



# GEOLOGICAL SOCIETY OF NEVADA NEWSLETTER

Geological Society of Nevada, 2175 Raggio Parkway, Room 107, Reno, NV 89512  
(775) 323-3500 - Hours Tuesday -- Friday, 8 a.m. to 3 p.m. Monday by appointment.

Website: [www.gsnv.org](http://www.gsnv.org) • E-mail: [gsn@gsnv.org](mailto:gsn@gsnv.org)



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## CALENDAR OF GSN EVENTS

- Oct. 11, 2017 WEDNESDAY** **WINNEMUCCA CHAPTER MEETING (2nd Wednesday of the month)**  
The Winnemucca meeting will be held at the Martin Hotel, 94 W. Railroad St., Winnemucca. Refreshments/appetizers at 6 p.m. Talk at 7 p.m. **Speaker: Wilson Bonner. Title: "Goldbanks Project: 2017 Exploration Update". Food & Drinks sponsored by JUST REFINERS.** For more information, please contact Matt Fithian at: [Matthew.Fithian@ssrmining.com](mailto:Matthew.Fithian@ssrmining.com). Abstract on page 6.
- Oct. 18, 2017 WEDNESDAY** **SO. NEVADA CHAPTER MEETING**  
There will NOT be a regular monthly meeting in Las Vegas this week. The Chapter members will meet as a group at the **Lovelady Brewery, Henderson, NV from 5:00—8:00 p.m. First 20 members to arrive will receive a drink ticket.** Please contact Paul Dockweiler for more information. Paul's email is: [pdockweiler@geosyntec.com](mailto:pdockweiler@geosyntec.com). More information on page 3.
- Oct. 19, 2017 THURSDAY** **ELKO CHAPTER MEETING (3rd Thursday of the month)**  
The Elko meeting will be held at the Western Folklife Center, 501 Railroad St., Elko. Refreshments/appetizers begin at 6 p.m. Talk begins at 7 p.m. **Speaker and Topic to be announced via email. Food & Drinks Sponsored by TBA.** For more info. please contact Mark Travis, [mark.william.travis@gmail.com](mailto:mark.william.travis@gmail.com). More information on page 7.
- Oct. 20, 2017 FRIDAY** **GSN MEMBERSHIP MEETING (3rd Friday of the month)**  
The GSN meeting will be held at the Reno Elks Lodge, 597 Kumle Lane, Reno, Nevada. Social hour begins at 6 pm, Dinner at 7 pm and talk at 7:45 pm. **Speaker and Topic to be announced. Drinks Sponsored by RUEN DRILLING.** Please make dinner reservations with Laura Ruud at: [gsn@gsnv.org](mailto:gsn@gsnv.org) or call 775-323-3500. More information on page 3.
- Nov. 3-5, 2017** **GSN SOUTHERN NEVADA CHAPTER FIELD TRIP**  
The GSN So. Nevada Chapter will lead a field trip to Silver Peak and the Sump. Registration forms will be sent out via email at a later date.  
**SO. NEVADA CHAPTER FIELD TRIP!!**  
**MARK YOUR CALENDARS NOW THOUGH!**

## G.S.N. OCTOBER SPONSOR!



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# GSN MEMBERSHIP NEWS

Hello GSN Members,

This is a friendly reminder that your membership dues are now owed. Per the GSN constitution our membership year runs September to September with dues payable by the September GSN Meeting, we have been lax in this policy and allowed members to be current as long as dues were paid by December. GSN will begin enforcing this policy. **This year you will have until the October Reno GSN meeting, October 20<sup>th</sup>, to pay your dues. After October 20<sup>th</sup> you will no longer be a current GSN member and won't receive emails or newsletters from GSN.** Please renew your dues online at <http://gsnv.org/membership/join-gsn.php>. You can also print the form out from this link and mail it in if you prefer.

The Membership Directory will continue to come out at the beginning of each calendar year. If you are a member you will be included.

Remember dues are only \$50.00/year or you can become a lifetime member for only \$1,250.00. Student dues are only \$10.00 thanks to Geotemps, Inc.'s generous sponsorship of students.

Please reach out with questions, we know this is an abrupt change and appreciate your cooperation!

Cheers,  
Molly Hunsaker  
GSN Membership Chair

(SEE PAGE 10 FOR MEMBER RENEWAL FORM.)

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## The GSN Welcomes a New Honorary Member!

Welcome, Jonathan Price as the newest Honorary GSN Member!

At the September GSN Meeting Jon Price became GSN's newest Honorary Member. Jon Price has given selflessly to GSN and this honor is well earned. Alan Coyner nominated Jon Price and gave a wonderful summary of his career and accomplishments. Please enjoy a glimpse into Jon's career and congratulate him on this accolade next time you see him.



*Jon Price (l) receives his Honorary Member award from Alan Coyner.*

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May 14, 2017

TO: GSN Board of Directors  
FROM: Alan R. Coyner  
SUBJECT: Nomination of Jonathan Price to GSN Honorary Lifetime Member

*It is with great respect that I nominate Jonathan Price to be named a Geological Society of Nevada Honorary Lifetime Member. The foremost consideration for this honor is to recognize contributions to the advancement and/or promotion of the geological sciences in Nevada. Jon has surely done that on many levels. A secondary consideration is significant contributions to the Society. Jon has certainly fulfilled that requirement having served on many of the GSN Symposium Committees and as the Society's Vice President in 2013-2014 and President in 2014-2015.*

*Jon is truly a triple-threat man. He has made significant contributions to the science of economic geology in the minerals industry, in academia, and in government. (Continued on page 11)*

# **GSN MEMBERSHIP MEETING - OCTOBER 20, 2017**

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**For dinner reservations please e-mail [gsn@gsnv.org](mailto:gsn@gsnv.org) or call 775-323-3500  
by 5:00 p.m. on Wednesday, October 18, 2017**

**Social Hour begins @ 6:00 p.m.; Dinner @ 7:00 p.m.**

**Speaker to follow at about 7:45 p.m.**

**SPEAKER & TOPIC TO BE ANNOUNCED BY EMAIL**

**Location: Reno Elks Lodge, 597 Kumle Lane**

**(across from the Convention Center)**

**Dinner Cost is \$25.00 per person**

**(You will be invoiced if you do not cancel your reservation)**

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## **GSN SOUTHERN NEVADA CHAPTER MEETING**

**WEDNESDAY, OCTOBER 18, 2017**

**Members will meet as a group at:  
Lovelady Brewery  
Henderson, Nevada**

**Time: 5:00—8:00 p.m.**

**They will also be doing Silver Peak & the Sump field trip sign-ups!**

**First 20 members that arrive will receive a drink ticket.**

*The G.S.N. wishes to thank  
Boart Longyear for sponsoring  
the September meeting in Reno!*



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# “FACES OF GSN”

## ROBERT SELWOOD

### The Life and Times of a Reluctant Geologist

Robert Selwood

My nascent career in geology started with a lost bet. “I’ll only go to that bloody school if they blow something up”, I declared to my mother as I walked out of my childhood home on the way to a Camborne School of Mines open day. I had been somewhat cajoled and bullied into even considering geology as a viable future and needless to say I was generally of the opinion that only very dull people cared that much about rocks. Besides, Exeter was far too close to home. To this, my mother replied, “if that’s a bet, I’ll take it”. It took less than an afternoon in Camborne’s test mine to be held to my word. Once I emerged, covered in dust and thoroughly entertained, I found myself a reluctant participant of geology 101, sat so far back I was nearly out the door.

It should be noted at this point that in the UK you declare your major before school begins. I’m not sure who came up with that great idea, but for better or worse I was here, I was ostensibly stuck, and bright reflections from shiny rocks was my future. As my undergraduate progressed and I received a very fine and expensive education in drinking, I began to warm to the idea of a life as a geologist. At the end of my Junior year, I trundled off to Ecuador as summer hire to assist a junior exploration company in my limited but enthusiastic way, in their search for gold. In this I saw a glimpse of my future. If someone was willing to pay me to travel to far flung and remote corners of the globe I was in. Besides, the geology wasn’t too bad either. After all who doesn’t love a giant treasure hunt!

In 2010, I graduated and moved back to Ecuador. The Rio Zarza project was in the south east, about 10 miles from the border with Peru. Life was exciting, our exploration ground covered the western half of a basin that already contained a small epithermal deposit called Fruta del Norte. If 13 Moz isn’t enough to whet your

appetite, then you’re in the wrong game. There in the Ecuadorian jungle I lived out every childhood fantasy, marching through thick jungle, swinging machetes, wielding great big chainsaws, bashing rocks, and traversing rivers panning for gold. Some are born geologists, some stumble into geology, I was most assuredly pushed, and still I couldn’t have been happier. After a year it began to dawn on me that I hadn’t been paid in quite a few months, half a year to be exact. It seems not all juniors are as well off as they’d have you and the market believe. An offer from an old school friend to join him in Zambia working at First Quantum Minerals Kansanshi copper mine was my ticket out of there.



*Rob (right) and Co at the Rio Zarza Project, Ecuador, 2011.*

My first rotation in Zambia was in stark contrast to my idyllic jungle existence. Working as a resource geologist at a large mine was hot, dusty, repetitive work. Zambian culture was a far cry from anything I had experienced before, and to my extreme annoyance I was continually being pulled over by Zambian traffic police for a slew of impressively inventive reasons. (Continued on page 5)

(Selwood, Cont. from page 4)

During one occasion, I found myself on the side of the road at the pleasure of some glad eyed cop, the charge: overtaking on a hump back bridge. Given the lack of bridge it did seem to be quite a long stretch even for the imaginative minds of the boys in blue, or in this case khaki. Some advice free of charge to those that have read this far, as any good Brit knows a cup of tea is the best weapon in the fight against rampant police corruption. So, I leaned back, poured myself a cup of tea and enjoyed what had become an almost philosophical conversation about whether a speed bump constitutes a hump back bridge. As the phrase goes: 'the white man's got the watch, but Africans have got the time', and most police will not hesitate to perpetuate this adage to their significant advantage when extracting money from your wallet. Once I began to appreciate the infuriating madness, amusing myself with the mantra "it could only happen here", I was hooked on Africa. With a new appreciation I continued to work at Kansanshi, moving on to establish a pit mapping program there and at the newly built Sentinel mine a few hundred miles down the road. After two years, still at First Quantum, I moved back into exploration as a project geologist working on generative copper projects in Zambia and Namibia. I had the distinct privilege of working with some great geologists on large regional data sets that introduced me to the world of generative exploration and set in motion a love affair with this dark, hand wavy corner of geology.



*Field work in Kunene region, Namibia September 2014*

In Namibia, I met my wife to be, the delightful, effervescent Patricia Capistrant, possibly the fairest geologist to grace this ball of rock. It's hard to say exactly how I ended up in this position. I had originally sworn never to date a geologist for fear of interminably tedious conversation, and I was certainly never going to date an American of all people, for reasons it's probably best not to go into here. Let's just say I was ill informed in my opinions and am now much enlightened. Another lesson not asked for but non-the less taken. Now I live in Reno.



*Patricia and I fishing the lower Zambezi, Zambia, 2015*

I'm currently undertaking an MSc at UNR under Dr. John Muntean, assessing the potential for Carlin-type gold systems in Northern Nye county using regional stream sediment geochemistry. This time I have willingly walked into my degree, being able to indulge my interests in regional data sets is more than I could have hoped for. If I had known how much true exploration, creativity, and excitement was involved in this industry I may never have fought it to start with, but where is the fun in that?

Cheers,

Rob

# **GSN WINNEMUCCA CHAPTER MEETING**

**WEDNESDAY, OCTOBER 11, 2017**

**Location: The Martin Hotel, 94 W. Railroad St., Winnemucca, Nevada**

**Time: 6:00 p.m.—Appetizers/drinks; 7:00 p.m.—Talk begins**

**Speaker: Wilson Bonner, Premier Gold Mines Ltd.**

**Title: “Goldbanks Project: 2017 Exploration Update”**

**Food and Drinks Sponsored by:**



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## **Abstract**

### **Goldbanks Project: 2017 Exploration Update Wilson Bonner, Project Geologist Premier Gold Mines Ltd.**

**LOCATION:** The Goldbanks property is located in Pershing County, Nevada, approximately 50 kilometers south of the town of Winnemucca. The project is a 50-50 JV between Premier Gold Mines Ltd. (Premier) and Kinross Gold with Premier being the operator. Mean elevation is 1,600m (5,250ft.) above sea level.

**STORY:** The Goldbanks project is situated along the prolific Northern Nevada Rift (NNR) structural trend, host to numerous low sulfidation epithermal deposits including the Midas (~5.0 Moz Au) and Sleeper (~2.5 Moz Au) gold mines. The property has seen near continuous exploration from multiple operators since discovery of the shallow oxide Main Zone deposit in the 1980's and is currently one of the largest known epithermal systems in Nevada without a defined high grade feeder vein. The property is host to numerous gold prospects, several past producing mercury and antimony occurrences and two potentially open-pittable resource areas; the Main Zone and satellite KW zone (Ellis & Stroup 2015). The Golden Devil was a conceptual target developed by Kinross exploration in 2012 and subsequently drilled in 2013 to test the western margin of the basin model. All three intersected a brecciated mafic dike complex of unknown age containing multiple intercepts of >10.0 g/t Au with a highlight vein intercept of 192.00 g/t Au and 10,850.00 g/t Ag across a drilled length of 1.1 m. Premier entered into a 50-50 JV earn-in agreement with Kinross in August 2016 with the goal of defining a high grade vein system at the Golden Devil. Two holes were drilled in 2016 but were unsuccessful in repeating previous Kinross intercepts. As a result, the first half of the 2017 exploration program was focused on detailed X-sections, re-logging, geochemical analysis and field work to re-interpret the geologic model and answer multiple questions raised during the 2016 program, including:

Does the Golden Devil target have the potential to be a continuous vein system?

How is the complex structure of the Goldbanks basin controlling the strike and dip of the high grade?

Are the Main Zone, KW Zone and Golden Devil the same age?

Can we use existing SWIR and geochemical data to model zonation patterns and vector toward high grade?

The second half of the program consisted of a two phase 30,000' drilling campaign to test the re-interpreted geologic model, which saw significant changes, including a shift from steeply east to steeply west dipping normal faults as the primary basin forming structures. Premier technical staff completed phase I drilling in Q3 which successfully confirmed the new structural model as well as returned multiple high grade intercepts ranging from 6.0 -10.0+ g/t Au and up to 3000.0 + g/t Ag across multiple targets. Phase II drilling will be complete in Q4 and will use the refined structural model to test the Golden Devil fault target directly up-dip of the discovery intercept as well as along strike in hopes of defining a high grade feeder vein within this highly prospective epithermal system.

# **GSN ELKO CHAPTER MONTHLY MEETING**

**THURSDAY, OCTOBER 19, 2017**

**Location: Western Folklife Center  
501 Railroad Street, Elko, Nevada**

**Time: 6:00 p.m.—Appetizers/drinks; 7:00 p.m.—Talk begins**

**Speaker and Topic: to be Announced via Email**

**Food and Drinks Sponsored by: To Be Announced**

## **OTHER UPCOMING EVENTS**

**3 October: Arizona Geological Society.** Speaker: Lily Jackson presents Andean River Sediments as a Window into the Tectonic History of Ecuador. Sheraton, 5151 E Grant Rd. (& Rosemont), Tucson AZ 85712. More information and online registration: [Lily Jackson presents Andean River Sediments as a Window into the Tectonic History of Ecuador](#)

**5 October: Nevada Petroleum and Geothermal Society Monthly Dinner Meeting. NEW LOCATION: Tamarack Junction, 13101 S. Virginia St., Reno, NV. Cocktail Reception 6:30 PM; Dinner Served at 7:00 PM. SPEAKER:** Chris Ellis, VP & General Manager, Coso Operating Co., LLC. **TOPIC:** Coso Geothermal Power Plant.. **RSVP By Tuesday, Oct 3 at this Link:** <https://goo.gl/forms/1QfxhFwXshDAOCXm1>

**9 October: Northern Nevada Section of the SME Meeting. We will feature updates on local and national SME activities and opportunities, and will present the 2017 scholarship awards..** For more information email: [NNevSME@gmail.com](mailto:NNevSME@gmail.com)

**10 October: the NMEC (Nevada Mineral Exploration Coaliton) 2017 Nevada Mineral Exploration Summit,** Atlantis Resort & Casino, Reno, NV. Contact Dave Shaddrick, [Dave@dshaddrick.com](mailto:Dave@dshaddrick.com) or JoAnn Newbury [jnwebury.consulting@yahoo.com](mailto:jnwebury.consulting@yahoo.com) for more information. Register online at <https://www.nvmec.org/2017summit>

**11-12 October: SME Conference in Florida:** The Florida Section of the Society for Mining, Metallurgy & Exploration Inc. (FLSME) is pleased to be hosting the 32nd Annual Regional Mining Conference at the RP Funding Center (formerly the Lakeland Center) in Lakeland, Florida. The 2017 conference theme is "Mining – It's For Everyone". An exclusive tour of Streamsong Resort, a one-of-a-kind reclamation project by Mosaic, will be available on October 10. For more information, visit [www.smefloridconference.com/](http://www.smefloridconference.com/).

**21 October: the NBMG Earth Science Week Field Trip, Reno, NV—[Sign-up Now Available!](#)** "A land in transition! Ancient river courses, young volcanoes, recent earthquakes, and modern debris flows in the Carson Valley". We hope you can join us on Saturday, October 21 as geoscientists from Nevada Bureau of Mines and Geology explain the geology of the Carson Valley—in celebration of Earth Science Week 2017 and the importance of earth sciences to the people of the state of Nevada.

**22-25 October: GSA Annual Meeting. Location: Seattle, WA, USA.** Please go to their website for more information: [community.geosociety.org/gsa2017/home](http://community.geosociety.org/gsa2017/home)

# GSN FOUNDATION

## NEWS FROM THE GSN FOUNDATION

Cami Prenn, Chair

As the notice for membership dues goes out I'd like to ask that everyone consider adding a donation for the Foundation to your dues. We rely on the generous contributions of our members to carry out the Foundation's programs! Our Endowment Account does not generate enough earnings to contribute much to our annual budget, which is normally around \$40,000. We're very conservative with our Endowment Account investments in order to protect the principal, even though that means we have to continually ask our donors for more.

The bulk of our funds go to filling the pipeline of future geologists, whether that's from the K-12 Field Trips, the Bishop Manogue Miner's Academy, scholarships at UNR and UNLV, funding graduate student research projects with the Elko Chapter, helping John Muntean teach students mapping in the field, or scholarships for UNR Geology Field Camp. The other program that benefits GSN members is helping to publish geologic maps with the Nevada Bureau of Mines and Geology. Please be generous with your donations – it's appreciated by so many!

I'd also like to recruit volunteers for the Christmas Party/Raffle/Auction to be held Dec. 13 at the Nugget. It takes many hands to put this on and we could use some assistance here. We need people to pick up donated items, transport them to the party location, set up and monitor the raffle/auction, and everyone's favorite – clean up! Most importantly, we need people to donate wonderful prizes they'd be happy to take home themselves! If you'd like to volunteer, please shoot me an email ([camip@mda.com](mailto:camip@mda.com)) and we'll get the party started!

## GSN FALL FIELD TRIP OCTOBER 13-15, 2017!

**Sorry the trip to Alligator Ridge  
and Emigrant Pass/Mine is full.**

**THANK YOU TO OUR SPONSORS! BOART LONGYEAR, PERSHING  
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*Thank you to our generous  
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SEPTEMBER Meeting*

*Thank you to our generous  
Sponsors for the Winnemucca  
Chapter SEPTEMBER Meeting*



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# GEOLOGICAL SOCIETY OF NEVADA

# 2018

2175 Raggio Parkway, Room 107, Reno, NV 89512 USA

Phone (775) 323-3500 • Fax (775) 323-3599 • gsn@gsnv.org • www.gsnv.org

Offices are located at NBMG's Great Basin Science Sample & Records Library at The Desert Research Institute  
Walk-in Office hours: Tuesday through Friday, 8:00 AM - 3:00 PM. Mondays - Call or email for appointment.

The Geological Society of Nevada (GSN) is a non-profit, educational organization whose principal objective is to promote the advancement of geological sciences, especially as they relate to Nevada. GSN supports the dissemination of information through meetings, field trips, publications and academic endeavors. Membership is open to geologists, geophysicists, geochemists, engineers, educators, students, prospectors or anyone else with an interest in the geological sciences and/or the goals of the GSN. The organization is based in Reno with additional Chapters in Elko, Las Vegas and Winnemucca.

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

Please help support the GSN Foundation, the Student Dinner Fund, or Student Field Trip Fund when renewing. Foundation dollars are used for the Kindergarten through 12th grade Field Trip Earth Science Grant Program, Nevada Mapping Grants, Field Camp Grants, and scholarships at the University of Nevada, Reno, Great Basin College and University of Nevada, Las Vegas.

### MEMBERSHIP APPLICATION

Renewal  New

Date: \_\_\_\_\_

Name: \_\_\_\_\_ Position/Title: \_\_\_\_\_

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

Consultant  Consulting Geologist Company Name: \_\_\_\_\_

Current Full-Time Earth Science Student University: \_\_\_\_\_ Alma Mater: \_\_\_\_\_

Address: \_\_\_\_\_ City: \_\_\_\_\_ State/Province: \_\_\_\_\_ Zip Code: \_\_\_\_\_

E-Mail: \_\_\_\_\_ Country: \_\_\_\_\_

**Email address is required for Emailed Newsletter**

Office/Work #: \_\_\_\_\_ Website: \_\_\_\_\_

Fax #: \_\_\_\_\_

Cell Phone #: \_\_\_\_\_ Home Phone # (optional): \_\_\_\_\_

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

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

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

Yes  No

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

Elko Chapter  Southern Nevada Chapter  Winnemucca Chapter

\$50.00 - Regular Membership Dues 2018 - Email newsletter (International or Domestic) .....

\$70.00 - Regular Membership Dues 2018 - Hardcopy newsletter via postal service (Domestic Only) .....

\$10.00 - Nevada Student Membership Dues 2018  \$25.00 - Non-NV Student Membership Dues 2018 .....

(NV student's dues are subsidized \$15/ea. by Geotemps, Inc.)

LIFETIME MEMBERSHIP - 25 X the Current Dues Rate (25 x \$50 in 2018 = \$1,250.00) .....

**DONATIONS:**.....  I wish to donate to the GSN Student Dinner Fund ....

(Foundation Donated Funds will be used for unrestricted grants and scholarships unless otherwise specified below:)

I wish to donate to the GSN Student Field Trip Fund ..

I wish to donate to the GSN Foundation .....

**TOTAL: \$** \_\_\_\_\_

Payment Type: Check # \_\_\_\_\_  Cash  Visa  Master Card  Discover  American Express

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Name (as it appears on card): \_\_\_\_\_ Billing Street # (or P.O. #) and Zip Code: \_\_\_\_\_

Return with payment to: Geological Society of Nevada,  
2175 Raggio Parkway, Reno, NV 89512  
Fax to 775-323-3599, E-mail: gsn@gsnv.org  
Website: www.gsnv.org

*(Honorary Member, cont. from page 2)*

*Jon earned his B.A. in Geology and German from Lehigh University in 1972 and his M.A. and Ph.D. in Geology from the University of California, Berkeley (1975 and 1977 respectively). He has been a research geologist at the Texas Bureau of Economic Geology and an exploration and mining geologist with United States Steel Corporation and the Anaconda Company. He has taught geology courses at Becknell University, the University of Texas at Austin, and the University of Nevada, Reno. He is the Nevada State Geologist Emeritus having retired from the position of Director of the Nevada Bureau of Mines and Geology and Nevada State Geologist. He held that position for nearly 25 years (1988 to 2012).*

*His contributions to the geologic literature of Nevada are voluminous. It begins with his PhD dissertation titled "Geological history of alteration and mineralization at the Yerington porphyry copper deposit, Nevada." I have attached his CV from 2012 which lists well over 100 scientific papers, articles and reports about the geology of Nevada which he either authored or co-authored. Many of his contributions to Nevada geology have been published as papers in the GSN Symposium Volumes.*

*Jon is a member of twenty professional societies. He has served in several leadership roles including President of the Society of Economic Geologists (2003), the Association of American State Geologists (2000-2001), the American Institute of Professional Geologists (1997), the Western States Seismic Policy Council (1998-2002), the Nevada Petroleum Society (2006-2007), the Geological Society of Nevada (2014-2015) and the Geological Society of America (2015-2016). He has been a Councilor for the Geological Society of America and Secretary-Treasurer of the Foundation of the Society for Mining, Metallurgy, and Exploration. He has served as Treasurer of the Geological Society of America, Secretary of the Nevada Earthquake Safety Council, and Chair of the Nevada Hazard Mitigation Planning Committee. Price has been a member of the USGS's Scientific Earthquake Studies Advisory Committee and NSF's EarthScope Science and Education Committee. He is very well known in Nevada for tireless service on behalf of the Geological Society of Nevada, the Mining and Metallurgical Society of America, the Nevada Petroleum Society, and the Society for Mining, Metallurgy, and Exploration. He is not just a joiner, but an active participant in all these societies, and regularly attends monthly dinner meetings and field trips usually accompanied by his wife Beth. His capacity for work and participation seemingly knows no bounds.*

*I have had the pleasure of knowing Jon since 1988, and I worked directly with him on shared projects of the Nevada Bureau of Mines and Geology and the Nevada Division of Minerals. I want to expressly acknowledge his important contributions to the Nevada Mining Association Earth Science Teachers Workshops and to the annual Earth Science Week field trips. Both of these events are enriched by Jon's passion to share his knowledge with those outside the geosciences community.*

*Having become a personal friend of Jon, I also wish to mention that he rises early at about 3 am, to enjoy an activity he shares with his wife Beth, of race-walking. Even in this endeavor, Jon is known for his service, having volunteered to officiate at race-walking events and track and field events all over the west coast. He and Beth have two very accomplished children, Alex and Argenta, and although neither is a geoscientist, both are pursuing science-based careers.*

*Lastly, Jon is a gregarious individual and a plain nice guy. I have shared many hours with him in the UNR rock preparation room creating the legendary Nevada-shaped lapel pins made from rock samples from around the state. These simple pins have become a prized possession of many of his friends and associates and can be seen proudly displayed on lapels from Reno to Carson City to Washington, DC. For me, these pins have come to represent a simple token of thanks from a simply wonderful man.*

*In my humble opinion it is not a matter of whether GSN will award Honorary Lifetime Member status to Jon Price, it is simply a matter of when.*

*Sincerely,*

*Alan R. Coyner  
Member  
Geological Society of Nevada*



## Newly Unearthed Fossils Are Oldest Signs of Life on Earth, Say Scientists

By Peter Hess, September 29, 2017

**INVERSE**

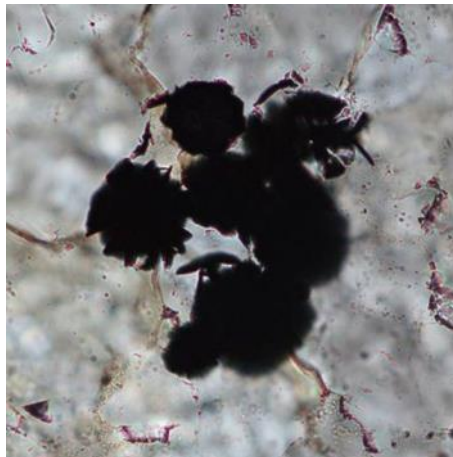
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A newly unearthed set of fossils may have just moved back the milepost for when the first forms of life appeared on Earth. A team of scientists from the University of Tokyo studying rock formations in Labrador, the northern region of the Canadian province of Newfoundland, found evidence that life may have formed as long as 3.95 billion years ago — a mere 590 million years after the Earth formed.

If they're correct, this finding will move the date for the first life on Earth back *150 million years*. Previously, scientists believed the earliest life on Earth emerged 3.8 billion years ago.

This research is outlined in a paper published Wednesday in *Nature*. In the paper, co-lead authors Yuji Sano, professor of marine analytical chemistry, and Tsuyoshi Komiya, associate professor of geology, explain that their microscopic analysis of the makeup of Labrador's ancient rocks revealed evidence of early life.

They argue that the deposits of graphite — which is made of carbon — in the rock samples from the Saglek Block formation came from some of the earliest organisms on Earth. The rocks contain a particular mixture of carbon and carbonate isotopes that suggest they were left behind by autotrophic marine microorganisms.



Graphite molecules found in the Saglek Block formation in Labrador, Canada, could provide evidence that life on Earth began 3.95 billion years ago.

Most graphite is made inorganically as carbon in the Earth's crust is heated and pressurized to form the distinctively dark silver mineral. But in rare cases, graphite can form through biological means, as microorganisms pile up, die, and are crushed by heat and pressure into rock over time.

Living organisms tend to carry plenty of a specific carbon isotope known as carbon-12, which lingers long after they die. So, when scientists come across graphite that contains a lot of carbon-12, there's a pretty good chance that it came from living organisms. That was the case here, and the scientists think the organisms that left all that carbon-12 behind might have been autotrophs — which, like modern algae, produce nutrients from inorganic molecules — but it's still too early to know for sure.

Their next steps? Further analysis of the rocks will hopefully reveal not only what the heck the first forms of life actually were but, more importantly, how they lived — and where they came from.

# Activity Update

Mike Brady, August 2017  
[www.activityupdate.com](http://www.activityupdate.com)

## NEVADA

Global Geoscience Ltd. announced that recent drill results at the Rhyolite Ridge Project include 77.7-102.0 meters @ 0.25% Li, 0.15% B (SBH-16); 62.5-88.4 meters @ 0.25% Li, 0.02% B (SBH-17); 68.6-108.2 meters @ 0.20% Li, 0.53% B (SBH-19) and 146.3-184.4 meters @ 0.17% Li, 0.92% B (SBH-20). *Press Release:* August 16

Cornerstone Metals Inc. announced that it acquired an option to earn a 100% interest in the Carlin Vanadium Property from Americas Gold Exploration Inc. for \$2,075,000 cash and \$400,000 in exploration expenditures over 2.5 years. *Press Release:* August 11

Fremont Gold Ltd. announced that it acquired an option to earn a 100% interest in the Jarbidge Property from private interests for \$635,000 cash and 19,000 meters of drilling over 4 years. *Press Release:* August 10

Pacific Ridge Exploration Ltd. announced that it terminated its interest in the Poker Brown Property. *Press Release:* August 10

Hudbay Minerals Inc. announced that it acquired 10,755,000 shares of Mason Resources Corp. (to hold 13.9%) for \$2,235,200. (resource @ Ann Mason = 1,400,000,000 tonnes @ 0.32% Cu, 0.03 gpt Au measured+indicated) *Press Release:* August 23

Logan Resources Ltd. announced that recent drill results at the Antelope Project include 15.24-33.53 meters @ 0.29 gpt Au (AN1701); 30.48-32.0 meters @ 0.12 gpt Au (AN1702); 0-10.67 meters @ 1.59 gpt Au (AN1703) and 10.67-15.24 meters @ 0.34 gpt Au (AN1704). *Press Release:* August 24

Advantage Lithium Corp. announced that it terminated its interest in the Neptune, Jackson Wash, Aquarius and Gemini lithium properties of Nevada Sunrise Gold Corp. *Press Release:* August 23

Canamex Resource Corp. announced that recent drill results at the Bruner Project include 7.62-13.7 meters @ 0.30 gpt Au (B-1701); 205.7-227.1 meters @ 1.37 gpt Au (B-1702); 97.5-141.7 meters @ 0.61 gpt Au (B-1703) and 4.6-16.8 meters @ 0.68 gpt Au (B-1705). (resource = 10,300,000 tonnes @ 0.72 gpt Au indicated) *Press Release:* August 22

S2 Resources Ltd. announced that it acquired an option to earn a 70% interest in the South Roberts, Pluto and Ecu properties from Renaissance Gold Inc. for \$75,000 cash and \$600,000 in exploration expenditures over 2 years. *Press Release:* July 31

## ROCK TALK

### Christie's to Auction Largest D Flawless Ever October 2, 2017 by [Rob Bates](#)

Reprinted from JCK Online. <http://www.jckonline.com/editorial-article/christies-to-auction-largest-d-flawless-ever/>

On Nov. 14, Christie's will auction a 163.41 ct. D Flawless, which it calls the largest D Flawless to ever come to auction.

The sale, which will take place at the company's auction house in Geneva, Switzerland, is part of Christie's recently announced partnership with 25-year-old Swiss design house de Grisogono.

No estimate was given.

According to the Christie's release, the diamond was cut from a 404 ct. rough, discovered in early February 2016 in the Lulo mine in the Lunda Sul Province in Angola. That 404 ct. stone is the 27th largest piece of white rough ever found, and the largest ever found in Angola.




It took 10 diamond specialists 11 months to cut the stone, which was then set in a necklace with 18 emerald-cut diamonds and two rows of pear-shape emeralds. According to a release, this was a nod to the superstitions of de Grisogono founder Fawaz Gruosi, as green means good luck.

De Grisogono seemingly has strong ties to Angola. According to *The New York Times*, the company is owned by the dos Santos family. Until last month, José Eduardo dos Santos served as Angola's president.


A de Grisogono spokesperson told *JCK*: "As you may be well aware, de Grisogono is a privately held company and is not legally obliged to declare shareholder details....De Grisogono[s] procurement process is auditable and totally ethical."

*(Images courtesy of Christie's)*



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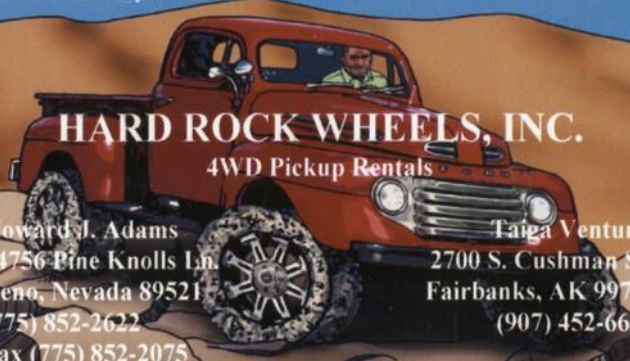
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