release:* November 22

Viva Gold Corp. announced that recent drill results at the Tonopah Project include 32.49 meters @ 0.20 gpt Au (TG2207); 87-174 meters @ 1.3 gpt Au (TG2209); 18-34 meters @ 0.8 gpt Au (TG2210) and 40-98 meters @ 5.0 gpt Au (TG2211). (resource = 16,204,000 tonnes @ 0.78 gpt Au measured+indicated) *Press Release:* November 28

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## TOM CARPENTER

### CONSULTING GEOPHYSICIST

5445 Goldenrod Drive Reno NV 89511 (0) 775.849.9707 (e) tcarpenter@gbis.com January 3, 2023: Arizona Geological Society normally meets on the 1st Tuesday of each month. Time - 6:30 MST. For more information please click here: <u>https://www.arizonageologicalsoc.org/</u> events

<u>January 5, 2023:</u> NPGS Nevada Petroleum & Geothermal Society normally meets on the 1st Thursday of each month.at the Tamarac Junction, Reno, NV. Please contact <u>Robert@Hot-Inc.net</u> if you'd like to attend or help out by serving on the Board.

<u>January 9, 2023:</u> <u>SME Northern Nevada Chapter</u> normally meets on the 2nd Monday of each month at the Circus Circus Mandalay Room, Reno, NV. **Speaker: TBA.** *Title: TBA. Social 6 pm, Dinner 6:45 pm, Talk 7:30 pm. For more information visit their website:* <u>https://</u> <u>nnevsme.square.site/</u> or contact: <u>NNevSME@gmail.com</u>

January 16, 2023: DREGS Denver Region Exploration Geologists Society normally meets on the 3rd Monday of each month at CSM, Golden, CO. For more information, please visit their website: <u>https://www.dregs.org/events</u>.

January 30-February 2, 2023: NWRA 2023 Annual Conference. To be held at the Nugget Casino Resort in Sparks, Nevada. Register by January 1, 2023, for early rates. Go to <u>https://</u> www.nvwra.org/2023-ac-program for conference information and registration. For questions or more information call Tina Triplett at 775-473-5473 or e-mail NWRA at <u>nevadawaterre-</u> sources@gmail.com.

January 30-31, 2023: NWRA 2023 "Lithium Brine" Mine Water Management Symposium. To be held at the Nugget Casino Resort in Sparks, Nevada. Register by January 1, 2023, for early rates. Go to <u>https://www.nvwra.org/2023-mine-water-symposium</u> for symposium information and registration. For questions or more information call Tina Triplett at 775-473-5473 or e-mail NWRA at <u>nevadawaterresources@gmail.com</u>.

January 30, 2023: NWRA 2023 Water Rights in Nevada Class. 8:00 a.m. to 4:00 p.m. at the Nugget Casino Resort in Sparks, Nevada. Register by January 1, 2023, for early rates. Go to <u>https://www.nvwra.org/2023-jan-water-rights-class</u> for class information and registration. For questions or more information call Tina Triplett at 775-473-5473 or e-mail NWRA at <u>nevadawater-resources@gmail.com</u>.

January 31, 2023: NWRA 2023 Obtaining Useful Answers from Groundwater Models Workshop. 8:00 a.m. to 12:00 p.m. at the Nugget Casino Resort in Sparks, Nevada. Register by January 1, 2023, for early rates. Go to <u>https://www.nvwra.org/groundwater-workshop-jan-2023</u> for workshop information and registration. For questions or more information call Tina Triplett at 775-473-5473 or e-mail NWRA at <u>nevadawaterresources@gmail.com</u>.

January 31, 2023: NWRA 2023 Advanced Water Rights in Nevada Class. 8:00 a.m. to 2:30 p.m. at the Nugget Casino Resort in Sparks, Nevada. Register by January 1, 2023, for early rates. Go to <u>https://www.nvwra.org/2023-jan-advanced-water-rights-class</u> for class information and registration. For questions or more information call Tina Triplett at 775-473-5473 or e-mail NWRA at <u>nevadawaterresources@gmail.com</u>.

January 31, 2023: 2023 WaterReuse Summit. 8:00 a.m. to 1:00 p.m. at the Nugget Casino Resort in Sparks, Nevada. Go to <u>https://www.eventbrite.com/e/watereuse-nevada-3rd-annual-</u> <u>symposium-tickets-465814613047</u> for summit information and registration. For questions or more information contact Sabrina at <u>sabrina.dodos@cityofhenderson.com</u> or call 562-810-6560.

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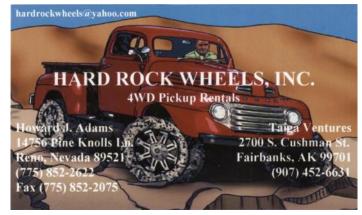
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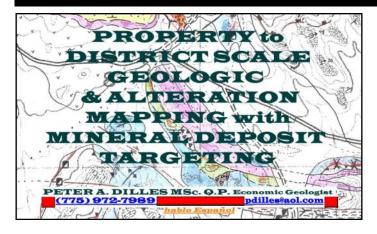
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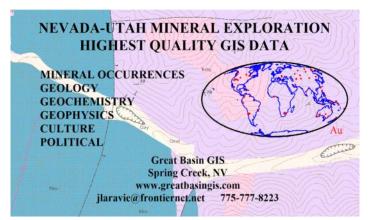


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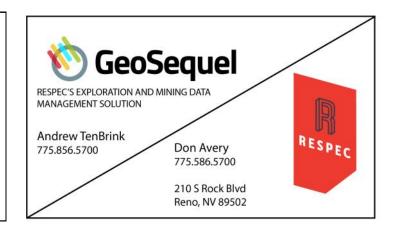


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