Published by: The Mining Record Company Volume 133, Number 3

THIRTEEN DECADES OF CONTINUOUS INDUSTRY COVERAGE www.miningrecord.com

March 2022



Denver, Colorado, USA

Metals Watch (03/03/2022): Gold \$1,853.21 • Silver \$22.75 • Copper \$4.55 • Lead \$1.08 • Zinc \$1.66 • Platinum \$1,104.00 • Palladium \$2,223.00 • Uranium \$41.98 • Rhodium \$16,800.00 • Coal: \$191.00

## Greens Creek Reaches Record 125M Ounces In Reserves

COEUR D'ALENE, ID -"Hecla Mining Company's silver reserves are near our all time high with Greens Creek reaching 125 million ounces, that mine's second highest since 2002, and Lucky Friday's 75 million ounces giving it a reserve mine life in excess of 15 years," said Phillips S. Baker, Jr., President and CEO. "Since 2008, Hecla has, through exploration, added 239 million silver ounces in reserves, replacing production while also growing resources. We see further growth in reserves, resources, and production from our exciting exploration program. With the increasing need for silver to contribute to the transition to cleaner energy, Hecla has both the largest silver reserve and production in the United States which positions us to meet demand long into the future."

2021 proven and probable silver reserves were the second highest in Hecla's history at 200 million ounces. The Company not only replaced silver production (15.2 million silver ounces contained), but also increased proven and probable reserves by 6%, or 11.5 million ounces over 2020. Gold production was also replaced (244,680 gold ounces contained) and proven and probable reserves increased 14% to 2.7 million ounces. Zinc production of 71,000 tons was replaced and reserves increased 2% to a total of 907,000 tons. Lead production of 49,000 tons was nearly replaced with a slight decrease of 1% to 735,000 tons.

Measured and indicated silver



ounces decreased 9% to 207 million ounces, from its record level in 2020, due to conversion to reserves at Greens Creek and Lucky Friday. Measured and indicated gold ounces decreased 6% to 3.5 million ounces due to conversion to reserves at Casa Berardi and Greens Creek.

Inferred silver resources increased 8% to 491 million ounces while inferred gold resources increased 2% to 5.6 million ounces due to increases at Greens Creek, Lucky Friday, San Sebastian in Mexico, and Midas in Nevada.

At Greens Creek, in Alaska, 2021 production across all four metals was replaced and silver, gold, zinc, and lead reserves increased by 12%, 14%, 11%, and 11%, respectively, over 2020 reserves. Measured and indicated silver resources at year-end 2021 were 107 million ounces, a 7% decrease over 2020 due to conversion to reserves. Inferred silver resources increased 18% given renewed exploration drilling and increased metal prices to a total of 27.5 million ounces. two underground core drills focused on resource conversion in the 9A and 200 South zones and exploration in the 200 South and Gallagher Fault Block zones. Highlights from the 9A drilling include intercepts containing 29.2 oz/ton silver, 0.39 oz/ton gold, 19.0% zinc, and 10.6% lead over 8.0 feet and 19.2 oz/ton silver, 0.14 oz/ton

over 14.0 feet. Drilling in the 200 South Zone targeted expanding and upgrading resources in the central and southern portions of the zone. While numerous assay results are pending, highlights include intercepts containing 60.0 oz/ton silver, 0.02 oz/ton gold, 8.6% zinc and 4.1% lead over 4.6 feet and 25.7 oz/ton silver, 0.23 oz/ton gold, 2.0% zinc, and 1.0% lead over 6.0 feet. Underground definition drilling will focus on upgrading resources in the West, East, Southwest, Gallagher, and 200 South ore zones while underground exploration drilling will focus on extending mineralization along strike to the south for the 200 South, Gallagher, and Gallagher Fault Block zones in addition to targeting the westward extension of the East Ore Zone above the Klaus Shear and an offset segment of the West Zone. Surface exploration drilling will be focused on advancing the understanding of the geology and discovery of new mineral zones in the Lil'Sore trend and Lil'Sore Prospect target areas and extending mineralization in the near

gold, 10.5% zinc, and 6.4% lead

Casa Berardi in Candada, reported 2021 mining depletion was replaced and gold reserves increased 16%, or an addition of 242,000 ounces over 2020 to 1.8 million ounces. The increase is mostly due to additions at the 160 Open Pit. Measured and indicated gold resources decreased 16% overall from 2020 (-89% open pit and -4% underground) to 1.1 million ounces due to conversion to reserves and higher cut-off grades given increased mining costs.

mine 5250 and Upper Plate

zones.

Reserve conversions were mostly seen in the 160 Open Pit zones. Inferred gold resources declined 17% from 2020 given conversion to higher resource classes and reserves.

Underground definition drilling will focus on the following areas: 1) the 118 and 119 zones expanding resources to the west and east of the current reserves, 2) the high-grade plunge at depth and to the east in the Lower 123 Zone in addition to infilling the gap between the Lower 123 and Upper 123 zones, and 3) upgrading resource at depth in the 148 Zone. Exploration drilling will focus on testing the high-grade up and/or down plunge extensions of the 113, 116, 118, 123, 128, 134, 146 and 148 zones as defined from the recent 3D geological modeling and targeting completed in 2021. In addition to these underground exploration programs within the mining lease at Casa Berardi, surface sonic drilling is planned for initial testing of regional target areas in the west, central, and east claim blocks along the Casa Berardi Break. This drilling will enhance historic till sampling in addition to mapping the subsurface bedrock lithologies, alteration, and structures. More than a quarter of the total expenditures in 2022 are planned for Casa Berardi (16%) and Greens Creek (11%) exploration. Exploration at both Casa Berardi and Greens Creek is focused on replacing production and expansion of high-grade underground reserves and resources through drill testing and conversion of inferred resource to reserves.

Drilling in the East Mine targeted upgrading and expanding mineralization in the 146 and 148 zones. Many assay results are pending; results received to date from the 146 Zone drilling consists of wide zones of low-grade gold mineralization with narrow internal high-grade intervals. Similarly, drilling in the 148 Zone expanded mineralization to the south of the Casa Berardi fault zone with intercepts including 0.13 oz/ton gold over 26.2 feet with narrow internal higher-grade intervals.

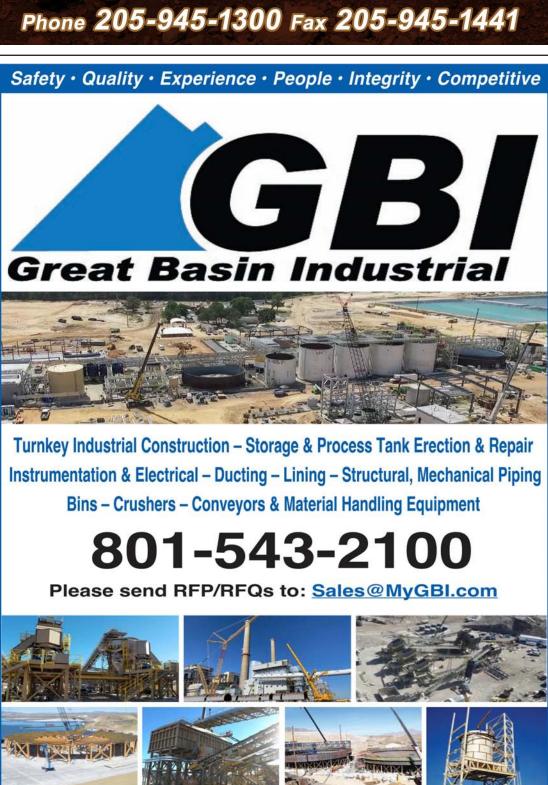
At the Lucky Friday, in Idaho, proven and probable reserves are currently 75 million ounces of silver (3% lower from 2020), 452,440 tons of lead and 181,020 tons of zinc. Measured and indicated silver resources decreased 8% to 80 million ounces over 2020; lead and zinc measured and

Continued On Page 8

## News

Acquisition of historic Energy Sands Project2
Substantial mineralization at Mogollon Property Queen Vein2
New drilling returns higher gold at Eureka Project3
Successful second round of drilling at McKenzie Project4
Underground mining program commences at Granite Creek4
Higher mined grades at Simon Central and Pantion South7
Large gold in soil anomaly at the Fremont Gold Project9
RFA continues expansion of high-grade core
Higher grade intrusive mineralization confirmed at Metates10
Results from initial drilling program at the Sleeper Project11
Metallurgical improvements at Cactus Mine13





MyGBI.com

#### **UTAH**

## **Acquisition Of Historic Energy Sands Project**

VANCOUVER, BC - Pegasus Resources Inc. announced the acquisition, by staking, of the Energy Sands Project, located in Emery County, Utah. The Project consists of sandstone-hosted uranium and vanadium mineralization with demonstrated potential to establish resources, with historical small-scale mining having occurred in two isolated regions of the Property.

"We feel the global uranium market should continue to build strength as the push for green energy alternatives accelerate. As we build our diversified uranium portfolio we are continuing to

evaluate uranium assets in Canada and the United States," said, Charles Desjardins, CEO and President. "Given the present geopolitical climate uranium demand should continue to accelerate.'

Uranium mineralization on the Project is hosted within the Salt Wash Member of the Jurassic Morrison Formation. Mineralization within the Tidwell Mineral Belt of the San Rafael Uranium District is oriented in a series of roughly northeast trends. In-dividual mineralized bodies are tabular to lenticular with the long axis aligned along the trend.

## **Substantial Mineralization At Mogollon Property Queen Vein**

VANCOUVER - Summa Silver Corp. reported on the ongoing drilling at the high-grade silver-gold Mogollon Property, near Silver City, New Mexico. Five More Holes Intersect the Queen Vein: All six holes drilled so far have intersected 17-50 m zones of intermittent quartz-carbonate veining and brecciation with local concentrations of silver-bearing sulfides. Two rigs are currently drilling at the Consolidated Extension target where the Company anticipates that a minimum of 25,000 m of drilling in 50 holes is necessary for a spacing of approximately 50 m between holes covering an area of approximately 500 x 300 m. This first target represents only 1.5% of the total vein and structure strike length present on the property. Two additional diamond drill rigs are currently mobilizing to Tonopah, Nevada where drilling will begin immediately. Further details on this program with be announced announced shortly.

The focus of the ongoing drill program is testing un-mined extensions of the Consolidated Mine, centered on the north-trending, epithermal-related Queen Vein. Holes on 50 to 100 meter centers are designed to systematically test the lateral and vertical continuity of mineralization over a strike-length of approximately 500 meters and near-vertical, down-dip extent of over 300 meters beginning at approximately 130 meters below surface.

Holes MOG21-02, 03, 04 and U6 targeted the extension of structurally-controlled, vein-hosted mineralization south of the historic Consolidated stopes whereas hole MOG21-05 tested the extension of mineralization north of the

Broad zones (up to 50 meters) of epithermal-related alteration, veining, brecciation and mineralization, cored by the Queen Vein, was intersected in all holes. Hole MOG21-03 was terminated in mineralization due to the intersection of historic workings after unexpected and strong deviation of the hole during drilling. The hanging wall to the Queen Vein consists of silicified and brecciated andesite and rhyolite cut by zones of colloform-banded chalcedonic quartz veins increasing in frequency with depth towards to the Queen Vein. The Queen Vein is highly-complex with evidence for multiple epithermal-related fluid events that formed calcite + quartz veins, quartz-rich breccias with bladed quartz, colloform banding and local silver-bearing sulfides. The footwall to the Queen Vein consists of intensely silicified and brecciated andesite with locally abundant silver-bearing sulfides as disseminations and banded within chalcedony-rich veins.

Lithological and structural data from these holes and subsequent holes are also being incorporated into the geological model to help target high-grade zones along the vein system.

Drill core from holes MOG21-01 to MOG22-04 have been sampled and dispatched to Paragon Geochemical in Sparks, NV for assay analyses. Drill core from holes MOG22-05 and MOG22-06 are currently being processed at site and prepared for shipment.

Editor: Don Harrison, editor@miningrecord.com Accounting HQ: accounting@miningrecord.com General Manager HQ: customerservice@miningrecord.com Subscriptions/Orders: subscriptions@miningrecord.com Advertising: advertising@miningrecord.com

Advertising: Display and Classified Media Kit Available upon request. Email: advertising@miningrecord.com

#### **Subscription Rate**

For U.S.: \$55 per year; Canada & Mexico: \$82 per year Foreign: \$99 per year

Email: subscriptions@miningrecord.com

Published monthly - \$8.00 per copy

Regional Office: Highline Professional Center - Kellogg Building 26 W. Dry Creek Cir., Littleton, CO 80120 USA Associate Offices: Highlands Ranch, CO USA, Gunnison, CO USA Vancouver, BC Canada, SA-MEX-ARG

Distribution Mail House: Commerce City, CO USA Publication Printing Facility: Tucson, AZ USA

## THE MINING RECORD

Volume 133, Number 3

#### **HEADQUARTERS:**

24 KARAT RANCH Sedalia, Colorado 80135 USA

**Mailing Address:** 

Post Office Box 1630 Castle Rock, Colorado 80104 USA

Toll Free: 1-800-441-4748 USA/Canada Tel: (303) 663-7820 • Fax: (303) 663-7823 www.miningrecord.com • Email: guestions@miningrecord.com Electronic Editorial Submissions: Email: editor@miningrecord.com

Published by: The Mining Record Company - HIE, LLC ©Copyright 2022. All Rights Reserved

Business Hours: Monday - Friday 8:00 a.m. - 5:00 p.m.

Periodicals Postage Paid in Denver, Colorado and additional mailing offices.

which, in the publisher's opinion, does not meet with the format of mining publications.

Products and/or Services advertised in The Mining

The publisher reserves the right to refuse adver-

tising that is competitive with his publications or

Record are not endorsed by The Mining Record

The articles published in The Mining Record are obtained from sources considered reliable, but are not to be construed as a solicitation for investment purposes or to buy or sell stock.



The Mining Record is published monthly by Howell International Enterprises, LLC, with Main Office located in Sedalia, Colorado 80135.

Postmaster: Send address changes to The Mining Becord, P.O. Box 1630, Castle Bock, CO 80104 USA

USPS 593360 ISSN No. 012022- 5761



While our company does have registered accounts, our users security is top priority. Our Facebook, Twitter, and Associated Instant Apps pages are designed with no interaction allowed at this point. Consumer Protection Agency reported that scams on social media skyrocketed by 150 percent across Facebook, Twitter and Associated Instant Apps. And the number is likely to continue climbing as more cyber crooks see social media as a fruitful target. Our users and clients security will not be compromised with these media outlets at this time. Our web security service for www.miningrecord.com site provides our users information for the industry with peace of mind. The company's website www.miningrecord.com is universal with complete availability through desktop, laptop and all mobile devices. It will remain our focal form for online media access to our users and clients.

## New Drilling Returns Higher Grade Au At Timberline's Eureka Project In Nevada

COEUR D'ALENE, ID -Timberline Resources Corporation reported initial results from the second phase of the 2021 drilling program at its 100%-controlled Eureka Project in Nevada. The Company recently completed the 6,536-meter (m) program initiated in July 2021. These results are from six reverse circulation (RC) holes, comprising approximately 1,410m, and partial results from two core holes. These holes are from the Water Well Zone (WWZ), which lies immediately east of the Lookout Mountain gold

The most significant new gold intercepts in these holes include: 22.9m at 6.11 grams per tonne

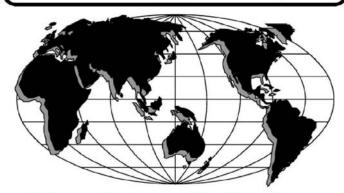
(g/t) gold from 140.8m depth in BHSE-220C, including 12.2m at 8.92 g/t gold from 151.5m depth; 10.7m at 2.96 g/t gold from 229.2m depth in BHSE-211C; 22.9m at 1.11 g/t gold from 219.5m depth in BHSE-198; and 6.10m at 2.85 g/t gold from 161.5m depth in BHSE-204.

Patrick Highsmith, President and CEO, said, "This new drilling in the Water Well Zone has returned the best hole to date in this area, and one of the best holes on the Eureka Project. As we have progressed northward, we have not only encountered richer and thicker gold mineralization, but the target horizon is also much shallower than we have previously

seen. It appears as though core drilling is providing much better information than reverse circulation on the geology and gold content. We are currently making plans to twin more RC holes at the Water Well Zone with core holes."

Drill holes BHSE-204, 205, and 220C were all drilled from the same pad. This location is the farthest north drill site to date at the WWZ, representing a step out of 134m northeast from BHSE-195. Initial drilling in this area by RC holes BHSE-204 and 205 intercepted carbonaceous jasperoid (silica altered) with notable pyrite and orpiment (arsenic sulfide mineral), all of which are often associated with gold in Carlin-type deposits. The mineralized interval also occurred much shallower than expected. Based on these favorable indications, the Company elected to expedite the assays in these two holes and announce the partial results before receipt of assays above and below the inter-

# INDEPENDENT MINING CONSULTANTS, INC.



- Surface and Underground Mine Evaluation
- Exploration Project Development
- Mine Design and Planning
- · Production Scheduling and Strategic Planning
- Resource Modeling / Reserve Estimation
- · Evaluation of Expansions or Acquisitions

www.imctucson.com
Tel: (520) 294-9861

#### **Acquisition Of Great Bear Resources**

TORONTO - Kinross Gold Corporation has completed the plan of arrangement to acquire Great Bear Resources Ltd.

Paul Rollinson, President and CEO, said, "The closing of the acquisition represents a milestone as we advance our future growth strategy. We are excited to add

such a high-quality asset in a top mining jurisdiction. Our exploration and development strategy will start immediately, including our goal of drilling 200,000 metres this year.



Your Safety on the Job Deserves SLABBER'S Advantages!

Over Four Decades Of Service!

With maximum strength-minimum weight. Rock Tools SLABBER provides extra muscle for tackling your toughest scaling jobs:

- Scaling of hazardous banks in pit or quarry
- Barring down back, face or ribs in mine or tunnel
- Kiln brick removal
- Furnace build-up removal
- Right-of-way maintenance along railways
- Trenching in underground utility construction

Contact us for full details on SLABBER.®

(801) 328-3733

P.O. BOX 58196
SALT LAKE CITY, UT 84158

## NAYLOR PIPE

...Serving
The Mining
Industry
For Over
95 Years

Need pipe for water, high and low-pressure air, ventilation, tailings or slurry lines, sand and gravel or other product lines? Naylor has the right pipe for your application.

Available in carbon steel and alloys from 4" to 96" and wall thicknesses from 14 gauge to 1/2". Naylor offers the necessary fittings, couplings, fabrications, coatings and linings to provide you with your complete pipe system.

For more information, call or E-mail us for our catalog.



Industry Leader Since 1925

NAYLOR PIPE COMPANY
1230 East 92nd Street
Chicago, IL 60619
773.721.9400 • Fax: 773.721.9494
E-mail: sales@naylorpipe.com
www.naylorpipe.com

#### RED LAKE, ONTARIO

## Successful Second Round Of Drilling At McKenzie Gold Project

VANCOUVER - Nexus Gold Corp. reported that seven of the eight holes drilled at the McKenzie Gold Project, located at Red Lake, Ontario, successfully intersected gold mineralization. To date Nexus has drilled 30 holes at McKenzie, with 27 returning gold values of 1 gramper-tonne gold or better. Data generated shows a mineralized trend that develops south of Perch Lake and continues in a north/north-westerly direction.

All drill holes were collared in the Dome Stock and successfully cored through granitic rock displaying zones of potassic (K) alteration with zones of silica and sericitic alteration; sulphide mineralization consisting primarily of pyrite with lesser chalcopyrite; and occasional molybdenite and sphalerite hosted in quartz carbonate stringers and veins, which was reported occurring in both alteration styles but in greater amounts in the siliceous sericitically altered granite.

This second round of drilling, completed in December 2021, was designed to test gold anomalies occurring in and around historic trenches identified earlier in the fall by prospecting teams employed by the Company. The program was also testing the potential strike extension of mineralization identified in the first round of phase two drilling in the spring of 2021. The program consisted of eight drill holes totaling 2000 meters

"This round of drilling has shown that the longer gold intercepts hosted in the silicious and sericitic altered granite is trending to the north west, towards the historic Trench 3 found in our recent prospecting program," said VP Exploration, Warren Robb. "We clipped this zone in hole 27 but clearly intersected it in hole 28 adding an addition 50 meters to this zone's strike extent. The drilling north of Perch Lake has intersected a higher grading quartz vein which was intersected

by holes 24 and 25 and we have traced it now for 50 meters."

Drill core is logged and sampled in a secure core storage facility located in Red Lake, Ontario. Core samples from the program are cut in half, using a diamond cutting saw, and are sent to Activation Laboratories in Ontario, an accredited independent

mineral analysis laboratory, for analysis. All samples are analyzed for gold using standard Fire Assay-AA techniques. Certified gold reference standards, blanks and field duplicates are routinely inserted into the sample stream, as part of Nexus's quality control/quality assurance program (QA/QC).

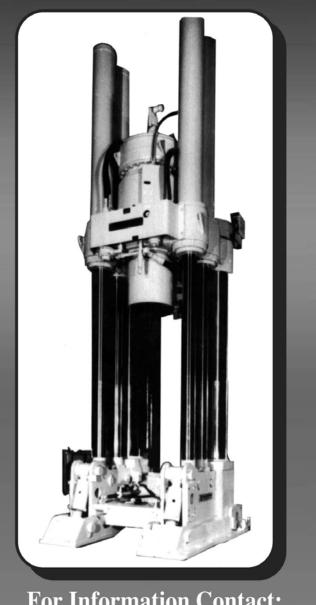
# **Underground Mining Program Commences At Granite Creek**

RENO, NV - i-80 Gold Corp reported that the underground mining program at theGranite Creek Mine property, in Humboldt County, Nevada, has commenced. The 2021 drill program was successful in delineating high-grade mineralization in multiple areas proximal to the existing mine workings and two Cubex rigs are on site drilling to complete definition in advance of underground mining. The first stoping area has been defined and mining of the stope access to this area is now underway. The Company remains on target to ramp up to production in 2022. Mined material will be stockpiled on-site in preparation for trucking to Nevada Gold Mines' (NGM) nearby Twin Creeks facility pursuant to interim arrangements entered into with NGM to process mineralization from i-80's properties until the Company's Lone Tree facility is operational. The Granite Creek Mine Pro-

ject hosts both open pit and

underground resources and is strategically located proximal to Nevada Gold Mines' Twin Creeks and Turquoise Ridge mines at the north end of the Battle Mountain-Eureka Trend. The underground deposit at Granite Creek represents one of the highest-grade gold deposits in North America with resource grades in excess of 10 grams per tonne (g/t) gold.

"The interim processing arrangement allowed us to fasttrack the development of the Granite Creek underground operation, such that it will become Nevada's newest gold mine", said, Matt Gili, President and Chief Operating Officer. "Granite Creek is one of four sites being prepared for mining in advance of the restart of our Lone Tree processing facility that includes an autoclave. Additionally, our highly successful drill program has not only defined areas for mining but has also resulted in new discoveries including the South Pacific Zone."



RAISEBOR

**Contract Raise Boring** 

**Vent Shafts • Penstocks** 

Ore Passes • Man-Ways

**Lined or Unlined** 

For Information Contact:
Raisebor
(205) 945-1300
Fax: (205) 945-1441

email: mhardwick@raisebor.com www.raisebor.com

301 Industrial Drive Birmingham, AL 35211-4443

A Division of Cowin & Company Inc.

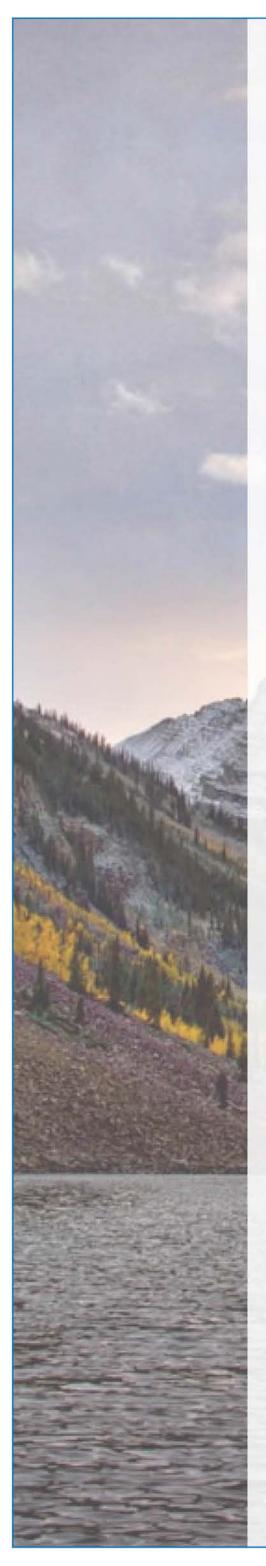


# Sustainable Designs Innovative Thinking Responsible Mining

At WSP Golder, being curious about the future inspires us to innovate and deliver impactful and sustainable designs today.

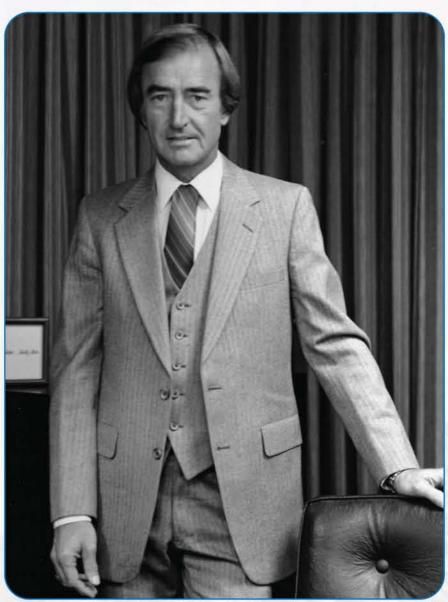
Be part of our team doing purposeful work, helping our communities thrive today, while shaping them for tomorrow.





# Don E. Howell

April 6, 1939 - April 27, 2021



Don E. Howell, Chairman and Chief Executive Officer

In the early 1970's Don E. Howell purchased The Mining Record, a struggling publication which had once been a prominent daily newspaper of Denver. Using original publishing equipment, Don worked tirelessly to turn the business around, creating the Howell Publishing Company in the process. His newly formed company designed publications and marketing materials for some of the areas most recognized companies, growing to become one of Denver's leading publishing groups.

Don continued to publish The Mining Record weekly and during the ensuing years, built the newspaper into an industry frontrunner for mining news and advertising. The company grew from a one-man operation to employing industry professionals and recent mining school graduates, launching the careers of many who are now executives in the industry.

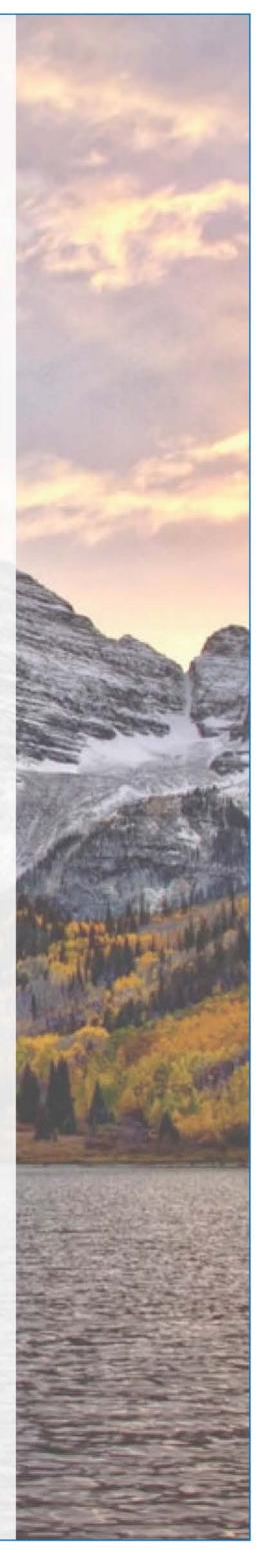
Expanding on his success, Don created publications for mining associations and began promoting mining trade shows and conferences in The Mining Record. His positive impact and influence, led to expanded attendance, increased exhibitor participation, and greater industry recognition. As a key player and straight shooter in a 'tight knit' industry, Don was able to further develop the business, forging friendships through the years that lasted a lifetime.

As a result, Don Howell became synonymous with The Mining Record.

Don was honored numerous times throughout the years for his impact and dedication, receiving multiple industry awards and in 2009, presented the Lifetime Achievement Award by his mining peers.

However, if you asked about his greatest accomplishment, he would answer - "Family. My family is my biggest accomplishment and the fact that they are proud of me, is all that matters".

We Honor the Love, Dedication, and Leadership of a "Larger Than Life" husband, father, grandfather, and friend.





Develop your Freeport Edge at Freeport-McMoRan, a leading international mining company that safely and responsibly supplies the world with essential metals for a better, greener future. We are committed to an inclusive environment and empower our people to drive innovation forward.

## **ENGINEERING**

Mining, Metallurgical, Process, Automation, Geological, Electrical, Environmental, Civil, Mechanical, Chemical and Material Science

## SCIENCES

Geology, Mineralogy, Health & Safety, Industrial Hygiene, Chemistry and Environmental

## **BUSINESS**

Human Resources, Accounting, Finance, Global Supply Chain, Communications and Information Technology

FMJobs.com



## **Higher Mined Grades At Simon Central And Pantion South**

VANCOUVER - Darren Hall, President and Chief Executive Officer of Calibre Mining Corp., said, "The Calibre team delivered another strong quarter to beat the high end of our 2021 production guidance.

A solid contribution was delivered from our Pavon open pit deposit, which we permitted, developed, and ramped up production to 1,000 tonnes per day of ore to Libertad mill all within 22 months. Calibre has a compelling value proposition in that we have 2.7 million tonnes of installed processing capacity of which approximately 70% is being utilized. I am very pleased with the significant progress during the year at EBP which I expect to be our next high-grade satellite deposit to feed into our existing infrastructure resulting in 2023 and 2024 production growth.

As the year progressed, our commitment to growing the Company was enhanced with the announcement of the acquisition of Fiore Gold which closed on January 12, 2022. This transaction builds on our focus to continuously create value for shareholders by bringing a diversified asset base, immediate production and robust growth and exploration upside in Nevada.

With multi-rig exploration drill programs active across all Calibre sites, and development opportunities advancing, we remain committed to reinvesting into mine development and exploration to increase resource confidence, expand resources, make new discoveries, and grow production organically. With \$78.5 million in cash pretransaction, and no debt, we have commenced 2022 well positioned to enable Calibre to continue self-funding growth, exploration, and mine development across all our assets."

During Q4 2021, most of the open pit production came from Limon Central totaling 193,077 tonnes at an average grade of 4.46 g/t, with material from Pavon Norte contributing 70,440 tonnes at a grade of 2.52 g/t, 174,461 tonnes at 0.96 g/t of previously processed "spent ore", and 4,582 tonnes at 11.85 g/t from artisanal small miners ("ASM"). By comparison, during Q4 2020, open pit mining consisted of 173,651 tonnes at an average grade of 4.51 g/t from Limon Central, 100,434 tonnes at 3.31 g/t from the Jabali open pit (currently not being mined), 172,159 tonnes grading 0.68 g/t from previously processed "spent ore", and 10,939 tonnes at 16.97 g/t from ASM and other sources.

For the full year 2021, open pit mine production from Limon Central totalled 787,096 ore tonnes at an average grade of 3.46 g/t, Pavon Norte totaled 304,911 tonnes at a grade of 3.34 g/t, 573,040 tonnes at a grade of 0.96 g/t of previously

processed "spent ore", and 18,619 tonnes at 15.86 g/t from ASM. For comparison, 2020 open pit production from Limon Central totaled 522,962 tonnes at a grade of 4.63 g/t, 367,543 tonnes from the Jabali open pit grading 3.27 g/t, 697,169 tonnes grading 0.75 g/t from previously processed "spent ore", and 36,867 tonnes from ASM and other sources grading 15.85 g/t.

Underground mine production increased year over year as the Veta Nueva underground mine reached commercial production in January 2021, Panteon South underground mine reached commercial production in July 2021, while the Jabalí West underground mine was suspended until August 2020 which resulted in higher comparative Jabalí production year over year.

Q4 2021 ore production was 56,406 tonnes at a grade of 3.31 g/t from Jabalí West, 11,132 tonnes at a grade of 5.13 g/t from Santa Pancha, 33,049 tonnes at a grade of 8.66 g/t from Panteon South, and 16,806 tonnes grading 3.95 g/t from Veta Nueva. During Q4 2020, the Company mined 29,641 tonnes at a grade of 3.11 g/t from Santa Pancha, 16,136 tonnes grading 3.59 g/t from Veta Nueva, and 25,252 tonnes grading 3.85 g/t from Jabalí West.

Full year ore production was 200,271 tonnes at a grade of 3.42 g/t from Jabalí West,

60,176 tonnes at a grade of 3.73 g/t from Santa Pancha, 82,957 tonnes at a grade of 7.60 g/t from Panteon South, and 65,528 tonnes grading 4.08 g/t from Veta Nueva. In comparison during 2020 the Company mined 90,572 tonnes at a grade of 3.59 g/t from Santa Pancha, 30,958 tonnes grading 4.08 g/t from Veta Nueva, and 27,900 tonnes grading 3.75 g/t from Jabalí West.

In Q4 2021, the Company benefited from higher mined grades at Limon Central and Panteon South underground compared to Q4 2020. Of note, the favourable mining sequence at Limon Central and the mining of higher-grade ore at Santa Pancha, Panteon South, and Veta Nueva in Q4 2021 were significant factors in driving Limon's mill grade during the quarter.

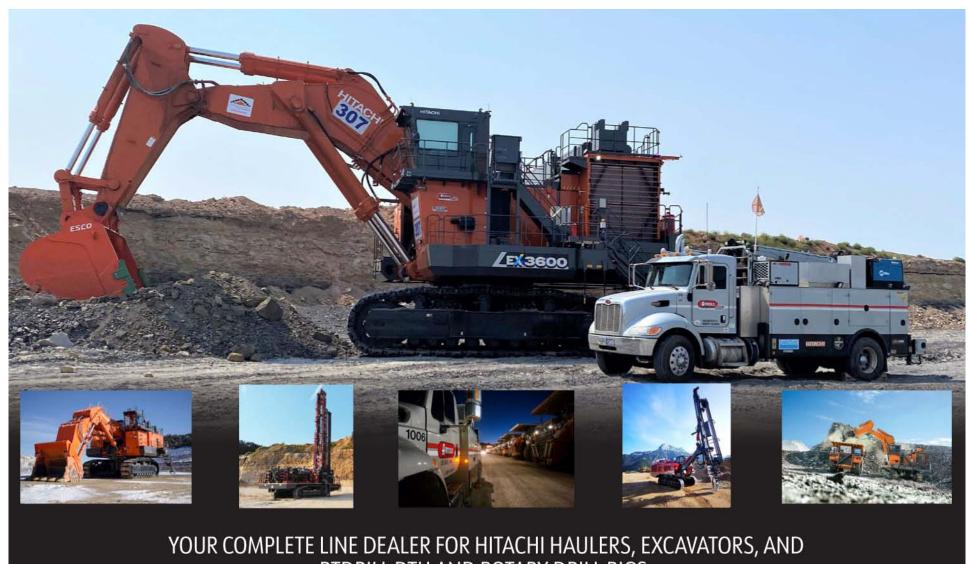
Tonnes milled for full year 2021 was 67,587 tonnes higher than 2020 due to the temporary pandemic suspension in Q2 of 2020, while the lower grade year over year was due to mine sequencing at the Limon Central ore body, which is the primary source of ore milled at Limon.

During Q4 2021, the Libertad mill produced 29,619 ounces of gold from 456,561 tonnes at an average grade of 2.29 g/t. Tonnes milled increased 75,443 versus Q4 2020 due to the success of the Company's hub and spoke strategy

to transport ore from Limon and Pavon to the Libertad mill, and due to the consumption of spent ore. Processed grade increased due to higher-grade ores delivered from Limon and from 123% more tonnes from Jabalí West.

Libertad mill produced 115,403 ounces during 2021, which was 43,952 ounces higher than 2020, due to significantly higher ore deliveries from Limon, with 372,898 tonnes of ore delivered in 2021 at an average grade of 3.09 g/t compared to 220,623 tonnes at an average grade of 2.80 g/t in 2020. Ore delivery from Pavon Norte to Libertad totalled 245,594 tonnes in 2021.

During Q4 2021, the Company generated \$88.1 million of revenue on sales of 49,207 gold ounces, at an average realized price1 of \$1,791/oz, compared to Q4 2020 revenue of \$79.7 million from the sale of 42,335 ounces. The increased sales volume generated an extra \$12.9 million over Q4 2020, which was partially offset by a \$4.5 million decrease due to a \$91/oz lower price. For the full year 2021, the Company generated \$328.1 million on 183,242 gold ounces, compared to 2020 revenue of \$242.7 million from 135,357 gold ounces. Significantly higher revenue in 2021 over 2020 was a result of the pandemic-related suspension of operations in Q2 2020 that was previously noted.



RTDRILL DTH AND ROTARY DRILL RIGS.
SERVING ELKO SINCE 1983.

MINING LOCATIONS

ELKO | SALT LAKE CITY | TUCSON | GILLETTE

arnoldmachinery.com

WE'RE HIRING! SCAN TO VIEW OPEN POSITIONS





CUSTOMER SATISFACTION IS OUR ONLY POLICY®

#### CONTINUED FROM PAGE 1

## 2021 Proven/Probable Reserves Second Highest In History

indicated resources decreased 6% and 4%, respectively. Decrease in measured and indicated resources is due to conversion to reserves. Inferred resources significantly increased year-over-year and include 42 million ounces of silver (+65%), 311,850 tons of lead (+62%) and 129,600 tons of zinc (+55%). Increase in inferred resources is mostly due to additions in the upper portions of the 30 Vein adjacent to reserve blocks; drilling plans are in place to better define these resources in order to convert them to reserve.

Drilling at Midas intersected narrow, high-grade gold and silver mineralization along the Sinter Structure, and identified two new mineralized structures, the Racer and Hanging Wall (HW1) Structures. Recent drillhole intersections in the Sinter Structure include 0.25 oz/ton gold and 63.9 oz/ton silver over 0.9 feet estimated true thickness. Mineralization is hosted in quartz carbonate veining which is locally fractured and crushed due to post-mineral fault movement. Sinter mineralization has been intersected over 3,200 feet of strike length and continues to be open for expansion both along strike and dip.

Our first drillhole testing the Racer Structure returned significant assay results of 0.84 oz/t gold and 0.6 oz/t silver over 1.9 feet estimated true thickness. This structure is characterized by intense argillization and brecciation with localized calcite and quartz veinlets. Mineralization remains open along strike and up

email: metalock@eatel.net

You Know It's Cracked - How Do You Fix It?

and down dip.

HW1, a new low angle hanging wall structure has also been identified through geologic interpretation between the Racer and Sinter Structures. Intercepts to date on the HW1 structure include 1.22 oz/ton gold and 0.7 oz/ton silver over 0.8 feet estimated true thickness and 0.03 oz/ton gold and 9.4 oz/ton silver over 2.6 feet estimated true thickness. The orientation and grade distribution along the structure is currently being investigated.

Nevada exploration is expected to be 30% of the total planned expenditures, with drilling programs at Hollister, Midas, and Aurora, in addition to detailed mapping, sampling, and target generation at all three projects.

At Hollister, exploration of the Hatter Graben is expected with further development of the decline setting up exploration drilling to upgrade a portion of the current Hatter Graben resource and explore additional Hatter Graben veins both to the south and east of the current resource area. Pre-development spend in 2022 will primarily be focused on advancing the Hatter Graben decline and is estimated at 8% of the total expenditures. To date 2,400 feet of development has been completed along with the necessary ventilation and dewatering infrastructure, additional footage is planned through the first half of 2022. The development drift advanced at the Hatter Graben exploration area allowing completion of the first drillhole that targeted and confirmed multiple zones of banded quartz veins and veinlets south of the existing resource. Intercepts from this initial drill-hole include 1.27 oz/ton gold and 1.1 oz/ton silver over 0.9 feet estimated true thickness and 0.23 oz/ton gold and 7.7 oz/ton silver over 1.0 foot estimated true thickness.

Exploration at San Sebastian included deeper drill testing in both the El Bronco and El Toro vein systems in addition to drill testing of four Short Vertical Reverse Circulation (SVRC) anomalies and geologic studies. Assay results from the deeper drilling confirm vein continuity at depth at both El Bronco and El Tigre and intersected a new hanging wall vein at El Tigre.

Exploration at Midas will focus on the two miles of strike length along the Eastern Graben Corridor. Drilling will focus on wide-spaced offsets along the Racer structural corridor near intersections with the northeast oriented Owhyee structures, structural splays off the Racer structure (Vapor Trail), and the northern extension of Little Opal.

Aurora reported that drilling is planned to test high-grade vein extensions from historic production areas and the Sawtooth Ridge target area.

San Sebastian represents 8% of the planned exploration spend, focusing on evaluating both near surface and deeper precious metal mineralization. Core drilling is planned to target deeper mineralization in the Middle, North, Francine, El Toro, El Tigre, and El Bronco vein systems. Core drilling will also tar-



get deeper high-grade mineralization in the La Roca district which represents a fully preserved epithermal system with strong acid sulfate alteration at the surface. In addition, a Short Vertical Reverse Circulation (SVRC) drilling program north of the San Sebastian Mine area and into the southern portion of the La Roca district will focus on defining new near-surface targets under cover.

Exploration programs are planned to be reinitiated in both the Creede district in Colorado and Republic district in Washington, and combined, accounts for approximately 10% of the total expenditures with field work and surface drilling programs in both districts. At Creede, drilling will focus on surface drilling of the North Bulldog target testing previous narrow high-grade mineralization deeper in the more favorable volcanic sequence which was historically the best host to mineralization.

We also plan to initiate underground access and rehabilitation of the main level in the Bulldog mine to eventually provide platforms for underground drilling of the prospective veins.

Analytical turnaround times for assay results from the ISO-

certified analytical laboratories were delayed during 2021 due to COVID-19 related staffing issues, increased sample load, and supply chain issues. Currently there are 14,000 samples pending assays with about 80% from Nevada. To support drill targeting, we use ¼ core sample with secondary labs. Final assays will continue to be delayed in 2022.

Hecla has withdrawn the Plan of Operations for Rock Creek and Montanore from consideration by the United States Forest Service (USFS). These plans were prepared by each project's prior owner and do not have the data necessary for Hecla to formulate a modern mine plan. The Company intends to submit a new Plan of Operations for just the Montanore site that will be limited to geologic and environmental evaluation activities only. If approved and subsequent data collection and analysis activities suggest development of a mine is feasible and economic, then a new Plan of Operations for construction and development at Montanore would be submitted to the USFS.

While no activities beyond care and maintenance are currently planned for Rock Creek, mineral and other property rights there will not be impacted.



#### SOUTHERN IDAHO

## Rangefront Focus Area Continues Expansion Of High-Grade Core

VANCOUVER - Liberty Gold Corp. reported on the final tranche of the reverse circulation (RC) drill program in the Rangefront Focus Area (RFA) at the Black Pine oxide gold deposit in southern Idaho. RFA drilling resumed in January 2022 with three RC and one core rig and an additional 9,600 meters ("m")in 34 holes have now been drilled to-date with assays pending. In 2021, Liberty Gold drilled a total of 28,048 m in 74 holes into a 1 square kilometer (km2) area within the RFA, and mineralization remains open for lateral extension to the north, northwest and east. Drilling in Q4 2021 focused on continued definition of the highgrade core of the mineralized zone; step-out drilling along the edges of the zone; and resource definition in the rest of the RFA. In all areas, two dominant horizons among multiple stacked zones of oxide gold mineralization were encountered in brecciated calcareous siltstone and sandstone from close to surface to depths of over 400 m.

The high-grade core zone has been extended an additional 100 m to the northwest and 250 m to the east and now measures approximately 300 x 750 m in size and remains open to the

northwest. Drilling in the area between high-grade core zone and the original Rangefront resource pits encountered strong results, extending the high-grade core zone to the east, and providing an important link between these two mineralized areas.

Moira Smith, VP Exploration and Geoscience, said, "As we continue to define the RFA, the high-grade core is growing in size while we continue to fill in the gaps, with more certainty around the continuity of mineralization throughout the larger 1 km2 area.

The RFA now rivals the Discovery Zone in size. Later in 2022, we are looking forward to testing the northeastern and eastern extent of the RFA where shallow historical drilling shows the presence of gold mineralization. We also plan to test the undrilled area to the south of the RFA with the goal of finding the extension of the structure hosting the D-3, F and CD zones.

Based on all of the drilling, resource estimation and 3D modeling to date, we continue to believe that the data support a geological potential of three to five million ounces of gold on the Black Pine property."

#### **C**ALIFORNIA

# Large Gold In Soil Anomaly At The Fremont Gold Project

TORONTO - Stratabound Minerals Corp. reported a large gold-in-soil anomaly extending across the entire 4-kilometre property length averaging 285 metres in width at its Fremont Gold Project located in the prolific Mother Lode Gold Belt of central California. Offset by an interpreted fault, the propertywide soil geochemical survey defines nearly continuous goldin-soil mineralization of greater than 30 ppb (parts per billion) up to 112,491 ppb gold, (112.5 g/t or 3.281 ounces per ton) covering an area of 1.14 km2 or 282 acres. Excluding the highest value, the remaining 102 samples within the anomaly range up to 5,210 ppb and average 412 ppb gold, a multiple of 61.5 times above the average background value of 6.7 ppb gold outside the anomaly. The excluded high value is located within 15 metres of the historically mined high-grade Josephine Lode Gold Vein where it outcrops at surface and may be reflective of mineralization related to it.

The surface gold-in-soil anomaly encompasses, and now links, three historic producing gold deposits, the Pine Tree, Josephine and Queen Specimen mines plus the two more recently identified and undeveloped Crown Point and Chicken Gulch gold zones. Though all zones



are hosted within the same continuous geological domains featuring similar drilled gold mineralization, the individual deposits and zones previously remained materially unconnected for the lack of intervening assay information prior to this soil geochemical survey.

NI 43-101 Mineral Resource Defined Across Only 1 km at Centre of Anomaly. Most significantly, the 4-km soil anomaly is centred atop the Pine Tree-Josephine ("PTJ") Deposit which hosts a current NI 43-101 Mineral Resource Estimate1) ("MRE") of 526,000 ounces at an average grade of 1.60 g/t Au in the Indicated, plus 452,000 ounces at an average grade of 1.29 g/t Au in the Inferred MRE categories, respectively. The current MRE covers a strike length of only one km and extends approximately 300 metres below average surface elevation. Even so, the historic Pine Tree and Josephine Mines

within the MRE were historically mined beyond that depth to 590 metres below average surface elevation producing 126,000 ounces of gold at an average grade of 8 g/t gold, (0.266 ounces of gold per ton) between 1849 and 1942 before WWII forced legislated closure of all gold mining in the United States at a then gold price of US\$35 per ounce.

The soil geochemistry survey covered the entire Fremont Property with 1,364 samples including 51 field duplicate samples collected on a 100mby-100m grid. The soil samples were collected in canvas sacks by qualified independent contract exploration personnel with UTM grid coordinates provided to them. Garmin etrex 20 GPS units were used to locate and record actual sample sites. The survey was conducted between 2016-2017 but results were never previously compiled nor



#### **MEXICO**

## Higher Grade Intrusive Mineralization Confirmed With Infill Drilling

VANCOUVER - Chesapeake Gold Corp. reported on the first five large diameter (PQ or 88 mm) infill core drill holes completed during the current drill program at its flagship Metates gold-silver project in Durango, Mexico. The 2021-2022 drill program is slated to include 16 holes totaling approximately 6,700 meters. The infill drill holes generally

target the intrusive hosted mineralization and are spaced at approximately 50-meter intervals along the strike of the Metates intrusive and enclosing sedimentary rocks. Most drillholes included in the infill program will have an azimuth of 215 degrees, are inclined at -55 to -75 degrees and range from 200 to 665 meters depth to intersect the intrusive at near

true thickness. To date, 5,325 meters have been drilled in 13 holes and 1,375 meters are remaining. The drilling has confirmed the as-modeled rock units, contacts, and mineralized intervals.

About 70% of all the assay intervals for the 5 holes exceeded a 0.35 g/t gold-silver equivalent cut-off grade (Au Eq grade). The assay intervals

which intersected intrusive mineralization were on average 9.4% higher in Au-Ag equivalent grade than estimated in the current resource block model. In addition, holes CKG21-090 and -092 are two of the best holes ever drilled at Metates based on grade-thickness product. Drill assay results from the remaining holes in the infill drill program will be released.

Alan Pangbourne, President & CEO, said, "We are very pleased to see that these 5 infill holes continue to support our belief that the intrusive continues to be materially higher grade than previously modeled and should have a very positive impact on the new block model, mine plan and PFS. We expect to complete this infill drilling program by the end of March."

## **HIGH MARK CONSTRUCTION**



Operating with personal attention to handle small jobs and professional expertise to handle large jobs.

- Infrastructure
   Leach Pads
- Site Development Road Building
  - Drilling Pads Reclamation







SETTING YOUR SIGHT ON THE HIGHEST MARK IN QUALITY, SAFETY AND PRODUCTIVITY.

## **NOW HIRING**

for multiple projects in the Northern Nevada area.

**Equipment Operators • General Laborers • Concrete Laborers • Concrete Finishers** 

Applicants must be able to travel and pass a pre-employment drug screen. High Mark offers competitive wages, travel pay, insurance, and a 401k.



High Mark Construction delivers quality finished jobs **every time!** 

3755 MANZANITA LANE, ELKO, NV 89801 www.highmarkconst.net • 775-753-0986

## Results From Initial Drilling Program At The Sleeper Gold Project

WINNEMUCCA, NV -Paramount Gold Nevada Corp. reported on assay results from drill work completed in conjunction with the re-assessment and expansion of the multi-millionounce gold and silver resource on the Sleeper Gold Project. This first phase of exploratory drilling consisted of six holes drilled to the east of the Sleeper pit along a continuation of the range front ("Range Front"), a system of faulting that it is believed to have played a key role in the location and genesis of Sleeper and other important gold deposits in Northern Nevada. The objective is to find an analog to the original high grade Sleeper vein as these deposits are known to exhibit periodicity along strike or along parallel structures. Drilling into the Range Front extension returned grades up to 1.17 g/t of gold, a promising indication of the potential for another high-grade occurrence.

President and COO, Glen Van Treek, said, "This initial phase is only the beginning of our plans at Sleeper in an effort to exploit the enormous potential of this large system which clearly extends beyond the original high-grade historical pit."

A second initiative is to develop a plan to exploit high grade sulphide material left behind by the previous operator that was not amenable to the heap leach recovery employed in the original mine given the mineralogy and the low gold prices at the time. Three reverse circulation drill holes were completed through overburden to bedrock in the West Wood zone, a high grade, sulphide-rich occurrence, to prepare for future metallurgical core drilling in this area. One of these holes was drilled through the overburden into ore and was sampled, returning grades up to 4.0 g/t of gold and 100 g/t of silver, confirming the resource model and presence of higher-grade mineralization in a zone not drilled since 2013 and not included in the current mine

"The confirmation of the resource model of West Wood, a zone not included in the previous mine plan, coupled with initial met-results has the potential to significantly improve the resource grade and overall economics in the mine plan, which will be reflected in a new Preliminary Economic Assessment expected to be completed in Q3 2022," said Treek.

The metallurgical test work will further assess the potential for accelerated oxidation of this mate-

## 12,000 Metres Of Drilling At Eastside

RENO, NV - Allegiant Gold Ltd. reported the completion of additional road building at Eastside and the commencement of drilling to occur this month. The Company has recently built over 6 kilometres of additional roads over the past few months allowing direct access to the High-Grade Zone (HGZ) recently discovered in the last drilling program. The roads will also provide better access to the upcoming drill program at both the East Pediment and the Western Anomaly. Allegiant plans to drill approximately 35 reverse circulation (RC) holes and 7 diamond core (Core) holes at Eastside in the upcoming drill program.

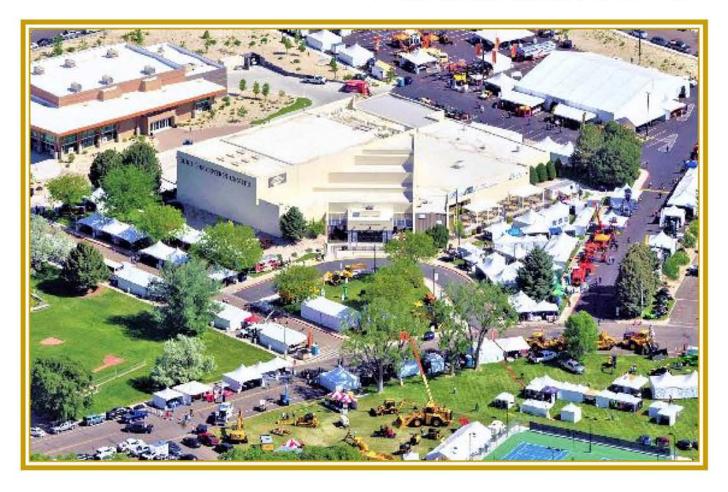
rial for inclusion in a heap leach operation. Accelerated oxidation was not considered an option during the original exploitation of the Sleeper property. Subsequent development of this technology and testing by the Company, along with higher gold prices indicate it could be used to bring existing high-grade sulphide material into a low-cost heap leach operation.

#### THE LARGEST ANNUAL MINING EXPO IN THE WESTERN U.S.



June 6-10, 2022

**ELKO CONVENTION CENTER** 



## For more information, please contact:

The Elko Convention & Visitors Authority 700 Moren Way, Elko, NV 89801

775-738-4091 • 800-248-3556

MineExpo@ElkoCVA.com

## MIN ROFESSIONAL DIRECTORY

For nearly 60 years, Ames Construction has self-performed high-quality General Contracting services to complete successful projects safely, ontime, and within budget.

Ames is family-owned, committed to relationships built on honesty, performance, and mutual trust, and dedicated to providing superior construction services to our clients.



Visit us online at AmesConstruction.com Ames Construction



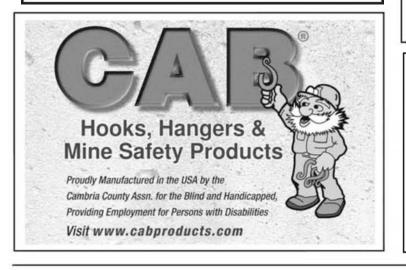
www.tonatec.com

**Diamond Core Drilling Minerals Exploration Directional Drilling Geothermal Exploration Geothermal Drilling** Consulting

## We thrive on challenges

wsp.com

۱۱۲) GOLDER





#### INDEPENDENT MINING CONSULTANTS, INC.

Tucson, Arizona Tel: (520) 294-9861 FAX: (520) 294-9865 imctucson.com



ENGINEERING LIMITED

Website: www.prengineering.com Tel: (905) 579-9721 Fax: (905) 434-6878

#### DENVER MINING CLUB, LTD.

RAGGED ASS MINERS, EST. 1891 www.denverminingclub.org

#### GRAYMONT

3950 South 700 East, Suite 301 Salt Lake City, UT, USA 84107 Phone: (801) 716-2634 Fax: (801) 264-8039

www.graymont.com



(303) 567-4174 www.minenv.com

MINING & ENVIRONMENTAL SERVICES, LLC General Manager: Mark Levin, P.E.

#### CORRIVEAU J.L. & ASSOC. INC Land & Mining Surveyors

3D SCANNING & MODELLING BY: GROUND AND AIRBORNE 3D SCANNING AND MODELING

GYRO AND GPS SERVICES, SALES, RENTALS, UNDERGROUND AND SURFACE CONTROL, BOUNDARY AND LEGAL SURVEYS, TOPOGRAPHIC SURVEYS, PHOTOGRAMMETRIC MAPPING AND BOREHOLE DEVIATION (XYZ) AND BATHYMETRIC SURVEYS

1085 - 3rd Avenue, Val d'Or (Quebec) Canada J9P 1T5 Tel: (819) 825-3702 Fax: (819) 825-2863 email: bureau@corriveaujl.com, website: www.corriveaujl.com

#### ROCK TOOLS, INC.

P.O. BOX 58196, SALT LAKE CITY, UT 84158, U.S.A. PHONE (801) 328-3733 FAX (801) 575-7004

#### T E J A D A PHOTOGRAPHY

Specializing in annual report photography for mining and heavy industrial clients. Call 303.979.0171





cementation.com

### Revegetation & Erosion Control



granite

(801) 768-4422 Fax (801) 768-3967 www.graniteseed.com

## THE INTERNET CONNECTION DIRECTORY

#### CONTRACT MINING

**Ames Construction** www.amesconstruction.com info@amesconstruction.com

**CONSULTANTS - MINERAL INDUSTRY** 

**Independent Mining Consultants** www.imctucson.com imc@imctucson.com



www.KnightPiesold.com

**\\\$|)** GOLDER wsp.com

**CRUSHERS - MINING AND AGGREGATE** 

PR Engineering Ltd. www.prengineering.com info@prengineering.com

**HEAP LEACH/TAILINGS DAM** GEOTECHNICAL/ENVIRONMENTAL

> ۱۱۲) GOLDER wsp.com

#### HEAVY MINING EQUIPMENT

Wagner Equipment Company www.wagnerequipment.cat.com

MATERIAL HANDLING SYSTEMS MINE PLANNING • MODELING SOFTWARE



**Independent Mining Consultants** www.imctucson.com imc@imctucson.com

#### MINING/EXPLORATION COMPANIES

Freeport-McMoRan www.fcx.com

General Moly www.generalmoly.com

**Newmont Mining Corporation** www.newmont.com

#### PIPE SYSTEMS

**Naylor Pipe Company** www.naylorpipe.com sales@naylorpipe.com

#### STEEL FABRICATORS - PIPE

Mill Man Steel, Inc. www.millmansteel.com kevin@millmansteel.com

**Naylor Pipe Company** www.naylorpipe.com sales@naylorpipe.com

**TUNNELING - RAISEBORING** 

Cowin & Company, Inc. www.cowin-co.com jcowinjr@cowin-co.com

#### RAISEBOR

www.raisebor.com mhardwick@raisebor.com

UNDERGROUND CONSTRUCTION AND MAINTENANCE



www.KnightPiesold.com

**USED/NEW HEAVY EQUIPMENT** 

**Arnold Machinery Company** www.arnoldmachinery.com

Cashman Equipment Company www.cashmanequipment.com

For your company's listing in the Internet Connection Directory please contact: The Mining Record at: 800-441-4748 • Ph: 303-663-7820 • advertising@miningrecord.com P.O. Box 1630, Castle Rock, Colorado 80104-6130 USA

## **Metallurgical Improvements At The Cactus Mine Project**

CASA GRANDE, AZ -Arizona Sonoran Copper Company Inc. reported interim results from its ongoing metallurgical testing programs, in the form of sequential assaying, bottle roll testing and column testing for the mineral resources at the Cactus Mine, that demonstrates improved overall recoveries of ~1% total soluble copper (CuSol) and a decreased net acid consumption of ~2 lb per ton of material. The Cactus Mine project envisages a heap leach oxide and enriched sulfide (chalcocite/covellite dominant) recoveries and a solvent extraction/electrowinning (SX/EW) plant for producing LME Grade A Copper Cathodes.

Ian McMullan, COO, said, "Within mineral resource, and from the PEA, we have identified an initial 1 billion pound copper soluble leachable material. These results, now track over 2 years of metallurgical observations and provide us with additional clarity and confidence towards future copper oxide and enriched leaching opportunities. The results further de-risk the technical assumptions used in the Cactus PEA as we move towards increasing levels of confidence for inputs into the PFS due later this year."

A copper heap leach column testing program to delineate the metallurgical performance characteristics of the existing stockpile and remaining unmined copper resources at the Cactus mine has been ongoing since 2020. Results have been progressively reported in PEA, commensurate with Canadian National Instrument NI 43-101 reporting requirements.

Copper recovery is estimated for acid soluble copper (CuAS) and cyanide soluble copper (CuCN) content as determined by a standard sequential copper assaying methodology developed at the Skyline Laboratory facility in Tucson, Arizona. The CuCN assay fraction is classified as enriched secondary copper sulfide mineralization. The combined CuAS + CuCN content of the materials represents potentially soluble copper that is recoverable using heap leaching techniques ("CuSol"). Projected copper recovery estimates previously reported have been derived based on this leachable copper content and continues to

#### **Option Acquired On** Yuma King Property

VANCOUVER - Constantine Metal Resources Ltd. has signed a binding letter agreement to acquire an undivided 100% interest in the Yuma King Copper-Gold property consisting of 295 federal mining claims. The Property represents a portion of the total 495 claim Yuma King property, located in La Paz County Arizona. Constantine retains the right to a 50% interest in any agreement on the remaining 200 claim portion of the Yuma King property subject to certain obligations.

The Property is located 93 miles northwest of Phoenix, Arizona and about 20 miles southeast of Constantine's Bouse property acquisition.

be validated in the ongoing Prefeasibility Study (PFS) testing program.

Primary copper in mineralization that is not readily acid or cyanide copper soluble per the assay methods (e.g. native copper, chalcopyrite, bornite) reports in the total copper assay ("CuT"). Copper assayed that does not report in the soluble copper assay methodologies is not expected to provide meaningful recoverable copper contributions with the commercial methodologies anticipated.

Drilling completed on the project in 2020 and 2021 was supervised by on-site ASCU personnel who prepared core samples for assay and implemented a full QA/QC program using blanks, standards and duplicates to monitor analytical accuracy and precision. The samples were sealed on site and shipped to Skyline Laboratories in Tucson AZ for analysis.



# Subscription Order Form

THE

**133 YEARS** 

THE INDUSTRY'S LEADING MINING NEWSPAPER

# ANGRECORI



The Mining Record has been in continuous publication for 133 years and is recognized as the industry's leading newspaper. The Mining Record has an international readership. It focuses on timely and credible news reporting on exploration, discovery, development, production, joint ventures, acquisitions, operating results, legislation, government reports and metals prices. Its readership is concentrated in the mining industry proper - mining companies, engineers, geologists, mine supervisory personnel, company officers and individuals engaged in exploration and large or small mine production. Every year, The Mining Record devotes an issue to the major conventions in the western U.S., Canada and Latin America.

> Available to order online: www.miningrecord.com

	Xi■
3	
3	$\mathbf{x}_{i+2}$
Ħ	2400
_	15.55

#### THE MINING RECORD NEWSPAPER

- ☐ 1 year \$55 to U.S. Subscribers
- ☐ 2 years \$85 to U.S. Subscribers
- ☐ 3 years \$120 to U.S. Subscribers
- ☐ 1 year 1st Class Mail \$85 to U.S. Subscribers
- ☐ 1 year \$85 Canada & Mexico
- ☐ 1 year \$99 Foreign

☐ Check Enclosed ☐ Money Order Enclosed (MAKE CHECKS/MONEY ORDERS PAYABLE TO HOWELL INTERNATIONAL)

ALL ORDERS IN U.S. CURRENCY FOREIGN ORDERS CREDIT CARD ONLY

Exp. Date\_\_\_\_\_ CCV \_\_\_\_\_

☐ Visa ☐ American Express ☐ Master Card

Card # \_\_\_\_\_

Name\_\_\_\_\_Company\_\_\_\_

Address\_\_\_\_\_ City\_\_\_\_\_

State Zip Country Phone

MAIL, FAX, EMAIL OR CALL:

P.O. Box 1630 • Castle Rock, Colorado 80104 USA • (303) 663-7820 • Fax: (303) 663-7823, Email: subscriptions@miningrecord.com 

# GSN 2022 SYMPOSIUM

EXHIBITION, TECHNICAL SESSIONS, SHORT COURSES, CORE SHACK, FIELD TRIPS, POSTERS

May 2-5, 2022 · Nugget Casino Resort, Sparks, Nevada



The GSN will host its eighth symposium May 2-5, 2022. National and International attendees from the Minerals industry (Mining Companies: Executives, Mine and Project Managers, Operations Administration, Purchasing Decision Makers), Government, and Universities.

TO ATTEND EXHIBITS AND TECHNICAL SESSIONS
WITH PRE- AND POST-MEETING FIELD TRIPS AND SHORT COURSE

Contact: Cheri Reimann at 775-433-8758, or email: cheri.reimann@2020gsnsymposium.com

#### THE EXHIBIT HALL IS FULL FOR THE 2022 SYMPOSIUM

If you'd like to be put on the wait-list, please email: exhibits@2020gsnsymposium.com









**Robinson Nevada Mining Company** 

# HIRMGI

Competitive Wages
Entry level starting wage \$24.94 per hour
Excellent benefits start on date of hire

- · Mine Operations Manager
- · Operations Accountant
- Business Improvement Analyst
- · Junior Mine Engineer
- · Senior Planner Mill Maintenance
- · Process Control Engineer
- Mine Maintenance Supervisor
- Mine Maintenance Mobile Mechanic
- · Mine Maintenance Welder

- Mill Electrical/Instrumentation Supervisor
- · Mine Electrical Technician
- · OSA Lab Tech
- Haul Truck Operator
- Support/Loading Equipment Operator
- TSF Operations Technician
- · Utility Technician
- Lead Person WBTC

To apply visit https://kghm.com/en/careers

Select "Find a Job"

Select "Robinson Mine Jobs"

If you have any questions, contact Human Resources at 775-289-7043

Robinson Mine is located 7 miles from Ely, Nevada.

Zero Harm for our employees, community and environment is our highest priority.



